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About This Guide

This guide answers the “why, where, and how” questions that most merchants have when learning to use Magento. You’ll find lots of step-by-step instructions, screenshots and examples, plus a comprehensive online configuration reference that is linked throughout the material. After learning the basics, you can use this guide as a springboard to more advanced topics and resources.

Online User Guide

The online (HTML) guide is the primary user documentation for the current release of Magento Commerce. The content is continually updated to provide you with the best possible assistance. To learn about recent additions or changes to existing topics, see the Change Log at the end of the guide.

PDF User Guide

You’ll find the same great information in the PDF user guide, based on the date last updated. Simply click the link to open the PDF in your browser. You can also right-click the download link to save the file to your computer. See the Documentation Archive for previous versions of the user guide. Updated: March 2019
GETTING STARTED
This section of the guide provides an overview of the resources that are available to you as a member of the Magento community. You’ll learn about the current release, and how to log into your Magento account. Finally, you’ll take a guided tour of Magento from two different perspectives, with links you can explore to learn more about each topic.
Chapter 3: About This Guide

This guide answers the “why, where, and how” questions that most merchants have when learning to use Magento. You’ll find lots of step-by-step instructions, screenshots and examples, plus a comprehensive configuration reference that is linked throughout the material. After learning the basics, you can use this guide as a springboard to more advanced topics and resources.

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CHAPTER 1:
Welcome

Welcome to the next generation of the world’s leading digital commerce platform! Built on open-source technology, Magento Commerce provides online merchants with unparalleled flexibility and control over the look, content, and functionality of their online stores. Magento’s intuitive Admin features powerful marketing, search engine optimization, and product management tools that give you the power to create sites that are tailored to your unique business needs. Robust and scalable, Magento offers you a stable, secure, and customizable solution for your growing business.

Home Page
Resources

Magento provides a wealth of business and technical resources, self-help tools, and services to help you succeed.

**Product Documentation**

Whether you’re a merchant, designer, developer, or all of the above, this is where you’ll gain a deeper insight into how you can leverage the power of Magento to grow your business.

**Magento Resources Library**

Gain access to expert insight and online business resources to help develop and improve your store. Ebooks, Magento whitepapers, and webinars.

**Security Center**

Join Magento’s Security Alert Registry to get the latest information on potential vulnerabilities and Security Best Practices.

**Forums**

The Magento forums provide access to a network of dedicated Magento enthusiasts who share tips, tricks and support.
Blog

Check out the Magento blog for the latest information about new features, trends, best practices, upcoming events, and more!

Events and Webinars

Keep tabs on our calendar of upcoming events and webinars. There’s always something happening in the Magento ecosystem!
Magento Marketplace

Visit Magento’s next-generation marketplace of digital commerce solutions. Magento Marketplace offers merchants a curated selection of solutions, while providing qualified developers the tools, platform, and prime location for a thriving business.

Training & Certification

Learn how to unleash the power and flexibility of Magento. We provide training for every role in your business, including marketers, designers, developers, and more. Experienced Magento professionals can validate their real-world skills by earning Magento certification.

Partners

Magento partners are committed to your success, and provide custom integrations, best-in-class customer experiences, strategic marketing initiatives, and expert performance and scalability optimization for both on-premise and cloud-based solutions.

Expert Consulting Services

Our Expert Consulting Group (ECG) helps Magento merchants and Solution Partners maximize their success. Our experts offer comprehensive analysis and best practice recommendations, from architecture planning through post-deployment.
Join the Conversation!

Keep up with the latest news from the ecosystem, and connect with other merchants and developers on social media networks.

**Magento Forums**

This is the place to find solutions, become acquainted with international communities, and join a special interest chat! Share your knowledge and earn kudos from others!

**Facebook**

Find out what’s happening and join the discussion on our Facebook page!

**Twitter**

Follow us on Twitter!

**LinkedIn**

Join a Magento group on LinkedIn.
Google+
Add us to your circle on Google+.

YouTube
Learn while you watch videos on our YouTube channel!

Meetup
Find a Magento Meetup near you!
CHAPTER 2:
About This Release

As a best practice, we recommend that you keep your Magento installation up to date, so you can benefit from the latest advancements. Release notes provide a detailed description of the changes in each product release, with links to additional technical information, installation instructions, and support resources. To learn more about current and past releases, see Release Information for all 2.1.x Magento versions.
Installation

To download and install the latest release of Magento 2.1.x on your server, see the Installation and Configuration in our technical documentation. The Magento installation can be deployed to run in either production or developer mode. Some tools and configuration settings are designed specifically for developers, and can be accessed only while the store is running in developer mode. To learn more, see Magento Modes.

The Magento installation guide provides multiple options including download zip file, Composer, and cloned code repository. We recommend reviewing the following information:

- System requirements
- Prerequisites
- Installation roadmap
- Post Installation

To update an existing installation, see Web Setup Wizard in the System section of this guide.
Prelaunch Checklist

After you complete the design, development, and testing of your store, check the following configuration settings to make sure everything is correct before the store “goes live.” For a comprehensive description of every configuration setting, see the Configuration Reference.

General Settings

☑️ **Store URLs**
Verify that the store URLs for the storefront and Admin are correct for a live production environment.

☑️ **Security Certificate**
Before launching your store, install a 100% Signed and Trusted Security Certificate for the domain specified in the Base URL.

☑️ **Store Email Addresses**
Complete all the email addresses that are used to send and receive email notifications, such as new orders, invoices, shipments, credit memos, product price alerts, newsletters, and so on. Make sure that each field contains a valid business email address.

Marketing Settings

☑️ **Email Templates**
Update the default email templates to reflect your brand. Make sure to update the configuration if you create new templates.

☑️ **Sales Communications**
Make sure that your invoices and packing slips include the correct business information and reflect your brand.

☑️ **Google Tools**
Magento is integrated with Google API to allow your business to use Google Analytics and Google AdWords.
Sales & Marketing Settings

☑️ Cart Options
Take a look at the cart configuration settings, to see if there’s anything that you want to change. This is where you can set the minimum order amount and lifetime of the prices in the cart.

☑️ Checkout Options
Take a look at the checkout options, to see if there’s anything that you want to change. This is where you can set up terms and conditions, and configure guest checkout.

☑️ Taxes
Make sure that taxes are properly configured according to your business tax rules and local requirements.

☑️ Shipping Methods
Enable all carriers and shipping methods to be used by the company.

☑️ PayPal
If you plan to offer your customers the convenience of paying with PayPal, open a PayPal Merchant Account, and set up a payment method. Run some test transactions in Sandbox Mode before the store goes live.

☑️ Payment Methods
Enable the payment methods that you plan to use, and make sure that they are properly configured. Check the order status settings, accepted currency, allowed countries, and so on.

System Settings

☑️ Cron (Scheduled Tasks)
Cron jobs are used to process email, catalog price rules, newsletters, customer alerts, Google sitemaps, update currency rates, and so on. Make sure that Cron jobs are set to run at the appropriate time interval, in minutes.
Your Login Credentials

Before you go any further, make sure that you have the information that you need to access the Admin of your store, and your Magento account.

**Storefront URL**

The address for your storefront is usually the domain that is assigned to your IP address. Some stores are installed in the root, or topmost directory. Others are installed in a directory below the root. Your store might be located in a subdomain that is associated with your primary domain. Your store URL might look like one of the following:

- http://mydomain.com
- http://www.mydomain.com/mystore
- http://www.mydomain.com/mystore
- http://xxx.xxx.xxx.xxx

If you don’t yet have a domain, your store URL will include a series of four numbers, each separated by a period in “dotted quad” notation.

**Admin URL**

The address for your store Admin was set up during the installation. The default address is the same as your store, but with /admin at the end. Although the examples in this guide use the default directory, we recommend that run your Admin from a location that is unique to your store.

- http://mydomain.com/admin
- http://www.mydomain.com/admin

**Magento Account**

Your Magento account provides access to information about your products and services, account settings, billing history, and support resources. To access your account, visit the Magento site and click the My Account link in the header.

**Customer Account**

While you’re learning your way around the store, make sure to set up a test customer account, so you can experience the store and checkout process from the customer’s perspective.
For Your Records

As a best practice, keep a record of the details of your installation, your login credentials, and the email address that is associated with each account. You can print this page, write down your credentials, and keep it in a safe, convenient place.

**Store and Admin**

Store URL: 

Admin URL: 

Admin User Name: 

Admin Password: 

Admin Email Address: 

**Magento Account**

User Name: 

Password: 

Email Address: 

**Test Customer Account**

User Name: 

Password: 

Email Address: 

**Installation Information**

Installation Date: 

Magento Version: 

Encryption Key: 

Database Name: 

Database User Name: 

Database Password:
CHAPTER 3:
Your Magento Account

Your Magento account has a separate login from your store, and can be accessed from either the Magento website or from your store’s Admin. From the dashboard of your Magento account, you can find information that is related to the products and services that you have purchased, as well as your contact and billing information.
Creating an Account

Anyone can open a free Magento account from our website. The email address that is used to open a Magento account can be associated with only one account, and the screen name that you enter becomes your identity in the Magento forums.

To create a Magento account:

1. Visit the Magento site at: http://www.magento.com

2. In the upper-right corner, choose My Account. Then under New Customers, tap Register.

3. Under Personal Information, do the following:
   a. Enter your First Name, Last Name, and Email Address.

4. Under Login Information, do the following:
   a. Enter a Screen Name to identify you in the Magento Community Forums.
      Your screen name can be from four to fifteen characters long, can include numbers and the underscore, but must start with a letter.
   b. Enter a Password for your account. Then, enter it again to confirm.
      Your password can be from eight to sixteen characters long, and must include at least one capital letter, one number, and one special character or one lowercase letter.
   c. When complete, tap Submit. Your account dashboard appears.
To log in to your Magento account:

1. Go to the Magento site: [http://www.magento.com](http://www.magento.com)
2. In the upper-right corner, click My Account.
3. Enter the Email address that is associated with your account. Then, enter your Password.
4. When complete, tap Login.

To receive a new password:

1. If you forget your password, click Forgot Your Password?
2. Enter the Email Address that is associated with your account, and tap Submit.

You will receive an email from Magento with a temporary password that you can use to log into your account. Then, reset your password from the dashboard of your account.
To reset your password:

1. Log in to your Magento account.

2. In the panel on the left, choose Account Settings. Then, tap Change Password.

3. Enter your Current Password.
   If you forgot your password, enter the temporary password that was sent to you.

4. Enter your New Password. Then, enter it again to confirm.

Your Magento password must be between 8-16 characters, and include at least one capital letter, one number, and one special character or lowercase letter.

5. When complete, tap Save.
Sharing Your Account

Your Magento account contains information that can be useful to trusted employees and service providers who help to manage your site. As the primary account holder, you have authority to grant limited access to your account to other Magento account holders. When your account is shared, all sensitive information—such as your billing history or credit card information—remains protected. It is not shared at any time with other users.

All actions taken by users with shared access to your account are your sole responsibility. Magento Inc. is not responsible for any actions taken by users to whom you grant shared account access.

To set up a shared account:

1. Before you begin, get the following information from the new user’s Magento account:
   - Account ID
   - Email address

2. Log in to your Magento account.

3. In the panel on the left, under Shared Access, choose Add New User. Then, do the following:
   - Enter the Acct ID of the new user’s Magento account.
   - Enter the Email address that is associated with the new user's Magento account.

4. In the Shared Information section, do the following:
a. Enter a **Sharename** to identify your shared account. Because the Sharename becomes an option in the Switch Accounts list, it should be something that the other person will recognize as your account.

b. To share your personal contact information, mark the checkbox of each item that you want to make available to the other person:

   - Your Email
   - Your Phone

5. In the Grant Account Permissions section, mark the checkbox of each Magento product and service that you want to share.

6. When complete, tap **Create Shared Access**.

You are notified when the new role is saved, and the new user record appears in the Manage Permissions section of the Shared Access page. Magento also sends an email invitation with instructions for accessing the shared account to the new user.

---

**Manage Permissions**

![Magento Account Management](image.png)
To access a shared account:

1. When you receive the invitation to a shared account, log in to your own Magento account. Your account dashboard has a new Switch Accounts control in the upper-right corner, with options for “My Account” and the name of the shared account.

2. To gain access to the shared account, set **Switch Accounts** to the name of the shared account. The shared account displays a welcome message and contact information. The left panel includes only the items that you have permission to use.

3. When you are ready to return to your own account, set **Switch Accounts** to “My Account.”
CHAPTER 4:
Quick Tour

In this quick tour, we'll take a look at each page that customers usually visit while shopping in your store. The path that customers follow that leads to a sale is sometimes called the "path to purchase." Then, we'll take a look at the major landmarks along the journey, and how Magento Commerce can be used to attract and engage customers, increase the average order, and to build loyalty and advocacy.

Customer Journey
Path to Purchase

The path customers follow that leads to a sale is sometimes called the “path to purchase.” In this quick tour, we'll take a look at pages of strategic value that customers usually visit while shopping in your store. Then, we'll consider different store features that can be leveraged at each stage of the customer journey.

### Home Page

Your home page is like the front window display of your store. As the primary landing page, its design entices visitors to come inside for a closer look.

### Catalog Page

This page shows products from your catalog in either a list or grid format. The selection can be based on a category chosen from the main menu, a choice made in the layered navigation on the left, or the results of a search. Any item can be examined in more detail, or placed directly into the shopping cart.

### Search Results

Did you know that people who use search are nearly twice as likely to make a purchase as those who rely on navigation alone? You might consider these shoppers to be “pre-qualified.”
Product Page

The product page provides detailed information about a specific item in your catalog. Shoppers can read reviews, add the product to their wish lists, compare it to other products, share the link with friends, and most importantly, place the item into their shopping carts.

Shopping Cart

The shopping cart lists each item by price and quantity selected, and calculates the subtotal. Shoppers can apply discount coupons, and generate an estimate of shipping and tax charges.
Home Page

Did you know that most people spend only a few seconds on a page before they decide to stay or go somewhere else? That’s not long to make an impression! Studies show that people also love photographs, especially of other people. Whatever design you choose, everything on your home page should move visitors along toward the next step in the sales process. The idea is to guide their attention in a cohesive flow from one point of interest to the next.

<table>
<thead>
<tr>
<th>Callouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Main Menu</td>
</tr>
<tr>
<td>• Search</td>
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<td>• Feature a Brand</td>
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<td>• Offer a Promotion</td>
</tr>
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<td>• Offer a Discount</td>
</tr>
<tr>
<td>• Hear from an Expert</td>
</tr>
<tr>
<td>• Appeal to a Lifestyle</td>
</tr>
<tr>
<td>• Shop by Fabric</td>
</tr>
<tr>
<td>• Popular Products</td>
</tr>
<tr>
<td>• Footer Links Block</td>
</tr>
<tr>
<td>• Footer Content</td>
</tr>
<tr>
<td>• Subscribe!</td>
</tr>
</tbody>
</table>
CHAPTER 4: Quick Tour

Path to Purchase

Home Page
Catalog Page

Catalog page listings typically have small product images and brief descriptions, and can be formatted as a list or as a grid. You can add banners, videos, and keyword-rich descriptions, and also create special designs for a promotion or season. You might create a special category to feature a lifestyle or brand that is a curated collection of products from different categories. The initial product description usually gives shoppers just enough information to merit a closer look. People who know what they want can add the product to their carts and go. Customers who shop while logged in to their accounts enjoy a personalized shopping experience.

**Callouts**

- Mini Shopping Cart
- Breadcrumb Trail
- Change the List Style
- Sort the List
- Filter the List
- Go to Next Page
- Read a Review
- Show More per Page
CHAPTER 4: Quick Tour  

Path to Purchase
Search Results

Did you know that people who use search are nearly twice as likely to make a purchase as those who rely on navigation alone? You might consider these shoppers to be “pre-qualified.”

Your store has a Search box in the upper-right corner, and a link to Advanced Search in the footer. All of the search terms that shoppers submit are saved, so you can see exactly what they’re looking for. You can offer suggestions, and enter synonyms and common misspellings. Then, display a specific page when a search term is entered.

Callouts
- Search Criteria
- Sort By
- Search Results
- Show per Page
- Next Page
- Advanced Search
CHAPTER 4: Quick Tour

Search Results Page
Product Page

The product page has a lot going on! The first thing that catches your eye on the product page is the main image with a high-resolution zoom and thumbnail gallery. In addition to the price and availability, there’s a tabbed section with more information and a list of related products.

<table>
<thead>
<tr>
<th>Callouts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Shopping Cart</td>
</tr>
<tr>
<td>A little help…</td>
</tr>
<tr>
<td>Product Rating</td>
</tr>
<tr>
<td>Stock Availability</td>
</tr>
<tr>
<td>Choose the Options</td>
</tr>
<tr>
<td>Zoom</td>
</tr>
<tr>
<td>Buy it Now!</td>
</tr>
<tr>
<td>Email a Friend</td>
</tr>
<tr>
<td>Add to Your Wish List</td>
</tr>
<tr>
<td>Compare Products</td>
</tr>
<tr>
<td>Thumbnail</td>
</tr>
<tr>
<td>Product Details</td>
</tr>
<tr>
<td>Add All to Cart</td>
</tr>
<tr>
<td>Related Products</td>
</tr>
</tbody>
</table>
CHAPTER 4: Quick Tour

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Shopping Cart

The cart is where order total can be determined, along with discount coupons and estimated shipping and tax, and is a great place to display your trust badges and seals. It’s also an ideal opportunity to offer one last item. As a cross-sell, you can select certain items to be offered as an impulse purchase whenever a specific item appears in the cart.

Callouts

- One Item in Cart
- Change the Quantity
- Estimate Shipping & Tax
- Go to Checkout
- Edit Line Item
- Update the Cart
- Checkout with Multiple Addresses
- Use a Coupon
- Cross-sells
- Special Price
Customer Journey

1. **Attract New Customers**
   
   Magento Commerce includes SEO functionality out of the box. Improve your search ranking and attract the most visitors to your site.

2. **Engage Your Customers**
   
   Design your site with prepared templates, or create a custom design with features that invite people to interact with your store.

3. **Increase AOV**
   
   Increase average order value with promotions and content that encourage your customers to shop more.

4. **Moment of Purchase**
   
   Give your customers a faster and easier way to check out. Calculate shipping and taxes automatically, and integrate multiple payment methods on a single page.

5. **Customer Retention**
   
   Create and manage newsletters and promotions to keep your customers coming back for more.
Loyalty & Advocacy

Encourage customers to write product reviews, create wish lists, and send email about products to their friends. Strengthen your relationship with your customers, who in return, speak positively of your business to friends and family.
Attract New Customers

Magento Commerce is packed with features that make it easy to create a “search engine friendly” websites and increase the likelihood of bringing the right customers to your site.

Search Engine Optimization

Magento offers powerful, native capabilities to streamline Search Engine Optimization (SEO) practices for content and site exposure that are integrated with the Admin, and tied directly into the user experience.

Custom URLs

Custom URLs are short, clean, and easy to remember. You can also autogenerate search-friendly URLs to streamline your purchase path.

Meta Data

Improve your search engine rankings by choosing specific criteria that helps search engines to find and index your products more easily. Meta data can be entered for product, category, and content pages.

Sitemap

Link to a sitemap from the footer of your store to give customers an overview of the catalog structure, with links to all categories and products in the store. Easy integration with Google Sitemap.

Analytics

In addition to monitoring your site from the Admin dashboard, you can integrate third-party analytics tools such as Google Analytics and for detailed statistics on traffic and sales.
Engage Your Customers

Magento Commerce makes it easy to create a customized, engaging site experience. Encourage your customers to spend more time exploring your site, and give them the tools to make it easy to find what they want faster.

### Content Management

Magento’s CMS makes it easy to store pages, or parts of pages, that you can use in your store. Even those without a technology background can create and manage site content.

### Design & Theme

Control the visual elements of your store with a collection of templates and skin files. You can apply these visual elements to all pages in your store, giving your store a cohesive look and feel.

### Multiple Stores, Sites & Views

Control the look and feel of multiple sites, introduce new market and languages, and track analytics from a single Admin.

### Multiple Devices

Magento’s powerful features make it easy to create storefronts optimized for iPhone, Android, and Mobile Opera browsers to help you engage consumers with mobile commerce now, and into the future.
Shopping Tools

Your store includes a set of shopping tools that create opportunities for your customers to interact with your store, connect on social media, and share with friends.

Sophisticated Search

Filter product by price, manufacturer, or any other criteria to reduce the time to purchase.
Moment of Purchase

Now that you've given your customer an engaging shopping experience, make it easy for them to complete their purchases. Magento is designed to help you streamline your checkout process experience while boosting conversion rates.

Order Processing

Magento supports a complete order processing workflow. It's easy to customize order statuses and track communications between sales reps and customers.

Shipping Labels

Merchants have complete control over package characteristics such as weight and size. Shipping labels, rate, and bar code information originates directly from the carrier. Labels can be generated for single or multiple orders.

Multiple Shipping Options

Magento supports a variety of shipping methods so you can give your customers a choice at checkout. Customers can see a real-time estimate of shipping charges right from the shopping cart.

Multiple Payment Options

Magento Commerce supports the payment methods and currencies needed for global commerce. You can choose the ones you want to offer, and at checkout, your customers can choose the ones they prefer.

PayPal Merchant Solutions

It's easy to integrate a PayPal Payments account to provide your customers faster, more secure checkout options.

Shopping Assistance

Assisted shopping makes it easy for customer service reps to create orders for customers. Customer service reps have access to shopping cart contents, and can move items from a wish list to a shopping cart, apply coupon codes, and more.

Security

Whether an order is fulfilled online or over the phone, Magento provides sophisticated security, including CAPTCHA and SSL encryption, with best-in-breed encryption and hashing algorithms to protect the security of the system.
Increase Average Order Value

Magento Commerce provides a range of tools to help you tailor the shopping experience, and encourage your customers to put more items in their shopping carts and spend more money.

Use catalog and shopping cart price rules to create promotions that kick into gear when a set of conditions is met.

**Coupons**

Create limited-time offers and coupons that customers can scan with their phone and apply to a purchase.

**Product Suggestions**

Another way to increase AOV is to offer suggestions for related products and opportunities to up-sell and cross-sell at strategic points along the path to conversion.

**User Permissions & Roles**

Restrict access to data in the Admin on a “need to know” basis. Create multiple admin roles for read-only or and editing privileges. Track and review all activity at a granular level to specific stores and websites.

**Full-Page Caching**

Enhance performance by caching primary pages. Caching pages improves server response times, reduces load, and increases sustainable traffic.

You can use tags to define which components to cache, so only relevant pages are cached as updates take place. It also has the ability to identify and differentiate visitors from shoppers.
Index Management

Automatic reindexing takes place whenever prices change, shopping carts are updated, or new categories created. Reindexing is a background process that does not interfere with store operations.
Customer Retention

Magento makes it easy for you to get repeat business and build brand loyalty. Magento gives you total control and flexibility over creating and revising goodies like rewards programs, custom coupons and automated emails to keep your customers coming back again and again.

Custom Coupons

Create coupons codes for social media, email, or print campaigns. You can incorporate coupon codes into any design you like.

Newsletters

Stay in touch with current customers who’ve opted to receive newsletters. You can create as many newsletter templates as you want.

RSS Feed

When RSS feeds are enabled, any additions to products, specials, categories, and coupons are automatically sent to the subscribers of each feed. A link to all RSS feeds that you publish is in the footer of your store.
Loyalty & Advocacy

Give customers a direct connection to your brand by allowing them to create customer accounts where they can see their purchase history, wishlist, and newsletter subscriptions. Use product ratings and reviews to give new customers objective product opinions and promote a sense of community. These features turn customer satisfaction into one of the most powerful and cost-efficient marketing tools at your disposal.

Dashboard Snapshots

Knowing what’s of interest on your site is crucial to maximize your marketing budget. Use this information to determine what you should cross- and up-sell to loyal customers, or which products to put on sale.

Customer Accounts

Opening an account provides customers with a personalized shopping experience that they can share with their friends. Customers can save their shopping preferences, and manage their own store billing and shipping information.

Advocacy Tools

Customers who share wish lists make a powerful endorsement of your brand. Wish lists become powerful advocacy tools when shared by email or RSS feed, and gift cards bring motivated new shoppers to your store.

Reviews & Ratings

Product reviews give your customers a way to engage with your brand while fostering a sense of community. You can curate your reviews with tools to help you edit and approve comments for inappropriate content before they go live.
Success!

Opening your Magento store for business requires the following areas of consideration. While there are virtually any number of customizations you can make to the storefront and Admin, you can use each link in this list as a place to start.

### Implementation

If you need help setting up your store, you can choose from our vast network of Magento Solutions Partners.

### Design

You can use a prepared theme and design your own home page, or work with an experienced Magento designer or Magento Associate to customize your site.

### Product Catalog

Configure products, create categories, import existing product catalogs, and leverage APIs or third-party data management solutions.

### Payment Methods

Magento supports a wide variety of payment methods, services, and gateways that you can offer for your customers’ convenience.
Shipping Methods

Magento shipping methods are easy to set up and give you the ability to connect with carriers who can ship your products all over the world.

Taxes

Manage your taxes with our native tools, or add third-party extensions from Magento Marketplace.

Thanks for your order!

Magento can help you to build relationships with your customers, and bring them back to your store, again and again.
Basic Configuration
### Contents

This section of the guide introduces your store's Admin, and walks you through the basic configuration settings. You'll learn the concepts of store hierarchy and configuration scope, and establish best practices for industry standards and requirements.

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<tr>
<td>State Options</td>
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<td>Country Options</td>
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<tr>
<td>Merchant Location</td>
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<tr>
<td>Currency</td>
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<td>Store Email Addresses</td>
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<tr>
<td>Contact Us</td>
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<table>
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<td>Uploading a Favicon</td>
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<td>Welcome Message</td>
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<td>Store Demo Notice</td>
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<th>Websites, Stores &amp; Views</th>
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<td>Configuration Scope</td>
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<tr>
<th>Industry Compliance</th>
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<tr>
<td>PCI Compliance</td>
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<tr>
<td>Privacy Policy</td>
</tr>
<tr>
<td>Cookie Law Compliance</td>
</tr>
<tr>
<td>Cookie Restriction Mode</td>
</tr>
<tr>
<td>Cookie Reference</td>
</tr>
</tbody>
</table>
CHAPTER 5:
Store Admin

Your store Admin is the password-protected back office where you can set up products, promotions, manage orders, and perform other administrative tasks. All basic configuration tasks and store management operations are performed from the Admin.

- Admin Sign In
- Your Admin Account
- Admin Sidebar
- Admin Workspace

Your initial sign-in credentials were set up during the Magento installation. If you forget your password, a temporary password can be sent to the email address that is associated with the account. For increased security, you can configure your store to require a case-sensitive user name and password. For additional security, the Admin login can be configured to require a CAPTCHA or Google reCAPTCHA. To learn more, see Admin Security Settings.
Admin Sign In

The first thing you will learn is how to sign in and out of the Admin, and to reset your password. All of the instructions in the rest of this guide are written for a user with full administrative privileges, and begin with the assumption that you are logged in to the Admin. To learn more about Admin users and roles, see: Permissions

The Advanced Admin configuration determines how many times an admin user can try to log in before the account is locked. By default, six attempts are allowed. To unlock a user account, see: Locked Users.

To sign in to the Admin:

1. In the address bar of your browser, enter the URL that was specified during the installation, followed by the base URL of your store's Admin. The default Admin URLs look something like this:

   http://www.yourdomain.com/admin

   You can bookmark the page, or save a shortcut on your desktop for easy access.

2. Enter your Admin User Name and Password.

3. Tap Login.
To reset your password:

1. If you forget your password, click the **Forgot Your Password?** link.

   ![Forgot Password](image)

2. Enter the **Email Address** that is associated with the Admin account.

3. Tap **Retrieve Password**.

   If an account is associated with the email address, an email will be sent to reset your password.

   Your Admin password must be seven or more characters long, and include both letters and numbers.

To sign out of the Admin:

In the upper-right corner, tap the **Account (👤)** icon. Then on the menu, choose **Sign Out**.

![Sign Out](image)

The Sign-In page returns, with a message that you are logged out. It’s always a good idea to sign out of the Admin whenever you leave your computer unattended.
Admin Password Requirements

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>An Admin password must be seven or more characters long, and include both letters and numbers. For additional password options, see: Configuring Admin Security.</td>
</tr>
</tbody>
</table>

Your Admin Account

Your Admin account was initially set up during the installation, and might contain placeholder information. You can personalize your user name and password, and update your first and last name, and email address at any time. To learn more about Admin accounts and roles, see: Permissions.

To edit your account information:

1. In the upper-right corner, tap the Account (👤) icon. Then, choose Account Setting.
2. Make any changes necessary changes to your account information. If you change your login credentials, make sure to write them down.
3. When complete, tap Save Account.

Account Information
Admin Sidebar

The sidebar on the left is the main menu for your store’s Admin, and is designed for both desktop and mobile devices. The flyout menu provides access to all the tools you need to manage your store on a daily basis.

Dashboard

The Dashboard provides a quick overview of the sales and customer activity in your store, and is usually the first page that appears when you log in to the Admin.

Sales

The Sales menu is where you can find everything related to the operations of processing orders, invoices, shipments, credit memos, and transactions.

Products

The Products menu controls everything related to your product catalog and inventory.

Customers

The Customers menu is where you can manage customer accounts, and see which customers are online at the moment.

Marketing

The Marketing menu is where you set up catalog and shopping cart price rules and coupons. Price rules trigger actions when a set of specific conditions is met.
Content

The Content menu is where you manage the content elements and design of your store. You will learn how to create pages, blocks, and frontend apps, and manage the presentation of your store.

Reports

The Reports menu provides a broad selection of reports that give you insight into every aspect of your store, including sales, shopping cart, products, customers, tags, reviews, and search terms.

Stores

The Store menu includes tools to configure and maintain every aspect of your store.

System

The System menu includes tools to install extensions and manage Web Services for integration with other applications.

Find Partners & Extensions

This is where you can find a marketplace Magento Partners and solutions for your store.
Admin Workspace

The Admin workspace provides access to all the tools, data, and content that you need to run your store. The main pages have a grid that lists the data for the section, with a set of tools to search, sort, filter, select, and apply actions.

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>The Global Search box can be used to find any value in the database, including product, customer, and order records.</td>
</tr>
<tr>
<td>Sort</td>
<td>The header of each column can be used to sort the list in ascending or descending order.</td>
</tr>
<tr>
<td>Filter</td>
<td>The filters in the header of each column can be used to limit the list to specific values. Some filters have additional options that can be selected from a list box, and for others, you can simply type the value you want to find.</td>
</tr>
<tr>
<td>Paginate</td>
<td>The pagination controls are used to view the additional pages of results.</td>
</tr>
<tr>
<td>Actions</td>
<td>The Actions control applies an operation to all selected records. To select a record, mark the checkbox in the first column, or use the Mass Actions control to select multiple records.</td>
</tr>
<tr>
<td>Mass Actions</td>
<td>The Mass Actions control is used to select multiple records to be the target of action. Options: Select All / Unselect All, Select Visible / Unselect Visible</td>
</tr>
</tbody>
</table>
Dashboard

The dashboard is usually the first page that appears when you log in to the Admin, and gives an overview of sales and customer activity. The blocks on the left provide a snapshot of lifetime sales, average order amount, the last five orders, and search terms. The graph shows the orders and amounts for the selected date range. You can use the tabs above the graph to toggle between the two views. The tabs at the bottom provide quick reports about your best-selling and most viewed products, new customers and those who have purchased the most.

The dashboard is the default startup page for the Admin, although you can change the configuration to display a different page when you log in. You can also set the starting dates used in dashboard reports, and disable the display of the charts section.

You can produce Dashboard snapshot reports for each store view. The tabs at the bottom of the page summarize your best-selling and most viewed products, new customers, and those who have purchased the most during the time period specified.
To configure the chart:

1. On the Admin sidebar, tap **Stores**. Under **Settings**, choose **Configuration**. Then, do any of the following:

**Enable Charts**

1. In the panel on the left, under **Advanced**, choose **Admin**.
2. In the Dashboard section, set **Enable Charts** to “Yes.”

![Dashboard](image1.png)

**Set the Beginning Dates**

1. In the panel on the left under General, choose **Reports**.
2. In the Dashboard section do the following:
   a. Set **Year-To-Date Starts** to the **Month** and **Day**.
   b. Set **Current Month Starts** to the **Day**.

![Dashboard](image2.png)
Choose the Data Source

If you have a lot of data to process, the performance of the Dashboard can be improved by turning off the display of real time data.

1. In the panel on the left, tap to expand Sales. Then, choose Sales.
2. Tap to expand the Dashboard section, and do the following:
   - For real-time data, set Use Aggregated Data (beta) to “Yes.”
   - For historical data, set Use Aggregated Data (beta) to “No.”

Change the Startup Page

1. In the panel on the left, tap to expand Advanced. Then, choose Admin.
2. Tap to expand the Startup Page section.
3. Choose the Startup Page that you want to appear when you log in to the Admin. The list includes every page in the Admin menu structure.

2. When complete, tap Save Config.
# Dashboard Reports

<table>
<thead>
<tr>
<th>REPORT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>The Dashboard reports on Lifetime Sales, Revenue, Tax, Shipping, and Quantity for the time period specified.</td>
</tr>
<tr>
<td>Orders</td>
<td>The Orders tab at the top displays a chart of all orders during the specified time period. Below the chart is the total revenue, tax, shipping, and quantity ordered. The lifetime sales amount and the last five orders are on the left.</td>
</tr>
<tr>
<td>Amounts</td>
<td>The Amounts tab at the top displays a chart of all order amounts during the specified time period. The average order amount and the last five orders are on the left.</td>
</tr>
<tr>
<td>Search Terms</td>
<td>The last five search terms, and top five search terms appear on the left.</td>
</tr>
<tr>
<td>Products</td>
<td>The Bestsellers tab shows the price and quantity ordered of your best-selling products. The products that have been viewed the most during the specified time period are listed on the Most Viewed Products tab.</td>
</tr>
<tr>
<td>Customers</td>
<td>The Customers tab at the bottom lists the customers who have ordered the most during the specified range of time. The New Customers tab lists all new customers who have registered for an account during the time period. On the left, the Last Orders section lists the most recent orders by customer.</td>
</tr>
</tbody>
</table>
Message Inbox

Your store receives messages from Magento on a regular basis. The messages might refer to system updates, patches, new releases, scheduled maintenance or upcoming events, and are rated by importance. The bell icon in the header indicates the number of unread messages in your inbox.

Incoming Messages

Any message of critical importance appears in a pop-up window when you log into your store. The notice continues to appear after each login until the message is either marked as read, or removed.

Message of Critical Importance

The Notifications grid lists all messages ranked by severity, with the most recent at the top. The Action commands can be used to mark individual messages as read, view more detailed information, or to remove the message from the inbox.

The configuration determines how often the inbox is updated, and how the messages are delivered. If your store Admin has a secure URL, notifications must be delivered over HTTPS.
To view incoming messages:

1. Tap the **Notification** icon in the header, and read the summary. Then, do one of the following:
   - If necessary, tap the message to display the full text.
   - To delete the message, tap the delete icon to the right of the message.
   - To display the Notifications grid, click **See All**.

2. For a message of critical importance, do one of the following:
   - Click **Read Details**.
   - To remove the popup, but keep the message active, tap **Close**.

To view all notifications:

1. Do one of the following:
   - Tap the **Notification** icon in the header. Then in the footer of the summary, click **See All**.
   - On the Admin sidebar, tap **System**. Then under **Other Settings**, choose **Notifications**.

2. In the **Action** column, do any of the following:
   - For more information, tap **Read Details**. The linked page opens in a new window.
   - To keep the message in your inbox, tap **Mark As Read**.
   - To delete the message, tap **Remove**.
3. To apply an action to multiple messages, do one of the following:
   - Mark the checkbox in the first column to select each message to be managed.
   - To select multiple messages, set the **Mass Actions** control as needed.

4. Set the **Actions** control to one of the following:
   - Mark as Read
   - Remove

5. Tap **Submit** to complete the process.

**To configure notifications:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. Scroll down, and in the panel on the left under **Advanced**, choose **System**.
3. Expand the **Notifications** section, and do the following:
   a. If your store Admin runs over a secure URL, set **Use HTTPS to Get Feed** to “Yes.”
   b. Set **Update Frequency** to determine how often your inbox is updated. The interval can be from one to twenty-four hours.

4. When complete, tap **Save Config**.
Global Search

The spy glass in the header of the Admin can be used to find any record in the database. The results can include customers, products, orders, or any related attribute. For example, if you enter a customer name, the results might include the customer record as well as any orders that are associated with the name.

**To find a match:**

1. In the header, tap the **spy glass (🔍)** to open the search box. Then, do one of the following:
   - To find a close match, enter the first few letters of what you want to find.
   - To find an exact match, enter the word, or multiple words that you want to find.

2. In the search results, click any item to open the record.
Grid Controls

Admin pages that manage data display a collection of records in a grid. The controls at the top of each column can be used to sort the data. The current sort order is indicated by an ascending or descending arrow in the column header. You can specify which columns appear in the grid, and drag them into different positions. You can also save different column arrangements as views that can be used later. The Action column lists operations that can be applied to an individual record. The data from the current view can be exported to a CSV or XML file.

Orders Grid

To sort the list:

1. Tap any column header. The arrow indicates the current order as either ascending or descending.
2. Use the pagination controls to view additional pages in the collection.

To paginate the list:

1. Set the Pagination control to the number of records that you want to view per page.
2. Tap Next and Previous to page through the list, or enter a specific Page Number.
To filter the list:

1. Tap Filters.
2. Complete as many filters as necessary to describe the record you want to find.
3. Tap Apply Filters.

Filter Controls

Grid Layout

The selection of columns and their order in the grid can be changed according to your preference, and saved as a “view.” By default, only nine of twenty available columns are visible in the grid.
To change the selection of columns:

1. In the upper-right corner, tap the **Columns (◉)** control. Then, do the following:
   - Mark the checkbox of any column you want to add to the grid.
   - Clear the checkbox of any column you want to remove from the grid.
2. Make sure to scroll down to see all available columns.

To move a column:

1. Tap the header of the column, and hold.
2. Drag the column to the new position, and release.

To save a grid view:

1. Tap the **View (◉)** control. Then, tap **Save Current View**.
2. Enter a name for the view. Then, click the arrow (➤) to save all changes.
   - The name of the view now appears as the current view.

To change the grid view:

Tap the **View (◉)** control. Then, do one of the following:

- To use a different view, tap the name of the view.
- To change the name of a view, tap the **Edit (✔️)** icon. Then, update the name.
Actions Control

When working with a collection of records in the grid, you can use the Actions control to apply an operation to one or more records. The Actions control lists each operation that is available for the specific type of data. For example, for product records, you can use the Actions control to update the attributes of selected products, change the status from “Disabled” to “Enabled,” or to delete records from the database.

You can make as many changes as necessary, and then update the records in a single step. It’s much more efficient than changing the settings individually for each product.

The selection of available actions varies by list, and additional options might appear, depending on the action selected. For example, when changing the status of a group of records, a Status box appears next to the Actions control with additional options.

Step 1: Select Records

The checkbox in the first column of the list identifies each record that is a target for the action. The filter controls can be used to narrow the list to the records you want to target for the action.

1. Mark the checkbox of each record that is a target for the action. Or, use one of the following Actions to select a group of records:
   - Select All / Unselect All
   - Select All on This Page/ Deselect All on This Page

2. If needed, set the filters at the top of each column to show only the records that you want to include.
Step 2: Apply an Action to Selected Records

1. Set the **Actions** control to the operation that you want to apply.

Example: Update Attributes

1. In the list, mark the checkbox of each record to be updated.
2. Set the **Actions** control to “Update Attributes,” and tap **Submit**.

   The Update Attributes page lists all the available attributes, organized by group in the panel on the left.

3. Mark the **Change** checkbox next to each attribute, and make the necessary changes.
4. Tap **Save** to update the attributes for the group of selected records.

2. When complete, tap **Submit**.
# Actions

<table>
<thead>
<tr>
<th>ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select All</td>
<td>Marks the checkbox of all records in the list.</td>
</tr>
<tr>
<td>Unselect All</td>
<td>Clears the checkbox of all records in the list.</td>
</tr>
<tr>
<td>Select All on This Page</td>
<td>Marks the checkbox of records on the current page.</td>
</tr>
<tr>
<td>Deselect All on This Page</td>
<td>Clears the checkbox of records on the current page.</td>
</tr>
</tbody>
</table>

## Actions by Grid

<table>
<thead>
<tr>
<th>MENU</th>
<th>LIST</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>SALES</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Orders</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cancel</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unhold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print Invoices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print Packing Slips</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print Credit Memos</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print All</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Print Shipping Labels</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Invoices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PDF Invoices</td>
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<td></td>
<td>Shipments</td>
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<td></td>
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<td>PDF Shipments</td>
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<tr>
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<td>Print Shipping Labels</td>
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<td>Credit Memos</td>
</tr>
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<td>PDF Credit Memos</td>
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<td>PRODUCTS</td>
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<td>Delete</td>
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<tr>
<td></td>
<td></td>
<td>Change Status</td>
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<td></td>
<td></td>
<td>Update Attributes</td>
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<tr>
<td></td>
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<td>CUSTOMERS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>All Customers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delete</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Subscribe to Newsletter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unsubscribe from Newsletter</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Assign a Customer Group</td>
</tr>
</tbody>
</table>
Actions by Grid (cont.)

<table>
<thead>
<tr>
<th>MENU</th>
<th>LIST</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKETING</td>
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</tr>
<tr>
<td>Communications</td>
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<td>Newsletter Subscribers Unsubscribe Delete</td>
</tr>
<tr>
<td>SEO &amp; Search</td>
<td></td>
<td>Search Synonyms Delete</td>
</tr>
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<td></td>
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<td>Search Terms Delete</td>
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<tr>
<td>User Content</td>
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<td>Reviews Delete Update Status</td>
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<td>CONTENT</td>
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<td>Elements</td>
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<tr>
<td>Pages</td>
<td></td>
<td>Delete Disable Enable Edit</td>
</tr>
<tr>
<td>Blocks</td>
<td></td>
<td>Delete Edit</td>
</tr>
<tr>
<td>REPORTS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refresh Statistics</td>
<td></td>
<td>Refresh Lifetime Statistics Refresh Statistics for the Last Day</td>
</tr>
<tr>
<td>STORES</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Settings</td>
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<td></td>
</tr>
<tr>
<td>Order Status</td>
<td></td>
<td>Unassign</td>
</tr>
</tbody>
</table>

Admin Workspace

CHAPTER 5: Store Admin

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### Actions by Grid (cont.)

<table>
<thead>
<tr>
<th>MENU</th>
<th>LIST</th>
<th>ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
<td>SYSTEM</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td>Cache Management</td>
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<tr>
<td></td>
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<td></td>
<td></td>
<td>Backups</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Index Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other Settings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Notifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHAPTER 6:
Store Details

The basic information for your store includes the store name and address, telephone number and email address, that appear on email messages, invoices, and other communications sent to your customers.
Store Information

The Store Information section provides the basic information that appears on sales documents and in other communications.
To enter your store information:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose General.

3. Expand the Store Information section, and do the following:
   a. Enter the Store Name that you want to use in all communications.
   b. Enter the Store Phone Number, formatted as you want it to appear.
   c. In the Store Hours of Operation field, enter the hours your store is open for business. For example: Mon - Fri, 9-5, Sat 9-noon PST.
   d. Select the Country where your business is located.
   e. Select the Region/State with the country.
   f. Enter the Store Address. If the address is long, continue the address on Store Address Line 2.
   g. If applicable, enter the VAT Number of your store. To verify the number, click the Validate VAT Number button.

4. When complete, tap Save Config.
Locale Options

The locale determines the language, country, tax rate, and other settings that are used throughout the store. The Locale Options determine the time zone and language used for each store, and identify the days of the work week in your area.

To set the store locale:
1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose General.
3. Expand the Locale Options section.
4. Select your Timezone from the list. Then, do the following:
   a. Set Locale to the store language.
   b. Set Weight Unit to the unit of measurement that is typically used for shipments from your locale.
   c. Set First Day of the Week to the day that is considered to be the first day of the week in your area.
   d. In the Weekend Days list, select the days which fall on a weekend in your area. (To select multiple options, hold down the Ctrl (PC) or Command (Mac) key.)
5. When complete, tap Save Config.
State Options

In many countries, the state, province, or region is a required part of a postal address. The information is used for shipping and billing information, to calculate tax rates, and so on. For countries where the state is not required, the field can be omitted entirely from the address, or included as an optional field.

Because standard address formats vary from one country to another, you can also edit the template that is used to format the address for invoices, packing slips, and shipping labels.

To set up the state options:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose General.
3. Expand the State Options section, and do the following:
   a. In the State is required for list, select each country where Region/State is a required entry.
   b. Set the Allow to Choose State if It is Optional for Country field to one of the following:
      - Yes In countries where the state field is not required, includes the State field as an optional entry.
      - No In countries where the state field is not required, omits the State field.
4. When complete, tap Save Config.
Country Options

The Country Options identify the country where your business is located, and the countries from which you accept payment.
To set the country options for your store:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose General.

3. Expand the Country Options section, and do the following:
   a. Choose the Default Country where your business is located.
   b. In the Allow Countries list, select each country from which you accept orders. By default, all countries in the list are selected. To select multiple countries, hold down the Ctrl (PC) or Command (Mac) key.
   c. In the Zip/Postal Code is Optional for list, select each country where you conduct business that does not require a ZIP or postal code to be included as part of the street address.
   d. In the European Union Countries list, select each country in the EU where you conduct business. By default, all EU countries are selected.
   e. In the Top Destinations list, select the primary countries that you target for sales.

4. When complete, tap Save Config.
Merchant Location

The Merchant Location setting is used to configure payment methods. If no value is entered, the Default Country setting is used.

To enter the merchant location:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Payment Methods**.
3. Expand the **Merchant Location** section. Then, choose your **Merchant Country**.
4. When complete, tap **Save Config**.
Currency

Currency Setup

Defines the base currency and any additional currencies that are accepted as payment. Also establishes the import connection and schedule that is used to update currency rates automatically.

Currency Symbols

Defines the currency symbols that appear in product prices and sales documents such as orders and invoices. Magento support currencies from over two hundred countries around the world.

Updating Currency Rates

Currency rates can be updated manually or imported into your store as needed, or according to a predefined schedule.

Currency Chooser

If multiple currencies are available, the currency chooser appears in the header of the store.
Store Email Addresses

You can have up to five different email addresses to represent distinct functions or departments for each store or view. In addition to the following predefined email identities, there are two custom identities that you can set up according to your needs.

- General Contact
- Sales Representative
- Customer Support

Each identity and its associated email address can be associated with specific automated email messages and appear as the sender of email messages that are sent from your store.

Process Overview:
Step 1: Set Up the Email Addresses for Your Domain
Step 2: Configure the Email Addresses for Your Store
Step 3: Update the Sales Email Configuration

Step 1: Set Up the Email Addresses for Your Domain

Before you can configure email addresses for the store, each must be set up as a valid email address for your domain. Follow the instructions from your server administrator or email hosting provider to create each email addresses that is needed.

Step 2: Configure the Email Addresses for Your Store

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Store Email Addresses.
3. Expand the General Contact section, and do the following:

   a. In the Sender Name field, type the name of the person to appear as the sender of any email messages that is associated with the General Contact identity.
   b. In the Sender Email field, type the associated email address.
4. Repeat this process for each store email addresses that you plan to use.
5. When complete, tap Save Config.
Step 3: Update the Sales Email Configuration

If you use custom email addresses, make sure to update the configuration of any related email messages, so the correct identity appears as the sender.

1. In the panel on the left, under Sales, choose Sales Emails. The page has a separate section for each of the following:
   - Order and Order Comments
   - Invoice and Invoice Comments
   - Shipment and Shipment Comments
   - Credit Memo and Credit Memo Comments

2. Starting with Order, expand the section for each message, and make sure that the correct sender is selected.

3. When complete, tap Save Config.
Contact Us

The Contact Us link in the footer of the store is an easy way for customers to keep in touch with you. Customers can complete the form to send a message to your store.

Contact Us in Footer

After the form is submitted, a thank you message appears.

Contact Us Page

To configure Contact Us:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Contacts.
3. Expand the **Contact Us** section. If necessary, set **Enable Contact Us** to “Yes.”

![Contact Us](image)

4. Expand the **Email Options** section. Then, do the following:

   ![Email Options](image)

   a. In the **Send Emails to** field, enter the email address where messages from the Contact Us form are sent.

   b. Set **Email Sender** to the store identity that appears as the sender of the message from the Contact Us form. For example: Custom Email 2.

   c. Set **Email Template** to the template that is used for messages sent from the Contact Us form.

5. When complete, tap **Save Config**.

**To customize the Contact Us form:**

The Luma sample data includes a Contact Us Info block that can be customized for your store. The `contact-us-infoblock` can be easily modified to add your own content to the Contact Us” page.

1. On the Admin sidebar, tap **Content**. Then under **Elements**, choose **Blocks**.

2. Find the **Contact Us Info** block in the list, and open in **Edit** mode.
3. Scroll down to the **Content** field, and make any changes necessary.
   - Use the editor toolbar to format the text, and add images and links.
   - Tap **Show / Hide Editor** to work directly with the HTML.

4. When complete, tap **Save Block**.
CHAPTER 7:

Storefront Branding

One of the first things you’ll want to do is to change the logo in the header, and upload a favicon for the browser. You’ll also want to update the copyright notice in the footer. These are a few simple design tasks that you can take care of right away. While your store is in development, you can turn on the store demo notice, and then remove it when you’re ready to launch.
Uploading Your Logo

The size and location of the logo in the header is determined by the store's theme. Your logo can be saved as either a GIF, PNG, JPG, or SVG file type, and uploaded from the Admin of your store. The default Magento logo in the sample data is an SVG file, which is a scalable XML-based vector graphic format.

![Logo in Header](image)

The logo image resides in the following location on the server. Any image file with by that name and at that location is used as the theme logo.

**Actual path:** app/design/frontend/[vendor]/[theme]/web/images/logo.svg

**Relative path:** images/logo.svg

If you don’t know the size of the logo, or any other image that is used in your theme, open the page in a browser, right-click the image, and inspect the element.

In addition to the logo in the header, your logo also appears on email templates and on PDF invoices and other sales documents. The logos used for email templates and invoices have different size requirements, and must be uploaded separately. To learn more, see: Communications.
To upload your logo:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.

2. Find the store view that you want to configure, and in the Action column, click Edit.

3. Expand the Header section. Then, do the following:

   a. To upload a new logo, tap Upload. Then, choose the file from your computer.

   b. Enter the Logo Image Width and Logo Image Height.

   c. In the Logo Image Alt field, enter the text that you want to appear when someone hovers over the image.

4. When complete, tap Save Configuration.
# Logo File Formats

<table>
<thead>
<tr>
<th>FILE FORMAT</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PNG</td>
<td>(Portable Network Graphics) This newer alternative to the GIF format supports up to 16 million colors (24 bit). The lossless compression format produces a high-quality bitmap image with crisp text, but a larger file size than some formats. The PNG format supports transparent layers, and is designed to be both viewed and streamed online. The related MNG (APNG) formats support simple animation.</td>
</tr>
<tr>
<td>GIF</td>
<td>(Graphics Interchange Format) A widely supported, and older bitmap format that is limited to 256 (8 bit) colors. The GIF format supports simple animation and transparent layers.</td>
</tr>
<tr>
<td>JPG/JPEG</td>
<td>(Joint Photographic Experts Group) A compressed bitmap format that is used by most digital cameras. The lossy compression causes some data loss, which is sometimes noticeable as blurry spots in text.</td>
</tr>
<tr>
<td>SVG</td>
<td>(Scalable Vector Graphic) An XML-based open standard, scriptable vector format developed by the World Wide Web Consortium. SVG files support both animation and interaction.</td>
</tr>
</tbody>
</table>
Adding a Favicon

Favicon is short for “favorite icon,” and refers to the little icon on the tab of each browser page. Depending on the browser, the favicon also appears in address bar, just before the URL.

Favicons are generally 16 x 16 pixels or 32 x 32 pixels in size. Magento accepts ICO, PNG, JPG, and SVG file types, although not all browsers support these formats. The most widely-supported file format to use for a favicon is ICO. Other image file types can be used, although the format might not be supported by all browsers. There are many free tools available online that you can use to generate an ICO image or convert an exiting image to the format.

![Favicon in Address Bar](image)

**Process Overview:**

**Step 1: Create a Favicon**

1. Create a 16 x 16 or 32 x 32 graphic image of your logo, using the image editor of your choice.

2. (Optional) Use one of the available online tools to convert the file to the .ico format. Then, save the file to your computer.

**Step 2: Upload the Favicon to Your Store**

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Configuration**.

2. In the grid, find the store view that you want to configure. Then in the **Action** column, click **Edit**.

3. Under **Other Settings**, expand ☑ the **HTML Head** section. Then, do the following:
a. Tap **Upload**. Then, navigate to the favicon file that you prepared, and tap **Open**.

b. If you want to delete the current favicon, tap **Delete** (Trash) in the lower-left corner of the image. Then, upload another.

4. When complete, tap **Save Configuration**.

**Step 3: Refresh the Cache**

1. When prompted to refresh the cache, click the **Cache Management** link in the message at the top of the workspace.

2. In the list, mark the **Page Cache** checkbox that is marked “Invalidated.”

3. Set **Actions** to “Refresh.” Then, tap **Submit**.

4. To view the new favicon, return to your storefront and press **F5** to refresh the browser.
Welcome Message

The Welcome message in the header expands to include the name of the customer who is logged in. Before you launch your store, be sure to change the default Welcome text for each store view.

To change the welcome message:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.

2. In the grid, find the store view that you want to configure. Then in the Action column, click Edit. Then, do the following:

   a. Under Other Settings, expand the Header section.

   b. Enter the Welcome Text that you want to appear in the header of your store.
3. When complete, tap **Save Configuration**.

4. When prompted to update the Page Cache, click the **Cache Management** link at the top of the workspace. Then, follow the instructions to refresh the cache.

---

**Copyright Notice**

Your store has a copyright notice in the footer of each page. As a best practice, the copyright notice should include the current year, and identify your company as the legal owner of the content on the site.

*Copyright Notice*

The `&Copy;` character code is used to insert the copyright symbol, as shown in the following examples:

**Long Format Example**

```
Copyright &Copy; 2016 Magento, Inc. All rights reserved.
```

**Short Format Example**

```
&Copy; 2016 Magento, Inc. All rights reserved.
```

**To change the copyright notice:**

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Configuration**.

2. In the grid, find the store view that you want to configure. Then in the **Action** column, click **Edit**, and do the following:
Design Configuration

a. Under **Other Settings**, expand 📚 the **Footer** section.

Footer

b. In the **Copyright** box, enter the copyright notice that you want to appear in the footer of each page. Use the `&Copy;` character code to insert a copyright symbol.

3. When complete, tap **Save Configuration.**
Store Demo Notice

If your store is online, but still under construction, you can display a store demo notice at the top of the page to let people know that the store is not yet open for business. When you are ready to “go live,” simply remove the message. It’s like flipping the sign hanging in the window from “Closed” to “Open.” The format of the demo notice is determined by the theme of your store.

To set the store demo notice:

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Configuration**.
2. In the grid, find the store view that you want to configure. Then in the **Action** column, click **Edit**.
3. Under **Other Settings**, expand the **HTML Head** section.
4. Scroll down to the bottom, and set the **Display Demo Store Notice** to your preference.
5. When complete, tap **Save Configuration**.
CHAPTER 8:  
Websites, Stores & Views

Every Magento installation has a hierarchy of website(s), store(s), and store view(s). The term “scope” determines where in the hierarchy a database entity — such as a product, attribute, or category — content element, or configuration setting applies. Websites, stores, and store views have one-to-many parent/child relationships. A single installation can have multiple websites, and each website can have multiple stores and store views.

**Websites**

Magento installations begin with a single website which by default, is called “Main Website.” You can also set up multiple websites for a single installation, each with its own IP address and domain.

**Stores**

A single website can have multiple stores, each with its own main menu. The stores share the same product catalog, but can have a different selection of products and design. All stores under the same website share the same Admin and checkout.

**Store Views**

Each store that is available to customers is presented according to a specific “view”. Initially, a store has a single default view. Additional store views can be added to support different languages, or for other purposes. Customers can use the language chooser in the header to change the store view.
Scope

If your Magento installation has a hierarchy of websites, stores, or views, you can set the context, or “scope” of a configuration setting to apply to a specific part of the installation. The context of many database entities can also be assigned a specific scope to determine how it is used in the store hierarchy. To learn more, see: Product Scope and Price Scope.

Some configuration settings such as postal code, have a [global] scope because the same value is used throughout the system. The [website] scope applies to any stores below that level in the hierarchy, including all stores and their views. Any item with the scope of [store view] can be set differently for each view, and is typically used to support multiple languages.

Unless the store is running in Single Store Mode, the scope of each configuration setting appears in small text below the field label. If your installation includes multiple websites, stores or views, you should always choose the Store View where the settings apply before making any changes.

Hierarchy of Websites, Stores, and Store Views

Scope Settings

<table>
<thead>
<tr>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>System-wide settings and resources that are available throughout the Magento installation.</td>
</tr>
<tr>
<td>Website</td>
<td>Settings and resources that are limited to the current website. Each website has a default store.</td>
</tr>
<tr>
<td>Store</td>
<td>Settings and resources that are limited to the current store. Each store has a default root category (main menu) and default store view.</td>
</tr>
<tr>
<td>Store View</td>
<td>Setting and resources that are limited to the current store view.</td>
</tr>
</tbody>
</table>
Changing Scope

The Store View chooser in the upper-left corner of many Admin pages filters the view of the page for a specific scope, and also sets the value of some entities that are used by Magento. It lists each level in the hierarchy by name, and is used to change the scope to another level. Any settings that represent the current scope are grayed out, so only those that represent a scope change are available. The scope is initially set to “Default Config.” For Admin users with restricted access, the list of available store views includes only those which the user has permission to access.

The checkbox to the right of many configuration settings can be used to either apply or override the default setting, according to the current scope. The field value cannot be changed when the checkbox is marked. To change the current value, first clear the checkbox, and then enter the new value. You are prompted to confirm whenever you change scope. The checkbox label changes according to the current scope, and always refers to the parent level which is one step up in the hierarchy. Because the parent level is a container for all the items below that level, the value from the parent level is inherited unless it is overridden.

To set the configuration scope:

Before making a configuration setting that applies only to a specific website, store, or view, do the following:

1. On the Admin sidebar, do one of the following:
   - For most configuration settings, tap Stores. Then under Settings, choose Configuration.
   - For design-related settings, tap Content. Under Design, choose Configuration. Then in the grid, choose the applicable store view.

2. Navigate to the configuration setting to be changed. Then, do the following:
a. In the upper-left corner, set Store View to the specific view where the configuration applies. When prompted to confirm scope switching, tap OK.

A checkbox appears after each field, and additional fields might become available.

b. Clear the Use system value checkbox after any field that you want to edit. Then, update the value for the view.

c. Repeat this process for every field that needs to be updated on the page.

3. When complete, tap Save Config.

---

**Setting the Locale of the French Store View**

### Store Hierarchy

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Config</td>
<td>The default system configuration.</td>
</tr>
<tr>
<td>Main Website</td>
<td>The name of the website at the top of the hierarchy.</td>
</tr>
<tr>
<td>Main Website Store</td>
<td>The name of the default store that is associated with the parent website.</td>
</tr>
<tr>
<td>Default Store View</td>
<td>The name of the default store view that is associated with the parent store.</td>
</tr>
<tr>
<td>Stores Configuration</td>
<td>Jumps to the Stores grid, and is the same as choosing Stores &gt; All Stores from the Admin sidebar.</td>
</tr>
</tbody>
</table>
# Default Value Options

<table>
<thead>
<tr>
<th>CHECKBOX</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use system value</td>
<td>The “Use system value” checkbox appears when the configuration scope is set to “Default Config.”</td>
</tr>
<tr>
<td>Use Default</td>
<td>The “Use Default” checkbox appears when the configuration scope is set to “Main Website,” and refers to the default store that is assigned to the website.</td>
</tr>
<tr>
<td>Use Website</td>
<td>The “Use Website” checkbox appears when the configuration scope set to a specific store view. When marked, it uses the setting from the parent website that is associated with the store view. In this case, the store level is skipped because it is understood to apply to the default store that is associated with the website.</td>
</tr>
</tbody>
</table>
Product Scope

For installations with multiple websites, stores, and views, the scope setting determines where products are available for sale, and the product information that is available for each store view. Initially, all products that you create are published to the default website, store, and store view.

If you have only a single store with the default view, you can run your store in Single Store Mode to hide the scope settings. However, if your store has multiple views, a scope indicator appears below the name of each field.

- To edit product information for a specific view, use the Store View control in the upper-left corner to choose the view. Additional controls become available for any field that can be edited at the store view level.

- To define the scope of a product in a multisite installation, see the Product in Websites section of product information.

The process of editing a product for a store view is like adding a layer of product information that is specific to the view.

In the following example, although the Spanish store view is selected, the product information still appears in the original language of the default store view. To translate the product information, you must switch to the Spanish view, and translate the text fields — such as product title, description, and the meta data. To learn more, see: Translating Products.
To edit a product for a different view:

1. In the upper-left corner, set **Store View** to the specific view to be edited. When prompted to confirm, tap **OK** to switch scope.

![Store View](image)

2. A checkbox appears below any field that can be edited for the store view. To override the default value, clear the **Use Default Value** checkbox. Then, update the field with the new value for the store view.

![Translating Product Name for Spanish Store View](image)

3. When complete, tap **Save**.

4. In the upper-left corner, set the **Store View** chooser back to the default.

5. To verify the change in your store, do the following:
   a. In the upper-right corner, tap the **Admin** menu arrow. Then, choose **Customer View**.

![Customer View](image)

   b. In the upper-right corner of the store, set the **Language Chooser** to the store view of the product that you edited. Then, find the product that you edited for the view.
Price Scope

The scope of the base currency that is used for product prices can be configured to apply at either the global or website level. If applied at the global level, the same price is used throughout the store hierarchy. If the price configuration is set to the website level, the same product can be available at different prices in different stores. By default, the scope of catalog pricing is global.

Different factors can affect the price of the same product in one location and not another. For example, there might be additional costs to bring the product to market, and other considerations that impact the price of products sold in a specific store. The following illustration shows a multisite installation with the base currency set to the website level. In each store, the same product has a different price.
To configure price scope:

1. On the Admin menu, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left under **Catalog**, choose **Catalog**.

3. Scroll down to the **Price** section. Then, set **Catalog Price Scope** to one of the following:
   - Global
   - Website

The scope setting that you choose appears below price fields in your catalog.

4. When complete, tap **Save Config.**
Customer Account Scope

The scope of customer accounts can be limited to the website where the account was created, or shared with all websites and stores in the store hierarchy.

To set the scope of customer accounts:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Customers, choose Customer Configuration.
3. Expand the Account Sharing Options section.

4. If necessary, clear the User system value checkbox. Then, set Share Customer Accounts to one of the following:
   - Global: Shares customer account information with every website and store in the Magento installation.
   - Per Website: Limits customer account information to the website where the account was created.

5. When complete, tap Save Config.
# Scope Quick Reference

<table>
<thead>
<tr>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GLOBAL</strong></td>
<td></td>
</tr>
<tr>
<td>Admin</td>
<td>All websites, stores, and store views in the installation are managed from the same Admin.</td>
</tr>
<tr>
<td>Default Config</td>
<td>The global default configuration settings are used through the store hierarchy, unless they are overridden at a lower level.</td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Catalog prices can be configured to be applied at either a global or website level.</td>
</tr>
<tr>
<td>Product Configurations</td>
<td>Attributes that are used as configurable product options must have a global scope.</td>
</tr>
<tr>
<td>Customers</td>
<td>Customer accounts can be configured to be applied at a global or website level. Each website can have a separate set of customer accounts, or share the same customer accounts with other websites in the installation.</td>
</tr>
<tr>
<td><strong>WEBSITE</strong></td>
<td></td>
</tr>
<tr>
<td>Domain</td>
<td>Additional websites can be set up as subdomains of the primary domain, or have separate IP addresses and dedicated domains.</td>
</tr>
<tr>
<td>Customers</td>
<td>Customer accounts can be configured to be applied at a global or website level. Each website can have a separate set of customer accounts, or share the same customer accounts with other websites in the installation.</td>
</tr>
<tr>
<td>Currency</td>
<td>Each website can be assigned a different base currency. The base currency is used to process all transactions, although a different display currency might appear to the customer, according to the locale of the store view.</td>
</tr>
<tr>
<td>Product</td>
<td>Individual products are assigned to the hierarchy at the website level. The Product in Websites setting identifies each website where the product is available.</td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Catalog prices can be configured to be applied at either a global or website level.</td>
</tr>
<tr>
<td>Payment Methods</td>
<td>Payment methods are configured at the website level, although the title and instructions can be configured for each store view.</td>
</tr>
<tr>
<td>SCOPE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Checkout</td>
<td>The <strong>checkout process</strong> takes place at the website level, although some display options can be configured for each store view.</td>
</tr>
</tbody>
</table>

## STORE

| Catalog        | Each store can have a separate catalog and main menu that is based on a "root" category and subcategories. The Catalog grid lists all products in the catalog. |
| Root Category  | Each catalog has a **root category** that is assigned at the store level. |
| Checkout       | All stores associated with a website have the same **checkout configuration**. |

## STORE VIEW

| Subcategories  | The **subcategories** that make up the main menu (under the root) are assigned at the store view level. |
| Locale         | Each store view can be assigned a different **locale**. The display currency, units of measurement, and most of the Admin interface are specific to the locale. |
| Languages      | To support multiple languages, all content, including product descriptions, must be **translated** for each store view. |
| Display Currency| A different **display currency** can be used for each store view, although the transactions are processed at the website level using the base currency. |
Single Store Mode

If your Magento installation has only a single store and store view, you can simplify the display by turning off all store view options and scope indicators. Most of the screenshots in this guide were taken with Single Store Mode disabled to show the scope indicator for each setting. Single Store Mode is overridden if you add more store views later.

To set single store mode:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. Under General, scroll down to the bottom of the page, and expand the Single-Store Mode section.
3. Set Enable Single-Store Mode to “Yes.”
4. Tap Save Config.
5. When prompted to refresh the cache, do the following:
   
a. Tap the **Cache Management** link in the system message at the top of the page.

   ![System Message]

   **System Message**

   One or more of the Cache types are invalid: Page Cache. Please go to Cache Management and refresh cache types.

   b. Mark the **Page Cache** checkbox.

   c. With **Actions** set to “Refresh,” tap **Submit**.
CHAPTER 9:

Industry Compliance

Magento Commerce offers a range of security and privacy capabilities that meet legal requirements and industry guidelines for online merchants. Some are mandated by the payment card industry, and others are required by law, depending on your location.

- Legal Requirements
- Industry Guidelines
- Best Practices

In this chapter, you will learn about PCI compliance, and the importance of establishing procedures to protect payment information. You will also learn how to bring your store into compliance with Global Data Protection Regulations and the cookie law, which is required in some countries and considered to be a best practice in others. In addition, you will learn how to customize and maintain a privacy policy for your store.
PCI Compliance Guidelines

The Payment Card Industry (PCI) has established a set of requirements for businesses that accept payment by credit card over the Internet. In addition to maintaining a secure server environment, merchants who handle customer credit card information must meet the following guidelines:

**PCI Requirements**

- Install and maintain a firewall configuration to protect cardholder data.
- Do not use vendor-supplied defaults for system passwords and other security parameters.
- Protect stored cardholder data.
- Encrypt transmission of cardholder data across open, public networks.
- Use and regularly update antivirus software.
- Develop and maintain secure systems and applications.
- Restrict access to cardholder data by business need to know.
- Assign a unique ID to each person with computer access.
- Restrict physical access to cardholder data.
- Track and monitor all access to network resources and cardholder data.
- Regularly test security systems and processes.
- Maintain a policy that addresses information security.

To learn more, see: Magento Approach to PCI Compliance.

As your business grows, you may be required to file a compliance report on an annual basis. PCI reporting requirements increase in proportion to merchant level, but are waived for businesses that process fewer than 20,000 credit card transactions per year. To learn more, visit the PCI Security Standards Council website.
GDPR Compliance

The General Data Protection Regulation (GDPR) is legislation that regulates data protection and privacy for all individuals in the European Union and the European Economic Area. The legislation also applies to the export of personal data outside the EU. The GDPR was adopted in April 2016, and became enforceable on 25 May, 2018. Business that are not based in the EU, but engage in global commerce are required to comply with the regulation.

All organizations that process personal data must disclose the following:

- The type of data that is collected
- The purpose for collecting the data
- The method that is used to collect the data
- How long the data is retained
- Whether or not the data is shared with others

Examine the current privacy policies for all of your Magento stores to ensure that they align with GDPR requirements. Update your Google Analytics settings to ensure that its use of personal data follows GDPR requirements. Maintain transparency, and keep thorough documentation.

Visit the Magento website to learn how Magento helps merchants prepare for GDPR compliance. For developers in need of technical information, including data flow diagrams and mapping, see: Magento 2.1 GDPR compliance.

Google Analytics Settings for GDPR

If your business operates in areas that are governed by the General Data Protection Regulation, some of the default settings of Google Analytics must be modified to comply with the regulation. Follow these steps to ensure that your use of customer data remains in compliance with the GDPR.
Google Data Sharing Settings

**Step 1: Update Google Settings**

1. **Sign in** to your company's **Google Analytics** account.
2. At the bottom of the left sidebar, choose **Admin**. Then, navigate to the account that you want to edit, if applicable.
3. In the **Account** column, click **Account Settings**. Then, adjust the following settings to support GDPR requirements:

**Turn Off Data Sharing**

The default Google Analytics settings share your company data with Google and other parties. To turn off data sharing, remove the checkmark from the following settings:

- Google products & services
- Benchmarking
- Technical support
- Account specialists

**Accept the Data Processing Amendment**

The Google Ads Data Processing Terms describe how Google processes data, and the measures it takes to ensure data security for business that are subject to the GDPR. A record of your legal entities and contact information is also maintained with the amendment. To **learn more**, click the link in the message at the top of the page.
1. Scroll down the page to **Data Processing Amendment**. Then, tap **View Adjustment**.
2. Tap **Review Amendment** to read the **Google Ads Data Processing Terms**. Then, tap **Accept**.
3. To complete the DPA Administration details, click **Manage DPA Details**.
4. In the **Legal Entities** section, click **Edit** ( Modiﬁcation symbol). Then, do the following:
   a. Enter the registered name(s) of your organization.
   b. When complete, tap **Save**.
5. In the **Contacts** section, click **Add** ( Add symbol). Then, do the following:
   a. Enter the information for the ﬁrst contact. Then, mark the checkbox of each applicable role.
      - **Primary Contact** (Notification Email Address) The contact to whom notices are sent.
      - **Data Protection Officer** (If applicable) The person who is designated to facilitate GDPR compliance,
      - **EEA Representative** (If applicable) The person who represents customers outside of the EU regarding their GDPR obligations.
   b. When complete, tap **Add**.
   c. Repeat to add a contact for each role, if applicable.
6. When complete, tap **Save**.

**Step 2: Modify Your Google JS Libraries**

Google supports three JavaScript libraries to measure website usage, depending on the Google product: **gtag.js**, **analytics.js**, and **ga.js**. To meet GDPR requirements, the standard code must be modiﬁed to:

**Anonymize IP Addresses**

1. To anonymize the IP addresses used by **Google Universal Analytics**, add the following snippent to the **analytics.js** library on your web server:

   ```javascript
   analytics.js
   
   ga('set', 'anonymizeIp', true);
   ```

   To learn more, see the **Analytics.js Field Reference**.

   If you use the legacy **ga.js** library, add the following snippet:
2. To anonymize the IP addresses used by Google Tag Manager, set the `anonymize_ip` parameter to `true` in the `gtag.js` library on your web server,

```javascript
ga('set', 'anonymizeIp', true);
```

To learn more, see: IP Anonymization in Analytics in Google Help.

**Force SSL**

To force all Google data to be transmitted over a secure socket layer (SSL), add the following snippet to the `analytics.js` library on your web server.

```javascript
ga('set', 'forceSSL', true);
```

**Step 3: Update Your Privacy Policy**

Update your privacy policy to state that your company:

- Uses Google Analytics
- Masks IP addresses to hide personal information
- Has turned off Google Data Sharing
- Does not use other Google services in conjunction with Google Analytics cookies.
Privacy Policy

Your store includes a sample privacy policy that must be updated with your own information. Your privacy policy should describe the type of information that your company collects, and how it is used. It should also list the filenames of cookies that are placed on the computers of people who visit your store. Any additional cookies that are associated with third-party extensions and add-ons should be included in the list.

To edit your privacy policy:

The Luma sample data includes a sample privacy policy that you can modify for your use.

1. On the Admin sidebar, tap Content. Then under Elements, choose Pages.
2. In the grid, find Privacy Policy. Then in the Action column, set Select to Edit.
3. Expand the Content section, and make the necessary changes to the content. To learn more, see: Using the Editor.
If you change the URL key of the privacy policy page, you must also create a custom URL rewrite to redirect traffic to the new URL key. Otherwise, the link in the footer will return “404 Page Not Found.”

4. When complete, tap **Save Page**.
Cookie Law Compliance

Cookies are small files that are saved to the computer of each visitor to your site, and used as temporary holding places for information. Information that is saved in cookies is used to personalize the shopping experience, link visitors to their shopping carts, measure traffic patterns, and improve the effectiveness of promotions. To keep pace with legislation in many countries regarding the use of cookies, Magento offers merchants a choice of methods for obtaining customer consent:

**Method 1: Implied Consent**

Implied consent means that visitors to your store have a clear understanding that cookies are a necessary part of operations, and by using your site, have indirectly granted permission to use them. The key to gaining implied consent is to provide enough information for a visitor to make an informed decision. Many stores display a message at the top of all standard pages that provides a brief overview of how cookies are used, with a link to the store’s privacy policy. The privacy policy should describe the type of information that your store collects, and how it is used.

**Method 2: Expressed Consent**

Operating your store in cookie restriction mode requires visitors to express their consent before any cookies can be saved to their computers. Unless consent is granted, many features of your store will be unavailable. For example, if Google Analytics is available for your store, it can be invoked only after the visitor has granted permission to use cookies.
Cookie Restriction Mode

When Cookie Restriction Mode is enabled, visitors to your store are notified that cookies are required for full-featured operations. Depending on your theme, the message might appear above the header, below the footer, or somewhere else on the page. The message links to your privacy policy for more information, and encourages visitors to click the Allow button to grant consent. After consent is granted, the message disappears.

Your privacy policy should include the name of your store and contact information, and explain the purpose of each cookie that is used by your store. To learn more, see: Cookie Reference.

If you change the URL key of the privacy policy, you must also create a custom URL rewrite to redirect traffic to the new URL key. Otherwise, the link in the Cookie Restriction Mode message will return “404 Page Not Found.”
Step 1: Enable Cookie Restriction Mode

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose Web. Expand the Default Cookie Settings section, and do the following:

   a. Enter the Cookie Lifetime in seconds.

   b. If you want to make cookies available to other folders, enter the Cookie Path. To make the cookies available anywhere in the site, enter a forward slash.

   c. To make the cookies available to a subdomain, enter the subdomain name in the Cookie Domain field. (subdomain.yourdomain.com) To make cookies available to all subdomains, enter the domain name preceded by a period. (.yourdomain.com)

   d. To prevent scripting languages such as JavaScript from gaining access to cookies, make sure that Use HTTP Only is set to “Yes.”

   e. Set Cookie Restriction Mode to “Yes.”

      If necessary, clear the checkbox, and tap OK to confirm scope switching.

3. When complete, tap Save Config.

4. When prompted to update the cache, click the Cache Management link in the system message. Then, refresh each invalid cache.

Step 2: Update Your Privacy Policy

Update your privacy policy as needed to describe the information that your company collects, and how it is used.
Cookie Reference

The default Magento cookies are classified as Exempt / Non-Exempt to help merchants meet GDPR requirements. Merchants should use this information as a guide, and consult with legal advisors to update their Privacy and Cookie Policies as part of a comprehensive GDPR compliance strategy.

Magento 2.x Default Cookies

The following cookies are used by Magento Commerce “out of the box” for on-premise and cloud installations. These cookies may be required by functionality that is explicitly requested by the customer. To learn about the lifetime of session cookies, see: Online Session Length.

Some of these cookies may provide configuration options, including enable/disable, as needed.

Requested Functionality Cookies (Exempt)

add_to_cart
Used by Google Tag Manager. Captures the product SKU, name, price and quantity removed from the cart, and makes the information available for future integration by third-party scripts.

guest-view
Stores the Order ID that guest shoppers use to retrieve their order status. Guest orders view.
Used in "Orders and Returns" widgets.

- Is Secure? No
- HTTP Only: Yes
- Expiration Policy: Session
- Module: Magento_Sales

login_redirect
Preserves the destination page the customer was navigating to before being directed to log in.
Used in mini cart for logged in customers if Stores > Settings > Configuration > Sales > Checkout > Shopping Cart Sidebar > Display Shopping Cart Sidebar is set to "Yes".

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Session
- Module: Magento_Customer

mage-banners-cache-storage
Stores banner content locally to improve performance.
mage-messages
Tracks error messages and other notifications that are shown to the user, such as the cookie consent message, and various error messages. The message is deleted from the cookie after it is shown to the shopper.

There is not an option to disable this cookie.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Duration 1 year. Cleared on frontend when the message is displayed to the user.
- Module: Magento_Theme

mage-translation-storage(local storage)
Stores translated content when requested by the shopper. Used when Translation Strategy is configured as "Dictionary (Translation on Storefront side)".

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Translation

mage-translation-file-version (local storage)
Tracks the version of translations in local storage. Used when Translation Strategy is configured as "Dictionary (Translation on Storefront side)".

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Translation

product_data_storage (local storage)
Stores configuration for product data related to Recently Viewed / Compared Products.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Catalog
recently_compared_product (local storage)
Stores product IDs of recently compared products.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Catalog

recently_compared_product_previous (local storage)
Stores product IDs of previously compared products for easy navigation.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Catalog

recently_viewed_product (local storage)
Stores product IDs of recently viewed products for easy navigation.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Catalog

recently_viewed_product_previous (local storage)
Stores product IDs of recently previously viewed products for easy navigation.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Catalog

remove_from_cart
Used by Google Tag Manager. Captures the product SKU, name, price and quantity added to the cart, and makes the information available for future integration by third-party scripts.

stf
Records the time messages are sent by the SendFriend (Email a Friend) module.
- Is Secure? Yes
- HTTP Only: Yes
- Expiration Policy: Session
- Module: Magento_SendFriend

**X-Magento-Vary**
Configuration setting that improves performance when using Varnish static content caching.

- Is Secure? Yes
- HTTP Only: Yes
- Expiration Policy: Based on PHP setting session.cookie_lifetime
- Module: Magento_PageCache
Persistent Customization Session Cookies (Exempt)

**amz_auth_err**
Used if "Enable Login with Amazon" is enabled. Value “1” indicates an authorization error.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: 1 year
- Module: Amazon Pay

**amz_auth_logout**
Used if "Enable Login with Amazon" is enabled. Value “1” indicates that the user should be logged out.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: 86400s (24h)
- Module: Amazon Pay

**form_key**
A security measure that appends a random string to all form submissions to protect the data from Cross-Site Request Forgery (CSRF).

- Is Secure? No
- HTTP Only: No
- Expiration Policy:
  - PHP: Based on PHP setting session.cookie_lifetime
  - JS: Session
- Module: Page Cache

**mage-cache-sessid**
The value of this cookie triggers the cleanup of local cache storage. When the cookie is removed by the backend application, the Admin cleans up local storage, and sets the cookie value to “true.”

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Session
- Module: Magento_Customer
mage-cache-storage
Local storage of visitor-specific content that enables ecommerce functions.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Session
- Module: Magento_Customer, Magento_Persistent

mage-cache-storage (local storage)
Local storage of visitor-specific content that enables ecommerce functions.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Session
- Module: Magento_Customer, Magento_Persistent, Magento_NegotiableQuote

mage-cache-storage-section-invalidation (local storage)
Forces local storage of specific content sections that should be invalidated.
- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage
- Module: Magento_Customer

persistent_shopping_cart
Stores the key (ID) of persistent cart to make it possible to restore the cart for an anonymous shopper.
- Is Secure? Yes
- HTTP Only: Yes
- Expiration Policy: Based on configuration Persistent Shopping Cart > General Options > Persistence Lifetime (seconds)
- Module: Magento_Persistent

private_content_version
Appends a random, unique number and time to pages with customer content to prevent them from being cached on the server.
It is set in multiple places: in PHP, in JavaScript as a cookie, and in JavaScript to local storage.

For the HTTP Only Yes (based on request) means that the cookie Secure if set during HTTPS request, and unsecure if set during HTTP request.

- Is Secure? Yes (based on request), No
- HTTP Only:
  - PHP: 1 year / 315360000s (10yr)
  - JS: 1 day
  - JS local storage: Per local storage rules (forever)
- Expiration Policy: Based on configuration Persistent Shopping Cart > General Options > Persistence Lifetime (seconds)
- Module: Magento_PageCache, Magento_Customer

**section_data_ids**
Stores customer-specific information related to shopper-initiated actions such as display wish list, checkout information, etc.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Session
- Module: Magento_Customer

**store**
Tracks the specific store view / locale selected by the shopper.

- Is Secure? No
- HTTP Only: Yes
- Expiration Policy: 1 year
- Module: Magento_Store

**mage-banners-cache-storage (local storage)**
Local storage for Banner functionality.

- Is Secure? No
- HTTP Only: No
- Expiration Policy: Per local storage rules
- Module: Magento_Banner
Google Analytics Cookies

The following cookies are used when Google Analytics/Google Universal Analytics is fully enabled for your Magento installation. To disable these cookies for GDPR compliance, see: Google Analytics Settings for GDPR. To learn more, see: Google Analytics Cookie Usage on Websites.

Google Universal Analytics Cookies (Non-Exempt)

JavaScript Libraries: gtag.js and analytics.js:

- _ga: Distinguishes visitors to your site.
- _gid: Distinguishes visitors to your site.
- gat: Used to throttle request rate.
- dc_gtm_<property-id>: Throttles request rate when Google Analytics is deployed with Google Tag Manager.
- AMP_TOKEN: Contains a token that can be used to retrieve a Client ID from AMP Client ID service. Other possible values include opt-out, inflight request or an error retrieving a Client ID from AMP Client ID service.
- _gac_<property-id>: Contains campaign-related information for the user. Google AdWords conversion tags read this cookie if Google Analytics is linked to your AdWords account.

Google Analytics Cookies (Non-Exempt)

JavaScript Library: ga.js:

- __utm_a: Distinguishes shoppers and sessions. This cookie is created when the JavaScript library executes and there is no existing __utm_a cookie. The cookie is updated every time data is sent to Google Analytics.
- __utm_t: Used to throttle request rate.
- __utm_b: Determines new sessions/visits. This cookie is created when the JavaScript library executes and there is no existing __utm_b cookie. The cookie is updated every time data is sent to Google Analytics.
- _utm_z: Saves the traffic source or campaign that explains how the shopper reached your site. The cookie is created when the JavaScript library executes, and is updated every time data is sent to Google Analytics.
- __utm_v: Stores visitor-level custom variable data. This cookie is created when a developer uses the _setCustomVar method with a visitor-level custom variable. This cookie is updated every time data is sent to Google Analytics.
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CHAPTER 10:
Products Menu

The Products Menu provides easy access to product creation, category and inventory management, as well as tools to manage catalog content.

To display the Products menu:
On the Admin sidebar, tap **Products**.
Menu Options

Catalog
Create new products of every type, and manage your inventory.

Categories
Create the category structure that is the foundation of your store’s navigation.
CHAPTER 11:

Catalog

Magento uses the term "catalog" to refer to the products in the database. Access to the catalog data is determined by several factors, including the scope setting, the catalog configuration, and the root category that is assigned to the store. The catalog includes products that are enabled and available for sale, as well as those that are currently not offered for sale.

From the Admin, all products in the database are accessible through the Catalog grid. If your Magento installation has multiple websites, each website can offer a different selection of products for sale from the same database.

In sales, the term "catalog" has a more narrow definition, and usually refers to a specific selection of products that is available for sale. For example, a store might have a "Spring Catalog" and a "Fall Catalog".

Like the table of contents of a printed catalog, the main menu of your store — or "top navigation" — organizes products by category to make it easy for customers to find what they want. The main menu is based on a "root category," which is a container for the menu that is assigned to the store. Because the specific menu options are defined at the store view level, each view can have a different main menu based on the same root category. Within each menu, you can offer a curated selection of products that is suitable for the store.

![Product Catalog in Store Hierarchy](image_url)
Catalog Workspace

The Catalog grid lists all products in the catalog. Use the standard controls to sort and filter the list, find products, and apply actions to selected products. From the grid, you can create new products and edit existing ones.

Catalog Grid

Workspace Controls

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Add Product | Initiates the process to create a new simple product. To choose a specific product type, click the down arrow. Options:  
Simple Product  
Configurable Product  
Grouped Product  
Virtual Product  
Bundle Product  
Downloadable Product |

Actions

Lists all actions that can be applied to selected products in the list. To apply an action to a product or group of products, mark the checkbox in the first column of each product. Options:  
Delete  
Change Status  
Update Attributes

Filters

Initiates a catalog search based on the current filters.
### Workspace Controls (cont.)

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Default] View</td>
<td>Indicates the current grid column layout. If there are saved grid column views, you can choose another.</td>
</tr>
<tr>
<td>Columns</td>
<td>Lists all actions that can be applied to selected products in the list. To apply an action to a product or group of products, mark the checkbox in the first column of each product. Product list actions include: Delete Change Status Update Attributes Use the <strong>Columns control</strong> to customize the selection of columns in the grid.</td>
</tr>
<tr>
<td>Actions</td>
<td>Can be used to select multiple records as the target of action. The checkbox is marked in the first column of each selected record. Options: Select/Deselect All, Select /Deselect All on This Page.</td>
</tr>
<tr>
<td>Edit</td>
<td>Opens the product in edit mode. You can accomplish the same thing by clicking anywhere on the row.</td>
</tr>
</tbody>
</table>

### Columns

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Selection</td>
<td>Selects multiple records to be subject to an action. The checkbox in the first column of each selected record is marked. Options: Select All Select All on This Page</td>
</tr>
<tr>
<td>ID</td>
<td>A unique, sequential number that is assigned when a new product is saved for the first time.</td>
</tr>
<tr>
<td>Thumbnail</td>
<td>Displays a thumbnail of the main product image.</td>
</tr>
<tr>
<td>Name</td>
<td>The product name.</td>
</tr>
<tr>
<td>Type</td>
<td>The product type.</td>
</tr>
<tr>
<td>Attribute Set</td>
<td>The name of the attribute set that is used as a template for the product.</td>
</tr>
<tr>
<td>SKU</td>
<td>The unique Stock Keeping Unit that is assigned to the product.</td>
</tr>
</tbody>
</table>
## Columns (cont.)

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>The unit price of the product.</td>
</tr>
<tr>
<td>Quantity</td>
<td>The quantity that is currently in stock.</td>
</tr>
<tr>
<td>Visibility</td>
<td>Indicates where the product is visible in the catalog. Options: Not Visible Individually, Catalog, Search, Catalog, Search</td>
</tr>
<tr>
<td>Status</td>
<td>Indicates the current status of the product. Options: Enabled, Disabled</td>
</tr>
<tr>
<td>Websites</td>
<td>Indicates the website(s) where the product is available.</td>
</tr>
<tr>
<td>Action</td>
<td>Opens the product in Edit mode.</td>
</tr>
</tbody>
</table>
Catalog URLs

The URLs you assign to products and categories play a major role in determining how well your site is indexed by search engines. Before you start building your catalog is an ideal time to consider the available options.

URL Formats

**Dynamic URL**

A dynamic URL is created “on the fly,” and might include a query string with variables for the product ID, sort order, and the page where the request was made. When a customer searches for a product in your store, the resulting URL might look something like this:

```
http://mystore.com/catalogsearch/result/?q=racer+back
```

**Static URL**

A static URL is a fixed address for a specific page. A static URL can be displayed in a search-engine friendly format, or one that references products and categories by ID. Search-engine friendly URLs include words that people might use to look for a product, and require Web Server Rewrites to be enabled. Files with static URLs are commonly used for product and category pages, content pages, and theme assets.

```
http://mystore.com/antonia-racer-tank.html
```

**URL Components**

**URL Key**

The URL key is the part of a static URL that describes the product or category. When you create a product or category, an initial URL key is automatically generated, based on the name. To change the URL key, see the Search Engine Optimization section of the product information.

The URL key should consist of lowercase characters with hyphens to separate words. A well-designed, “search engine friendly” URL key might include the product name and key words to improve the way it is indexed by search engines. The URL key can be configured to create an automatic redirect if the URL key changes.
**HTML Suffix**

Your catalog can be configured to either include or exclude the suffix as part of category and product URLs. There are various reasons why people might choose to use or to omit the suffix. Some believe that the suffix no longer serves any useful purpose, and that pages without a suffix are indexed more effectively by search engines. However, your company might have a standardized format for URLs that requires a suffix.

Because the suffix is controlled by the system configuration, you should never type it directly into the URL key of a category or product. (Doing so will result in a double suffix at the end of the URL.) Whether you decide to use the suffix or not, be consistent and use the same setting for all your product and category pages. Here are examples of URLs with—and without—a suffix.

```
http://mystore.com/helena-hooded-fleece.html
http://mystore.com/helena-hooded-fleece.htm
http://mystore.com/helena-hooded-fleece
```

**Category Path**

You can configure the URL to either include or exclude the category path. By default, the category path is included in all category and product pages. The following examples show the same product URL with, and without, the category path.

**URL with Category Path**

```
```

**URL without Category Path**

```
http://mystore.com/helena-hooded-fleece.html
```

To prevent search engines from indexing multiple URLs that lead to the same content, you can exclude the category path from the URL. Another method is to use a canonical meta tag to let search engines know which URLs to index and which to ignore. By default, Magento does not include the category path in product URLs.
To configure catalog URLs:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **Catalog**.
3. Expand the **Search Engine Optimizations** section, and do the following:
   a. Set **Product URL Suffix** to “html” or “htm.” Enter the suffix without a period, because it is applied automatically.
   b. Set **Category URL Suffix** to “html” or “htm.” Enter the suffix without a period, because it is applied automatically.
   c. Set **Use Categories Path for Product URLs** to your preference.
4. When complete, tap **Save Config**.
5. When prompted, click the **Cache Management** link in the system message, and refresh the invalid cache.
Dynamic Media URLs

A dynamic media URL is a relative reference to an image or other media asset. When enabled, dynamic media URLs can be used to link directly to assets on your server, or to files stored on a content delivery network. The use of dynamic media URLs can impact catalog performance, and the editor can be configured to use either static or dynamic media URLs for catalog product and category descriptions.

As with all markup tags, the code is enclosed in double curly braces. The format of a dynamic media URL looks like this:

```
{{media url="path/to/image.jpg"}}
```

To configure dynamic media URLs:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog. Then, expand the Storefront section, and do the following:
a. Scroll down to Allow Dynamic Media URLs in Products and Categories. Then, clear the **Use system value** checkbox.

b. Set **Allow Dynamic Media URLs in Products and Categories** to your preference.

3. When complete, tap **Save Config**.

**To use static URLs by default for media files:**

By default, images inserted into the catalog from media storage have relative, dynamic URLs. If you prefer to use a static URL, you can change the configuration setting.

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left under **General**, choose **Content Management**.

3. Expand ☑ the **WYSIWYG Options** section.

4. Set **Use Static URLs for Media Content in WYSIWYG for Catalog** to “Yes.”

5. When complete, tap **Save Config**.
Using a Flat Catalog

Magento typically stores catalog data in multiple tables, based on the Entity-Attribute-Value (EAV\(^1\)) model. Because product attributes are stored in many tables, SQL queries are sometimes long and complex.

In contrast, a flat catalog creates new tables on the fly, where each row contains all the necessary data about a product or category. A flat catalog is updated automatically—either every minute, or according to your cron job. Flat catalog indexing can also speed up the processing of catalog and cart price rules. A catalog with as many as 500,000 SKUs can be indexed quickly as a flat catalog.

Before you enable a flat catalog for a live store, make sure to test the configuration in a development environment.

Process Overview:
Step 1: Enable the Flat Catalog
Step 2: Verify the Results

Step 1: Enable the Flat Catalog

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Storefront section. Then, do the following:
   a. Set Use Flat Catalog Category to “Yes.” If necessary, clear the Use system value checkbox.
   b. Set Use Flat Catalog Product to “Yes.”

![Flat Catalog Configuration]

4. When complete, tap Save Config.
5. When prompted to update the cache, click the Cache Management link in the system message, and follow the instructions to refresh the cache.

\(^1\)Entity Attribute Value
Step 2: Verify the Results

Method 1: Verify the Results for a Single Product

1. On the Admin sidebar, tap Products. Then under Inventory, choose Catalog.
   
   a. Open a product in edit mode.

   b. In the Name field, add the text “_TEST” to the end of the product name.

2. Tap Save.

3. On a new browser tab, navigate to the home page of your store. Then, do the following:
   
   a. Search for the product you edited.

   b. Use the navigation to browse to the product under its assigned category.
   
   If necessary, refresh the page to see the results. The change will appear within the minute, or according to your Cron schedule.

   ![Storefront with Flat Catalog](image)

Method 2: Verify the Results for a Category

1. On the Admin sidebar, tap Products. Then under Inventory, choose Categories.

2. In the upper-left corner, verify that Store View is set to "All Store Views."

   If prompted, tap OK to confirm.

3. In the category tree, select an existing category. Then, tap Add Subcategory, and do the following:
a. In the **Category Name** field, enter “Test Category.”

b. When complete, tap **Save**.

c. Expand the **Products in Category** section. Then, click **Reset Filter** to display all products.

d. Mark the checkbox of several products to add them to the new category. Then, tap **Save**.

4. On a new browser tab, navigate to the home page of your store. Then, use the store navigation to browse to the category you created.
If necessary, refresh the page to see the results. The change will appear within the minute or according to your cron schedule.

**Step 3: Remove the Test Data**

Do the following to remove the test data and restore the original product name and catalog configuration:

**Remove the test category:**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Categories**.
2. In the category tree, select the test subcategory that you created.
3. In the upper-right corner, tap **Delete**. Then when prompted to confirm, tap **OK**.
   
   This will not remove the products that are assigned to the category.

**Restore the original product name:**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.
2. Open the test product in edit mode.
3. Remove the "_TEST" that you added to the **Product Name**.
4. In the upper-right corner, tap **Save**.

**Restore the original catalog configuration:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **Catalog**.
3. Expand the **Storefront** section," and do the following:
   
   a. Set **Use Flat Catalog Category** to “No.”
   
   b. Set **Use Flat Catalog Product** to “No.”
4. When complete, tap **Save Config**. Then when prompted, refresh the cache.
CHAPTER 12:
Creating Products

Choosing a product type is one of the first things you must do to create a new product. In this chapter, you will learn how to create a product of each type. In addition to the basic product types, the term, complex product\(^1\) refers to a product that requires the customer to choose from a selection of options before making a purchase. To learn more about the available options, see Basic Settings and Advanced Settings.

If you are just starting out, you can create a few sample products to experiment with each product type. For a deeper understanding, make sure to read about catalog navigation, how to set up categories and attributes, and the catalog URL options that are available to you.

\(^1\)A product that requires the customer to choose from a selection of options.
Product Workspace

The product workspace is basically the same for all product types, although the selection of fields changes depending on the attribute set that is used. The product attributes are at the top of the form, followed by expandable sections of product information. When a new product is saved for the first time, the Store View chooser appears in the upper-left of the form.
Enable Product
The online status of the product is indicated by the switch at the top of the form. To change the online status, simply set the Enable Product switch to the “Yes” or “No” position.

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>✅</td>
<td>Indicates that the product is currently online.</td>
</tr>
<tr>
<td>⏁</td>
<td>Indicates that the product is currently offline.</td>
</tr>
</tbody>
</table>

Attribute Set
The name of the attribute set appears in the upper-left corner, and determines the fields that appear in the product record. To choose a different attribute set, click the down arrow next to the default attribute set name.

Expand/Collapse
To expand or collapse a section, tap either the expand ❌ or collapse ❌ button to the right.
Save Menu

The Save menu includes several options that let you save and continue, save and create a new product, save and duplicate the product, or save and close.

<table>
<thead>
<tr>
<th>COMMAND</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save</td>
<td>Save the current product, and continue working.</td>
</tr>
<tr>
<td>Save &amp; New</td>
<td>Save and close the current product, and begin a new product, based on the</td>
</tr>
<tr>
<td></td>
<td>same product type and template.</td>
</tr>
<tr>
<td>Save &amp; Duplicate</td>
<td>Save and close the current product, and open a new duplicate copy.</td>
</tr>
<tr>
<td>Save &amp; Close</td>
<td>Save the current product and return to the Inventory workspace.</td>
</tr>
</tbody>
</table>
Default Field Values

To save time when creating products, the default value of several product fields references values from another field. You can either accept the default value, or enter another. The following fields have automatically generated default values:

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKU</td>
<td>Based on productName.</td>
</tr>
<tr>
<td>Meta Title</td>
<td>Based on productName.</td>
</tr>
<tr>
<td>Meta Keywords</td>
<td>Based on productName.</td>
</tr>
<tr>
<td>Meta Description</td>
<td>Based on productName and Description.</td>
</tr>
</tbody>
</table>

The placeholders that represent the value of another field are enclosed in double-curly braces. Any attribute code that is included in the product attribute set can be used as a placeholder.
To edit the placeholder value:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Product Fields Auto-Generation section. Then, make any changes needed to the placeholder values.

For example, if there’s a specific keyword that you want to include for every product, or a phrase that you want to include in every meta description, you can type the value directly into the appropriate field.

If you want to keep the existing placeholder values, be careful to preserve the double curly braces that enclose each markup tag.

4. When complete, tap Save Config.

Common Placeholders

<table>
<thead>
<tr>
<th>PLACEHOLDER</th>
</tr>
</thead>
<tbody>
<tr>
<td>{{color}}</td>
</tr>
<tr>
<td>{{country_of_manufacture}}</td>
</tr>
<tr>
<td>{{description}}</td>
</tr>
<tr>
<td>{{gender}}</td>
</tr>
<tr>
<td>{{material}}</td>
</tr>
<tr>
<td>{{name}}</td>
</tr>
<tr>
<td>{{short_description}}</td>
</tr>
<tr>
<td>{{size}}</td>
</tr>
<tr>
<td>{{sku}}</td>
</tr>
</tbody>
</table>
Product Types

Simple Product

A simple product is a physical item with a single SKU. Simple products have a variety of pricing and of input controls which makes it possible to sell variations of the product. Simple products can be used in association with grouped, bundle, and configurable products.

Configurable Product

A configurable product appears to be a single product with lists of options for each variation. However, each option represents a separate, simple product with a distinct SKU, which makes it possible to track inventory for each variation.

Grouped Product

A grouped product presents multiple, standalone products as a group. You can offer variations of a single product, or group them for a promotion. The products can be purchased separately, or as a group.

Virtual Product

Virtual products are not tangible products, and are typically used for products such as services, memberships, warranties, and subscriptions. Virtual products can be used in association with grouped and bundle products.
Bundle Product

A bundle product lets customers “build their own” from an assortment of options. The bundle could be a gift basket, computer, or anything else that can be customized. Each item in the bundle is a separate, standalone product.

Downloadable Product

A digitally downloadable product that consists of one or more files that are downloaded. The files can reside on your server or be provided as URLs to any other server.
Simple Product

One of the keys to harnessing the power of product types is learning when to use a simple, standalone product. A simple products can be sold individually, or as part of a grouped, configurable, or bundle product. A simple product with custom options is sometimes referred to as a composite product.

The following steps take you through the process of creating a simple product using the default product template with basic settings. When you finish the basics, you can complete the advanced settings as needed.

Process Overview:
Step 1: Choose the Product Type
Step 2: Choose the Attribute Set
Step 3: Complete the Required Settings
Step 4: Complete the Basic Settings
Step 5: Complete the Product Information
Step 6: Publish the Product
Step 1: Choose the Product Type

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.
2. In the upper-right corner on the **Add Product** menu, choose **Simple Product**.

![Add Simple Product](image)

Step 2: Choose the Attribute Set

To choose the **attribute set** that is used as a template for the product, do one of the following:

- In the **Search** box, enter the name of the attribute set.
- In the list, choose the attribute set that you want to use.

The form is updated to reflect the change.

![Choose Attribute Set](image)
Step 3: **Complete the Required Settings**

1. Enter the product **Product Name**.
2. Accept the default **SKU** that is based on the product name, or enter another.
3. Enter the product **Price**.
4. Because the product is not yet ready to publish, set the **Enable Product** switch to the “No” ( unchecked) position.
5. Tap **Save** and continue.
   When the product is saved, the **Store View** chooser appears in the upper-left corner.
6. Choose the **Store View** where the product is to be available.

   ![Choose Store View](image)

Step 4: **Complete the Basic Settings**

1. Set **Tax Class** to one of the following:
   - None
   - Taxable Goods
2. Enter the **Quantity** of the product that is currently in stock.
   Take note that by default, **Stock Status** is set to “In Stock.”
3. Enter the **Weight** of the product.
4. Accept the default **Visibility** setting, “Catalog, Search.”
5. To assign **Categories** to the product, tap the **Select…** box. Then, do either of the following:

   **Choose an existing category:**
   a. Start typing in the box to find a match.
   b. Mark the checkbox of each category that is to be assigned.
**Create a new category:**

a. Tap **New Category**.

b. Enter the **Category Name** and choose the **Parent Category** to determine its position in the menu structure.

c. Tap **Create Category**.

6. To feature the product in the list of new products, mark the **Set Product as New** checkbox.

7. Choose the **Country of Manufacture**.

---

**Product Details**

There might be additional individual attributes that describe the product. The selection varies attribute set, and you can complete them later.

**Step 5: Complete the Product Information**

Scroll down and complete the information in the following sections as needed:

- **Content**
- **Images and Videos**
- **Related Products, Up-Sells, and Cross-Sells**
- **Search Engine Optimization**
- **Customizable Options**
Step 6: Publish the Product

1. If you are ready to publish the product in the catalog, set the Enable Product switch to the “Yes” (✓) position.

2. Do one of the following:

   **Method 1: Save and Preview**
   1. In the upper-right corner, tap **Save**.
   2. To view the product in your store, choose Customer View on the Admin ▼ menu. The store opens in a new browser tab.

   ![Customer View]

   **Method 2: Save and Close**
   On the Save (✓) menu, choose Save & Close.

   ![Save & Close]

**THINGS TO REMEMBER**

- Simple products can be included in configurable, bundle, and grouped product types.
- A simple product can have custom options with a variety of input controls, which makes it possible to sell many product variations from a single SKU.
Configurable Product

A configurable product looks like a single product with drop-down lists of options for each variation. Each option is actually a separate simple product with a unique SKU, which makes it possible to track inventory for each product variation. You could achieve a similar effect by using a simple product with custom options, but without the ability to track inventory for each variation.
Part 1: Creating a Configurable Product

Although a configurable product uses more SKUs, and may initially take a little longer to set up, it can save you time in the long run. If you plan to grow your business, the configurable product type is a good choice for products with multiple options.

The attribute set that is used for a configurable product must include at least one dropdown or visual swatch attribute that meets the following requirements:

Product Variation Attribute Requirements

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Global</td>
</tr>
<tr>
<td>Catalog Input Type for Store Owner</td>
<td>Dropdown or Visual Swatch</td>
</tr>
<tr>
<td>Values Required</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Before you begin, prepare an attribute set that includes a dropdown or visual swatch for each product variation. The attribute set that is used in this example has drop-down attributes for color and size.

Process Overview:
Part I: Create Configurable Product
Step 1: Choose the Product Type
Step 3: Complete the Required Settings
Step 4: Complete the Basic Settings
Step 5: Save and Continue

Step 1: Choose the Product Type

1. On the Admin sidebar, tap Products. Then under Inventory, choose Catalog.

2. In the upper-right corner on the Add Product menu, choose Configurable Product.
Add Configurable Product
Step 2: Choose the Attribute Set

The attribute set determines the selection of fields that are used in the product. The attribute set is indicated at the top of the page, and is initially set to “Default”.

1. To choose the attribute set for the product, click the field at the top of the page and do one of the following:
   - In the Search box, enter the name of the attribute set.
   - In the list, choose the attribute set that you want to use.

The form is updated to reflect the change.

2. If you need to add an additional attribute to the attribute set, tap Add Attribute. Then, follow the instruction in Adding an Attribute.

Step 3: Complete the Required Settings

1. Enter the product Product Name.

2. Accept the default SKU that is based on the product name, or enter another.

3. Enter the product Price.

4. Because the product is not yet ready to publish, set the Enable Product switch to the “No” ( ) position.

5. Tap Save and continue.

   When the product is saved, the Store View chooser appears in the upper-left corner.

6. Choose the Store View where the product is to be available.
Choose Store View

**Step 4: Complete the Basic Settings**

1. Set **Tax Class** to one of the following:
   - None
   - Taxable Goods

2. The **Quantity** is determined by the product variations, so you can leave it blank for now.
   The Stock Status of a configurable product is determined by each associated configuration. Because the product was saved without entering a quantity, the Stock Status is now set to “Out of Stock.”
   - Enter the product **Weight**.
   - Accept the default **Visibility** setting, “Catalog, Search.”

3. To feature the product in the list of **new products**, mark the **Set Product as New** checkbox.

4. To assign **Categories** to the product, tap the **Select...** box. Then, do either of the following:
   **Choose an existing category:**
   - Start typing in the box to find a match.
   - Mark the checkbox of the category that is to be assigned.

   **Create a new category:**
   - Tap **New Category**.
   - Enter the **Category Name** and choose the **Parent Category** to determine its position in the menu structure.
   - Tap **Create Category**.

5. To feature the product in the list of **new products**, mark the **Set Product as New** checkbox.

6. Choose the **Country of Manufacture**.
There might be additional attributes that are used to describe the product. The selection varies attribute set, and you can complete them later.

**Step 5: Save and Continue**

This is a good time to save your work. In the upper-right corner, tap Save. In the next step, you’ll set up the configurations for each variation of the product.

**Part 2: Adding Configurations**

The following example shows how to add configurations for three colors and three sizes. In all, nine simple products will be created with unique SKUs to cover every possible combination of variations. By default, the product name and SKU for each variation is based on the parent product name or SKU, plus the attribute value.

The progress bar at the top of the page shows where you are in the process, and guides you through each step.
Step 1: Choose the Attributes

1. Continuing from Part I, scroll down to the Configurations section. Then, tap Create Configurations.

2. Mark the checkbox of each attribute that you want to include as a configuration. For this example, we choose color and size.

3. The list includes all attributes from the attribute set that can be used in a configurable product.

4. If you need to add a new attribute, Create New Attribute. Complete the attribute properties, and tap Save Attribute. Then, mark the checkbox to select the attribute.

5. In the upper-right corner, tap Next.
Step 2: Enter the Attribute Values

1. For each attribute, mark the checkbox of the values that apply to the product.

2. To rearrange the attributes, grab the Change Order (⋮) icon and move the section to a new position. The order determines the position of the drop-down lists on the product page.

3. In the progress bar, Next.
Step 3: Configure the Images, Price, and Quantity

This step determines the images, pricing and quantity of each configuration. The available options are the same for each, and you can choose only one. You can apply the same setting to all SKUs, apply a unique setting to each SKU, or skip the settings for now.

1. Choose the configuration options that apply.

Configure the Images

Method 1: Apply a Single Set of Images to All SKUs

1. Select **Apply single set of images to all SKUs**.
2. Browse to each image that you want to include in the product gallery, or drag them to the box.

![Use Same Images for All SKUs]

Method 2: Apply Unique Images for Each SKU

Because we already uploaded an image for the parent product, we'll use this option to upload an image of each color. This is the image that will appear in the shopping cart when someone buys the shirt in a specific color.

1. Select **Apply unique images by attribute to each SKU**.
2. Select the **attribute** that the images illustrate. For example: color.
3. For each attribute value, either browse to the images that you want to use for that configuration, or drag them to the box.

If you drag the an image to a value box, it appears in the sections for the other values, as well. If you want to delete an image, tap the trashcan (🗑) icon.
Configure the Prices

Method 1: Apply the Same Price to All SKUs

1. If the price is the same for all variations of the product, select **Apply single price to all SKUs**.
2. Enter the **Price**.

Method 2: Apply a Different Price for Each SKU

1. If the price differs for each or for some variations of the product, select **Apply unique prices by attribute to each SKU**.
2. Select the **attribute** that is the basis of the price difference.
3. Enter the **price** for each attribute value. In this example, the XL size costs more.
Configure the Quantity

Method 1: Apply the Same Quantity to All SKUs
1. If the quantity is the same for all SKUs, select **Apply single quantity to each SKU**.
2. Enter the **Quantity**.

Method 2: Apply Different Quantity by Attribute
1. If the quantity is the different for each SKU, select **Apply unique quantity by attribute to each SKU**.
2. Enter the **Quantity** for each.
2. When complete, tap **Next** in the upper-right corner.

**Step 4: Generate the Product Configurations**

1. Wait a moment for the list of products to appear.
2. Do one of the following:
   - If you are satisfied with the configurations, tap **Next**.
   - To make corrections, tap **Back**.

![Step 4: Summary](image)

**Summary**

The current product variations appear at the bottom of the Configuration section.

![Current Configurations](image)

**Step 5: Add a Product Image**

1. Scroll down to the **Images and Videos** section. Then, expand the section.
2. Click the **Camera** tile, and browse to the main image that you want to use for the configurable product.
To learn more, see: Images and Videos.

**Step 6: Complete the Product Information**

Scroll down and complete the information in the following sections as needed:
- Content
- Related Products, Up-Sells, and Cross-Sells
- Search Engine Optimization
- Customizable Options
- Products in Websites
- Design
- Gift Options

**Step 7: Publish the Product**

1. If you are ready to publish the product in the catalog, set the *Enable Product* switch to the “Yes” (✓) position.

2. Do one of the following:

   **Method 1: Save and Preview**
   1. In the upper-right corner, tap *Save*.
   2. To view the product in your store, choose *Customer View* on the *Admin* (▼) menu. The store opens in a new browser tab.

   ![My Product](image)

   *Customer View*

   **Method 2: Save and Close**
   On the *Save* (●) menu, choose *Save & Close*. 
Step 8: Configure the Cart Thumbnails (Optional)

If you have a different image for each variation you can set the configuration to use the correct image for the shopping cart thumbnail.

1. On the Admin sidebar, tap **Stores**. Then under Settings, choose **Configuration**.
2. In the panel on the left under Sales, choose **Checkout**. Then, expand the **Shopping Cart** section.
3. Set **Configurable Product Image** to “Product Thumbnail Itself.”
4. When complete, tap **Save Config**.

**THINGS TO REMEMBER**

- A configurable product allows the shopper to choose options from drop-down list and visual swatch input types. Each option is actually a separate, simple product.
- The attributes that are used for product variations must have a global scope and the customer must be required to choose a value. The product variation attributes must be included in the attribute set that is used as a template for the configurable product.
The attribute set that is used as a template for a configurable product must include the attribute(s) that contain the values that are needed for each product variation.

The thumbnail image in the shopping cart can be set to display the image from the configurable product record, or from the product variation.
Grouped Product

A grouped product is made up of simple standalone products that are presented as a group. You can offer variations of a single product, or group them by season or theme to create a set of different products. Each product can be purchased separately, or as part of the group. In the shopping cart, each item is listed separately.

**Process Overview:**

Step 1: Choose the Product Type  
Step 2: Choose the Attribute Set  
Step 3: Complete the Required Settings  
Step 4: Complete the Basic Settings  
Step 5: Add Products to the Group  
Step 6: Publish the Product  
Step 7: Configure the Cart Thumbnails (Optional)
Step 1: **Choose the Product Type**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.
2. In the upper-right corner on the **Add Product** menu, choose **Simple Product**.

![Add Simple Product](image)

Step 2: **Choose the Attribute Set**

To choose the **attribute set** that is used as a template for the product, do one of the following:

- In the **Search** box, enter the name of the attribute set.
- In the list, choose the attribute set that you want to use.

The form is updated to reflect the change.

![Choose Template](image)
Step 3: Complete the Required Settings

1. Enter the product **Product Name**.

2. Accept the default **SKU** that is based on the product name, or enter another.
   Take note that the **Quantity** field is not available because the value is derived from the individual products that make up the group.

3. Because the product is not yet ready to publish, set the **Enable Product** switch to the “No” (☐) position.

4. Tap **Save** and continue.
   When the product is saved, the **Store View** chooser appears in the upper-left corner.

5. Choose the **Store View** where the product is to be available.

![Choose Store View](image)

Step 4: Complete the Basic Settings

1. Accept the **Stock Status** setting, “In Stock.”

2. To assign **Categories** to the product, tap the **Select…** box. Then, do either of the following:
   **Choose an existing category:**
   a. Start typing in the box to find a match.
   b. Mark the checkbox of the category that is to be assigned.
   **Create a new category:**
   a. Tap **New Category**.
   b. Enter the **Category Name** and choose the **Parent Category** to determine its position in the menu structure.
   c. Tap **Create Category**.

3. Accept the **Visibility** settings, “Catalog, Search.”
4. To feature the product in the list of new products, choose the Set Product as New From and To dates on the calendar.

5. Choose the Country of Manufacture.

There might be additional individual attributes that describe the product. The selection varies attribute set, and you can complete them later.

---

**Step 5: Add Products to the Group**

1. Scroll down to the Grouped Products section. Then, tap Add Products to Group.

2. If necessary, use the filters to find the products that you want to include in the group.

3. In the list, mark the checkbox of each item that you want to include in the group.
Add Selected Products

4. Tap **Add Selected Products** to add them to the group.

The selected products appear in the Grouped Products section.

Products in Group

5. Then, do any of the following:
   
   - Enter a **Default Quantity** for any of the items.
   
   - To change the order of the products, grab the **Change Order** icon (▌) in the first column, and drag the product to the new position in the list.
   
   - To remove a product from the group, click **Remove**.
Step 5: **Complete the Product Information**

Complete the information in the following sections as needed:

- Content
- Images and Videos
- Search Engine Optimization
- Related Products, Up-Sells, and Cross-Sells
- Customizable Options
- Products in Websites
- Design
- Gift Options

Step 6: **Publish the Product**

1. If you are ready to publish the product in the catalog, set the **Enable Product** switch to the “Yes” position.

2. Do one of the following:

   **Method 1: Save and Preview**
   1. In the upper-right corner, tap **Save**.
   2. To view the product in your store, choose **Customer View** on the **Admin** menu. The store opens in a new browser tab.

   ![Customer View]

   **Method 2: Save and Close**
   On the **Save** menu, choose **Save & Close**.
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Grouped Product

Save & Close
Step 7: **Configure the Cart Thumbnails** (Optional)

If you have a different image for each product in the group, you can set the configuration to use the correct image for the shopping cart thumbnail.

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Checkout**.
3. Expand the **Shopping Cart** section. Then, do the following:
   a. If necessary, clear the **Use system value** checkbox.
   b. Set **Grouped Product Image** to “Product Thumbnail Itself.”
4. Tap **Save Config**.

**THINGS TO REMEMBER**

- A grouped product is essentially a collection of simple associated products.
- Simple and virtual products that are part of a grouped product cannot have custom options.
- Each item purchased appears individually in the shopping cart, rather than as part of the group.
- The thumbnail image in the shopping cart can be set to display the image from the grouped parent product, or associated product.
Virtual Product

Virtual products are used to represent non-tangible items such as memberships, services, warranties, or subscriptions. Virtual products can be sold individually, or included as part of the following product types:

- Grouped Product
- Bundle Product

Aside from the absence of the Weight field, the process of creating a virtual product and a simple product is the same.

Process Overview:
Step 1: Choose the Product Type
Step 2: Choose the Attribute Set
Step 3: Complete the Required Settings
Step 4: Complete the Basic Settings
Step 5: Complete the Product Information
Step 6: Publish the Product
**Step 1: Choose the Product Type**

1. On the Admin sidebar, tap **Products**. Then under Inventory, choose **Catalog**.
2. In the upper-right corner on the **Add Product** menu, choose **Virtual Product**.

![Add Virtual Product](image)

**Step 2: Choose the Attribute Set**

To choose the **attribute set** that is used as a template for the product, do one of the following:

- In the **Search** box, enter the name of the attribute set.
- In the list, choose the attribute set that you want to use.

The form is updated to reflect the change.

![Choose Attribute Set](image)
Step 3: Complete the Required Settings

1. Enter the product Product Name.
2. Accept the default SKU that is based on the product name, or enter another.
3. Enter the product Price.
4. Because the product is not yet ready to publish, set the Enable Product switch to the “No” ( ) position.
5. Tap Save and continue.

When the product is saved, the Store View chooser appears in the upper-left corner.
6. Choose the Store View where the product is to be available.

Choose Store View

Step 4: Complete the Basic Settings

1. Set Tax Class to one of the following:
   - None
   - Taxable Goods
2. Enter the Quantity of the product that is currently in stock. Then, do the following:
   a. Accept the default Stock Status setting, “In Stock.”

   Note that the Weight field is not used, because a virtual product is not shipped.
   b. Accept the default Visibility setting, “Catalog, Search.”
3. To assign Categories to the product, tap the Select… box. Then, do either of the following:

Choose an existing category:

   a. Start typing in the box to find a match.
   b. Mark the checkbox of the category that is to be assigned.
Create a new category:

a. Tap **New Category**.

b. Enter the **Category Name** and choose the **Parent Category** to determine its position in the menu structure.

c. Tap **Create Category**.

There might be additional individual attributes that describe the product. The selection varies attribute set, and you can complete them later.

**Step 5: Complete the Product Information**

Complete the information in the following sections as needed:

- Content
- Images and Videos
- Search Engine Optimization
- Related Products, Up-Sells, and Cross-Sells
- Customizable Options
- Products in Websites
- Design
- Gift Options

**Step 6: Publish the Product**

1. If you are ready to publish the product in the catalog, set the **Enable Product** switch to the “Yes” (✓) position.

2. Do one of the following:

   **Method 1: Save and Preview**
   
   1. In the upper-right corner, tap **Save**.
   
   2. To view the product in your store, choose **Customer View** on the **Admin** (▼) menu. The store opens in a new browser tab.
Method 2: Save and Close

On the Save (✓) menu, choose Save & Close.

SAVE & CLOSE

THINGS TO REMEMBER

- Virtual products are used for non-tangible products such as services, subscriptions, and warranties.
- Virtual products are much like simple products, but without weight.
- Shipping Options do not appear during checkout unless there is a tangible product in the cart.
Bundle Product

A bundle is a “build your own,” customizable product. Each item in a bundle can be based on one of the following product types:

- **Simple Product**
- **Virtual Product**
Customizing the Bundle

The selection of options appears when the customer taps either the Customize and Add to Cart button. Because the products that are included in the bundle vary, the SKU, Price, and Weight can be set to either a dynamic or fixed value.

Minimum Advertised Price (MAP) is not available for Bundle products with dynamic pricing.

Customize Bundle

The following instructions walk you through the process of creating a bundle product with the basic settings. Each required field is marked with a red asterisk (*). After you complete the required settings and save the product, you can complete the remaining information as needed.

Process Overview:
Step 1: Choose the Product Type
Step 2: Choose the Attribute Set
Step 3: Complete the Required Settings
Step 4: Complete the Basic Settings
Step 5: Add the Bundle Items
Step 6: Complete the Product Information
Step 7: Publish the Product
Step 1: Choose the Product Type

1. On the Admin sidebar, tap **Products**. Then under Inventory, choose **Catalog**.
2. In the upper-right corner on the **Add Product** menu, choose **Bundle Product**.

Add Bundle Product

Step 2: Choose the Attribute Set

To choose the attribute set that is used as a template for the product, do one of the following:

- In the **Search** box, enter the name of the attribute set,
- In the list, choose the attribute set that you want to use.

The form is updated to reflect the change.

Choose Template
Step 3: Complete the Required Settings

1. Enter the product **Product Name**.

2. You can either accept the default **SKU** that is based on the product name, or enter a different value. To determine the type of SKU that is assigned to each bundle item, do the following:
   - A **Dynamic SKU** can be assigned automatically to each bundle item by adding a suffix to the default SKU. By default, Dynamic SKU is set to “Yes.”
   - If you prefer to assign a unique SKU for each bundle item, set **Dynamic SKU** to the “No” ( ☑️ ) position.

3. To determine the price of the bundle, do one of the following:
   - A **Dynamic Price** changes to reflect the options chosen by the customer. By default, Dynamic Price is set to “Yes,” and the Price field is left blank.
   - To charge a fixed price for the bundle, set **Dynamic Price** to the “No.” ( ☑️ ) position. Then, enter the **Price** that you want to charge for the bundle.

4. Because the product is not yet ready to publish, set the **Enable Product** switch to the “No” ( ☑️ ) position.

5. Tap **Save** and continue.
   
   When the product is saved, the **Store View** chooser appears in the upper-left corner.

6. Choose the **Store View** where the product is to be available.
Step 4: Complete the Basic Settings

1. If the bundle has Fixed Pricing, set Tax Class to one of the following:
   - None
   - Taxable Goods

   If the bundle has Dynamic Pricing, the tax is determined for each bundle item.

2. Take note of the following:
   - The Quantity is not available because the value is determined for each bundle item.
   - The Stock Status is set by default to “In Stock.”

3. To determine the weight of the bundle, do one of the following:
   - A Dynamic Weight changes to reflect the options chosen by the customer. By default, Dynamic Weight is set to “Yes,” and the Weight field is left blank.
   - To assign a fixed weight to the bundle, set Dynamic Weight to the “No.” (☐) position. Then, enter the Weight of the bundle.

4. To feature the product in the list of new products, mark the Set Product as New checkbox.

5. Accept the default Visibility setting, “Catalog, Search.”

6. To assign Categories to the product, tap the Select... box. Then, do either of the following:

   **Choose an existing category:**
   a. Start typing in the box to find a match.
   b. Mark the checkbox of each category that is to be assigned.

   **Create a new category:**
   a. Tap New Category.
   b. Enter the Category Name and choose the Parent Category to determine its position in the menu structure.
   c. Tap Create Category.

7. Choose the Country of Manufacture.
There might be additional attributes that describe the product. The selection varies attribute set, and you can complete them later.

**Step 5: Add the Bundle Items**

1. Scroll down to the Bundle Items section. Then, set **Ship Bundle Items** to one of the following:
   - Separately
   - Together

2. Tap **Add Option**, Then, do the following:
Add Bundle Options

a. Enter an **Option Title** to be used field label.
b. Set **Input Type** to one of the following:
   - Drop-down
   - Radio buttons
   - Checkbox (See Note.)
   - Multiple Select (See Note.)
c. To make the field a required entry, mark the **Required** checkbox.
d. Tap **Add Products to Option**. Then, mark the checkbox of each product that you want to include in this option. If there are many products, use the list filters and pagination controls to find the products you need.
e. Tap **Add Selected Products**.

Add Selected Products

f. After the items appear in the Options section choose one to be the **Default** selection.
g. In the **Default Quantity** column, enter the quantity of each item that is to be added to the bundle when a customer chooses the item.
To allow customers to change the quantity of a bundle item, select the **User Defined** option.

The quantity can be a preset or user-defined value. However, do not assign the User Defined property to checkbox or multiple-select input types.

By default, the Default Quantity that is included in a bundle item cannot be changed by the customer. However, the customer can enter the quantity of the item that is to be included in the bundle.

For example, if the Default Quantity of the Sprite Status Ball is set to 2, and the customer orders 4 of that bundle option, the total number of total balls purchased is 8.

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**Item Detail**

3. Repeat these steps for each item you want to add to the bundle.

4. To remove any item from the bundle, tap the **Delete** (🗑️) icon.

5. When complete, tap **Save**.

**Step 6: Complete the Product Information**

Scroll down and complete the information in the following sections as needed:

- **Content**
- **Images and Videos**
- **Search Engine Optimization**
- **Related Products, Up-Sells, and Cross-Sells**
- **Customizable Options**
- **Products in Websites**
- **Design**
- **Gift Options**
Step 7: Publish the Product

1. If you are ready to publish the product in the catalog, set the Enable Product switch to the “Yes” position.

2. Do one of the following:

   Method 1: Save and Preview
   1. In the upper-right corner, tap Save.
   2. To view the product in your store, choose Customer View on the Admin menu. The store opens in a new browser tab.

   ![Customer View](image)

   Customer View

   Method 2: Save and Close
   On the Save menu, choose Save & Close.

   ![Save & Close](image)

   Save & Close
## Input Controls

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop-down</td>
<td>Displays a drop-down list of options with the product name and price. Only one item can be selected.</td>
</tr>
<tr>
<td><img src="image" alt="Drop-down" /></td>
<td></td>
</tr>
<tr>
<td>Radio Buttons</td>
<td>Displays a radio button for each option, followed by the product name and price. Only one item can be selected.</td>
</tr>
<tr>
<td><img src="image" alt="Radio Buttons" /></td>
<td></td>
</tr>
<tr>
<td>Checkbox</td>
<td>Displays a checkbox for each option, followed by the product name and price. Multiple items can be selected.</td>
</tr>
<tr>
<td><img src="image" alt="Checkbox" /></td>
<td></td>
</tr>
<tr>
<td>Multiple Select</td>
<td>Displays a list of options with the product name and price. To select multiple items, hold down the Ctrl (or Option) key, and click each item.</td>
</tr>
<tr>
<td><img src="image" alt="Multiple Select" /></td>
<td></td>
</tr>
</tbody>
</table>
### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKU</td>
<td>Determines if each item is assigned a variable, dynamic SKU, or if a fixed SKU is used for the bundle. Options include: Fixed / Dynamic.</td>
</tr>
<tr>
<td>Weight</td>
<td>Specifies the weight is calculated based on the items selected, or is a fixed weight for the entire bundle. Options include: Fixed / Dynamic.</td>
</tr>
<tr>
<td>Price View</td>
<td>Determines if the product price is shown as a range, from the least expensive to the most expensive (Price Range), or with the least expensive shown (As Low As). Options include: Price Range / As Low As.</td>
</tr>
<tr>
<td>Ship Bundle Items</td>
<td>Specifies if individual items can be shipped separately.</td>
</tr>
</tbody>
</table>

### THINGS TO REMEMBER

- Customers can “build their own” bundle product.
- Bundle items can be simple or virtual products without custom options.
- The Price View can be set to a price range or to “As Low As.”
- SKU and Weight can be either “Fixed” or “Dynamic.”
- The quantity can be a preset or user-defined value. However, do not assign the User Defined property to checkbox or multiple-select input types.
- Bundle items can be shipped together or separately.
Downloadable Product

A downloadable product can be anything that you can deliver as a file, such as an eBook, music, video, software application, or update. You can offer an album for sale, and sell each song individually. You can also use a downloadable product to deliver an electronic version of your product catalog.

Because the actual download doesn’t become available until after the purchase, you can provide samples, such as an excerpt from a book, a clip from an audio file, or a trailer from a video that the customer can try before purchasing the product. The files that you make available for download can be either uploaded to your server, or from a different server.

Downloadable Product

Downloadable products can be configured to require that the customer log in to an account to receive the link, or can be sent by email and shared with others. The status of the order before the download becomes available, default values, and other delivery options are set in the configuration. To learn more, see: Configuring Download Options.

The following instructions take you through the process of creating a downloadable product with the basic fields. Each required field is marked in the Admin with a red asterisk (*). After you complete the required settings and save the product, you can add images and complete the remaining product information as needed.

Downloadable file names can include letters and numbers. Either a dash or underscore character can be used to represent a space between words. Any invalid characters in the file name are replaced with an underscore.
**Process Overview:**

Step 1: Choose the Product Type
Step 2: Choose the Attribute Set
Step 3: Complete the Required Settings
Step 4: Complete the Basic Settings
Step 5: Complete the Downloadable Information
Step 6: Complete the Product Information
Step 7: Publish the Product

**Step 1: Choose the Product Type**

1. On the Admin sidebar, tap **Products**. Then under Inventory, choose **Catalog**.
2. In the upper-right corner on the **Add Product** menu, choose **Downloadable Product**.

**Add Downloadable Product**

**Step 2: Choose the Attribute Set**

The sample data includes an attribute set called “Downloadable” that has special fields for downloadable products. You can use an existing template, or create another before the product is saved.

To choose the attribute set that is used as a template for the product, do one of the following:

- In the **Search** box, enter the name of the attribute set.
- In the list, choose the “Downloadable” attribute set.

The form is updated to reflect the change.
Step 3: Complete the Required Settings

1. Enter the product **Product Name**.

2. Accept the default **SKU** that is based on the product name, or enter another.

3. Enter the product **Price**.

4. Because the product is not yet ready to publish, set the **Enable Product** switch to the “No” (☐) position.

5. Tap **Save** and continue.

When the product is saved, the **Store View** chooser appears in the upper-left corner.

6. Choose the **Store View** where the product is to be available.
**Step 4: Complete the Basic Settings**

1. Set **Tax Class** to one of the following:
   - None
   - Taxable Goods

2. Enter the **Quantity** of the product that is currently in stock.
   Take note of the following:
   - By default, **Stock Status** is set to “Out of Stock.”
   - The **Weight** field is not used, because downloadable products are not shipped.

3. Accept the default **Visibility** setting, “Catalog, Search.”

4. To feature the product in the list of **new products**, mark the **Set Product as New** checkbox.

5. To assign **Categories** to the product, tap the **Select…** box. Then, do either of the following:

   **Choose an existing category:**
   a. Start typing in the box to find a match.
   b. Mark the checkbox of each category that is to be assigned.

   **Create a new category:**
   a. Tap **New Category**.
   b. Enter the **Category Name** and choose the **Parent Category** to determine its position in the menu structure.
   c. Tap **Create Category**.

6. Set **Format** to one of the following:
   - Download
   - DVD

   If necessary, you can edit the **attribute** to add more values.
Product Details

There might be additional attributes that describe the product. The selection varies attribute set, and you can complete them later.

Step 5: Complete the Downloadable Information

1. Scroll down to Downloadable Information, and expand the section. Then, mark the Is this downloadable product? checkbox.

The Downloadable Information section has two parts. The first part describes each download link, and the second part describes each sample file. The default value for many of these options can be set in the configuration.
Part 1: Complete the Links

1. In the Links section, enter the **Title** that you want to use as a heading for the download links.

2. If applicable, mark the **Links can be purchased separately** checkbox.

3. Tap **Add Link**. Then, do the following:
   a. Enter the **Title** and **Price** of the download.
   b. For both **File** and **Sample** files, choose one of the following methods of distribution for the downloads:
      - **Upload File**: To upload the distribution file to the server, choose “Upload File.” Then, browse to the file, and select it for upload.
      - **URL**: To access the distribution file from a URL, choose “URL.” Then, enter the full URL to the download file.
   c. Set **Shareable** to one of the following:
      - **No**: Requires customers to log in to their accounts to access the download link.
      - **Yes**: Sends the link by email, which customers can share with others.
      - **Use Config**: Uses the method that is specified in the **Downloadable Product Options** configuration.
   d. Do one of the following:
      - To limit downloads per customer, enter the number of **Max. Downloads**.
      - To allow unlimited downloads, mark the **Unlimited** checkbox.

4. To add another link, tap **Add Link**. Then, repeat these steps.
Part 2: Complete the Samples

1. In the Samples section, enter the Title that you want to use as a heading for the samples.
2. To complete the information for each sample, tap [Add Link].

3. Complete the link detail as follows:
   a. Enter the Title of the individual sample.
   b. Choose one of the following distribution methods:
      - **Upload File**
        To upload the the sample distribution file to the server, choose “Upload File.” Then, browse to the file, and select it for upload.
      - **URL**
        To access the sample distribution file from a URL, choose “URL.” Then, enter the full URL to the download file.
   c. To add another sample, tap [Add Link], and repeat these steps.
   d. To change the order of the samples, grab the Change Order icon, and drag the sample to a new position.
Step 6: **Complete the Product Information**

Scroll down and complete the information in the following sections as needed:

- Content
- Images and Videos
- Search Engine Optimization
- Related Products, Up-Sells, and Cross-Sells
- Customizable Options
- Products in Websites
- Design
- Gift Options

Step 7: **Publish the Product**

1. If you are ready to publish the product in the catalog, set the **Enable Product** switch to the “Yes” (☐) position.

2. Do one of the following:

   **Method 1: Save and Preview**
   1. In the upper-right corner, tap **Save**.
   2. To view the product in your store, choose **Customer View** on the **Admin (▼)** menu. The store opens in a new browser tab.

   ![Customer View](image)

   **Method 2: Save and Close**
   On the **Save (☐)** menu, choose **Save & Close**.
THINGS TO REMEMBER

☑️ Downloadable products can be uploaded to the server, or linked to from another server on the Internet.

☑️ You can determine the number of times a customer can download a product.

☑️ Customers who purchase a downloadable product can be required to log in before going through checkout.

☑️ The delivery of a downloadable product can be made when the order is in either a “Pending” or “Invoiced” state.
Configuring Download Options

The downloadable configuration settings determine the default values and delivery options for downloadable products, and specify if guests can purchase downloads.

**To configure download options:**

1. On the Admin sidebar, tap **Stores**. Then under Settings, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **Catalog**.
3. Expand the **Downloadable Product Options** section, and do the following:

   ![Downloadable Product Options](image)

   **Downloadable Product Options**

   a. To determine the stage in the order workflow when the download becomes available, set **Order Item Status to Enable Downloads** to one of the following:

      - Pending
      - Invoiced

   b. To set a default limit on the number of downloads that a single customer can make, enter the number in the **Default Maximum Number of Downloads** field.

   c. Set **Shareable** to one of the following:

      - Yes    Allows customers to email the download link to others.
      - No     Prevents customers from sharing the download link with others by requiring customers to log in to their accounts to access download links.

   d. In the **Default Sample Title** field, enter the heading that you want to appear above the selection of samples.
e. In the Default Link Title field, enter the default text that you want to use for download links.

f. If you want the download link to open in a new browser window, set Opens Links in New Window to “Yes.” This setting is used to keep the browser window to your store open.

g. To determine how downloadable content is delivered, set Use Content Disposition to one of the following:

- Attachment: Delivers the download link by email as an attachment.
- Inline: Delivers the download link as a link on a web page.

h. If you want to require that purchasers register for a customer account and log in before purchasing a download, set Disable Guest Checkout if Cart Contains downloadable Items to “Yes.”

4. When complete, tap Save Config.
CHAPTER 13:  
Product Settings

The most frequently used product settings and attributes are located at the top of the page, followed by custom attributes. Any other product settings are in expandable sections at the bottom of the page.
Advanced Product Settings

To access the advanced pricing and inventory settings, click the link below the Price and Quantity fields. To learn more, see:

- Managing Pricing
- Managing Inventory
Other Product Settings

The remaining product settings are located at the bottom of the page. Some settings are available for all products, and others are available for specific product types. Additional settings might appear when the product is saved for the first time.

**To expand or collapse each section:**

Tap the section. The button indicates if it is currently expanded ☑️ or collapsed ☐️.

### Other Settings

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The Content section is used to enter the main product description that appears on the product page. The short description can be used in most RSS feeds, and might also appear in catalog listings, depending on theme. The product description can be formatted using the editor toolbar.</td>
</tr>
<tr>
<td>Product Reviews</td>
<td>The Product Reviews section lists all reviews that customers have submitted about the product. The section appears only after a new product has been saved.</td>
</tr>
<tr>
<td>Images and Videos</td>
<td>From the Images and Videos section, you can perform basic image management tasks such as upload multiple images, rearrange the order of images, and control how each image is used. For more control over individual images, you can open each image in “detail view.”</td>
</tr>
<tr>
<td>SECTION</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Search Engine Optimization</td>
<td>The Search Engine Optimization section specifies the URL Key and metadata fields that are used by search engines to index the product. Although some search engines ignore meta keywords, others continue to use them. The current best practice is to incorporate high-value keywords in both the meta title and meta description.</td>
</tr>
<tr>
<td>Related Products, Up-Sells, Cross-Sells</td>
<td>This section is used to set up simple promotional blocks that present a selection of additional products that might be of interest to the customer.</td>
</tr>
<tr>
<td>Product in Websites</td>
<td>The Product in Websites section shows the current scope of the product within the store hierarchy.</td>
</tr>
<tr>
<td>Design</td>
<td>The Design settings give you the ability to apply a different theme to the product page, change the column layout, determine where product options appear, and enter custom XML code.</td>
</tr>
<tr>
<td>Scheduled Design Update</td>
<td>Gives you the ability to apply a different theme to the product page, change the column layout, determine where product options appear, and enter custom XML code.</td>
</tr>
<tr>
<td>Gift Options</td>
<td>Gift Options can be set at the product level to allow a gift message to be added to the product during checkout.</td>
</tr>
</tbody>
</table>

### Product-Specific Settings

<table>
<thead>
<tr>
<th>SECTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configurations</td>
<td>The Configuration section lists any existing variations of the product, and can also be used to generate variations for use with the Configurable product type.</td>
</tr>
<tr>
<td>Customizable Options</td>
<td>Customizable options are based on variations of a single SKU, and can be a good solution if your inventory needs are simple.</td>
</tr>
<tr>
<td>Downloadable Information</td>
<td>The Downloadable Information section is used to generate the links to downloadable products and samples.</td>
</tr>
<tr>
<td>Grouped Products</td>
<td>The Grouped Products section is used to add items to a Grouped product type, and also to edit the current selection of items.</td>
</tr>
<tr>
<td>Bundle Items</td>
<td>The Bundle Items section is used to add items to a Bundle product type, and also to edit the current selection of items.</td>
</tr>
</tbody>
</table>
Content

The Content section is used to enter and edit the main product description that appears on the product page. The short description can be used in most RSS feeds, and might also appear in catalog listings, depending on theme. The product description can be formatted using the editor toolbar.

Enter only plain ASCII characters into the text box. If pasting text from a word processor, save it first as a plain .TXT file to remove any invisible control characters.

To enter the product description:

1. Open the product in edit mode. Then, scroll down and expand the Content section.
2. Enter the main product Description, and use the toolbar to format as needed.
   You can drag the lower-right corner to change the height of the text box.
3. Enter a Short Description of the product, and format as needed.
   To learn more, see: Using the Editor.
Configurations

The Configurations section lists any existing variations of the product, and can also be used to generate variations for use with the Configurable product type. To learn more, see: Configurable Product.
Product Reviews

The Product Reviews section lists all reviews that customers have submitted about the product. The section appears with the other product information only after a new product has been saved for the first time. To learn more, see: Product Reviews.
Images and Videos

From the Images and Videos section, you can perform basic image management tasks such as upload multiple images, rearrange the order of images, and control how each image is used. For additional control over individual images you can open each image in “detail view.” To learn more, see: Images and Videos.

**To upload an image:**

1. Open the product in edit mode.
2. Scroll down and expand the Images and Videos section.

A placeholder image appears in the catalog until a product image is available.

3. If you're ready to add a product image, do one of the following:
   - Drag an image from your desktop, and drop it on the camera (📸) tile.
   - Tap the camera (📸) tile, and navigate to the image file on your computer. Then, choose the image, and tap Open.

A placeholder image appears in the catalog until a product image is available.
Search Engine Optimization

The Search Engine Optimization section specifies the URL Key and meta data fields that are used by search engines to index the product. Although some search engines ignore meta keywords, others continue to use them. The current SEO best practice is to incorporate high-value keywords in both the meta title and meta description.

The default value for each meta data field can be auto-generated based on values specified in the configuration. Each field contains a placeholder that is replaced by an actual value. To learn more, see: Default Field Values.

To complete the SEO fields:

1. Open the product in edit mode. Then, scroll down and expand the Search Engine Optimization section.

2. The default URL Key is based on the product name. You can use the default, or change it as needed. To learn more, see: Catalog URLs.

3. The Meta Title is the text that appears at the top of the browser window. You can use the default, which is based on the Product Name, or change it as needed.

4. The Meta Keywords are used by some search engines more than others. Enter a few high-value key words to help the product gain more visibility.

5. The Meta Description is the text that appears in search results listings. For best results, enter a description that is between 150-160 characters in length.
<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL Key</td>
<td>Store View</td>
<td>Determines the online address of the product. The URL key is added to the base URL of the store, and appears in the address bar of a browser. Magento initially creates a default, “search engine friendly” URL, that is based on the product name. The URL Key should be all lowercase characters, with hyphens instead of spaces. Do not include a suffix such as .html in the URL Key, because it is managed in the configuration.</td>
</tr>
<tr>
<td>Meta Title</td>
<td>Store View</td>
<td>The title appears in the title bar and tab of your browser, and is also used as the title on a search engine results page (SERP(^1)). The meta title should be unique to the page, and less than 70 characters in length. Auto-generated value: {{name}}</td>
</tr>
<tr>
<td>Meta Keywords</td>
<td>Store View</td>
<td>Relevant keywords for the product. Consider using keywords that customers might use to find the product. Auto-generated value: {{name}}</td>
</tr>
<tr>
<td>Meta Description</td>
<td>Store View</td>
<td>The meta description provides a brief overview of the page for search results listings. An ideal length is between 150-160 characters in length, with a maximum of 255 characters. Although not visible to the customer, some search engines include the meta description on the search results page. Auto-generated value: {{name}} {{description}}</td>
</tr>
</tbody>
</table>

\(^1\)Search Engine Results Page
Related Products, Up-Sells, and Cross-Sells

This section is used to set up simple promotional blocks that present a selection of additional products that might be of interest to the customer. To learn more, see: Product Relationships.

Related Products

Related products are meant to be purchased in addition to the item the customer is viewing. The customer can place the item in the shopping cart by simply clicking the checkbox. The placement of the Related Products block varies according to theme and page layout. In the example below, it appears at the bottom of the Product View page. With a 2 column layout, the Related Product block often appears in the right sidebar.
To set up related products:

1. Open the product in edit mode.
2. Scroll down and expand the Related Products, Up-Sells, and Cross-Sells section. Then, tap Add Related Products.

3. Use the filter controls to find the products that you want.
4. In the list, mark the checkbox of any product you want to feature as a related product.

5. When complete, tap Add Selected Products.
Up-sells

Up-sell products are items that your customer might prefer instead of the product currently considered. An item offered as an up-sell might be of a higher quality, more popular, or have better profit margin. Up-sell products appear on the product page under a heading such as, “You may also be interested in the following product(s).”

To select up-sell products:

1. Open the product in edit mode.

2. Scroll down and expand the Related Products, Up-Sells, and Cross-Sells section. Then, tap Add Up-Sell Products.

3. Use the filter controls to find the products that you want.
4. In the list, mark the checkbox of any product you want to feature as an up-sell product.

![Upsell Products]

5. When complete, tap **Add Selected Products**.
Cross-sells

Cross-sell items are similar to impulse purchases positioned next to the cash register in the checkout line. Products offered as a cross-sell appear on the shopping cart page, just before the customer begins the checkout process.
To select cross-sell products:

1. Open the product in edit mode.

2. Scroll down and expand the Related Products, Up-Sells, and Cross-Sells section. Then, tap Add Cross-Sell Products.

3. Use the filter controls to find the products that you want.
4. In the list, mark the checkbox of any product you want to feature as a cross-sell product.

5. When complete, tap **Add Selected Products**.
Customizable Options

Adding customizable options to a product is an easy way to offer customers a selection of options with a variety of text, selection, and date input types. Customizable options are a good solution if your inventory needs are simple. However, because they are based on variations of a single SKU, they cannot be used to manage stock. If you have multiple products with the same options, you can set up one product, and import the options to the other products.

To create customizable options:

1. Open the product in edit mode.

2. Scroll down and expand the Customizable Options section. Then, tap Add Option.

3. In the upper-left corner, tap New Option. Then, do the following:
   a. In the Option Title field, enter a name for the option.
   b. Set the Option Type for data entry.
   c. If the option is not required to purchase the product, clear the Required checkbox.

4. Tap Add New Row. Then, complete the following:
Add Value

a. In the **Title** field, enter a name for this option.

b. In the **Price** field, enter any markup or markdown from the base product price that applies to this option.

c. Set **Price Type** to one of the following:

   - **Fixed** The price of the variation differs from the price of the base product by a fixed monetary amount, such as $1.
   - **Percentage** The price of the variation differs from the price of the base product by a percentage, such as 10%.

d. Enter a **SKU** for the option. The option SKU is a suffix that is added to the product SKU.

e. To change the order of the options, tap the **Change Order** icon, and drag the option to a new position in the list.

f. Repeat this step for each option to be added.

5. When complete, tap **Save**.
To import customizable options:

1. In the Customizable Options section, tap Import Options.

2. All products with customizable options appear in the grid.

3. In the list, mark the checkbox of the product with the options that you want to import.

4. Tap Import.

5. When complete, you can continue to add more custom options, or tap Save and Close.

Input Controls

<table>
<thead>
<tr>
<th>INPUT TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEXT</td>
<td>Field: A single line input field for text. Area: A multiple-line input box for paragraphs of text. You can use the WYSIWYG Editor to format the text with HTML tags, or type HTML directly into the text area.</td>
</tr>
<tr>
<td>FILE</td>
<td>File: A file to be uploaded by the customer.</td>
</tr>
<tr>
<td>SELECT</td>
<td>Drop-down: A drop-down list of options. Only one item can be selected at a time. Radio Buttons: A set of options that allows only one to be selected at a time.</td>
</tr>
</tbody>
</table>
### Input Controls (cont.)

<table>
<thead>
<tr>
<th>INPUT TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Checkbox</td>
<td>A checkbox is a variation of a yes/no option. If the product has more than one checkbox, multiple selections can be made at the same time.</td>
</tr>
<tr>
<td>Multiple Select</td>
<td>A drop-down list of options that accepts multiple selections. To select multiple options, hold down the Ctrl (PC) or Command (Mac) key.</td>
</tr>
</tbody>
</table>

### DATE

| Date              | An input field for a date value. The date can be typed directly into the field, selected from a list or calendar. The method of input used and format of the date is determined by the **Date & Time Custom Options** configuration. |
| Date & Time       | An input field for date and time values.                                                                                                   |
| Time              | An input field for a time value.                                                                                                            |
Product in Websites

The Product in Websites section identifies each website where the product is available, according to the store hierarchy.

To copy a product to a different website:

1. Open the product in edit mode.
2. Scroll down and expand the Product in Websites section.
3. Mark the checkbox of the website where the product is to be copied
   For an single website installation, the website checkbox is marked by default.
4. Choose the Store View where the product is to be copied from.
5. When complete, tap Save. Then, do the following:
   a. When you return to the product record, set the Store View chooserto the store view to which the product was copied. When prompted to confirm scope switching, tap OK.
   b. Enter the Price of the product for this store view.

Because the scope of the base currency is set to "website," it is possible to sell the product for a different price in each website.

6. When complete, tap Save.
Design

The Design settings give you the ability to apply a different theme to the product page, change the column layout, determine where product options appear, and enter custom XML code.

### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>Store View</td>
<td>Gives you the ability to apply a different theme to the product. Options: (All available themes)</td>
</tr>
<tr>
<td>Display product options in</td>
<td>Store View</td>
<td>Options: Product Info Column / Block after Info Column</td>
</tr>
<tr>
<td>Layout Update XML</td>
<td>Store View</td>
<td>Add XML code to customize the theme.</td>
</tr>
</tbody>
</table>
Scheduled Design Update

The Scheduled Design Update section gives you the ability to make temporary changes to the appearance of the product page. You can schedule design changes for a season, promotion, or just to mix things up. Design changes can be scheduled in advance, so they go into effect, or “drip” on schedule.
Gift Options

Gift Options can be set at the product level to allow a gift message to be included during checkout. To override the default configuration setting, clear the Use Config Settings checkbox.

Gift Options

To set gift options for a single product:

1. Open the product in edit mode.
   Scroll down and expand the Gift Options section. Then, do the following:
   a. To override the default setting, clear the Use Config Settings checkbox.
   b. Set Allow Gift Message as needed for the product.

2. When complete, tap Save.

Downloadable Information

The Downloadable Information section is used to generate the links to downloadable products and samples. To learn more, see: Downloadable Product.
Grouped Products

The Grouped Products section is used to add individual products to a Grouped product. After the products are added, they appear in the section.
Bundle Items

The Bundle Items section is used to add items to a Bundle product type, and also to edit the current selection of items.
CHAPTER 14:
Managing Pricing

Magento supports a number of pricing options that you can use for promotions, or to meet the minimum advertised pricing requirements of the manufacturer. Changes to product pricing can be made on schedule, or by price rule that is applied at the product level or in the shopping cart. Topics in this chapter:

- Advanced Pricing
- Group Price
- Special Price
- Tier Price
- Minimum Advertised Price
Advanced Pricing

The Advanced Pricing settings define the required conditions for special pricing based on the customer group and website, and also determine quantity discount tier pricing.

To display the Advanced Pricing options:

1. Open the product in edit mode.
2. Under the Price field, click Advanced Pricing.
### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Price</td>
<td>Sets up promotional prices for specific customer groups within the selected website. Options include:</td>
</tr>
<tr>
<td>Web Site</td>
<td>Identifies the website where the group price rule applies. This option appears only if the installation has multiple websites.</td>
</tr>
<tr>
<td>Customer Group</td>
<td>(Required) Identifies the customer group that qualifies to receive the group price.</td>
</tr>
<tr>
<td>Price</td>
<td>(Required) Specifies the product price for members of the customer group, within the specific website.</td>
</tr>
<tr>
<td>Action</td>
<td>Deletes the current Group Price rule.</td>
</tr>
</tbody>
</table>

**Add Group Price**

Inserts an additional row for a new Group Price rule.

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Price</td>
<td>Offers a discounted price during the time period defined by the From/To dates.</td>
</tr>
<tr>
<td>From</td>
<td>Sets the first date the Special Price is available. You can either enter the date or select it from the calendar.</td>
</tr>
<tr>
<td>To</td>
<td>Sets the last date the Special Price is available. You can either enter the date or select it from the calendar.</td>
</tr>
<tr>
<td>Cost</td>
<td>The actual cost of the item.</td>
</tr>
<tr>
<td>Tier Price</td>
<td>Offers a quantity discount to members of a specific customer group and website. Options include:</td>
</tr>
<tr>
<td>Web Site</td>
<td>Identifies a specific website where the tier price rule applies.</td>
</tr>
<tr>
<td>Customer Group</td>
<td>Identifies a specific customer group that qualifies to receive the tier price discount.</td>
</tr>
<tr>
<td>Quantity</td>
<td>(Required) The quantity that must be purchased to receive the tier price.</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>(Required) The discounted product price for the quantity purchased.</td>
</tr>
<tr>
<td>Deletethe current tier price rule.</td>
<td></td>
</tr>
<tr>
<td><strong>Add</strong></td>
<td>Inserts an additional row for a new tier price rule definition.</td>
</tr>
<tr>
<td>Manufacturer's Suggested Retail Price</td>
<td>The manufacturer's suggested retail price (MSRP) for the product.</td>
</tr>
<tr>
<td>Display Actual Price</td>
<td>Determines where the actual price of the product is visible to the customer. Options:</td>
</tr>
<tr>
<td>Use Config</td>
<td>Uses the current configuration setting for the price display.</td>
</tr>
<tr>
<td>On Gesture</td>
<td>Displays the actual product price in a popup, in response to the &quot;Click for price&quot; or What's this?&quot; link.</td>
</tr>
<tr>
<td>In Cart</td>
<td>Displays the actual product price in the shopping cart.</td>
</tr>
<tr>
<td>Before Order Confirmation</td>
<td>Displays the actual product price at the end of the checkout process, just before the order is submitted.</td>
</tr>
</tbody>
</table>
Group Price

A discounted price on any product can be extended to members of a specific customer group, provided they shop while logged in to their accounts. The discounted price appears on the product page with the regular price noted below, and replaces the regular price in the shopping cart.

Customer group prices are a component of tier pricing, and are set up in a similar way. The only difference is that the customer group prices have a quantity of 1.

To set up a group price:

1. Open the product in edit mode.
2. Below the Price field, click Advanced Pricing.
3. In the Tier Price section, tap Add. Then, do the following:
   a. If your Magento installation includes multiple Websites, choose the one(s) where the group price applies.
   b. Choose the Customer Group that is to receive the discount.
   c. Enter a quantity of 1.
   d. Enter the discounted Price.
4. To add another group price tap Add and repeat the previous steps.

5. When complete, tap Done. Then, tap Save.
Special Price

A special price can be offered during a period of time as a **Scheduled Update**. During the specified time period, the special price appears instead of the regular price, followed by “was (previous price).”

To apply a special price:

1. Open the product in edit mode. Then, do the following:
   
   a. Scroll down to the **Price** field, and click **Advanced Pricing**. Then, enter the amount of the **Special Price**.

   b. Use the **Calendar** (📅) to choose the **Start Date** and **End Date** for the special price promotion.

   The special price goes into effect immediately after midnight at the beginning of the start date (00:01), and continues until just before midnight (23:59) on the day before the end date.
2. When complete, tap **Done**. Then, tap **Save**.
Tier Price

Tier pricing lets you offer a quantity discount from the catalog list and product detail pages. The discount can be applied to a specific store view or customer group.

Tier Price on Product Page

The product page calculates the quantity discount and displays a message such as:

Buy 3 for $5.00 each and save 29%

The prices in the storefront take precedence from the highest to the lowest quantity. Therefore, if you have a tier for the quantity 5 and one for the quantity 10, and a customer adds 5, 6, 7, 8 or 9 items to the shopping cart, the customer receives the discounted price that you specified for the quantity 5 tier. As soon as the customer adds the 10th item, the discounted price specified for the quantity 10 tier supersedes the tier for a quantity of 5, and discounted price for 10 applies.

To set up a tier price:

1. Open the product in edit mode.
2. Below the Price field, click Advanced Pricing.
3. In the Tier Price section, tap Add. Then, do the following:
Tier Pricing

a. If your store has multiple websites, choose the **Website** where the tier pricing applies.

b. If applicable, choose the **Customer Group** to receive the discount.

c. In the **Qty** field, enter the quantity that must be ordered to receive the tier price.

d. In the **Item Price** field, enter the adjusted price of the item.

   To apply the same tier to more than one group, create a separate tier for each group, but with the same Qty and Price information.

4. To add another group price, tap **Add** and repeat the previous steps.

5. When complete, tap **Done**. Then, tap **Save**.
Minimum Advertised Price

Merchants are sometimes prohibited from displaying a price that is lower than the manufacturer’s suggested retail price (MSRP). Magento’s Minimum Advertised Price (MAP) gives you the ability to remain in compliance with the manufacturer’s requirements while offering your customers a better price. Because requirements differ from one manufacturer to another, you can configure your store to prevent the display of your actual price on pages where it is not allowed to appear according to the terms of the manufacturer.

MAP Logic

For products with prices that depend on a selected options, (such as custom options, or simple products with their own SKUs and stock management), the following logic is used:

- MAP is applied to the main price. The prices of options, bundle items, and associated products (which add or subtract from the main price) appear normally.

- If a product does not have a main price, and its price is derived from the associated product prices (such as in a grouped product), the MAP settings of the associated products are applied.

- If a product in the cart has the Manufacturer’s Suggested Retail Price (MSRP) specified, the price is not crossed-out.

For other price settings, the following MAP logic is used:

- If tier pricing is set, the tier price appears according to the Display Actual Price setting.

- If a special price is set, it is considered to be the actual price for MAP.

In the order management and customer management tools, as well as in the reports sections of the Admin, only the actual price appears.
### Using MAP with Product Types

<table>
<thead>
<tr>
<th>PRODUCT TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple, Virtual</td>
<td>The actual price does not automatically appear on catalog list and product pages, but is included only according to the Display Actual Price setting. Custom option prices appear normally.</td>
</tr>
<tr>
<td>Grouped</td>
<td>The prices of associated simple products do not automatically appear on catalog list and product pages, but are included only according to the Display Actual Price setting.</td>
</tr>
<tr>
<td>Configurable</td>
<td>The actual price does not automatically appear on catalog list and product pages, but is included only according to the Display Actual Price setting. Option prices appear normally.</td>
</tr>
<tr>
<td>Bundle (with fixed price)</td>
<td>The actual price does not automatically appear on catalog pages, but is included only according to the Display Actual Price setting. The prices of bundle items appear normally.</td>
</tr>
</tbody>
</table>

MAP is not available for bundle products with dynamic pricing.

<table>
<thead>
<tr>
<th>PRICE SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier Price</td>
<td>If tier pricing is set, the tier pricing message is not displayed in the catalog. On the product page a notification is displayed that indicates that the price can be lower when ordering more than a certain quantity, but the discount is displayed in percentages only. For associated products of a grouped product, the discounts are not displayed on the product page. The tier price is shown according to the Display Actual Price setting.</td>
</tr>
<tr>
<td>Special Price</td>
<td>If the Special price is specified, the special price is displayed according to the Display Actual Price setting.</td>
</tr>
</tbody>
</table>
Configuring MAP

Your store's MAP settings can be applied to all products in your catalog, or configured for specific products. When Minimum Advertised Price is enabled globally, all product prices in the storefront are hidden from view. There are a variety of configuration options that you can use to remain in compliance with the terms of your agreement with the manufacturer, while still offering your customers a better price.

![Image of a watch product page with Actual Price Appears “On Gesture”]

On the global level, you can enable or disable MAP, apply it to all products, define how the actual price is displayed, and edit the text of the related messages and information tips that appear in the store.

When MAP is enabled, the product-level MAP settings become available. You can apply MAP to an individual product by entering the MSRP, and choosing how you want the actual price to appear in the store. Product-level MAP settings override the global MAP settings.
To configure MAP:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. If applicable, in the upper-right corner, set Store View to the view where the configuration applies.

3. In the panel on the left under Sales, choose Sales.

4. Expand the Minimum Advertised Price section.

5. If necessary, set Enable MAP to “Yes.” Then, do the following:
Method 1: **Configure MAP for All Products:**

1. To determine when and where you want the actual price to be visible to customers, do the following:
   a. To change the default value, clear the **Use system value** checkbox.
   b. Set **Display Actual Price** to one of the following:
      - In Cart
      - Before Order Confirmation
      - On Gesture (on click)

2. Enter the text that you want to appear in the **Default Popup Text Message**.

3. Enter any additional explanation that you want to appear in the **Default “What’s This” Text Message**.

4. When complete, tap **Save Config**.

Method 2: **Configure MAP for a Single Product**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.

2. Open the product in **Edit** mode.

3. In the panel on the left under **Advanced Settings**, choose **Advanced Pricing**. Then, do the following:

![Manufacturer’s Suggested Retail Price](image-url)
a. Enter the **Manufacturer’s Suggested Retail Price**.
In this example, the product price is $54.00, and the MSRP is 59.95.

b. Set **Display Actual Price** to one of the following:

- **Use config** (Default) Applies the MAP configuration setting.
- **On Gesture** Displays the actual product price in a popup when the customer clicks the “Click for price” or “What’s this?” link.
- **In Cart** Displays the actual product price in the shopping cart.
- **Before Order Confirmation** Displays the actual product price at the end of the checkout process, just before the order is confirmed.

The Manufacturer’s Suggested Retail Price and Display Actual Price fields appear only when **Minimum Advertised Price** is enabled in the configuration.

6. When complete, tap **Done**. Then, tap **Save**.
CHAPTER 15:  
Managing Inventory

Each product in your catalog has both a short and long version of the Advanced Inventory options, depending on whether you want to manage stock for the product. The long form appears when Manage Stock is set to “Yes.” The initial values reflect the default Product Stock Options set in the configuration.

Method 1: Without Stock Management

1. Open the product in edit mode.
2. In the panel on the left under Advanced Settings, choose Advanced Inventory.
3. Set Manage Stock to “No.” If necessary, clear the Use Config Settings checkbox to make the field available.
4. Enter the Minimum Qty Allowed in Shopping Cart.
5. Enter the Maximum Qty Allowed in Shopping Cart.
6. If you want to sell by quantity increment, do the following:
   a. Set Enable Qty Increments to “Yes.”
   b. In the Qty Increments field, enter the number of products that must be purchased in an incremental step. For example, if you enter 6, the customer must purchase the product in quantities of 6, 12, 18, and so on.
7. When complete, tap Save.
### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Stock</td>
<td>Global</td>
<td>Determines if inventory control is used to manage this product in your catalog. Options: Yes / No</td>
</tr>
<tr>
<td>Minimum Qty Allowed in ShoppingCart</td>
<td>Global</td>
<td>Determines the minimum number of the product that can be purchased in a single order.</td>
</tr>
<tr>
<td>Maximum Qty Allowed in ShoppingCart</td>
<td>Global</td>
<td>Determines the maximum number of the product that can be purchased in a single order.</td>
</tr>
<tr>
<td>Enable Qty Increments</td>
<td>Global</td>
<td>Determines if the product can be sold in quantity increments. Options: Yes / No</td>
</tr>
<tr>
<td>Qty Increments</td>
<td>Global</td>
<td>Enter the number of products that must be purchased at the same time. For example, if set to 6, the customer must purchase a quantity of 6, 12, 18, and so on. When a product is sold in quantity increments, the number appears in the upper-right corner, next to the shopping cart link. If the customer tries to purchase the product in any other quantity, a message appears in the shopping cart.</td>
</tr>
</tbody>
</table>

### Method 2: With Stock Management

1. Open the product in edit mode.
2. In the panel on the left under Advanced Settings, choose Advanced Inventory.
3. Set Manage Stock to “Yes.” If necessary, clear the Use Config Settings checkbox to make the field available. Then, do the following:
   a. Enter the Qty currently in stock.
   b. Enter the Qty for Item’s Status to Become Out of Stock.
   c. Enter the Minimum Qty Allowed in Shopping Cart.
   d. Enter the Maximum Qty Allowed in Shopping Cart.
4. If the quantity is a decimal value, do the following:
   a. Set Qty Uses Decimals to “Yes.”
   b. If the quantity purchased Can be Divided into Multiple Boxes for Shipping, select “Yes.”
5. Set Backorders to one of the following:
CHAPTER 15: Managing Inventory

- No Backorders
- Allow Qty Below 0
- Allow Qty Below 0 and Notify Customer

6. In the Notify for Quantity Below field, enter the stock level that triggers a Quantity Below notification.

7. To sell the product in quantity increments, do the following:
   
a. Set Enable Qty Increments to “Yes.”
   
b. In the Qty Increments field, enter the number of products that must be purchased in an incremental step. For example, if you enter 6, the customer must purchase the product in quantities of 6, 12, 18, and so on.

8. If the product is currently in stock, set Stock Availability to “In Stock.”

9. When complete, tap Save.

![Advanced Inventory (Long Form)](attachment:image)
### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manage Stock</td>
<td>Global</td>
<td>Determines if inventory control is used to manage this product in your catalog. Options:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes Displays the long form with all stock management options.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Display the short form without stock management options.</td>
</tr>
<tr>
<td>Qty</td>
<td>Global</td>
<td>The quantity of the item that is currently in stock.</td>
</tr>
<tr>
<td>Qty for Item’s Status to Become Out of Stock</td>
<td>Global</td>
<td>Determines the stock level at which a product is considered to be out of stock.</td>
</tr>
<tr>
<td>Minimum Qty Allowed in ShoppingCart</td>
<td>Global</td>
<td>Determines the minimum number of the product that can be purchased in a single order.</td>
</tr>
<tr>
<td>Maximum Qty Allowed in ShoppingCart</td>
<td>Global</td>
<td>Determines the maximum number of the product that can be purchased in a single order.</td>
</tr>
<tr>
<td>Qty Uses Decimals</td>
<td>Global</td>
<td>Determines if customers can use a decimal value rather than a whole number when entering the quantity ordered. Options:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes Permits values to be entered as decimals, rather than whole numbers, which is suitable for products sold by weight, volume or length.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No Requires quantity values to be entered as whole numbers.</td>
</tr>
<tr>
<td>Can be Divided into Multiple Boxes for Shipping</td>
<td>Global</td>
<td>Determines if parts of the product can be shipped separately. Options: Yes / No</td>
</tr>
<tr>
<td>Backorders</td>
<td>Global</td>
<td>Determines how backorders are managed. Backorders do not change the processing status of the order. Funds are still authorized or captured immediately when the order is placed, regardless of whether the product is in stock. Products are shipped as they become available. Options:</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Backorders</td>
<td></td>
<td>Does not accept backorders when product is out of stock.</td>
</tr>
<tr>
<td>Allow Qty Below 0</td>
<td></td>
<td>Accepts backorders when the quantity falls below zero.</td>
</tr>
<tr>
<td>Allow Qty Below 0 and Notify Customer</td>
<td></td>
<td>Accepts backorders when the quantity falls below zero, but notifies customers that orders can still be placed.</td>
</tr>
<tr>
<td>Notify for Quantity Below</td>
<td>Global</td>
<td>Determines the stock level at which notification is sent that the inventory has fallen below the threshold.</td>
</tr>
<tr>
<td>Enable Qty Increments</td>
<td>Global</td>
<td>Determines if the product can be sold in quantity increments. Options: Yes / No</td>
</tr>
<tr>
<td>Stock Availability</td>
<td>Global</td>
<td>Determines the current availability of the product. Options:</td>
</tr>
<tr>
<td>In Stock</td>
<td></td>
<td>Makes the product available for purchase.</td>
</tr>
<tr>
<td>Out of Stock</td>
<td></td>
<td>Unless Backorders are activated, prevents the product from being available for purchase and removes the listing from the catalog.</td>
</tr>
</tbody>
</table>
Stock Options

Your catalog can be configured to display the availability of each item as “In Stock” or “Out of Stock.” The configuration setting applies to the catalog as a whole, and the message changes according to the stock status of the product. There are several display variations possible, including how “out of stock” products are managed in the catalog and in product listings.

The out of stock threshold indicates when a product needs to be reordered, and can be set to any number greater than zero. Another way you can use the stock availability threshold is to manage products that are in high demand. If you want to capture new customers, rather than sell to high-quantity buyers, you can set a maximum quantity to prevent a single buyer from taking out your entire inventory.
To configure stock options:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Catalog, choose Inventory.

3. Expand the Stock Options section, and do the following:
   a. To return items to stock if an order is canceled, Set Items’ Status to be in Stock When Order in Canceled to “Yes.”
   b. To adjust the quantity on hand when an order is placed, set Decrease Stock When Order is Placed to “Yes.”
   c. Set Display Out of Stock Products to “Yes” to continue to display products in the catalog that are no longer in stock.

   If price alerts are enabled, customers can sign up to be notified when the product is back in stock.

   d. To display the message, “Only x left,” enter the number in the Display X left Threshold field.

   The message begins to appear when the quantity in stock reaches the threshold. For example, if set to 3, the message “Only 3 left” appears when the quantity in stock reaches 3. The message adjusts to reflect the quantity in stock, until the quantity reaches zero.

   e. To display an “In Stock” or “Out of Stock” message on the product page, set Display Products Availability In Stock on Storefront to “Yes.”

4. When complete, tap Save Config.
Product Stock Options

The Product Stock Options configuration determines the default product inventory settings at the product level. The configuration applies to individual products, rather than to the contents of the cart as a whole.

**To configure the default inventory settings:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **Inventory**.
3. Expand ☑ the **Product Stock Options** section, and do the following:
   - **To activate inventory control for your catalog**, set **Manage Stock** to “Yes.”

![Product Stock Options](image-url)
b. Set Backorders to one of the following:

- No Backorders To not accept backorders when product is out of stock.
- Allow Qty Below 0 To accept backorders when the quantity falls below zero.
- Allow Qty Below 0 and Notify Customer To accept backorders when the quantity falls below zero, and notify the customer that the order can still be placed.

c. Enter the Maximum Qty Allowed in Shopping Cart.

d. Enter the Qty for Item’s Status to Become Out of Stock.

e. Enter the Minimum Qty Allowed in Shopping Cart.

f. In the Notify for Quantity Below field, enter the stock level that triggers notification that the item is out of stock.

g. To activate quantity increments for the product, set Enable Qty Increments to “Yes.” Then in the Qty Increments field, enter the number of the items that must be purchased to meet the requirement. For example, an item that is sold in increments of 6 can be purchased in quantities of 6, 12, 18, and so on.

h. When a credit memo is issued for the item, set Automatically Return Credit Memo Item to Stock to “Yes” if you want to return the item to inventory by default.

4. When complete, tap Save Config.
Stock Message Scenarios

You can use a combination of configuration settings to control stock availability messages on product pages and in listings of products on catalog pages.

Product Page Stock Messages

There are several variations of messaging available for the product page, depending on the combination of Manage Stock and Stock Availability settings.
Example 1: **Show Availability Message**

**Scenario 1:** This combination of settings causes the availability message to appear on the product page, according to the stock availability of each product.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display product availability in stock in the frontend:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Product Inventory**

<table>
<thead>
<tr>
<th>Manage Stock</th>
<th>Stock Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>In Stock</td>
</tr>
<tr>
<td></td>
<td>Out of Stock</td>
</tr>
</tbody>
</table>

"Availability: In Stock"

"Availability: Out of Stock"

**Scenario 2:** When stock is not managed for a product, this combination of settings can be used to display the availability message on the product page.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display product availability in stock in the frontend:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Product Inventory**

<table>
<thead>
<tr>
<th>Manage Stock</th>
<th>Stock Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>In Stock</td>
</tr>
<tr>
<td></td>
<td>Out of Stock</td>
</tr>
</tbody>
</table>

"Availability: In Stock"

Example 2: **Hide Availability Message**

**Scenario 1:** This combination of configuration and product settings prevents the availability message from appearing on the product page.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display product availability in stock in the frontend:</td>
<td>No</td>
</tr>
</tbody>
</table>

**Product Inventory**

<table>
<thead>
<tr>
<th>Manage Stock</th>
<th>Stock Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>In Stock</td>
</tr>
<tr>
<td></td>
<td>Out of Stock</td>
</tr>
</tbody>
</table>

None

None
Scenario 2: When stock is not managed for a product, this combination of configuration and product settings prevents the availability message from appearing on the product page.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display product availability in stock in the frontend:</td>
<td>No</td>
</tr>
</tbody>
</table>

Product Inventory

| Manage Stock | No | None |

Catalog Page Stock Messages

The following display options are possible for the category and search results lists, depending on the product availability and configuration settings.

“Out of Stock” Message on Category Page
Example 1: Show Product with “Out of Stock Message”
This combination of configuration settings includes out of stock products in the category and search results lists, and displays an “out of stock” message.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Out of Stock Products</td>
<td>Yes</td>
</tr>
<tr>
<td>Display product availability in stock in the frontend</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Out of Stock Products</td>
<td>Yes</td>
</tr>
<tr>
<td>Display product availability in stock in the frontend</td>
<td>No</td>
</tr>
</tbody>
</table>

Example 2: Show Product without “Out of Stock Message”
This combination of configuration settings includes out of stock products in the category and search results lists, but does not display a message.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Out of Stock Products</td>
<td>Yes</td>
</tr>
<tr>
<td>Display product availability in stock in the frontend</td>
<td>No</td>
</tr>
</tbody>
</table>

Example 3: Hide Product Until Back in Stock
This configuration setting omits out of stock products entirely from the category and search results lists, until they are back in stock.

<table>
<thead>
<tr>
<th>STOCK OPTIONS</th>
<th>MESSAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Out of Stock Products</td>
<td>No</td>
</tr>
<tr>
<td>Display product availability in stock in the frontend</td>
<td>None</td>
</tr>
</tbody>
</table>
Product Alerts

Customers can subscribe to two types of alerts by email: price change alerts and in-stock alerts. For each type of alert, you can determine if customers are able to subscribe, select the email template that is used, and identify the sender of the email.

When price change alerts are enabled, a “Sign up for price alert” link appears on every product page. Customers can click the link to subscribe to alerts related to the product. Guests are prompted to open an account with your store. Whenever the price changes, or the product goes on special, everyone who has signed up to be notified receives an email alert.

The in-stock alert creates a link called “Sign up to get notified when this product is back in stock” for every product that is out of stock. Customers can click the link to subscribe to the alert. When the product is back in stock, customers receive email notification that the product is available. Products with alerts have a Product Alerts tab in the Product Information panel that lists the customers who have subscribed to an alert.
To set up product alerts:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left under **Catalog**, choose **Catalog**.

3. Click to expand the **Product Alerts** section, and do the following:
   a. To offer price change alerts to your customers, set **Allow Alert When Product Price Changes** to “Yes.”
   b. Set **Price Alert Email Template** to the template that you want to use for the price alert notifications.
   c. To offer alerts when out-of-stock products become available again, set **Allow Alert When Product Comes Back in Stock** to “Yes.”

   The “Sign up to get notified when this product is back in stock” message appears only when Inventory Stock Options - Display Out of Stock Products is set to “Yes.”

   d. Set **Stock Alert Email Template** to the template that you want to use for product stock alerts.

   e. Set **Alert Email Sender** to the **store contact** that you want to appear as the sender of the email alert.

4. When complete, tap **Save Config**.
Product Alert Run Settings

These settings enable you to select how often Magento checks for changes that require alerts to be sent. Additionally, you can select the recipient, sender, and template for emails that are sent if the sending of alerts fails.

To set up product alerts:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Product Alerts Run Settings section, and do the following:
   a. To determine how often product alerts are sent, set Frequency to one of the following:
      - Daily
      - Weekly
      - Monthly
   b. To determine the time of day product alerts are sent, set Start Time to the hour, minute, and second.
   c. In the Error Email Recipient field, enter the email of the person to be contacted if an error occurs.
   d. In the Error Email Sender field, select the store identity that appears as the sender of the error notification.
   e. Set Error Email Template to the transactional email template to be used for the error notification.
4. When complete, tap Save Config.
CHAPTER 16: Images and Videos

Using high-quality images of consistent proportion gives your catalog a professional look with commercial appeal. If you have a large catalog with several images per product, you can easily have hundreds, if not thousands of product images to manage. Before you get started, establish a naming convention for your image files, and organize them so you can find the originals if you ever need them.

Product Images

A single product image is rendered in different sizes throughout the catalog. The size of the image container on the page is defined in the style sheet, but how the image is used is determined by the role that is assigned to the image. The main product image, or “base” image, must be large enough to produce the magnification that is needed for zoom. In addition to the main image, a smaller version of the same image might appear in product listings, or as a thumbnail in the shopping cart. You can upload an image in the largest size that is needed, and let Magento render the sizes needed for each use. The same image can be used for all roles, or a different image can be assigned to each role. By default, the first image that is uploaded is assigned to all three roles.
Uploading Product Images

For each product, you can upload multiple images, rearrange their order images, and control how each image is used. If you have a large quantity of images to manage, you might prefer to import them as a batch, rather than upload each one individually. To learn more, see: Importing Product Images.

To manage images:

1. Open the product in edit mode. Scroll down and expand the Images and Videos section. Then, do any of the following:

   **Upload an Image**

   - Drag an image from your desktop, and drop it on the camera (📸) tile in the Images box.
   - In the Images box, tap the camera (📸) tile, and navigate to the image file on your computer. Then, select the image, and tap **Open**.

   ![Upload or Drag and Drop](image)

   **Upload or Drag and Drop**

   **Rearrange Images**

   To change the order of images in the gallery, tap the Sort (篙) icon at the bottom of the image tile. Then, drag the image to a different position in the Images box.

   ![Change Order](image)

   **Change Order**

   **Delete an Image**

   To remove an image from the gallery, tap the Delete (Trash) icon in the upper-right corner of the image tile. Then, tap **Save**.
2. Tap the image that you want to open in detail view: Then, do any of the following:

**Enter Alt Text**

Image Alt text is referenced by screen readers to improve web accessibility, and by search engines when indexing the site. Some browsers display the Alt text on mouseover. Alt text can be several words long, and include carefully selected key words.

In the Alt Text box, enter a brief description of the image.

**Assign Roles**

By default, all roles are assigned to the first image that is uploaded to the product. To reassign a role to another image, do the following:

1. Tap an image tile to open the image in detail view.

2. In the Role box, choose the role that you want to assign to the image.

When you return to the Images and Videos section, the currently assigned roles appear below each image.
**Hide Image**

To exclude an image from the thumbnail gallery, mark the **Hidden** checkbox. Then, tap **Save**.

![Hidden Images](image)

**3.** To close detail view, click the **Close** (×) box in the upper-right corner.

**4.** When complete, tap **Save**

**Image Roles**

<table>
<thead>
<tr>
<th>IMAGE ROLE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Thumbnail   | Thumbnail images appear in the thumbnail gallery, shopping cart, and in some blocks such as Related Items.  
Example size: 50 x 50 pixels |
| Small Image | The small image is used for the product images in listings on category and search results pages, and to display the product images needed for sections such as for Up-sells, Cross-sells, and the New Products List.  
Example size: 470 x 470 pixels |
| Base Image  | The base image is the main image on the product detail page. Image zoom is activated if you upload an image that is larger image than the image container. Example sizes:  
470 x 470 pixels (without Zoom)  
1100 x 1100 pixels (with Zoom) |
| Swatch      | A swatch can be used to illustrate the color, pattern, or texture.  
Example size: 50 x 50 pixels |
Adding Product Video

To add product video, you must first obtain an API Key from your Google account, and enter it in the configuration of your store. Then, you can link to the video from the product.

Step 1: Get Your YouTube API Key

1. Log in to your Google account, and visit the Google Developers Console. Then, do the following:
   a. Under Use Google APIs, click Enable and manage APIs.
   b. In the panel on the left choose Credentials. Expand the Add Credentials menu, and choose API key.
   c. When prompted to create a new key, choose Server key. Enter a name for the key, and tap Create.

2. Wait a few moments while the key is generated. Then, copy the key to the clipboard.

   In the next step, you will paste the key into your store's configuration.

Step 2: Configure Magento

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Product Video section. Then, paste your YouTube API key.

4. When complete, click Save Config.
5. When prompted, refresh the cache.
Step 3: Link to the Video

1. Open a product in edit mode. Then in the Images and Video section, tap **Add Video**.

   If you haven’t yet entered your YouTube API key, tap **OK** to continue. You won’t be able to link to a YouTube video, but you can go through the process.

2. Enter the **URL** of the YouTube or Vimeo video.

3. Enter the **Title** and **Description** of the video.

4. To upload a **Preview Image**, browse to the image and select the file.

5. If you prefer to use the video meta data, tap **Get Video Information**.

6. To determine how the video is used in the store, mark the checkbox of each **Role** that applies:
   - Base Image
   - Small Image
   - Swatch Image
   - Thumbnail
   - Hide from Product Page

7. When complete, tap **Save**.
Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL</td>
<td>The URL of the associated video.</td>
</tr>
<tr>
<td>Title</td>
<td>The video title.</td>
</tr>
<tr>
<td>Description</td>
<td>The video description.</td>
</tr>
<tr>
<td>Preview Image</td>
<td>An uploaded image that is used as a preview of the video in your store.</td>
</tr>
</tbody>
</table>

Get Video Information

Retrieves the video meta data that is stored on the host server. You can use the original data, or update it as needed.

Role

Determines how the preview image is used in your store. Options:
- Base Image
- Small Image
- Thumbnail
- Swatch Image
- Hide from Product Page
Media Gallery

The media gallery on the product page displays multiple images, video, or swatches related to the product. Each thumbnail can show a different view or variation of the product. Click a thumbnail to browse through the gallery, Although the position of the gallery varies by theme, the default position is just below the main image on the product page.
**Image Zoom**

Customers can view a magnified portion of the image on mouseover, if the image is large enough to create the zoom effect. When zoom is activated, you can click the main image and move the cursor around to magnify different parts of the image. The magnified selection appears to the right of the image.

![Image Zoom](image_url)

**Light Boxes and Sliders**

There are many third-party light boxes and sliders that you can use to enhance the presentation of your product images. Look for extensions in [Magento Marketplace](https://magento.com/marketplace).
Placeholders

Magento uses temporary images as placeholders until the permanent product images become available. A different placeholder can be uploaded for each role. The initial placeholder image is the Magento logo, which you can replace with an image of your choice.

To upload placeholder images:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, and choose Catalog.
3. Expand the Product Image Placeholders section.
4. For each image role, tap Choose File. Find the image on your computer and upload the file. You can use the same image for all three roles, or upload a different placeholder image for each role.
5. When complete, tap Save.
Watermarks

If you go to the expense of creating your own original product images, there is not much you can do to prevent unscrupulous competitors from stealing them with the click of a mouse. However, you can make them a less attractive target by placing a watermark on each image to identify them as your property. A watermark file can be either a .jpg (jpeg), .gif, or .png image. Both .gif and .png formats support transparent layers, which can be used to give the watermark a transparent background.

The watermark used for the “small” image in the following example is a black logo with a transparent background, and saved as a .png file with the following settings:

- Size: 50x50
- Opacity: 5
- Position: Tile

![Tiled Watermark](image-url)
To add watermarks to product images:

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Configuration**.
2. Find the store view that you want to configure. Then in the **Action** column, click **Edit**.
3. Under **Other Settings**, expand the **Product Image Watermarks** section.
4. Complete the **Base**, **Thumbnail**, **Small**, and **Swatch Image** image settings as follows. The fields in each section are the same.
   a. Enter the **Image Opacity** as a percentage. For example: 40
   b. Enter the **Image Size**, in pixels. For example: 200 x 200
   c. Tap **Upload** and choose the image file that you want to use.
   d. Set **Image Position** to determine where the watermark appears.

5. When complete, tap **Save Config**.
6. When prompted to refresh the cache, tap the **Cache Management** link in the system message. Then, refresh the invalid cache.

**Product Image Watermarks - Base**

To restore the default value:
Tap **Use Default Value** (⟲).
To delete a watermark:

1. In the lower-left corner of the image, tap **Delete (🗑)**.

   ![Delete Watermark](image)

2. Tap **Save Config**.

3. When prompted to refresh the cache, tap the **Cache Management** link in the system message. Then, refresh the invalid cache.

   If the watermark image persists in the storefront, return to Cache Management and tap **Flush Magento Cache**.
Swatches

Customers have high expectations when it comes to color, and it is crucial that product descriptions accurately represent each available color, pattern, or texture. For example, the capris in the illustration below are not simply available in red, green, and blue. Rather, they are available only in very specific shades of red, green, and blue, which are probably unique to this product.

For configurable products, color can be indicated by a visual swatch, text swatch, or a drop-down input control. Swatches can be used on the product page, in product listings, and in layered navigation. On the product page, swatches are synchronized to display the corresponding product image when the swatch is chosen. When chosen, the corresponding value appears in the input field, and the swatch is outlined as the current selection.

Text-Based Swatches

If an image isn’t available for a swatch, the attribute value appears as text. A text-based swatch is like a button with a text label, and behaves in the same way as a swatch with an image. When text-based swatches are used to show the available sizes, any size that is not available is crossed out.
Swatches in Layered Navigation

Swatches can also be used in layered navigation, provided that the Use in Layered Navigation property of the color attribute is set to “Yes.” The following example shows both text-based and color image swatches in layered navigation.
Creating Swatches

Swatches can be defined as a component of the color attribute, or set up locally for a specific product as uploaded product images.

In the following examples, the Sylvia Capris are available in specific values of red, green, and blue. Because the swatches were taken from the product image, each is a true representation of the color. The color attribute is used to manage the information for all product colors and swatches.

Step 1: Create the Swatches

Use either of the following methods to create swatches for your products:

Method 1: Add a Color Swatch

1. To capture the true color of a product, open the image in a photo editor and use the eye dropper tool to identify the exact color. Then, take note of the equivalent hexadecimal value.

   ![Hexadecimal Color Values](image)

   - #74bebd
   - #f43b43
   - #0a8ef2

2. On the Admin sidebar, tap Stores. Then under Attributes, choose Product.
3. In the grid, open the color attribute in edit mode.
4. Verify that Catalog Input Type for Store Owner is set to “Visual Swatch.”
5. Under Manage Swatch (values of your attribute), tap Add Swatch. Then, do the following:
Manage Swatch Values

a. In the Swatch column, tap the new swatch to display the menu. Then, select **Choose a color**.

b. In the color picker, place your cursor in the # field, and press the **Backspace** key to delete the current value. Then, enter the six-character hexadecimal value of the new color.

c. To save the swatch, tap the Color Wheel (⊙) in the lower-right corner of the color picker.

d. In the Admin column, enter a label to describe the color to the store administrator. Then if applicable, enter the translation of the color for each each language supported. In the following example, we include the SKU for reference in the Admin label because the colors are used only for a specific product. You can include a space or underscore in the label, but not a hyphen.
e. In the Is Default column, select the swatch that is to be the default option.

f. To change the order of the swatches, simply drag each swatch into position.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Red SW11</th>
<th>Red</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Green SW11</td>
<td>Green</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Blue SW11</td>
<td>Blue</td>
</tr>
</tbody>
</table>

Swatch Labels

6. When complete, tap Save Attribute. Then when prompted, refresh the cache.

7. The last step is to open each product in Edit mode, and update the Color attribute with the correct swatch. To update multiple products at the same time, follow the steps below.

**Method 2: Upload a Swatch Image**

1. To capture an image for a swatch, open the product image in a photo editor, and save a square area of the image that depicts the color, pattern, or texture. Then repeat for each variation of the product. The size and dimensions of the swatch is determined by the theme. As a general rule, saving an image as a square helps to preserve the aspect ratio of a pattern.

2. On the Admin sidebar, tap Stores. Then under Attributes, choose Product.

3. In the grid, open the color attribute in edit mode.

4. Verify that Catalog Input Type for Store Owner is set to “Visual Swatch.”

5. Under Manage Swatch (values of your attribute), tap Add Swatch. Then, do the following:
a. In the Swatch column, tap the new swatch to display the menu. Then, choose **Upload a file**.

![Upload a File](image)

b. Navigate to the swatch file that you prepared, and choose the file to upload.

c. Repeat these steps for each swatch image.

d. Enter the labels for the Admin and Storefront. In this example, we include the SKU in the admin label for reference because these colors are used only for a specific product. You can include a space or underscore in the label, but not a hyphen.

![Enter Labels](image)

6. When complete, tap **Save Attribute**. Then when prompted, refresh the cache.

7. The last step is to open each product in Edit mode, and update the Color attribute with the correct swatch. To update multiple products at the same time, follow the steps below.

**Step 2: Update Your Products**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.

2. **Filter** the list by Name or SKU to include only the applicable products. The following example filters the list on a partial product name.

![Filters](image)
3. In the grid, mark the checkbox of each product to which the swatch applies. In this example, all blue capris are selected. Then, set the **Actions** control to “Update Attributes.”

![Update Attributes](image)

**Update Attributes**

4. Scroll down to the **Color** attribute, and mark the **Change** checkbox.

![Change](image)

**Change**

5. Choose the swatch that applies to the selected products, and tap **Save**. Then when prompted, refresh the cache.

![Swatch in Storefront](image)

**Swatch in Storefront**
CHAPTER 17: Categories

Before you add products to your catalog, you need to establish the basic category structure of your catalog. Every product must be assigned to at least one category. Categories are usually created in advance, before products are added to the catalog. However, you can also add categories “on the fly” while creating a product.

**Category Tree**

**Controls**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add Root Category</td>
<td>Creates a new root category.</td>
</tr>
<tr>
<td>Add Subcategory</td>
<td>Adds a subcategory below the current category or subcategory.</td>
</tr>
<tr>
<td>Collapse All / Expand All</td>
<td>Either collapses or expands the category tree.</td>
</tr>
<tr>
<td>Delete</td>
<td>Removes the current category or subcategory from the tree.</td>
</tr>
<tr>
<td>Save</td>
<td>Saves any changes made to the category.</td>
</tr>
</tbody>
</table>
Creating Categories

The category structure of your catalog is like an upside-down tree, with the root at the top. Each section of the tree can be expanded and collapsed. Any disabled or hidden categories are grayed out. The first level of categories below the root typically appear as options in the main menu. You can have as many additional subcategories as you need. Categories can be dragged and dropped to other locations in the tree. The category ID number appears in parentheses after the category name at the top of the page.

Process Overview:
Step 1: Create a Category
Step 2: Complete the Basic Information
Step 3: Complete the Category Content
Step 4: Complete the Display Settings
Step 5: Complete the Search Engine Optimization Settings
Step 6: Choose the Products in Category
Step 7: Complete the Design Settings
**Step 1: Create a Category**

1. On the Admin sidebar, tap **Products**. Then under Inventory, choose **Categories**.
2. Set **Store View** to determine where the new category is to be available.
3. In the category tree, tap the parent category of the new category. The parent is one level above the new category.
   
   If you’re starting from the beginning without any data, there might be only two categories in the list: “Default Category,” which is the root, and an “Example Category.”
4. Tap **Add Subcategory**.

**Step 2: Complete the Basic Information**

1. If you want the category to be immediately available in the store, set **Enable Category** to the “Yes” position.
2. To include the category in the top navigation, set **Include in Menu** to the “Yes” position.
3. Enter the **Category Name**.

![Basic Information](image)

**Basic Information**

4. Tap **Save** and continue.

**Step 3: Complete the Category Content**

1. Expand ☑ the **Content** section.
2. To display a **Category Image** at the top of the page, tap **Upload**. Then, choose the image that you want to represent the category.
3. In the **Description** box, enter the text that you want to appear on the category landing page. Then, format the text as needed. To learn more, see: Using the Editor.
4. To include a content block on the category landing page, choose the **CMS Block** that you want to appear.
5. Tap **Save** and continue.
Step 4: Complete the Display Settings

1. Expand the Display Settings section.

2. Set Display Mode to one of the following:
   - Products Only
   - Static Block Only
   - Static Block and Products

3. If you want the category page to include the “Filter by Attribute” section of layered navigation, set Anchor to the “Yes” position.

4. To change the Available Product Listing Sort By options, do the following:
   a. Clear the Use All checkbox.
   b. Select one or more of the available values to be available for customers to sort the list. By default, all available values are included. For example, the values might include:
      - Position
      - Product Name
      - Price

5. To set the default sort order for the category, choose the Default Product Listing Sort By value.

6. To change the default layered navigation price step setting, do the following:
   a. Clear the Use Config Settings checkbox.
   b. Enter the value to be used as an incremental price step for layered navigation.

7. Tap Save and continue.
Step 5: Complete the Search Engine Optimization Settings

1. Expand the Search Engine Optimization Settings section.

2. Enter a URL Key for the category, or let the system automatically create one that is based on the category name.

3. Complete the following meta data for the category:
   - Meta Title
   - Meta Keywords
   - Meta Description

4. Tap Save and continue.
Step 6: Choose the Products in Category

1. Expand the **Products in Category** section. Then, use one of the following methods to add products to the category.

2. Use the **filters** as needed to find the products.

   To display all records that are not yet included in the category, set the record chooser in the first column to "No." Then, click **Search**.

3. In the first column, mark the checkbox of each product to include in the category.

4. Tap **Save** and continue.
Step 7: Complete the Design Settings

1. Expand ☑ the Design section.

2. To change the design of the category pages, choose the Theme that you want to apply.

3. To change the column layout of the category pages, choose the Layout that you want to apply.

4. To enter custom code, enter valid XML code in the Layout Update XML box.

5. To schedule the design update for a specific time period, do the following:
   a. Expand the Schedule Design Update section.
   b. Use the calendar (📅) to choose the Schedule Update From and To dates.

6. When complete, tap Save.
Root Categories

The products in the main menu are determined by the root category that is assigned to the store. The root category is basically a container for the main menu. You can create a new catalog with an entirely new set of products, or copy products from an existing catalog. The catalog can be assigned to the current store, or to any other store in the same website.

**Scope of Main Menu**

From the Admin, the category structure is like an upside-down tree, with the root on top. The root has a name, but no URL key, and does not appear in the top navigation of the store. All other categories in the menu are nested below the root. Because the root category is the highest level of the catalog, your store can have only one root category active at a time. You can, however, create additional root categories for alternate catalog structures, different stores, and views.

The following example shows how to create a new root category and assign it to a different store.

**Process Overview:**

Step 1: Create a New Root Category
Step 2: Build Out the Main Menu
Step 3: Assign the Root Category to the Store
Step 1: Create a New Root Category

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Categories**.

2. In the panel on the left, tap **Add Root Category**.

3. Assign a **Category Name**.
   
   The name you choose will initially be assigned to all store views.

4. If you want to add products to the catalog from the current catalog, do the following:
   
   a. Expand the **Products in Category** section.
   
   b. Use the search filters to find the products you want. Then, mark the checkbox of each product that you want to copy into the new catalog.

5. When complete, tap **Save**.

Step 2: Build Out the Main Menu

1. In the panel on the left, select the new root category that you created in the previous step.

2. Tap **Add Subcategory**. Then, follow the instructions to create the **category structure** for the main menu.
Step 3: Assign the Root Category to the Store

1. On the Admin sidebar, tap Stores. Then under Settings, choose All Stores.
2. In the Stores column of the grid, click the store that you want to assign the new catalog.
3. Set Root Category to the new root category that you created.
4. Make sure that the store has a Default Store View assigned. The store must have at least one store view.
5. When complete, tap Save Store.
6. To verify that the store has a new catalog, do the following:
   a. On the Admin sidebar, tap Products. Then, choose Catalog.
      Any products that were copied to the new catalog appear in the grid.
   b. Visit the storefront to verify that the new catalog and main menu are working correctly.
Hidden Categories

There are many ways to use hidden categories. You might want to create additional category levels for your own internal purposes, but show only the higher-level categories to your customers. Or, you might want to link to a category that is not included in the navigation menu.

**To create hidden categories:**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Categories**.

2. In the category tree, select the category you want to hide. Then, do the following:
   a. Set **Is Active** to “Yes.”
   b. Set **Include in Menu** to “No.”

3. In the **Display Settings** section, set **Anchor** to “No.”

   The hidden category is active, but does not appear in the top menu, or in layered navigation.

4. Although the category is hidden, you can still create subcategories beneath it, and make them active. Complete the following settings for each hidden subcategory:
   a. Set **Enable Category** to “Yes.”
   b. In the **Display Settings** section, set **Anchor** to “Yes.”

   As active categories, you can now link to them from other places in your store, but they will not appear in the menu.

5. When complete, tap **Save**.
Content Settings

The Content settings determines any additional content that is to appear on the category page. In addition to the list of category products, the page can include an image, text description, and CMS block.

![Category Content](image)

**Field Descriptions**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category Image</td>
<td>Store View</td>
<td>Uploads an image that appears at the top of the category page.</td>
</tr>
<tr>
<td>Description</td>
<td>Store View</td>
<td>Enter a description of the category content.</td>
</tr>
<tr>
<td>Add CMS Block</td>
<td>Store View</td>
<td>Adds an existing CMS block to the category page.</td>
</tr>
</tbody>
</table>

**Category Content**

- **Category Image**: Uploads an image for the category page.
- **Description**: Toggles the editor between WYSIWYG and HTML modes.
Display Settings

The Display Settings determine which content elements appear on a category page and the order in which products appear. You can enable CMS blocks, set the anchor status of the category, and manage sorting options from the Display Settings tab.

### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Mode</td>
<td>Determines the content elements displayed on the category page. Options: Products Only, Static Block Only, Static Block and Products</td>
</tr>
<tr>
<td>Anchor</td>
<td>When set to “Yes,” includes the “filter by attribute” section in the layered navigation. Options: Yes / No</td>
</tr>
<tr>
<td>Available Product Listing Sort By</td>
<td>(Required) The default values are Position, Name, and Price. To customize the sorting option, clear the Use All Available Attributes checkbox and select the attributes you want to use. You can define and add attributes as needed.</td>
</tr>
<tr>
<td>Default Product Listing Sort By</td>
<td>(Required) To define the default “Sort By” option, clear the “Use Config Settings” checkbox and select an attribute.</td>
</tr>
<tr>
<td>Layered Navigation Price Step</td>
<td>By default, Magento displays the price range in increments of 10, 100, and 1000, depending on the products in the list. To change the Price Step range, clear the “Use Config Settings” checkbox.</td>
</tr>
</tbody>
</table>
Search Engine Optimization

The Search Engine Optimization section specifies the URL Key and meta data fields that are used by search engines to index the category. Although some search engines ignore meta keywords, others continue to use them. The current SEO best practice is to incorporate high-value keywords in both the meta title and meta description.

### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>URL Key</td>
<td>Store View</td>
<td>Determines the online address of the category page. The URL key is added to</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the base URL of the store, and appears in the address bar of a browser. In</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the configuration, you can either include or exclude the category URL key</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the product URL. The URL Key should be all lowercase characters, with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>hyphens instead of spaces. Do not include a suffix such as .html, because</td>
</tr>
<tr>
<td></td>
<td></td>
<td>it is managed in the configuration.</td>
</tr>
<tr>
<td>Meta Title</td>
<td>Store View</td>
<td>The title appears in the title bar and tab of your browser, and is also</td>
</tr>
<tr>
<td></td>
<td></td>
<td>the title on a search engine results page (SERP(^1)). The meta title</td>
</tr>
<tr>
<td></td>
<td></td>
<td>should be unique to the page, and less than 70 characters in length.</td>
</tr>
<tr>
<td>Meta Keywords</td>
<td>Store View</td>
<td>Relevant keywords for the category Consider using keywords that customers</td>
</tr>
<tr>
<td></td>
<td></td>
<td>might use to find products in the category.</td>
</tr>
</tbody>
</table>

\(^1\)Search Engine Results Page
Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>SCOPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meta Description</td>
<td>Store View</td>
<td>The meta description provides a brief overview of the page for search results listings. An ideal length is between 150-160 characters in length, with a maximum of 255 characters. Although not visible to the customer, some search engines include the meta description on the search results page.</td>
</tr>
</tbody>
</table>

Products in Category

The Products in Category section lists the products that are currently assigned to the category. The search filters at the top of each column are used to add and remove products from the category.

Controls

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection</td>
<td>The checkbox in the header of the first column can be used to select or deselect all products. The control in the first row determines the type of search, and can be set to include any record, or only those that are either assigned or not assigned to the category. The checkbox in the first column of each row identifies products to be added to the category. Options: Yes / No / Any</td>
</tr>
<tr>
<td>Search Filters</td>
<td>The filter controls at the top of each column can be used to enter specific values you want to either include or omit from the list, depending on the Select All setting.</td>
</tr>
<tr>
<td>Reset Filter</td>
<td>Clears all search filters.</td>
</tr>
</tbody>
</table>
Controls (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Searches the catalog based on the filter criteria, and displays the result.</td>
</tr>
</tbody>
</table>
Design Settings

The Design section gives you control over the look and feel of a category and all assigned product pages, and page layout. You can customize a category page its assigned products for a promotion or to differentiate the category. For example, you might develop distinctive design for a brand or special line of products, or apply an update for a specific period of time.

Design

The Scheduled Design Update section determines the range of dates when a custom design is applied to category pages.

Scheduled Design Update
**Field Descriptions**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Parent Category Settings</td>
<td>Allows the current category to inherit the design settings from the parent category. Options: Yes / No</td>
</tr>
<tr>
<td>Theme</td>
<td>Applies a custom theme to the category.</td>
</tr>
<tr>
<td>Layout</td>
<td>Applies a different layout to the category page. Options:</td>
</tr>
<tr>
<td></td>
<td>No layout updates: Preselected by default, and does not apply layout changes to the category page.</td>
</tr>
<tr>
<td></td>
<td>Empty: Use to define your own page layout. (Requires an understanding of XML.)</td>
</tr>
<tr>
<td></td>
<td>1 column: Applies a one-column layout to the category page.</td>
</tr>
<tr>
<td></td>
<td>2 columns with left bar: Applies a two-column layout with a left sidebar to the category page.</td>
</tr>
<tr>
<td></td>
<td>2 columns with right bar: Applies a two-column layout with a right sidebar to the category page.</td>
</tr>
<tr>
<td></td>
<td>3 columns: Applies a three-column layout to the category page.</td>
</tr>
<tr>
<td>Layout Update XML</td>
<td>Updates the theme layout with custom XML code.</td>
</tr>
<tr>
<td>Apply Design to Products</td>
<td>When selected, applies the custom settings to all products in the category.</td>
</tr>
</tbody>
</table>

**SCHEDULED DESIGN UPDATE**

| Schedule Update From/To        | Determines the range of dates when a custom layout is applied to the category. |
CHAPTER 18:  
Using Product Attributes

Attributes are the building blocks of your product catalog, and describe specific characteristics of a product. Attributes determine the type of input control that is used for product options, provide additional information for product pages, and are used as search parameters and criteria for layered navigation, product comparison reports, and promotions. You can create as many attributes as you need to describe the products in your catalog. Other attributes such as price, are built into the core Magento platform and are referred to as “system attributes.”

Creating a New Attribute While Editing a Product
Adding an Attribute

Although attributes are managed from the Stores menu, you can also add new attributes “on the fly” while working on a product. You can choose from the list of existing attributes, or create a new attribute. The new attribute is added to the attribute set upon which the product is based.

**Process Overview:**
1. **Step 1: Add a New Attribute**
2. **Step 2: Describe the Basic Properties**
3. **Step 3: Describe the Advanced Properties**
4. **Step 4: Enter the Field Label**
5. **Step 5: Describe the Frontend Properties**

**Step 1: Add a New Attribute**

1. Open the product in edit mode. Then in the upper-right corner, tap **Add Attribute**.
2. To add an existing attribute to the product, use the filter controls to find the attribute in the grid. Then, do the following:
   
a. Mark the checkbox in the first column of each attribute to be added.
   
b. Tap **Add Selected**.

3. To define a new attribute, tap **Create New Attribute**, and complete the following steps.

**Step 2: Describe the Basic Properties**

1. Under **Attribute Properties**, enter a **Default Label** to identify the attribute.

   ![Attribute Properties](image)

2. Set **Catalog Input Type for Store Owner** to the type in **input control** to be used for data entry. If the attribute is used for a configurable product, choose “Dropdown.” Then, set **Required** to “Yes.”

3. For Dropdown and Multiple Select input types, do the following:
   
a. Under **Values**, tap **Add Value**.
   
b. Enter the first value that you want to appear in the list. You can enter one value for the Admin, and a translation of the value for each store view. If you have only one store view, you can enter only the Admin value and it will be used for the storefront as well.
   
c. Tap **Add Value** and repeat the previous step for each option that you want to include in the list.
   
d. Select **Is Default** to use the option as the default value.
4. If you want to require the customer to choose an option before the product can be purchased, set Required to “Yes.”

**Step 3: Describe the Advanced Properties (if needed)**

1. Enter a unique Attribute Code in lowercase characters, and without spaces.

2. Set Scope to indicate where in your store hierarchy the attribute can be used. If the attribute is used for a configurable product, choose “Global”.

3. If this attribute applies only to this product, set Unique Value to “Yes”.

4. To run a validity test of any data entered into a text field, set Input Validation for Store Owner to the type of data that the field should contain. This field is not available for input types with values that are selected. Input validation can be used for any of the following:
- Decimal Number
- Integer Number
- Email
- URL
- Letters
- Letters (a-z, A-Z) or Numbers (0-9)

5. If you want to be able to include the attribute as a column in the Products grid, set Add to Column Options to “Yes.”

6. If you want to be able to filter the Products grid by this column, set Use in Filter Options to “Yes.”

Step 4: Enter the Field Label

1. Expand the Manage titles section.

2. Enter a Title to be used as a label for the field. If your store is available in different languages, you can enter a translated title for each view.

Step 5: Describe the Storefront Properties

1. Expand the Storefront Properties section. Then, do the following:
   a. To make the attribute available for search, set Use in Search to “Yes.”
   b. To include the attribute in Product Compare, set Comparable on Storefront to “Yes.”
c. To include dropdown, multiple select, or price attributes in layered navigation, set **Use in Search Results Layered Navigation** to one of the following:

- **Filterable (with results)**: Layered navigation includes only those filters for which matching products can be found. Any attribute value that already applies to all products shown in the list does not appear as an available filter. Attribute values with a count of zero (0) product matches are also omitted from the list of available filters.

The filtered list of products includes only those that match the filter. The products list is updated only if the selected filter(s) change what is currently shown.

- **Filterable (no results)**: Layered navigation includes filters for all available attribute values and their product counts, including those with zero (0) product matches. If the attribute value is a swatch, the value appears as a filter, but is crossed out.

d. To use in layered navigation on search results pages, set **Use in Search Results Navigation** to “Yes.”

e. In the **Position** field, enter a number to indicate the relative position of the attribute in the layered navigation block.

f. To use the attribute in price rules, set **Use for Promo Rule Conditions** to “Yes.”

g. To allow the text to be formatted with HTML, set **Allow HTML Tags on Storefront** to “Yes.”

   This setting makes the WYSIWYG editor available when editing the field.

h. To include the attribute on the product page, set **Visible on Catalog Pages on Storefront** to “Yes.”

2. Complete the following settings as supported by your theme:

a. To include the attribute in product listings, set **Used in Product Listing** to “Yes.”

b. To use attribute as a sort parameter for product listings, set **Used for Sorting in Product Listing** to “Yes.”

3. When complete, tap **Save Attribute**.
Attribute Input Types

When viewed from the Admin, attributes are the fields that you complete when you create a product. The input type that is assigned to an attribute determines the type of data that can be entered and the format of the field or input control. From the standpoint of the customer, attributes provide information about the product, and are the options and data entry fields that must be completed to purchase a product.

### Attribute Input Types

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text Field</td>
<td>A single line input field for text.</td>
</tr>
<tr>
<td>Text Area</td>
<td>A multiple-line input field for entering paragraphs of text such as a product description. You can use the WYSIWYG Editor to format the text with HTML tags, or type the tags directly into the text.</td>
</tr>
<tr>
<td>Date</td>
<td>Date values can be entered by making a selection from a drop-down list, or popup calendar. Depending on your system configuration, dates can be typed directly into a field, or selected from the calendar or list. To format date and time values, see: <a href="#">Date &amp; Time Custom Options</a>.</td>
</tr>
<tr>
<td>Yes/No</td>
<td>Displays a drop-down list with pre-defined options of “Yes” and “No.”</td>
</tr>
</tbody>
</table>
### Attribute Input Types (cont.)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dropdown</td>
<td>Displays a drop-down list of values. Only one item can be selected at a time. The Dropdown input type is a key component of configurable products.</td>
</tr>
<tr>
<td>Multiple Select</td>
<td>Displays a drop-down list of values. To select more than one option, hold the Ctrl key down and click each item.</td>
</tr>
<tr>
<td>Price</td>
<td>This input type is used to create price fields that are in addition to the predefined attributes, Price, Special Price, Tier Price and Cost. The currency used is determined by your system configuration.</td>
</tr>
<tr>
<td>Media Image</td>
<td>Associates an additional image with a product, such as a product logo, care instructions, or ingredients from a food label. When you add a media image attribute to the attribute set of a product, it becomes an additional image type, along with Base, Small, and Thumbnail. The media image attribute can be excluded from the media gallery.</td>
</tr>
<tr>
<td>Fixed Product Tax</td>
<td>Lets you define FPT rates based on the requirements of your locale.</td>
</tr>
<tr>
<td>Visual Swatch</td>
<td>Displays a swatch that depicts the color, texture, or pattern of a configurable product. A visual swatch can be filled with a hexadecimal color value, or display an uploaded image that represents the color, material, texture, or pattern of the option.</td>
</tr>
<tr>
<td>Text Swatch</td>
<td>A text-based representation of a configurable product option that is frequently used for size. Text swatches can also include hexadecimal color values.</td>
</tr>
</tbody>
</table>
Date & Time Options

You can customize the format of date and time fields, and select the input control that is used for data entry. Dates values can be selected from a drop-down list, or pop-up calendar.

*Pop-up Calendar*
To format date/time fields:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, tap Catalog. Then, choose the Catalog option.

3. Expand the Date & Time Custom Options section.

4. To use a popup calendar as the input control for date fields, set Use JavaScript Calendar to “Yes.”

5. To establish the Date Fields Order, do the following:
   a. Clear the Use system value checkbox.
   b. Set the order of each part of the date field as needed:
      - Month
      - Day
      - Year
   c. To set your preferred time format, do the following:
   d. Clear the Use system value checkbox.
   e. Set Time Format to one of the following:
      - 12h AM/PM
      - 24h
   f. To establish the Year Range for the drop-down values, enter the year in “YYYY” format to set the from and to dates. If blank, the field defaults to the current year.

6. When complete, tap Save Config.
MARKETING
In this section of the guide, you’ll learn how to leverage your store’s built-in shopping tools to create opportunities for customer engagement, and how to set up targeted promotions with price rules. Leverage multiple sales channels by sending your product feeds to shopping sites and marketplaces. Then, use Google tools to analyze traffic, optimize your content, and plan your next campaign.

Marketing Menu

Shopping Tools
- Opportunities to Engage
- Email a Friend
- Wish Lists
- Product Relationships
- Compare Products
- Recently Viewed / Compared Products
- Product Reviews

Promotions

Communications

SEO & Search

Google Tools
CHAPTER 19: Marketing Menu

The Marketing menu provides access tools for managing promotions, communications, SEO, and user-generated content.

To display the Marketing menu:
On the Admin sidebar, tap Marketing.
Promotions

Create **catalog** and **cart** price rules that trigger discounts based on a variety of conditions. Set up promotions that spring into action when the required conditions are met.

Communications

Customize all notifications sent from your store. Create **newsletters** and publish **RSS feeds**.

SEO & Search

Analyze **search terms** to help customers find products in the store, manage **metadata**, and create a **site map**. Use **redirects** to manage URL changes and avoid broken links.

User Content

Leverage user-generated product reviews to create a sense of community, and increase sales.
CHAPTER 20:
Shopping Tools

Your store includes a set of shopping tools that create opportunities for customers to interact with your store, and share the experience with friends.
Opportunities to Engage

Email a Friend

The Email a Friend link makes it easy for your customers to share links to products with their friends.

Wish List

A wish list is a list of products that a registered customer can share with friends, or save to transfer to the cart at a later date.

Compare Products

The Compare Products block lets your customers quickly compare the features of one product with another.

Product Reviews

Product reviews help build a sense of community, and are considered to be more credible than any advertising money can buy.
Email a Friend

The Email a Friend link makes it easy for your customers to share links to products with their friends. In the Magento demo store, the Email a Friend link appears as an envelope icon. The message template can be customized for your voice and brand. To prevent spamming, you can limit the number of recipients for each email, and the number of products that can be shared over a one-hour period.

To configure Email a Friend:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Email to a Friend.
3. Expand the Email Templates section. Then, do the following:
Email Templates

a. Set **Enabled** to “Yes.”

b. Set **Select Email Template** to the template you want to use as the basis of the messages.

c. If you want to require that only registered customers can send email to friends, set **Allow for Guests** to “No.”

d. In the **Max Recipients** field, enter the maximum number of friends who can be on the distribution list for a single message.

e. In the **Max Products Sent in 1 Hour** field, enter the maximum number of products that can be shared by a single user with friends over a one-hour time period.

f. Set **Limit Sending By** to one of the following methods to identify the sender of emails:

IP Address (Recommended) Identifies the sender by the IP address of the computer that is used to send the emails.

Cookie (unsafe) Identifies the sender by browser cookie. This method is less effective because the sender can delete the cookie to bypass the limit.

4. When complete, tap **Save Config.**
To send email to a friend:

1. On a catalog page, click the Email a Friend link. Then, do one of the following:
   - Log in to your customer account.
   - Sign up for a new account.

2. Complete the Message and enter the recipient Name and Email Address. To add more recipients, do the following:
   a. Tap Add Invitee.
   b. Enter the Name and Email Address of the additional person.

   You can send the message to as many additional people as the configuration allows.

3. When ready to send the message, tap Send Email.

---

*Email a Friend Form*
Wish Lists

A wish list is a list of products that a registered customer can share with friends, or save to transfer to the cart at a later date. When wish lists are enabled, the Add to Wishlist link appears on the category and product pages of each product in the store. Depending on the theme, it might be a text link or a graphic image.

Shared wish lists are sent from a store email address, but the body of the message contains a personalized note from the customer. You can customize the email template that is used when wish lists are shared, and choose the store contact that appears as the sender.

Wish lists can be updated from the dashboard of the customer account. Items can be added or transferred between the wish list and cart by the customer or by the store administrator.

![Wishlist in Customer Account](image)

When a product with multiple options is added to a wish list, any options that have been selected by the customer are included in the wish list item description. For example, if the customer adds the same pair of shoes, but in three different colors, each pair appears as a separate wish list item. On the other hand, if the customer adds the same product to the wish list multiple times, the product appears only once, but with an updated quantity that reflects the number of times the product was added.
Configuring Wish Lists

The configuration enables wish lists, and determines the email template and sender of email messages that are used when a wish list is shared.

**To configure the wish list:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Customers**, choose **Wish List**.
3. Expand the **General Options** section. Then, verify that **Enabled** is set to “Yes.”

   ![General Options](image)

4. Expand the **Share Options** section. Then, do the following:

   ![Share Options](image)

   a. Set **Email Sender** to the store contact that appears as the sender of the message.
   b. Set **Email Template** to the template to be used when a customer shares a wish list.
   c. To limit the number of emails a customer can send in a batch, enter the **Max Emails Allowed to be Sent**. The default value is 10, and the maximum allowed is 10,000.
   d. To limit the size of the message, enter the **Email Text Length Limit**. The default value is 255.
5. Expand the **My Wish List Link** section. Then, set **Display Wish List Summary** to one of the following:
   - Display number of items in wish list
   - Display item quantities

![My Wish List Link](image)

6. When complete, tap **Save Config**.
Sharing a Wish List

Customers can manage their wish lists from the dashboard of their accounts. Store administrators can also help customers manage their wish lists from the Admin.

To share your wish list:

1. In the panel on the left of your customer account dashboard, choose My Wish List.

2. To add a comment to a specific item, hover over the image. Then type your Comment in the box.

3. To share your wish list, do the following:
   a. Tap Share My Wish List.
   b. Enter the email address of each recipient, separated by a comma.
   c. Enter a Message for the body of the email.

4. When you’re ready to send the message, tap Share Wish List.
To transfer an item to your cart:

1. To add a single item, do the following:
   a. Hover over the item.
   b. Enter the Qty that you want to add to the cart.
   c. Tap Add to Cart.

2. To transfer all wish list items to the cart, tap Add All to Cart.
Product Relationships

Products in your catalog can be promoted on other pages by defining the nature of the relationship between the products. The options available are: Up-sell products, Related products, and Cross-sell products.

Related Products

Related products are meant to be purchased in addition to the item the customer is viewing. They complement, enhance, or add optional features to the product.

Up-sells

Up-sell products are items that are similar, but are perhaps of a higher-quality, more popular, or have a better profit margin than the item the customer is considering.

Cross-sells

Cross-sell products are offered on the shopping cart page as last-minute purchases before the checkout process begins.
Compare Products

Compare Products generates a detailed, side-by-side comparison of two or more products. Depending on the theme, the Add to Compare link might be represented by an icon or text. The Compare Products block might appear in either the left or right sidebar of a catalog page.

Unlike the Recently Viewed / Compared Products block, the Admin does not include additional configuration settings for Compare Products.

To compare products:

1. From your storefront, find the products that you want to compare, and click the Compare link for each.

2. Depending on the theme and page layout, there might be a Compare Products block in the sidebar. If so, you can mark the checkbox of the products to include in the report, and tap Compare. The Compare Products report opens in a new window.

3. To print the report, tap Print This Page.

4. After navigating to other pages, you can click the link in the header or sidebar to return to the report.

   - To remove a single product from the report, tap Delete (×).
   - To remove all products from the report, click the Clear All link.
### Compare Products

<table>
<thead>
<tr>
<th>SKU</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS04</td>
<td>When the training gets intense, the Golgi HeatTech® Tee works as hard as you do to maintain your cool. The moisture-wicking material promises drier comfort, while breathable side panels deliver extra stretch that’s sure to keep you moving.</td>
</tr>
</tbody>
</table>
|       | • Orange micropolyester shirt.  
|       | • HeatTech® wicking fabric.  
|       | • Crew neckline.  
|       | • Machine washable. |
| MS10  | Soft and lightweight, the Logan HeatTech® Tee gets you through the long haul in total comfort. It boasts superior sweat-wicking performance to keep skin dry and cool, and strategic flatlock seams to resist chafing.  |
|       | • Semi-fitted.  
|       | • Crew neckline.  
|       | • Machine wash/tumble dry. |
Recently Viewed / Compared Products

The Recently Viewed and Recently Compared blocks usually appear in the right sidebar of a catalog page. The number of products listed in each block can be configured for each website, store, or store view.

To configure Recently Viewed/Compared Products:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Recently Viewed/Compared Products section. Then, do the following:
   a. Set Show for Current to the website, store, or store view where the configuration applies.
   b. In the Default Recently Viewed Products Count field, enter the number of recently viewed products to appear in the list.
   c. In the Default Recently Compared Products Count, enter the number of recently compared products to appear in the list.
4. When complete, tap Save Config.
Product Reviews

Product reviews help to build a sense of community, and are considered more credible than any advertising money can buy. In fact, some search engines give sites with product reviews a higher ranking than those without. For those who find your site by searching for a specific product, a product review is essentially the landing page of your store. Product reviews help people find your store, keep them engaged, and often lead to sales.

The configuration determines whether customers must open an account with your store before writing product reviews, or if they can submit reviews as guests. Requiring reviewers to open an account prevents anonymous submissions, and improves the quality of reviews.

Customers can write reviews for any product in your catalog. Reviews can be written from the product page by clicking the “Add Your Review” link. For products that haven’t been reviewed, the link says, “Be the first to review this product.” The Reviews tab lists all current reviews, and the form that is used to submit a review.

The number of stars indicates the satisfaction rating. Visitors can click the link to read the reviews and write their own. As an incentive, customers can receive reward points for submitting a review. When a review is submitted, it is sent to the Admin for moderation. When approved, the review is published in your store.
To configure product reviews:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Catalog, select Catalog.
3. Expand the Product Reviews section.
4. Set Allow Guests to Write Reviews according to your preference.
5. When complete, tap Save Config.

To moderate reviews:

1. On the Admin sidebar, tap Marketing. Then under User Content, choose Reviews.
2. In the list, click a pending review to view the details, and edit if necessary.
3. To approve a pending review, change the Status from “Pending” to “Approved.” To reject a review, select “Not Approved.”
4. When complete, tap Save Review.
Product Ratings

When customers review a product, the default ratings are quality, price, and value. In addition to these, you can add your own custom ratings. The five-star ratings that appear on catalog pages are averaged for each product.

To create your own ratings:

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Ratings.
2. In the upper-right corner, tap Add New Rating.
3. In the Rating Title section, enter the **Default Value** for the new rating. If applicable, enter the translation for each store view.

![Rating Title](image)

4. In the Rating Visibility section, set **Visibility In** to the store view where the rating is to be used. (Hold down the Ctrl key to select multiple options.)

   Ratings are not visible unless assigned to a store view.

5. In the **Sort Order** field, enter a number to determine the order of this rating when listed with others.

![Rating Visibility](image)

6. When complete, tap **Save Rating**.
Promotions
Contents

In this section of the guide, you will learn how to set up product relationships, and use price rules to trigger discounts based on a variety of conditions. You can use price rules to offer customer incentives, such as to:

- Send your best customers a coupon for a discount on a specific product
- Offer free shipping for purchases over a certain amount
- Schedule a promotion for a period of time

Catalog Price Rules
Multiple SKUs
Cart Price Rules
Coupon Codes
Coupon Report
Free Shipping Promotion
Buy X Get Y Free
Discount with Minimum Purchase
CHAPTER 21:
Catalog Price Rules

Catalog price rules can be used to selectively offer products at a discounted price, based on a set of conditions. Catalog price rules do not use coupon codes, because they are triggered before a product is placed into the shopping cart.
Creating a Price Rule

Process Overview:
Step 1: Add a New Rule
Step 2: Define the Conditions
Step 3: Define the Actions
Step 4: Apply and Test the Rule

Step 1: Add a New Rule
1. On the Admin sidebar, tap Marketing. Then under Promotions, choose Catalog Price Rule.
2. In the upper-right corner, tap Add New Rule.
   The form opens to the Rule Information section, with expandable sections below for Conditions and Actions.

3. In the Rule Information section, do the following:
a. Complete the **Rule Name** and **Description** fields. These fields are for your internal reference only.

b. Select the **Websites** where the rule is to be available.

c. Set the **Status** of the price rule as needed. By default, the status is "Active."

d. Select the **Customer Groups** to which this rule applies.
   
   To choose multiple groups, hold down the Ctrl key, and click each option.

e. Enter the **From** and **To** dates to determine when the price rule is in effect. You can either enter the dates, or choose the dates from the **Calendar** (alendar).
   
   - If you leave the dates blank, the rule is enabled as soon as the price rule is saved.

f. Enter a number to establish the **Priority** of this rule in relation to other rules.

**Step 2: Define the Conditions**

Most of the available conditions are based upon existing attribute values. To apply the rule to all products, leave the conditions blank.

1. Scroll down to **Conditions**, and expand the section. The first rule begins:

   ![Conditions](image)

   **Condition - Line 1**

   The statement has two bold links, which when tapped, display the options for that part of the statement. If you save the condition without making additional selections, the rule applies to all products.

   - Tap the **ALL** link, and chose either “ALL” or “ANY.”
   - Tap the **TRUE** link, and choose either “TRUE” or “FALSE.”
   - To apply the rule to all products, leave the condition unchanged.

   You can create different conditions by changing the combination of these values. For this example, the following condition is used:

   ![If all of these conditions are true](image)

2. Tap the **Add** ( ☑️ ) button at the beginning of the next line.
a. In the list under **Product Attribute**, choose the attribute that you want to use as the basis of the condition. For this example, the condition is "Attribute Set."

![Condition Line 2, Part 1](image)

For an attribute to appear in the list, it must be configured to be used in promo rule conditions. To learn more, see: **Product Attributes**.

The selected condition appears in the statement, followed by two more bold links. The statement now says:

```
If **ALL** of these conditions are **TRUE**:  
Attribute Set **is** ...
```

b. Tap the **is** link, and choose the comparison operator that describes the condition to be met. In this example, the options are “is” and “is not.”

c. Tap the (…) “more” link, and choose the attribute set upon which the condition is based.

![Condition Line 2, Part 3](image)

The selected item appears in the statement to complete the condition.

```
If **ALL** of these conditions are **TRUE**:  
Attribute Set **is** Default
```

3. To add another line to the statement, tap the **Add** ( ) button, and choose one of the following:

- Conditions Combination
- Product Attribute

Then, repeat the process until the condition is complete.
If at any time you want to delete part of the statement, tap the **Delete** (🗑️) button at the end of the line.

**Step 3: Define the Actions**

1. **Expand the Actions section**, and do the following:

   ![Actions](image.png)

2. **Under Pricing Structure Rules**, set **Apply** to one of the following:

   - **Apply as percentage of original**
     
     Discounts item by subtracting a percentage from the original price. For example:
     
     Enter 10 in Discount Amount for an updated price that is 10% less than the original price.
   
   - **Apply as fixed amount**
     
     Discounts item by subtracting a fixed amount from original price. For example:
     
     Enter 10 in Discount Amount for an updated price that is $10 less than the original price.
   
   - **Adjust final price to this percentage**
     
     Discounts item by defining the final price based on percentage. For example:
     
     Enter 10 in Discount Amount for an updated price that is 10% of the original price.
   
   - **Adjust final price to discount value**
     
     Sets the price to a fixed amount.
3. Enter the **Discount Amount**.

4. To stop processing other rules after this rule is applied, set **Discard Subsequent Rules** to “Yes.” This safeguard prevents customers from receiving multiple discounts for the same product.

**Step 4: Apply and Test the Rule**

To apply the rule, do one of the following:

- Tap **Save and Apply**.
- Tap **Save**, then from the Catalog Price Rules page, tap **Apply Rules**.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night. As new rules are added, Magento recalculates the prices and the priorities accordingly.

**Field Descriptions**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RULE INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Rule Name</td>
<td>(Required) The name of the rule is for internal reference.</td>
</tr>
<tr>
<td>Description</td>
<td>A description of the rule should include the purpose of the rule, and explain how it is used.</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>(Required) Determines if the rule is currently active in the store. Options: Yes / No</td>
</tr>
<tr>
<td>Websites</td>
<td>(Required) Identifies the websites where the rule can be used.</td>
</tr>
<tr>
<td>Customer Groups</td>
<td>(Required) Identifies the customer groups to which the rule applies.</td>
</tr>
<tr>
<td>From</td>
<td>Specifies the first day the price rule is in effect. If left blank, the price rule goes into effect as soon as it is saved.</td>
</tr>
<tr>
<td>To</td>
<td>Specifies the last day the price rule is in effect. If left blank, the price rule continues indefinitely.</td>
</tr>
<tr>
<td>Priority</td>
<td>A number that indicates the priority of this rule in relation to others. The highest priority is number 1.</td>
</tr>
</tbody>
</table>

### CONDITIONS

Specifies the conditions that must be met before the catalog price rule goes into action. If left blank, the rule applies to all products.

### ACTIONS

<table>
<thead>
<tr>
<th>Apply</th>
<th>Determines the type of calculation that is applied to the purchase. Options:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Apply as percentage of original Applies the discount amount as a percentage of the original price.</td>
</tr>
<tr>
<td></td>
<td>Apply as fixed amount Applies the discount amount as a fixed amount less than the original price.</td>
</tr>
<tr>
<td></td>
<td>Adjust final price to this percentage Adjusts the final price by a percentage based on the discount amount.</td>
</tr>
<tr>
<td></td>
<td>Adjust final price to discount value Uses the discount amount as the product price.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discount Amount</th>
<th>(Required) The amount of discount that is offered.</th>
</tr>
</thead>
</table>

| Discard Subsequent Rules | Determines if additional rules can be applied to this purchase. To prevent multiple discounts from being applied to the same purchase, select “Yes.” Options: Yes / No |
Price Rule with Multiple SKUs

A single price rule can be applied to multiple SKUs, which makes it possible to create a variety of promotions based on a product, brand, or category.

Step 1: Verify Storefront Properties of Attribute

Before you begin, make sure that the Storefront Properties of the SKU attribute are set to "Use in Promo Rules."

1. On the Admin sidebar, tap **Stores**. Then under **Attributes**, choose **Product**.
2. In the search filter at the top of the **Attribute** Column, enter "sku." Then, tap **Search**.
3. Click to open the attribute in edit mode.
4. In the panel on the left, choose **Storefront Properties**. Then, make sure that **Use for Promo Rule Conditions** is set to "Yes,"
5. If you changed the value of the property, tap **Save Attribute**.

Step 2: Apply a Price Rule to Multiple SKUs

1. On the Admin sidebar, tap **Marketing**. Then under **Promotions**, choose **Cart Price Rules**.
2. Do one of the following:
   - Follow the instructions to create a cart price rule.
   - Open an existing cart price rule.
3. Expand the **Conditions** section, and do the following:
   a. In the first line, set the first parameter to “ANY.”

   If ANY of these conditions are TRUE

   b. Tap **Add ( )** at the beginning of the next line. Then, in the list under **Product Attribute**, choose **SKU**.

   SKU is ...
c. To complete the condition, click the (...) “more” link. Then, tap the **Chooser** button for the list of available products.

Choose Each SKU


d. In the list, mark the checkbox of each product that is to be included. Then, tap **Save and Apply** to add the SKUs to the condition.

Multiple SKUs Added to Condition

4. Complete the rule, including any **Actions** to be taken when the conditions are met.

5. When complete, tap **Save**.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night.
CHAPTER 22:
Cart Price Rules

Cart price rules apply discounts to items in the shopping cart, based on a set of conditions. The discount can be applied automatically as soon as the conditions are met, or when the customer enters a valid coupon code. When applied, the discount appears in the cart under the subtotal. A cart price rule can be used as needed for a season or promotion by changing its status and date range.
Creating a Cart Price Rule

Complete the following steps to add a new rule, describe the conditions, and define the actions. Then, complete the labels, and test the rule.

Process Overview:
Step 1: Add a New Rule
Step 2: Describe the Conditions
Step 3: Define the Actions
Step 4: Complete the Labels
Step 5: Save and Test the Rule

Step 1: Add a New Rule

1. On the Admin sidebar, tap Marketing. Then under Promotions, choose Cart Price Rules.
2. Tap Add New Rule. Then, do the following:

   ![Cart Price Rules](image-url)

   Cart Price Rules
a. Under Rule Information, complete the **Rule Name** and **Description**.

b. If you do not want the rule to go into effect immediately, set **Active** to “No.”

3. To establish the **scope** of the rule, do the following:

   a. Select the **Websites** where the promotion is to be available.

   b. Select the **Customer Groups** to which the promotion applies.

      - If you want the promotion to be available only to registered customers, do not choose the “NOT LOGGED IN” option.

4. To associate a **coupon** with the price rule, set **Coupon** to “Specific Coupon.” Then, do the following:

   a. Enter a numeric **Coupon Code** that the customer must enter to receive the discount.

   b. To set a limit on the number of times the coupon can be used, complete the following:
Uses per Coupon  Determines how many times the coupon code can be used. If there is no limit, leave the field blank.

Uses per Customer  Determines how many times the coupon code can be used by the same registered customer who belongs to any of the selected customer groups. The setting does not apply to guest shoppers who are members of the NOT LOGGED IN customer group, or to customers who shop without logging in to their accounts. If there is no limit, leave the field blank.

To learn more, see: Coupon Codes.

5. Use the Calendar (📅) to choose the From and To date range for the promotion.

6. Enter the number of Uses per Customer to limit the number of times the rule can be applied to a single, logged-in customer.

7. Enter a number to determine the Priority of this price rule in relation to the Action settings of other price rules which are active at the same time. (Number 1 has the highest priority.)

8. To apply the rule to published RSS feeds, set Public In RSS Feed to “Yes.”
Step 2: Describe the Conditions

In this step, the conditions are described that must be met for an order to qualify for the promotion. The rule goes into action whenever the set of conditions is met.

1. In the panel on the left, select Conditions. The first rule appears by default, and states:

   **If ALL of these conditions are TRUE:**

   The statement has two bold links which when tapped, display the selection of options for that part of the statement. You can create different conditions by changing the combination of these values. Do any of the following:
   - Click the ALL link, and select “ALL” or “ANY.”
   - Click the TRUE link and select “TRUE” or “FALSE.”
   - Leave the condition unchanged to apply the rule to all products.

2. Click Add ( ) at the beginning of the next line. For this example, complete the next part of the condition as follows:
   a. When prompted to Choose the condition to add, choose "Products Subselection."

   **Products Subselection**

   b. When the next part of the condition appears, mouse over the line so you can see where each link with variable values is located.
If ALL of thes conditions are TRUE

c. Click the "more" (...) link, and enter ">100." This condition requires the total quantity of the cart to be greater than 100.

Total Quantity Value

3. Click Add ( ) at the beginning of the next line. Then add a condition that is based on Category.

Category

a. In the next part of the condition, click the "more" (...) link to display the input field. Then, open the Chooser ( ) to display the category tree.

b. Mark the checkbox of the category that you want to use as a condition for the price rule. The condition can be based on any category that is a child of the store's root category.
4. To add more conditions, click **Add** (⊕) and define another condition.

You can repeat the process as many times as needed to describe the conditions that must be met for the price rule. Here are some examples:

**Example 1: Regional Price Rule**

To create a regional price rule, use one of the following cart attributes:

- Shipping Postcode
- Shipping Region
- Shipping State/Province
- Shipping Country

**Example 2: Shopping Cart Totals**

To base the condition on shopping cart totals, use one of the following cart attributes:

- Subtotal
- Total Items Quantity
- Total Weight

**Step 3: Define the Actions**

The shopping cart price rule actions describe how prices are updated when the conditions are met.
1. Scroll down to **Actions**, and expand the section. Then, do the following:

   ![Cart Price Rule Actions](image)

   **Cart Price Rule Actions**

   a. Set **Apply** to one of the following discount options:

      - **Percent of product price discount**: Discounts item by subtracting a percentage from the original price. The discount applies to each qualifying item in the cart. For example: Enter 10 in Discount Amount for an updated price that is 10% less than the original price.
      - **Fixed amount discount**: Discounts item by subtracting a fixed amount from original price. The discount applies to each qualifying item in the cart. For example: Enter 10 in Discount Amount for an updated price that is $10 less than the original price.
      - **Fixed amount discount for whole cart**: Discounts the entire cart by subtracting a percentage from the cart total. For example: Enter 10 in Discount Amount to subtract 10% from the cart total.
      - **Buy X get Y free**: Defines a quantity that the customer must purchase to receive a quantity for free. (The Discount Amount is Y.)

   b. Enter the **Discount Amount** as a number, without symbols. For example, depending on the discount option selected, the number 10 might indicate a percentage, a fixed amount, or a quantity of items.

   c. For a "Buy X get Y Free" discount, enter the quantity in the **Discount Qty Step (Buy X)** field that the customer must purchase to receive the discount.

   d. In the **Maximum Qty Discount is Applied To** field, enter the maximum quantity of the same product that can qualify for the discount in the same purchase.

   e. Set **Apply to Shipping Amount** as follows:
Yes                Applies the discount amount to the subtotal and shopping amounts separately.

No                  Applies the discount amount only to the subtotal.

f. To stop processing other rules after this rule is applied, set Discard Subsequent Rules ( ) to “Yes.” This safeguard prevents customers from receiving multiple discounts for the same product.

g. To determine if free shipping is applied to orders that meet the conditions, set Free Shipping to one of the following:

   No                   Free shipping is not available.
   For matching items only          Free shipping is available only for items that match the conditions of the rule.
   For shipment with matching items     Free shipping is available for any shipment that includes matching item(s).

h. In the Add Rewards Points field, enter the number of points the customer earns whenever the cart price rule is applied. (If reward points aren’t enabled, leave this field blank.)

2. Define as many additional conditions as needed for the action.

3. When complete, tap Save and Continue Edit.

Step 4: Complete the Labels

The label appears in the totals section of the order to identify the discount. The label text is enclosed in parentheses, after the word, “Discount”. You can enter a default label for all store views, or enter a different label for each view.

Discount Label in Totals Section of Order

1. Scroll down to Labels, and expand the section.

2. Enter the text that you want used as the Default Rule Label for All Store Views.
3. If your store has multiple views, or multiple websites with multiple views, enter the appropriate label text for each. For example, if each store view is in a different language, enter the translation of the label for each view.

![Store View Specific Labels](image)

**Step 5: Save and Test the Rule**

1. When complete, tap **Save Rule**.

2. Test the rule to make sure that it works correctly.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night. As new rules are added, Magento recalculates the prices and the priorities accordingly.

**Field Descriptions**

<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>RULE INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Rule Name</td>
<td>(Required) The name of the rule is for internal reference.</td>
</tr>
<tr>
<td>Description</td>
<td>A description of the rule should include the purpose of the rule, and explain how it is used.</td>
</tr>
<tr>
<td>Active</td>
<td>(Required) Determines if the rule is currently active in the store. Options: Yes / No</td>
</tr>
<tr>
<td>Websites</td>
<td>(Required) Identifies the websites where the rule can be used.</td>
</tr>
<tr>
<td>Customer Groups</td>
<td>(Required) Identifies the customer groups to which the rule applies.</td>
</tr>
<tr>
<td>Coupon</td>
<td>(Required) Indicates if a coupon is associated with the rule. Options: No Coupon, Specific Coupon</td>
</tr>
<tr>
<td></td>
<td>No coupon is associated with the rule.</td>
</tr>
<tr>
<td></td>
<td>A specific coupon is associated with the rule.</td>
</tr>
<tr>
<td>FIELD</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Coupon Code</td>
<td>When prompted, enter the Coupon Code that the customer must enter to take advantage of the promotion.</td>
</tr>
<tr>
<td>Use Auto Generation</td>
<td>Select the checkbox to automatically generate multiple coupon codes that can be used with the promotion.</td>
</tr>
<tr>
<td>Auto</td>
<td>Displays the Coupons Information section to define the format of the coupon codes to be generated.</td>
</tr>
<tr>
<td>Uses per Customer</td>
<td>Determines the number of times the coupon code can be used by a single, logged-in customer.</td>
</tr>
<tr>
<td>Uses per Customer</td>
<td>Determines how many times the coupon code can be used by the same registered customer who belongs to any selected customer group. Does not apply to guest shoppers who are members of the NOT LOGGED IN customer group, or to customers who shop without logging into their accounts. For no limit, leave blank.</td>
</tr>
<tr>
<td>From</td>
<td>The first date the coupon can be used.</td>
</tr>
<tr>
<td>To</td>
<td>The last date the coupon can be used.</td>
</tr>
<tr>
<td>Priority</td>
<td>A number that indicates the priority of this rule in relation to others. The highest priority is number 1.</td>
</tr>
<tr>
<td>Public in RSS Feed</td>
<td>Determines if the promotion is included in your store's public RSS feed. Options: Yes / No.</td>
</tr>
</tbody>
</table>

**CONDITIONS**

Specifies the conditions that must be met before the cart price rule goes into action. If left blank, the rule applies to all products in the cart.

**ACTIONS**

Field Descriptions (cont.)
## Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| **Apply** | Determines the type of calculation that is applied to the purchase. Options:  
- Percent of product price discount: Discounts item by subtracting a percentage from the original price. For example: Enter 10 in Discount Amount for an updated price that is 10% less than the original price.  
- Fixed amount discount: Discounts item by subtracting a fixed amount from original price. For example: Enter 10 in Discount Amount for an updated price that is $10 less than the original price.  
- Fixed amount discount for whole cart: Discounts the entire cart by subtracting a fixed amount from the cart total. For example: Enter 10 in Discount Amount to subtract $10 from the cart total.  
- Buy X Get Y Free (discount amount is Y): Defines a quantity that the customer must purchase to receive a quantity for free. (The Discount Amount is Y.) |

| Discount Amount | (Required) The amount of discount that is offered. |
| Maximum Qty Discount is Applied To | Sets the maximum number of products that the discount can be applied to in the same purchase. |
| Discount Qty Step (Buy X) | Sets the number of products represented by “X” in a “Buy X Get Y Free” promotion. |
| Apply to Shipping Amount | Determines if the discount can be applied to the cost of shipping. Options: Yes / No. |
| Discard Subsequent Rules | Determines if additional rules can be applied to this purchase. To prevent multiple discounts from being applied to the same purchase, select “Yes.” Options: Yes / No. |
| Free Shipping | Determines if free shipping is included in the promotion, and if so, for which items. Options: |
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Free shipping is not available when a coupon that is based on the rule is used.</td>
</tr>
<tr>
<td>For matching items only</td>
<td>Free shipping is available only for specific items in the cart that match the rule.</td>
</tr>
<tr>
<td>For shipment with matching items</td>
<td>Free shipping is available for the entire cart when a coupon that is based on the rule is used.</td>
</tr>
</tbody>
</table>

### LABELS

<table>
<thead>
<tr>
<th>LABELS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Rule Label for All Store Views</td>
<td>A default label that identifies the discount and can be used for all store views.</td>
</tr>
<tr>
<td>Store View Specific Labels</td>
<td>If applicable, specifies a different label to identify the discount for each store view.</td>
</tr>
</tbody>
</table>
Coupon Codes

Coupons codes are used with cart price rules to apply a discount when a set of conditions is met. For example, a coupon code can be created for a specific customer group, or for anyone who makes a purchase over a certain amount. To apply the coupon to a purchase, the customer can enter the coupon code in the cart, or possibly at the cash register of your “brick and mortar” store. Here are a few ways that you can use coupons in your store:

- Email coupons to customers
- Produce printed coupons
- Create in-store coupons for mobile users

Coupon codes can be sent by email, or included in newsletters, catalogs, and advertisements. The list of coupon codes can be exported and sent to a commercial printer. You can also create in-store coupons with a quick response code that shoppers can scan with their smart phones. The QR code can link to a page on your site with more information about the promotion.

Method 1: Create a Specific Coupon

1. Follow the instructions to create a cart price rule.
2. On the General Information page, set Coupon to “Specific Coupon.”
   a. Enter a Coupon Code to be used with the promotion.
      The format of the code as numeric, alphanumeric or alphabetical is determined by the configuration.
   b. To limit the number of times the coupon can be used, complete the following:
      - Uses per Coupon
      - Uses per Customer
      For unlimited use, leave these fields blank.

   ![Coupon Information]
   c. To make the coupon valid for a limited period of time, complete the From and To dates.
      To select the date, tap the Calendar (📅) button next to each field. If you leave the date range empty, the rule will never expire.
3. Complete the cart price rule as needed.

### Method 2: Generate a Batch of Coupons

1. Follow the instructions to create a cart price rule.
2. Under **Coupon Code**, mark the **Use Auto Generation** checkbox.
3. To limit the number of times each customer can use the coupon, enter the number of **Uses per Customer**.

![Generating Auto-numbered Coupons](image)

4. Scroll down and expand **Generate Auto-numbered Coupons**. Then, do the following:
   a. In the **Coupons Qty** field, enter the number of coupons that you want to generate.
   b. Enter the **Code Length**, not including the prefix, suffix, or separators.
   c. Set the **Code Format** to one of the following:
      - Alphanumeric
      - Alphabetical
      - Numeric
   d. (Optional) Enter a **Code Prefix** to be added to the beginning of the code.
   e. (Optional) Enter a **Code Suffix** to be added to the end of the code.
   f. (Optional) In the **Dash Every X Characters** field, enter the number of characters between each dash. For example, if the code is twelve characters long, and there is a dash every four characters, it will look like this: xxxx-xxxx-xxxx. Dashes make codes easier to read and enter.

5. When complete, tap **Generate**. The list of generated codes appears below.

![Generated Codes](image)
Configuring Coupon Codes

The length and format of automatically generated coupon codes is controlled by the configuration. The characters can be set to all numbers, all letters, or a combination. You can insert a dash at set intervals to make it easy to read, and add a .prefix and suffix to associate the code with a specific campaign or initiative.

To format coupon codes:
1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Customers, choose Promotions.
3. In the Auto Generated Specific Coupon Codes section, do the following:
   a. Enter the Code Length, including prefix, suffix, and separators.
   b. Set the Code Format to one of the following:
      - Alphanumeric
      - Alphabetical
      - Numeric
   c. To add a Code Prefix, enter the value that you want to appear at the beginning of all coupon codes.
   d. To add a Code Suffix, enter the value that you want to appear at the end of all coupon codes.
   e. To insert a Dash Every X Characters, enter the number of characters between each dash. Coupon codes with different dash patterns are considered to be different codes, even if the numbers are the same.
4. When complete, tap Save Config.
Coupons Report

The Coupons Report can be filtered for a specific store view, time period, order status, and price rule.

To run the report:

1. On the Admin sidebar, tap Reports. Then under Sales choose Coupons.

2. If you have multiple store views, set Store View in the upper-left corner to establish the scope of the report.

3. To refresh the sales statistics for the day, click the message at the top of the workspace.

4. To filter the data, do the following:
   a. Set Date Used to one of the following:
      - Order Created
      - Order Updated
      
      The Order Updated report is created in real-time, and does not require a refresh.
   b. To define the period of time covered by the report, set Period to one of the following:
      - Day
      - Month
      - Year
c. Enter the From and To dates in M/D/YY format to define the date range of the report.

d. To print a report for a specific order status, set Order Status to “Specified,” Then, choose the order status from the list.

e. Set omit rows without data from the report, set Empty Rows to “No.”

f. Do one of the following:
   - To include all coupon activity from all price rules, set Cart Price Rule to “Any.”
   - To include only activity that is related to a specific price rule, set Cart Price Rule to “Specified,” Then, select the specific cart price rule in the list.

5. When ready to run the report, tap Show Report. The report appears at the bottom of the page.

Free Shipping Promotion

Free shipping can be offered as a promotion, either with, or without a coupon. A free shipping coupon, or voucher, can also be applied to customer pick-up orders, so the order can be invoiced and “shipped” to complete the workflow.

Some shipping carrier configurations give you the ability of offer free shipping based on a minimum order. To expand upon this basic capability, you can use shopping cart price rules to create complex conditions based on multiple product attributes, cart contents, and customer groups.

Process Overview:
Step 1: Enable Free Shipping
Step 2: Create a Cart Price Rule
Step 3: Complete the Labels
Step 4: Save and Test the Rule

Step 1: Enable Free Shipping

1. Enable Free Shipping in your store’s configuration.

2. Complete the free shipping settings for any carrier service that you want to use for free shipping.
Step 2: Create a Cart Price Rule

1. On the Admin sidebar, tap Marketing. Then under Promotions, choose Cart Price Rules.
2. Follow the steps below to set up the type of free shipping promotion that you want to offer.

Example 1: Free Shipping for Any Order

1. Complete the Rule Information as follows:
   a. Enter a Rule Name for internal reference.
   b. Enter a brief Description to describe the rule.
   c. Set Active to “Yes.”
   d. In the Websites box, select each site where the free shipping coupon is to be available.
   e. Select the Customer Groups to which the rule applies.
   f. Set Coupon to one of the following:
      - To offer a free shipping promotion without a coupon, accept the default, “No Coupon” setting.
      - To use a coupon with the price rule, select “Specific Coupon.” If necessary, complete the instructions to set up a coupon.
2. Scroll down and expand the Actions section. Then, do the following:
   a. Set Apply to “Percent of product price discount.”
   b. Set Apply to Shipping Amount to “Yes.”
   c. Set Free Shipping to “For shipment with matching items.”

Price Rule Action
Example 2: **Free Shipping for Orders Over $Amount**

1. Complete the **General Information** settings as described in the previous example.
2. Scroll down and expand the **Conditions** section.
3. Tap **Add ( )** to insert a condition. Then, do the following:
   a. In the list under **Cart Attribute**, choose **Subtotal**.
   b. Click the **is** link, and choose “equals or greater than.”
   c. Click the (…) “more” link, and enter a threshold value for the Subtotal, such as 100, to complete the condition.

4. If necessary, expand the **Actions** section. Then do the following:
   a. Set **Apply** to “Percent of product price discount.”
   b. Set **Apply to Shipping Amount** to “Yes.”
   c. Set **Free Shipping** to “For shipment with matching items.”
Step 3: **Complete the Labels**

Complete Step 4 of the cart price rule instructions to enter any labels that appear during checkout.

Step 4: **Save and Test the Rule**

1. When complete, tap **Save Rule**.
2. Test the rule to make sure that it works correctly.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night.
Buy X Get Y Free

This example shows how to set up a cart price rule for a “Buy X, Get Y Free” promotion. The format of the discount is as follows:

Buy X quantity of product, get Y quantity for free.

Process Overview:
Step 1: Create a Cart Price Rule
Step 2: Define the Conditions
Step 3: Define the Actions
Step 4: Complete the Label
Step 5: Save and Test the Rule

Step 1: Create a Cart Price Rule

Complete Step 1 of the cart price rule instructions to complete the rule information.

Step 2: Define the Conditions

Complete Step 2 of the cart instructions to define the conditions for the price rule. The conditions can be triggered by purchasing a specific product, making a purchase of a certain amount, or any other scenario.

Step 3: Define the Actions

1. Expand the Actions section, and do the following:
   a. Set Apply to “Buy X get Y free (discount amount is Y).”
   b. Set Discount Amount to 1. This is the quantity the customer will receive for free.
   c. To limit the number of discounts that can be applied when the condition is met, enter the number in the Maximum Qty Discount is Applied To field. For example, enter “1” to discount only one item.
   d. In the Discount Qty Step (Buy X) field, enter the quantity that the customer must purchase to qualify for the discount. In this example, the customer must purchase two.
   e. To prevent other discounts from being applied to the purchase, set Discard subsequent rules to "Yes."
2. Tap **Save and Continue Edit**. Then, complete the rest of the rule as needed.

**Step 4: Complete the Label**

Complete **Step 4** of the cart price rule instructions to enter the label that appears during checkout.

**Step 5: Save and Test the Rule**

1. When complete, tap **Save Rule**.

2. Test the rule to make sure that it works correctly.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night.
Discount with Minimum Purchase

Cart price rules can be used to offer a percentage discount based on a minimum purchase. In the following example, a 25% discount is applied to all purchases over $200.00 in a specific category. The format of the discount is as follows:

\[ X\% \text{ off all } Y \text{ (category) over } Z \text{ dollars} \]

Process Overview:

Step 1: Create a Shopping Cart Rule
Step 2: Define the Conditions
Step 3: Define the Actions
Step 4: Apply the Labels
Step 5: Save and Test the Rule

Step 1: Create a Shopping Cart Rule

Follow the basic instructions to create a cart rule.

Step 2: Define the Conditions

1. Scroll down and expand the Conditions section.
2. Tap Add ( ), and choose Product Attribute Combination.
3. Tap Add ( ) at the beginning of the next line. Then in the list under Product Attribute, choose Category.
a. Click the (…) “more” link to display additional options.

b. Tap the **Chooser** ( ) button to see the available categories. In the category tree, mark the checkbox of each category that you want to include. Then, press **Enter** to add the categories to the condition.

4. Tap **Add** ( ) at the beginning of the next line, and do the following:

   a. In the list under **Cart Item Attribute**, choose **Price in cart**.

   a. Click the **is** link, and choose “equals or greater than.”

   b. Click the (…) “more” link and enter the amount that the Price in Cart must be to meet the condition. For example, enter 200.
5. Tap **Save and Continue Edit**.

**Step 3: Define the Actions**

1. Expand the **Actions** section, and do the following:

   ![Actions Image]

   **Actions**

   a. Set **Apply** to “Percent of product price discount.”

   b. Enter the **Discount Amount**. For example, enter 25 for a twenty-five percent discount.

   c. To prevent additional promotions from being applied to the purchase, set **Discard subsequent rules** to “Yes.”

2. Tap **Save and Continue Edit**. Then, complete the rule as needed.
Step 4: **Complete the Labels**

Complete Step 4 of the cart price rule instructions to enter any labels that appear during checkout.

Step 5: **Save and Test the Rule**

1. When complete, tap [Save Rule].
2. Test the rule to make sure that it works correctly.

When you create a new price rule, it might take an hour or so to become available. Make sure to allow enough time for it to get into the system. Then, test the rule to make sure that it works correctly. Unless otherwise specified, price rules are automatically processed with other system rules each night.
Communications
In this section of the guide, you will learn how to customize email and newsletter templates, as well as PDF invoices and packing slips. You will also learn how to personalize the content with variables and markup tags.
CHAPTER 23:

Email

Email templates define the layout, content, and formatting of automated messages sent from your store. They are called transactional emails\(^1\) because each one is associated with a specific type of transaction, or event.

Magento includes a set of responsive email templates that are triggered by a variety of events that take place during the operation of your store. Each template is optimized for any screen size, and can be viewed from the desktop, as well as on tablets and mobile devices. You will find a variety of prepared email templates related to customer activities, sales, product alerts, admin actions, and system messages that you can customize to reflect your brand.

\(^1\)An automated email message that is sent in response to a specific event or transaction.
## Supported Email Clients

A wide range of technologies is supported by the various email clients and services available today. Although there is some variation in the way email messages are rendered, we have found the following services to be compatible with Magento Commerce.

### Desktop Clients

<table>
<thead>
<tr>
<th>OPERATING SYSTEM</th>
<th>CLIENTS SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS X 10.8</td>
<td>Apple Mail 6</td>
</tr>
<tr>
<td>OS X 10.7</td>
<td>Outlook 2011</td>
</tr>
<tr>
<td></td>
<td>Outlook 2013</td>
</tr>
<tr>
<td>Windows 8</td>
<td>Outlook 2010</td>
</tr>
<tr>
<td>Windows 7</td>
<td>Outlook 2007</td>
</tr>
<tr>
<td></td>
<td>Outlook 2003</td>
</tr>
</tbody>
</table>

### Mobile Clients

<table>
<thead>
<tr>
<th>OPERATING SYSTEM</th>
<th>CLIENTS SUPPORTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android 4.2, “Jelly Bean”</td>
<td>Native email app</td>
</tr>
<tr>
<td>Android 2.3, “Gingerbread”</td>
<td>Native email app</td>
</tr>
<tr>
<td>Gmail App (Android 4.2)</td>
<td>Native email app</td>
</tr>
<tr>
<td>Blackberry 5 OS</td>
<td>Native email app</td>
</tr>
<tr>
<td>IOS 8</td>
<td>iPhone 6</td>
</tr>
<tr>
<td></td>
<td>iPhone 6 Plus</td>
</tr>
<tr>
<td>IOS 7</td>
<td>iPad (Retina)</td>
</tr>
<tr>
<td></td>
<td>iPad Mini</td>
</tr>
<tr>
<td></td>
<td>iPhone 5s</td>
</tr>
<tr>
<td></td>
<td>Mail on these devices:</td>
</tr>
<tr>
<td>IOS 6</td>
<td>iPhone 5</td>
</tr>
<tr>
<td></td>
<td>iPhone 4s</td>
</tr>
</tbody>
</table>
### Web Clients

<table>
<thead>
<tr>
<th>EMAIL APPLICATION</th>
<th>BROWSERS SUPPORTED*</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOL Mail</td>
<td>Chrome</td>
</tr>
<tr>
<td></td>
<td>Internet Explorer</td>
</tr>
<tr>
<td></td>
<td>Firefox</td>
</tr>
<tr>
<td>Gmail</td>
<td>Chrome</td>
</tr>
<tr>
<td></td>
<td>Internet Explorer</td>
</tr>
<tr>
<td></td>
<td>Firefox</td>
</tr>
<tr>
<td>Yahoo! Mail</td>
<td>Chrome</td>
</tr>
<tr>
<td></td>
<td>Internet Explorer</td>
</tr>
<tr>
<td></td>
<td>Firefox</td>
</tr>
<tr>
<td>Outlook.com</td>
<td>Chrome</td>
</tr>
<tr>
<td></td>
<td>Internet Explorer</td>
</tr>
</tbody>
</table>

* The latest version of each browser was used for testing.
Preparing Your Email Logo

Logos can be saved as any of the following file types. Logos with transparent backgrounds can be saved as either .GIF or .PNG files.

- JPG/JPEG
- GIF
- PNG

To ensure that your logo renders well on high-resolution devices, the uploaded image should be three times the size of the dimensions that are specified in the header template. Typically, original logo artwork is created as a vector image, so it can be scaled up without losing resolution. The image can then be saved in one of the supported bitmap image formats.

To take advantage of the limited vertical space in the header, make sure to crop the image to eliminate any wasted space at the top or bottom. When editing the image, be careful to preserve the aspect ratio\(^1\) of the logo, so the height and width resize proportionally.

As a general rule, you can make an image smaller than the original, but not larger without losing resolution. Taking a small image and scaling it up in a photo editor lowers the resolution of the image. For example, if the display dimensions of the logo are 168 pixels wide by 48 pixels high in the header template, the uploaded image should be 504 pixels wide by 144 pixels high.

<table>
<thead>
<tr>
<th>LOGO DIMENSIONS</th>
<th>1 X (DISPLAY SIZE)</th>
<th>3 X (IMAGE SIZE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width:</td>
<td>168 px</td>
<td>504 px</td>
</tr>
<tr>
<td>Height:</td>
<td>48 px</td>
<td>144 px</td>
</tr>
</tbody>
</table>

\(^1\)The proportional relationship between the width and height of an image.
Configuring Email Templates

The configuration determines the logo, as well as the header and footer templates that are used for all transactional email messages that are sent from your store.

Process Overview:
Step 1: Upload Your Logo
Step 2: Select the Header and Footer Templates
Step 1: Upload Your Logo

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.

2. Find the store view that you want to configure. Then in the Action column, click Edit.

3. Under Other Settings, expand the Transactional Emails section. Then, do the following:
   a. To upload your prepared Logo Image, tap Upload. Find the file on your computer, and select the file.
   b. In the Logo Image Alt field, enter alternate text to identify the image.
   c. Enter the Logo Width and Logo Height in pixels. Enter each value as a number, without the “px” abbreviation. These values refer to the display dimensions of the logo in the header, and not to the actual size of the image.

Step 2: Choose the Header and Footer Templates

If you have custom header and footer templates for your store, or for different stores, you can specify which templates are used for each, according to the scope of the configuration.

1. Choose the Header Template to be used for all transactional email messages.

2. Choose the Footer Template to be used for all transactional email messages.

3. When complete, tap Save Config.
Sales Email

A number of email messages are triggered by the events related to an order, and the configuration is similar. You must identify the store contact that appears as the sender of the message, the email template to be used, and anyone else who is to receive a copy of the message. Sales emails can be sent when triggered by an event, or by predetermined interval.

**Sales Emails**

**Step 1: Update the Email Templates**

Make sure that you have updated each email template to reflect your brand. For a complete list of templates, see: Email Template List.

**Step 2: Choose the Type of Transmission**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Sales Emails**.
3. Expand the **General Settings** section. Then, set **Asynchronous Sending** to one of the following:
   
   **Disable**  
   Sends sales email when triggered by an event.
   
   **Enable**  
   Sends sales email at predetermined, regular intervals.
Step 3: Complete the Details for Each Sales Email Message

4. Expand the Order section. Then, do the following:

a. Verify that Enabled is set to “Yes.”

b. Set New Order Confirmation Email to the store contact that appears as the sender of the message.

c. Set New Order Confirmation Template to the template that is used for the email that is sent to registered customers.

d. Set New Order Confirmation Template for Guest to the template that is used for the email that is sent to guests who do not have an account with your store.

e. In the Send Order Email Copy To field, enter the email address of anyone who is to receive a copy of the new order email. If sending a copy to multiple recipients, separate each address with a comma.

f. Set Send Order Email Copy Method to one of the following:

   - Bcc: Sends a “blind courtesy copy” by including the recipient in the header of the same email that is sent to the customer. The BCC recipient is not visible to the customer.
   - Separate Email: Sends the copy as a separate email.
5. Expand ☑ the Order Comments section, and repeat these steps.

6. Complete the configuration for the remaining sales emails:
   - Invoice
   - Shipment
   - Credit Memo

7. When complete, tap Save Config.
Payment Failed Email

A notification is sent to the customer if the payment method that is chosen during checkout fails to complete the transaction.

Step 1: Update the Email Templates

Make sure that you have updated each email template to reflect your brand. For a complete list of templates, see: Email Template List.

Step 2: Configure the Payment Failed Emails

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Payment Failed Emails section. Then, do the following:
   a. Set Payment Failed Email Sender to the store contact that appears as the sender of the message.
   b. Set Payment Failed Email Receiver to the store contact that is to receive notification of failed email transmissions.
   c. Set Payment Failed Template to the template that is used for the email that is sent when the payment method fails during checkout.
   d. In the Send Payment Failed Email Copy To field, enter the email address of anyone who is to receive a copy of the payment failed notification. If sending a copy to multiple recipients, separate each address with a comma.
e. Send **Payment Failed Copy Method** to one of the following:

   **Bcc** Sends a “blind courtesy copy” by including the recipient in the header of the same email that is sent to the customer. The BCC recipient is not visible to the customer.

   **Separate Email** Sends the copy as a separate email.

4. When complete, tap **Save Config**.

**Admin User Email**

The Admin email template configuration determines the email templates that are sent when users forget and reset their passwords, the store contact that appears as the sender of the message, and how long the password recovery link remains valid.

![Admin User Emails](image)

**To configure the Admin email templates:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left under **Advanced**, choose **Admin**.

3. Expand the **Admin User Emails** section. Then, do the following:

   a. Set **Forgot Password Email Template** to the template that is sent when Admin users forget their passwords.

   b. Set **Forgot and Reset Email Sender** to the store contact that appears as the sender of the message.

   c. Set **User Notification Template** to the email template that is used as the default for admin notifications.

4. When complete, tap **Save Config**.
Customizing Email Templates

Magento includes a default email template for the body section of each message that is sent by the system. The template for the body content is combined with the header and footer templates to create the complete message. The content is formatted with HTML and CSS, and can be easily edited, and customized by adding variables and frontend apps. Email templates can be customized for each website, store, or store view. Make sure to update the system configuration after creating a customized template, so the custom template is used instead of the default.

The default templates include your logo and store information, and can be used without further customization. However as a best practice, you should view each template, and make any necessary changes before they are sent to customers.

![Preview of Welcome Template](image)

*Preview of Welcome Template*
Header Template

The email header template includes your logo that is linked to your store. In addition, you can easily insert variables to add store contact information to the header.

**Email Templates**

**Process Overview:**

Step 1: Load the Template  
Step 2: Customize and Preview the Template  
Step 3: Update the Configuration

**Step 1: Load the Default Template**

1. On the Admin sidebar, tap **Marketing**, then under **Communications**, choose **Email Templates**.
2. Tap **Add New Template**. Then, do the following:
   
a. Under **Load default template**, in the **Template** list under **Magento_Email**, choose “Header.”
b. Tap **Load Template**.

The HTML code and variables from the template appear in the form.

**Step 2: Customize the Template**

1. Under **Template Information**, do the following:
   a. Enter the **Template Name** for your custom header.
   b. Enter a **Template Subject** to help organize the templates. In the grid, the list of templates can be sorted and filtered by the Subject column.

![Header Template Information]

   **Header Template Information**

   c. In the **Template Content** box, modify the HTML as needed.

     When working in the template code, be careful not to overwrite anything that is enclosed in double braces.

   d. To insert a variable, position the cursor in the code where you want the variable to appear, and tap **Insert Variable**. Then, choose the variable that you want to insert.

     When a variable is selected, a markup tag for the variable is inserted in the code.
Although the Store Contact variables are the ones most often included in the header, you can enter the code for any system or custom variable directly into the template.

e. If you need to make any CSS declarations, enter the styles in the Template Styles box.

2. When you are ready to review your work, tap Preview Template. Then, make adjustments to the template as needed.

3. When complete, tap Save Template.

Your custom header now appears in the list of available Email templates.

Step 3: Update the Configuration

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.

2. In the grid, find the store view that you want to configure. Then in the Action column, click Edit.

3. Scroll down and expand the Transactional Emails section.

4. Choose the Header Template that is used as the default for email notifications.

5. When complete, tap Save Config.
### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOAD DEFAULT TEMPLATE</strong></td>
<td></td>
</tr>
<tr>
<td>Template</td>
<td>Lists the selection of available templates, and identifies the template to be customized.</td>
</tr>
<tr>
<td><strong>TEMPLATE INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Template Name</td>
<td>The name of your custom template.</td>
</tr>
<tr>
<td>Insert Variable</td>
<td>Inserts a Store Contact Information variable into the template at the cursor location.</td>
</tr>
<tr>
<td>Template Subject</td>
<td>The Template Subject appears in the Subject column, and can be used to sort and filter the templates in the list.</td>
</tr>
<tr>
<td>Template Content</td>
<td>The content of the template in HTML.</td>
</tr>
<tr>
<td>Template Styles</td>
<td>Any CSS style declarations that are needed to format the template header can be entered in the Template Styles box.</td>
</tr>
</tbody>
</table>
Footer Template

The email template footer contains the closing and signature line of the email message. You can change the closing to fit your style, and add additional information, such as the company name and address below your name.

Process Overview:
Step 1: Load the Default Template
Step 2: Customize and Preview the Template
Step 3: Update the Configuration

Step 1: Load the Default Template

1. On the Admin sidebar, tap Marketing. Then under Communications, choose Email Templates.
2. Tap Add New Template. Then, do the following:
   a. Under Load default template, in the Template list under Magento_Email, choose “Footer.”
   b. Tap Load Template.

Step 2: Customize and Preview the Template

1. Enter the Template Name for your custom footer.
2. Enter a Template Subject to help organize the templates. In the grid, the templates can be sorted and filtered by the Subject column.
3. In the **Template Content** box, modify the HTML as needed.

When working in the template code, be careful not to overwrite anything that is enclosed in double braces.

4. To insert a variable, position the cursor in the code where you want the variable to appear, and tap **Insert Variable**. Then, choose the variable that you want to insert.

When a variable is selected, a markup tag for the variable is inserted in the code.

5. If you need to make any CSS declarations, enter the styles in the **Template Styles** box.
Step 3: Update the Configuration

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.

2. In the grid, find the store view that you want to configure. Then in the Action column, click Edit.

3. Scroll down and expand the Transactional Emails section.

4. Choose the Footer Template that is used as the default for email notifications.

5. When complete, tap Save Config.

### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD DEFAULT TEMPLATE</td>
<td></td>
</tr>
<tr>
<td>Template</td>
<td>Lists the selection of available templates, and identifies the template to be customized.</td>
</tr>
<tr>
<td>TEMPLATE INFORMATION</td>
<td></td>
</tr>
<tr>
<td>Template Name</td>
<td>The name of your custom template.</td>
</tr>
<tr>
<td>Insert Variable</td>
<td>Inserts a Store Contact Information variable into the template at the cursor location.</td>
</tr>
<tr>
<td>Template Subject</td>
<td>The Template Subject appears in the Subject column, and can be used to sort and filter the templates in the list.</td>
</tr>
<tr>
<td>Template Content</td>
<td>The content of the template in HTML.</td>
</tr>
</tbody>
</table>

Transactionals Emails
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template Styles</td>
<td>Any CSS style declarations that are needed to format the template footer can be entered in the Template Styles box.</td>
</tr>
</tbody>
</table>
Message Templates

The process of customizing the body of each message is the same as the customizing the header or footer. The only difference is that there is a different message template for each activity or event that triggers a notification. You can use the templates as they are, or customize them to match your voice and brand. In addition to the template text, there’s a wide selection of variables that can be incorporated into the template.

**Process Overview:**

1. **Step 1: Load the Default Template**
   - On the Admin sidebar, tap **Marketing**. Then under **Communications**, choose **Email Templates**.
   - Tap **Add New Template**. Then, do the following:
     - Under **Load default template**, in the **Template** list, choose the template that you want to customize.
     - Tap **Load Template**.

2. **Step 2: Customize the Template**
   - In the **Template Name** field, enter a name for your custom template.
   - By default, the **Template Subject** contains the first line of the message, which is the salutation. You can leave it as is, or enter something more descriptive.
   - Take note of the **Currently Used For** path to the template configuration. You will later follow this path to update the configuration.
4. In the Template Content box, modify the HTML as needed. The content consists of a combination of HTML tags, CSS directives, variables, and text.

When working in the template code, be careful not to accidentally type over the code that is enclosed in double braces.

Template Message Content

5. To insert a variable, position the cursor in the code where you want the variable to appear, and tap Insert Variable. Then, choose the variable that you want to insert.

When a variable is selected, a markup tag for the variable is inserted in the code.

Insert Variable

In addition to the Store Contact variables, the list includes the Customer Account URL, Customer Email, and Customer Name. However, you are not limited to the variables in this list. You can enter the code for any system or custom variable directly into the template.

6. If you need to make any CSS declarations, enter the styles in the Template Styles box.
Step 3: Update the Configuration

1. In the breadcrumb trail at the top of the Template Information section, find the following information, as it relates to your template. In this example the template configuration is located on the Customer Configuration page, in the Create New Account Options section, and in the Default Welcome Email field.

   Page: Customer Configuration
   Section: Create New Account Options
   Field: Default Welcome Email

2. Tap the link to open the template configuration page.

3. Expand the section. Then, find the field for the email template that you customized, and specify the new template as the default.

Step 4: Preview and Save the Template

1. When you are ready to review your work, tap Preview Template. Then, make adjustments to the template as needed.

2. When complete, tap Save Template.

   Your custom template is now available in the list of Email templates.

Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOAD DEFAULT TEMPLATE</td>
<td></td>
</tr>
</tbody>
</table>
Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template</td>
<td>Lists the selection of available templates, and identifies the template to be customized.</td>
</tr>
</tbody>
</table>

**TEMPLATE INFORMATION**

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Template Name</td>
<td>The name of your custom template.</td>
</tr>
<tr>
<td>Insert Variable</td>
<td>Inserts a variable into the template at the cursor location.</td>
</tr>
<tr>
<td>Template Subject</td>
<td>The Template Subject appears in the Subject column, and can be used to sort and filter the templates in the list.</td>
</tr>
<tr>
<td>Template Content</td>
<td>The content of the template in HTML.</td>
</tr>
<tr>
<td>Template Styles</td>
<td>Any CSS style declarations that are needed to format the template can be entered in the Template Styles box.</td>
</tr>
</tbody>
</table>
## Email Template List

The list of email templates is organized alphabetically by Magento module.

### Email Templates

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magento_Checkout</td>
<td></td>
</tr>
<tr>
<td>Payment Failed</td>
<td>Page: Sales &gt; Checkout</td>
</tr>
<tr>
<td></td>
<td>Section: Payment Failed Emails</td>
</tr>
<tr>
<td></td>
<td>Field: Payment Failed Template</td>
</tr>
<tr>
<td>Magento_Name</td>
<td></td>
</tr>
<tr>
<td>Change Email</td>
<td>Page: General &gt; Contacts</td>
</tr>
<tr>
<td></td>
<td>Section: Email Options</td>
</tr>
<tr>
<td></td>
<td>Field: Email Template</td>
</tr>
<tr>
<td>Magento_Customer</td>
<td></td>
</tr>
<tr>
<td>Change Email</td>
<td>n/a</td>
</tr>
<tr>
<td>Change Email and Password</td>
<td>n/a</td>
</tr>
<tr>
<td>Forgot Password</td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Password Options</td>
</tr>
<tr>
<td></td>
<td>Field: Forgot Email Template</td>
</tr>
<tr>
<td>New Account</td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Create New Account Options</td>
</tr>
<tr>
<td></td>
<td>Field: Default Welcome Email</td>
</tr>
<tr>
<td>New Account (Magento/luma)</td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Create New Account Options</td>
</tr>
<tr>
<td></td>
<td>Field: Default Welcome Email</td>
</tr>
</tbody>
</table>
## Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New Account Confirmation Key</strong></td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Create New Account Options</td>
</tr>
<tr>
<td></td>
<td>Field: Confirmation Link Email</td>
</tr>
<tr>
<td><strong>New Account Confirmed</strong></td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Create New Account Options</td>
</tr>
<tr>
<td></td>
<td>Field: Welcome Email</td>
</tr>
<tr>
<td><strong>New Account Without Password</strong></td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Create New Account Options</td>
</tr>
<tr>
<td></td>
<td>Field: Default Welcome Email Without Password</td>
</tr>
<tr>
<td><strong>Remind Password</strong></td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Password Options</td>
</tr>
<tr>
<td></td>
<td>Field: Remind Email Template</td>
</tr>
<tr>
<td><strong>Reset Password</strong></td>
<td>Page: Customers &gt; Customer Configuration</td>
</tr>
<tr>
<td></td>
<td>Section: Password Options</td>
</tr>
<tr>
<td></td>
<td>Field: Reset Password Template</td>
</tr>
<tr>
<td><strong>Magento_Directory</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Currency Update Warnings</strong></td>
<td>Page: General &gt; Currency Setup</td>
</tr>
<tr>
<td></td>
<td>Section: Scheduled Import Settings</td>
</tr>
<tr>
<td></td>
<td>Field: Error Email Template</td>
</tr>
<tr>
<td><strong>Magento_Email</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Footer</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Footer (Magento/luma)</strong></td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Header</strong></td>
<td>n/a</td>
</tr>
</tbody>
</table>
## Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magento_Newsletter</td>
<td></td>
</tr>
<tr>
<td>Subscription Confirmation</td>
<td>Page: Customers &gt; Newsletter</td>
</tr>
<tr>
<td></td>
<td>Section: Subscription Options</td>
</tr>
<tr>
<td></td>
<td>Field: Confirmation Email Template</td>
</tr>
<tr>
<td>Subscription Success</td>
<td>Page: Customers &gt; Newsletter</td>
</tr>
<tr>
<td></td>
<td>Section: Subscription Options</td>
</tr>
<tr>
<td></td>
<td>Field: Success Email Template</td>
</tr>
<tr>
<td>Unsubscription Success</td>
<td>Page: Customers &gt; Newsletter</td>
</tr>
<tr>
<td></td>
<td>Section: Subscription Options</td>
</tr>
<tr>
<td></td>
<td>Field: Unsubscription Email Template</td>
</tr>
<tr>
<td>Magento_ProductAlert</td>
<td></td>
</tr>
<tr>
<td>Cron Error Warning</td>
<td>Page: Catalog &gt; Catalog</td>
</tr>
<tr>
<td></td>
<td>Section: Product Alerts Run Settings</td>
</tr>
<tr>
<td></td>
<td>Field: Error Email Template</td>
</tr>
<tr>
<td>Price Alert</td>
<td>Page: Catalog &gt; Catalog</td>
</tr>
<tr>
<td></td>
<td>Section: Product Alerts</td>
</tr>
<tr>
<td></td>
<td>Field: Price Alert Email Template</td>
</tr>
<tr>
<td>Stock Alert</td>
<td>Page: Catalog &gt; Catalog</td>
</tr>
<tr>
<td></td>
<td>Section: Product Alerts</td>
</tr>
<tr>
<td></td>
<td>Field: Stock Alert Email Template</td>
</tr>
<tr>
<td>Magento_Sales</td>
<td></td>
</tr>
<tr>
<td>Credit Memo Update</td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo Contents</td>
</tr>
<tr>
<td>Template</td>
<td>Configuration Path</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Credit Memo Update (Magento/luma)</td>
<td>Field: Credit Memo Comment Email Template</td>
</tr>
<tr>
<td></td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo Comments</td>
</tr>
<tr>
<td>Invoice Update</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Comment Email Template for Guest</td>
</tr>
<tr>
<td></td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo Comments</td>
</tr>
<tr>
<td>Invoice Update for Guest (Magento/luma)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Comment Email Template for Guest</td>
</tr>
<tr>
<td></td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo Comments</td>
</tr>
<tr>
<td>New Credit Memo</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Email Template</td>
</tr>
<tr>
<td></td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo</td>
</tr>
</tbody>
</table>
### Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Credit Memo (Magento/luma)</td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo</td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Email Template</td>
</tr>
<tr>
<td>New Credit Memo for Guest</td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo</td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Email Template for Guest</td>
</tr>
<tr>
<td>New Credit Memo for Guest (Magento/luma)</td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Credit Memo</td>
</tr>
<tr>
<td></td>
<td>Field: Credit Memo Email Template for Guest</td>
</tr>
<tr>
<td>New Invoice</td>
<td>Stores -&gt; Configuration -&gt; Sales Emails -&gt; Invoice -&gt; Invoice Email Template (Default Config)</td>
</tr>
<tr>
<td></td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Invoice</td>
</tr>
<tr>
<td></td>
<td>Field: Invoice Email Template</td>
</tr>
<tr>
<td>New Invoice (Magento/luma)</td>
<td>Stores -&gt; Configuration -&gt; Sales Emails -&gt; Invoice -&gt; Invoice Email Template (Default Config)</td>
</tr>
<tr>
<td></td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Invoice</td>
</tr>
<tr>
<td></td>
<td>Field: Invoice Email Template</td>
</tr>
<tr>
<td>New Invoice for Guest</td>
<td>Stores -&gt; Configuration -&gt; Sales Emails -&gt; Invoice -&gt; Invoice Email Template for Guest (Default Config)</td>
</tr>
<tr>
<td></td>
<td>Page: [Sales &gt; Sales Emails]</td>
</tr>
<tr>
<td></td>
<td>Section: Invoice</td>
</tr>
<tr>
<td></td>
<td>Field: Invoice Email Template for Guest</td>
</tr>
<tr>
<td>New Invoice for Guest (Magento/luma)</td>
<td>Stores -&gt; Configuration -&gt; Sales Emails -&gt; Invoice -&gt; Invoice Email Template for Guest (Default Config)</td>
</tr>
</tbody>
</table>

**CHAPTER 23: Email Email Template List**

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### Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Page:</strong> Sales &gt; <strong>Sales Emails</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Section:</strong> Invoice</td>
<td></td>
</tr>
<tr>
<td><strong>Field:</strong> Invoice Email Template for Guest</td>
<td></td>
</tr>
</tbody>
</table>

**New Order**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Order                |                                                        |
| **Field:** New Order Confirmation Template |                                                        |

**New Order (Magento/luma)**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Order                |                                                        |
| **Field:** New Order Confirmation Template |                                                        |

**New Order for Guest**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Order                |                                                        |
| **Field:** New Order Confirmation Template for Guest |                                                        |

**New Order for Guest (Magento/luma)**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Order                |                                                        |
| **Field:** New Order Confirmation Template for Guest |                                                        |

**New Shipment**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Shipment             |                                                        |
| **Field:** Shipment Email Template |                                                        |

**New Shipment (Magento/luma)**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Shipment             |                                                        |
| **Field:** Shipment Email Template |                                                        |

**New Shipment for Guest**

| **Page:** Sales > **Sales Emails** |                                                        |
| **Section:** Shipment             |                                                        |
### Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field: Shipment Email Template for Guest</td>
<td></td>
</tr>
<tr>
<td>New Shipment for Guest (Magento/luma)</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Shipment</td>
</tr>
<tr>
<td></td>
<td>Field: Shipment Email Template for Guest</td>
</tr>
<tr>
<td>Order Update</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Order Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Order Comment Email Template</td>
</tr>
<tr>
<td>Order Update (Magento/luma)</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Order Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Order Comment Email Template</td>
</tr>
<tr>
<td>Order Update for Guest</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Order Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Order Comment Email Template for Guest</td>
</tr>
<tr>
<td>Order Update for Guest (Magento/luma)</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Order Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Order Comment Email Template for Guest</td>
</tr>
<tr>
<td>Shipment Update</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Shipment Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Shipment Comment Email Template</td>
</tr>
<tr>
<td>Shipment Update (Magento/luma)</td>
<td>Page: <a href="#">Sales &gt; Sales Emails</a></td>
</tr>
<tr>
<td></td>
<td>Section: Shipment Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Shipment Comment Email Template</td>
</tr>
</tbody>
</table>
## Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shipment Update for Guest</td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Shipment Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Shipment Comment Email Template for Guest</td>
</tr>
<tr>
<td>Shipment Update for Guest (Magento/luma)</td>
<td>Page: Sales &gt; Sales Emails</td>
</tr>
<tr>
<td></td>
<td>Section: Shipment Comments</td>
</tr>
<tr>
<td></td>
<td>Field: Shipment Comment Email Template for Guest</td>
</tr>
<tr>
<td>Magento_SendFriend</td>
<td>Page: Catalog &gt; Email to a Friend</td>
</tr>
<tr>
<td>Send Product Link to Friend</td>
<td>Section: Email Templates</td>
</tr>
<tr>
<td></td>
<td>Field: Select Email Template</td>
</tr>
<tr>
<td>Magento_Sitemap</td>
<td>Page: Catalog &gt; XML Sitemap</td>
</tr>
<tr>
<td>Sitemap Generation Settings</td>
<td>Section: Generation Settings</td>
</tr>
<tr>
<td></td>
<td>Field: Error Email Template</td>
</tr>
<tr>
<td>Magento_User</td>
<td>Page: Advanced &gt; Admin</td>
</tr>
<tr>
<td>Forgot Admin Password</td>
<td>Section: Admin User Emails</td>
</tr>
<tr>
<td></td>
<td>Field: Forgot Password Email Template</td>
</tr>
<tr>
<td>User Notification</td>
<td>Stores &gt; Configuration &gt; Admin &gt; Admin User Emails &gt; User Notification Template (Default Config)</td>
</tr>
<tr>
<td></td>
<td>Page: Advanced &gt; Admin</td>
</tr>
<tr>
<td></td>
<td>Section: Admin User Emails</td>
</tr>
<tr>
<td></td>
<td>Field: User Notification Template</td>
</tr>
</tbody>
</table>
Email Templates (cont.)

<table>
<thead>
<tr>
<th>TEMPLATE</th>
<th>CONFIGURATION PATH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magento_Wishlist</td>
<td>Page: Customers &gt; Wish List</td>
</tr>
<tr>
<td></td>
<td>Section: Share Options</td>
</tr>
<tr>
<td></td>
<td>Field: Email Template</td>
</tr>
</tbody>
</table>

Configuring Email Communications

The Mail Sending Settings give you the ability to route returned email or replies to email to a specific address. Also, if your store is running on a Windows server, you can verify the host and port settings.

**Security Notice!** We recommend that all merchants immediately set their mail sending configuration to protect against a recently identified potential remote code execution exploit. Until this issue is resolved, we highly recommend that you avoid using Sendmail for email communications. In the Mail Sending Settings, make sure that Set Return Path is set to "No." To learn more, see the Magento Security Center posting.

To configure email communications:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Advanced**, choose **System**.
3. Expand the **Mail Sending Settings** section. Then, do the following:
   a. If necessary, set **Disable Email Communications** to "No."
   b. If running on a Windows server, verify the following settings:
      
      | Host | localhost |
      |------|-----------|
      | Port (25) | 25 |

Mail Sending Settings
c. Until the current security issue is resolved, we highly recommend that you set **Set Return Path** to "No."

- **No** (Recommended Security Measure) Routes returned email to the default store email address.
- **Yes** Routes returned email to the default store email address.
- **Specified** Routes returned email to the email address specified in the **Return Path Email** field.

4. When complete, tap **Save Config.**
CHAPTER 24:  
Sales Documents

In addition to the email messages related to a sale, your store generates invoices, packing slips, and credit memos in both HTML and PDF formats. Before your store goes live, make sure to update these documents with your logo and store address. You can customize the address format, and also include additional information for reference.

- Invoices
- Packing Slips
- Credit Memos
Preparing Your Invoice Logo

Unlike the logo images used in HTML, the logo for PDF invoices and other sales documents can be a high-resolution, 300 dpi image. However, the image must be rendered to fit a space that is 200 pixels wide by 50 pixels high. Be careful to preserve the aspect ratio when you resize the logo. Resize the logo to fit the height, and don’t worry about any unused space to the right.

One way to resize your logo to fit the required size is to create a new, blank image with the correct dimensions. Then, paste your logo image and resize it to fit the height. With most image editing programs, you can either scale it by a percentage to preserve the aspect ratio, or hold down the shift key and manually resize the image.

To configure invoices and packing slips:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Sales.
3. Expand the Invoice and Packing Slip Design section. Then, do the following:

   **Invoice and Packing Slip Design**

   **a.** To upload the Logo for PDF Print-outs, tap Choose File. Find the logo that you have prepared, and tap Open.

   **b.** To upload the Logo for HTML Print View, tap Choose File. Find the logo that you have prepared, and tap Open.
4. Enter your address as you want it to appear on invoices and packing slips.

5. When complete, tap **Save Config**.

For reference, a thumbnail of the uploaded image appears before each field. Don’t worry if the thumbnail appears distorted. The proportion of the logo will be correct on the invoice.

**To replace an image:**

1. Tap **Choose File** and choose a different logo file.

2. Mark the **Delete Image** checkbox for the image you want to replace.

3. Tap **Save Config**.

**Image Formats**

<table>
<thead>
<tr>
<th>FORMAT</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PDF</strong></td>
<td>File Format</td>
</tr>
<tr>
<td></td>
<td>Image Size</td>
</tr>
<tr>
<td></td>
<td>Resolution</td>
</tr>
<tr>
<td><strong>HTML</strong></td>
<td>File Format</td>
</tr>
<tr>
<td></td>
<td>Image Size</td>
</tr>
<tr>
<td></td>
<td>Resolution</td>
</tr>
</tbody>
</table>
Adding Reference IDs to Header

The Order ID and customer IP address can be included in the header of sales documents that accompany an order. By default, both the Order ID and customer IP address appear in the header of invoices, shipment packing slips, and credit memos.

PDF Print-outs

To change the Order ID setting:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose PDF Print-outs.
3. Expand the Invoice section.
4. Set Display Order ID in Header according to your preference.
5. Repeat for the Shipment and Credit Memo sections.
6. When complete, tap Save Config.
To change the customer IP address setting:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Sales.
3. Expand the General section.
4. Set Hide Customer IP to your preference.
5. When complete, tap Save Config.
Customer Address Templates

You can modify the template that determines the format of customer billing and shipping addresses that appear on printed invoices, shipments, and refunds, as well as in the address book of the customer account.

Example 1: Text Templates

For Text, Text One Line, HTML and PDF Address Templates

```template
{{depend address attribute code}} a space, a character, or UI label
{{/depend}};

{{if address attribute code}}{{var address attribute code}} a space, a character, or UI label
{{/if}}
```

Example 2: JavaScript Template

For JavaScript Address Template

```javascript
#{address attribute code} or User Interface label #{address attribute code}
```
To change the order of address fields:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Customers, choose Customer Configuration.
3. Expand Address Templates section. The section includes a separate set of formatting instructions for each of the following:
   - Text
   - Text One Line
   - HTML
   - PDF
4. Edit each template as needed, using the examples for reference.
5. When complete, tap Save Config.
CHAPTER 25:

Newsletters

Publishing a regular newsletter is considered to be one of the most powerful and affordable marketing tools available. Magento Commerce gives you the ability to publish and distribute newsletters to customers who have subscribed, plus tools to produce your newsletter, build and manage your list of subscribers, develop content, and drive traffic to your store. You can also use Page Hierarchy to create an archive of past issues.

You can add capabilities by integrating your Magento installation with a third-party newsletter service provider and by adding extensions. To learn more, see Magento Connect.
Configuring Newsletters

The first step in creating newsletters is to configure the newsletter settings for your site. You can require customers to click a confirmation link that is sent by email to confirm the subscription. This double opt-in\(^1\), method requires customers to confirm twice that they want to receive your newsletter, and reduces the possibility that it might be considered to be spam.

**To configure subscription options:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Customers**, choose **Newsletter**.
3. If necessary, expand the **Subscription Options** section. Then, do the following:

   ![Subscription Options](image)

   **Subscription Options**

---

\(^1\) The process for subscribing email recipients by requiring them to take a secondary step to confirm that they want to receive emails.
a. Confirm the email template and sender of the each of the following email messages that are sent to subscribers:
   - Success email
   - Confirmation email
   - Unsubscribe email

b. To use the double opt-in process to confirm subscriptions, set **Need to Confirm** to “Yes.”

c. To allow people who do not have an account with your store to subscribe to the newsletter, set **Allow Guest Subscription** to “Yes.”

4. When complete, tap **Save Config.**
Newsletter Templates

You can create as many newsletter templates as you need for different purposes. You might send a weekly product update, a monthly newsletter, or an annual holiday newsletter. Newsletter templates can be prepared with HTML markup, or as plain text. Unlike HTML, plain text newsletters contain no images, rich text, or formatted links. In the grid, the Template Type column indicates whether a template is HTML or text.

To create a newsletter template:

1. On the Admin sidebar, tap Marketing. Then under Communications, choose Newsletter Template.

2. To add a new template, click the Add New Template button. Then, do the following:
   a. In the Template Name enter name for internal reference.
   b. In the Template Subject field, describe the purpose of the newsletter.
   c. In the Sender Name field, enter the name of the person who is to appear as the sender of the newsletter.
   d. In the Sender Email field, enter the email address of the newsletter sender.
e. At the **Template Content** field, tap **Show / Hide Editor** to display the WYSIWYG editor. Then, update the content as needed. To learn more, see: Using the Editor.

> Do not remove the unsubscribe link at the bottom of the template content. In some jurisdictions, the link is required by law.

f. In the **Template Styles** field, enter the CSS declarations needed to format the content.

---

3. Tap **Preview Template** to see how it looks. Then, make any changes that are needed.

4. When complete, tap **Save Template**.

   After you save a template, a **Save As** button appears the next time you edit the template. It can be used to save variations of the template without overwriting the original.

**To convert the template to plain text:**

1. At the top of the page, tap **Convert to Plain Text**. When prompted to confirm, tap **OK**.

2. To preview the plain text version of the template, tap **Preview Template**. The preview opens in a new browser tab.

3. To save the plain text version, tap **Save Template**.

**To restore the HTML:**

1. At the top of the page, tap **Return HTML Version**.

2. To preview the HTML version of the template, tap **Preview Template**. The preview opens in a new browser tab.

3. To save the HTML version, tap **Save Template**.
Sending Newsletters

To manage the load on the server, newsletters with many subscribers are sent in a queue of multiple batches. You can check the newsletter queue periodically to check the status, and see how many have been processed. Any problems that occur during transmission appear on the Newsletter Problem Report.

**To send a newsletter:**

1. On the Admin menu, tap Marketing. Then under Newsletters, choose Newsletter Templates.

2. In the grid, find the template for the newsletter that is to be sent. Then, set the Action column to “Queue Newsletter.”

3. In the Queue Date Start field, select the date that the transmission is to begin from the calendar (📅).

4. In the Subscribers From list select each store view that is to be included in the email blast.

5. Complete the email header information as follows:
   a. Enter a brief description of the newsletter for the Subject line of the email header.
   b. Enter the Sender Name.
   c. In the Sender Email field, enter the email address of the sender.

   The default name and email address of the sender is specified in the configuration.
6. If applicable, enter a note in the **Message** box above the instructions to unsubscribe. Do not remove the instructions, which are required by law in many jurisdictions.

7. When complete, tap **Save and Resume**.

The newsletter appears in the queue waiting to be processed.

---

**To check for problems:**

1. On the Admin menu, tap **Reports**.

2. Under **Marketing**, choose **Newsletter Problem Reports**.
Managing Subscribers

As a best practice you should manage your subscription list on a regular basis, and make sure to process any requests to unsubscribe. In some jurisdictions, it is required by law that requests to unsubscribe are processed within a specific period of time.

If you want to use a third-party service to send newsletters, you can export your subscription list as a CSV or XML file.

**To cancel a subscription:**

1. On the Admin sidebar, tap *Marketing*. Then under *Communications*, choose *Newsletter Subscribers*.
2. Find the subscriber in the grid. Then, mark the checkbox in the first column.
3. Set the **Action** control to “Unsubscribe.” Then, tap **Submit**.

The status of the record changes to “Unsubscribed.”
To export the list of subscribers:

1. From the Newsletter Subscribers list, use the filter controls to include only records with a Status of “Subscribed,” and for the appropriate website, store, or store view.

2. Set the Export to control to one of the following:
   - CSV
   - XML

3. Tap Export. Then, look for the prompt at the bottom of the screen, and save the file.
RSS (Really Simple Syndication) is an XML-based data format that is used to distribute information online. Your customers can subscribe to your RSS feeds to learn of new products and promotions. RSS Feeds can also be used to publish your product information to shopping aggregation sites, and can be included in newsletters.

When RSS feeds are enabled, any additions to products, specials, categories, and coupons are automatically sent to the subscribers of each feed. A link to all RSS feeds that you publish is in the footer of your store.

The orange RSS symbol is typically used to identify an RSS feed.

The software that is required to read an RSS feed is called a feed reader\(^1\), and allows people to subscribe to headlines, blogs, podcasts, and much more. Google Reader is one of the many feed readers that are available online for free.

\(^1\)Software that is used to read syndicated content from RSS feeds.
To set up RSS feeds for your store:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the upper-right corner, set Store View to the view(s) where the feeds are to be available. If prompted to confirm, tap OK.

3. In the panel on the left, under Catalog, choose RSS Feeds.

4. Expand the Rss Config section. Then, set Enable RSS to “Enable.”
   If necessary, clear the Use Website checkbox to change the default value.

5. Expand the Wish List section. Then, set Enable RSS to “Enable.”

6. Expand the Catalog section and set other feeds to “Enable” as needed.
   - New Products
   - Special Products
   - Coupons/Discounts
   - Top Level Category

7. Expand the Order section. Then, set Customer Order Status Notification to “Enable.”

8. When complete, tap Save Config.
### Types of RSS Feeds

<table>
<thead>
<tr>
<th>RSS FEED</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wish List</td>
<td>When enabled, an RSS feed link appears at the top of customer wish list pages. Additionally, the wish list sharing page includes a checkbox that lets you include a link to the feed from shared wish lists.</td>
</tr>
<tr>
<td>New Products</td>
<td>Publishes notification of new products added to the catalog.</td>
</tr>
<tr>
<td>Special Products</td>
<td>Publishes notification of any products with special pricing.</td>
</tr>
<tr>
<td>Coupons / Discounts</td>
<td>Publishes notification of any special coupons or discounts that are available in the store.</td>
</tr>
<tr>
<td>Top Level Category</td>
<td>Publishes notification of any change to the top-level category structure of your catalog, which is reflected in the main menu.</td>
</tr>
<tr>
<td>Customer Order Status</td>
<td>Gives customers the ability to track their order status by RSS feed. When enabled, an RSS feed link appears on the order.</td>
</tr>
</tbody>
</table>
CHAPTER 27: Using Variables

Variables are pieces of information that can be created once and used in multiple places, such as email templates, blocks, and content pages. Your store includes a large number of predefined variables that can be used to personalize communications. In addition, you can create your own custom variables.

- Predefined Variables
- Custom Variables
Adding Predefined Variables

Predefined variables are easy to add to content email templates and content pages to personalize communications. The selection of available variables depends on the template.

Variables for Contact Form Template

To add a variable to an email template:

1. On the Admin sidebar, tap Marketing. Then under Communications, choose Email Templates.

2. Do one of the following:
   - Load an existing template.
   - Add a new template.

3. In the Template Content box, position the insertion point where you want the variable to appear. Then, tap Insert Variable.

4. In the list of available variables, choose the one you want to insert into the template.

5. To preview the template in a new browser window, tap Preview. Then, return to the main window.

6. When complete, tap Save Template.
Adding Custom Variables

If you know a little basic HTML, you can create custom variables and use a markup tag to incorporate them into pages, blocks, banners, and email templates.

{{CustomVar code= "my_custom_variable"}}

To create a custom variable:

1. On the Admin sidebar, tap System. Then under Other Settings, choose Custom Variables.
2. Tap Add New Variable.
3. Enter an identifier in the Variable Code field. Use all lowercase characters, without spaces.
4. Enter a Variable Name, which is used for internal reference. Then, do one of the following:
   - In the Variable HTML Value text field, enter any content you want to include, using basic HTML tags. This option allows you to format the value.
   - In the Variable Plain Value field, enter the variable value as plain text.

You can drag the lower-right corner to make the boxes bigger.
5. When complete, tap Save.
Markup Tags

A markup tag is a snippet of code that contains a relative reference to an object in your store, such as a variable, URL, image, or block. Markup tags can be incorporated into the HTML of content pages, blocks, email templates, newsletters, and so on.

Markup tags are enclosed in double, curly braces, and can either be generated by the Widget tool, or typed directly into HTML content. For example, rather than hard-coding the full path to a page, you can use a markup tag to represent the store URL. The markup tags featured in the following examples include:

Custom Variable

The Variable markup tag can be used to insert a custom variable into an email templates, blocks, newsletters, and content pages,

```
{{CustomVar code= "my_custom_variable"}}
```

Store URL

The Store URL markup tag represents the base URL of your website, and is used as a substitute for the first part of a full URL, including the domain name. There are two versions of this markup tag: One that goes directly to your store, and the other with a forward slash at the end that is used when a path is added.

```
{{store url='apparel/shoes/womens'}}
```

Media URL

The dynamic media URL markup tag represents the location and file name of an image that is stored on a content delivery network (CDN). The tag can be used to place an image on a page, block, banner, or email template.

```
{{media url='shoe-sale.jpg'}}
```
**Block ID**

The Block ID markup tag is one of the easiest to use, and can be used to place a block directly on a CMS page, or even nested inside another block. You can use this technique to modify a block for different promotions or languages. The Block ID markup tag references a block by its identifier.

```
{{block id='block-id'}}
```

**Template Tag**

A template tag references a PHTML template file, and can be used to display the block on a CMS page or static block. The code in the following example can be added to a page or block to display the Contact Us form.

**“Contact Us” Template Tag**

```
{{block type="core/template" name="contactForm" template="contacts/form.phtml"}}
```

The code in the next example can be added to a page or block to display the a list of products in a specific category, by category ID.

**“Category Product List” Template Tag**

```
{{block type="catalog/product_list" category_id="22" template="catalog/product/list.phtml"}}
```
**Widget Code**

The Widget tool can be used to display lists of products, or to insert complex links, such as one that goes to a specific product page, based on product ID. The code that is generated includes the block reference, location of the code module, and corresponding PHTML template. After the code is generated, you can copy and paste it from one place to another.

The code in the following example can be added to a page or block to display the list of new products.

```
{{widget type="catalog/product_widget_new" display_type="new_products" products_count="10" template="catalog/product/widget/new/content/new_grid.phtml"}}
```

The code in the next example can be added to a page or block to display a link to a specific product, by product ID.

```
{{widget type="catalog/product_widget_link" anchor_text="My Product Link" title="My Product Link" template="catalog/product/widget/link/link_block.phtml" id_path="product/31"}}
```
Using Markup Tags in Links

You can use markup tags with HTML anchor tags, and link directly to any page in your store. The link can be incorporated into content pages, blocks, banners, or email and newsletter templates. You can also use this technique to link an image to a specific page.

**Process Overview:**
Step 1: Identify the Destination URL
Step 2: Add the Markup to the URL
Step 3: Complete the Anchor Tag

**Step 1: Identify the Destination URL**

If possible, navigate to the page that you want to link to, and copy the full URL from the address bar of your browser. The part of the URL that you need comes after the “dot com forward slash.” Otherwise, copy the URL Key from the CMS page that you want to use as the link destination.

**Full URL to Category Page**

HTTP://mystore.com/apparel/shoes/womens
HTTP://mystore.com/apparel/shoes/womens.html

**Full URL to Product Page**

HTTP://mystore.com/apparel/shoes/womens/nine-west-pump
HTTP://mystore.com/apparel/shoes/womens/nine-west-pump.html

**Full URL to CMS Page**

HTTP://mystore.com/about-us
Step 2: Add the Markup to the URL

The Store URL tag represents the base URL of your website, and is used as a substitute for the “http address” part of the store URL, including the domain name and “dot com.” There are two versions of the tag, which you can use, depending on the results you want to achieve.

store direct_url Links directly to a page.
store url Places a forward slash at the end, so additional references can be appended as a path.

In the following examples, the URL Key is enclosed in single quotes, and the entire markup tag is enclosed in double curly braces. When used with an anchor tag, the markup tag is placed inside the double quotes of the anchor. To avoid confusion, you can alternate using single- and double quotes for each nested set of quotes.

1. If you are starting with a full URL, delete the “http address” part of the URL, up through and including the “dot.com forward slash.” In its place, type the Store URL markup tag, up through the opening single quote.

   Store URL Markup Tag

   ```
   http://mystore.com/apparel/shoes/womens
   {{store url='apparel/shoes/womens'}}
   ```

   Otherwise, type the first part of the Store URL markup tag, and paste the URL key or path that you copied earlier.

   Store URL Markup Tag with URL Key

   ```
   {{store url='}
   {{store url='apparel/shoes/womens'}}
   ```

2. To complete the markup tag, type the closing double quotes and double braces.
Step 3: **Complete the Anchor Tag**

1. Wrap the completed markup tag inside an anchor tag, using the markup tag instead of the target URL. Then, add the link text, and closing anchor tag.

   **Markup in Anchor Tag**
   ```html
   <a href="{{markup tag goes here}}">Link Text</a>
   ```

2. Paste the completed anchor tag into the code of any CMS page, block, banner, or email template, where you want the link to appear.

   **Complete Link with Markup**
   ```html
   <a href="{{store url='apparel/shoes'}}">Shoe Sale</a>
   ```
Variable Reference

Most email templates have a section of additional variables that are specific to the template. The following are examples of some frequently used templates.

## Email Template Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MARKUP TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email Footer Template</td>
<td>{{template config_path=&quot;design/email/footer_template&quot;}}</td>
</tr>
<tr>
<td>Email Header Template</td>
<td>{{template config_path=&quot;design/email/header_template&quot;}}</td>
</tr>
<tr>
<td>Email Logo Image Alt</td>
<td>{{var logo_alt}}</td>
</tr>
<tr>
<td>Email Logo Image URL</td>
<td>{{var logo_url}}</td>
</tr>
<tr>
<td>Email Logo Image Height</td>
<td>{{var logo_height}}</td>
</tr>
<tr>
<td>Email Logo Image Width</td>
<td>{{var logo_width}}</td>
</tr>
<tr>
<td>Template CSS</td>
<td>{{var template_styles</td>
</tr>
</tbody>
</table>

## Store Contact Information Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MARKUP TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Unsecure URL</td>
<td>{{config path=&quot;web/unsecure/base_url&quot;}}</td>
</tr>
<tr>
<td>Base Secure URL</td>
<td>{{config path=&quot;web/secure/base_url&quot;}}</td>
</tr>
<tr>
<td>General Contact Name</td>
<td>{{config path=&quot;trans_email/ident_general/name&quot;}}</td>
</tr>
<tr>
<td>General Contact Email</td>
<td>{{config path=&quot;trans_email/ident_general/email&quot;}}</td>
</tr>
<tr>
<td>Sales Representative Contact Name</td>
<td>{{config path=&quot;trans_email/ident_sales/name&quot;}}</td>
</tr>
<tr>
<td>Sales Representative Contact Email</td>
<td>{{config path=&quot;trans_email/ident_sales/email&quot;}}</td>
</tr>
<tr>
<td>Custom1 Contact Name</td>
<td>{{config path=&quot;trans_email/ident_custom1/name&quot;}}</td>
</tr>
<tr>
<td>Custom1 Contact Email</td>
<td>{{config path=&quot;trans_email/ident_custom1/email&quot;}}</td>
</tr>
<tr>
<td>Custom2 Contact Name</td>
<td>{{config path=&quot;trans_email/ident_custom2/name&quot;}}</td>
</tr>
</tbody>
</table>
### Store Contact Information Variables (cont.)

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MARKUP TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custom2 Contact Email</td>
<td>{{config path=&quot;trans_email/ident_custom2/email&quot;}}</td>
</tr>
<tr>
<td>Store Name</td>
<td>{{config path=&quot;general/store_information/name&quot;}}</td>
</tr>
<tr>
<td>Store Phone Telephone</td>
<td>{{config path=&quot;general/store_information/phone&quot;}}</td>
</tr>
<tr>
<td>Store Hours</td>
<td>{{config path=&quot;general/store_information/hours&quot;}}</td>
</tr>
<tr>
<td>Country</td>
<td>{{config path=&quot;general/store_information/country_id&quot;}}</td>
</tr>
<tr>
<td>Region/State</td>
<td>{{config path=&quot;general/store_information/region_id&quot;}}</td>
</tr>
<tr>
<td>Zip/Postal Code</td>
<td>{{config path=&quot;general/store_information/postcode&quot;}}</td>
</tr>
<tr>
<td>City</td>
<td>{{config path=&quot;general/store_information/city&quot;}}</td>
</tr>
<tr>
<td>Street Address 1</td>
<td>{{config path=&quot;general/store_information/street_line1&quot;}}</td>
</tr>
<tr>
<td>Street Address 2</td>
<td>{{config path=&quot;general/store_information/street_line2&quot;}}</td>
</tr>
<tr>
<td>Store Contact Address</td>
<td>{{config path=&quot;general/store_information/address&quot;}}</td>
</tr>
</tbody>
</table>
### New Account Template Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MARKUP TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Account URL</td>
<td>{{var this.getUrl($store, 'customer/account/')}}</td>
</tr>
<tr>
<td>Customer Email</td>
<td>{{var customer.email}}</td>
</tr>
<tr>
<td>Customer Name</td>
<td>{{var customer.name}}</td>
</tr>
</tbody>
</table>

### New Order Template Variables

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>MARKUP TAG</th>
</tr>
</thead>
<tbody>
<tr>
<td>Billing Address</td>
<td>{{var formattedBillingAddress</td>
</tr>
<tr>
<td>Email Order Note</td>
<td>{{var order.getEmailCustomerNote()}}</td>
</tr>
<tr>
<td>Order ID</td>
<td>{{var order.increment_id}}</td>
</tr>
<tr>
<td>Order Items Grid</td>
<td>{{layout handle=&quot;sales_email_order_items&quot; order=$order area=&quot;frontend&quot;}}</td>
</tr>
<tr>
<td>Payment Details</td>
<td>{{var payment_html</td>
</tr>
<tr>
<td>Shipping Address</td>
<td>{{var formattedShippingAddress</td>
</tr>
<tr>
<td>Shipping Description</td>
<td>{{var order.getShippingDescription()}}</td>
</tr>
</tbody>
</table>
SEO & Search
In this section of the guide, we'll take a look at the search capabilities of your store, what you can learn from customer search terms, and how to make your products easy to find. Finally, you'll learn best practices and techniques that you can use to bring more traffic to your store.

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  Product Listings
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CHAPTER 28: Catalog Navigation

The term navigation\(^1\) refers to the methods shoppers use to move from page to page throughout your store. The main menu, or top navigation of your store is actually a list of category links, and provides easy access to the products in your catalog. You will also find categories in the breadcrumb trail that runs across the top of most pages, and in the layered navigation that appears on the left side of some two- or three-column pages.

For a product to be visible in your store, it must be assigned to at least one category. Each category can have a dedicated landing page with an image, static block, a description, and a list of products in the category. You can also create special designs for category pages that are active only for a specific period of time such as for a holiday or promotion.

\(^1\)The primary group of web page links that a customer uses to navigate around the website; the navigation links to the most important categories or pages on an online store.
Top Navigation

The main menu of your store is like a directory to the different departments in your store. Each option represents a different category of products. The position and presentation of the top navigation might vary by theme, but the way it works is essentially the same.

Top Navigation

The category structure of your catalog can influence how well your site is indexed by search engines. The more deeply nested a category, the less likely it is to be thoroughly indexed. As a general rule, anywhere between one and three visible levels is considered to be the most effective. The root category counts as the first level, although it doesn’t appear in the menu. The maximum number of levels that are available in the top navigation is determined by the configuration. In addition, there might be a limit to the number of menu levels that are supported by your store theme. For example, the sample Luma theme supports up to five levels, including the root.

Counting Menu Levels

Level 1
The first level is the root category, which in the sample data is named “Default Category.” The root is a container for the menu, and its name does not appear as an option in the menu.

Level 2
On a desktop display, the top navigation is the main menu that appears across the top of the page. On a mobile device, the main menu typically appears as a fly-out menu of options. The second-level options in the Luma store are “What's New,” “Women,” “Men,” “Gear,” “Training,” and “Sale.”

Level 3
The third-level appears below each main menu option. For example, under “Women,” the third-level options are “Tops” and “Bottoms.”

Level 4
The fourth-level options are subcategories that fly out from a third-level option. For example, under “Tops,” the fourth level menu options are “Jackets,” “Hoodies & Sweatshirts,” “Tees,” and “Bras & Tanks.”
To set the depth of the top navigation:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, expand Catalog. Then, choose Catalog.

3. Expand the Category Top Navigation section.

Because the depth of the top navigation has a global configuration scope, the setting applies to all websites, stores, and store views in the Magento installation. The Category Top Navigation configuration section is available only when Store View in the upper-left corner is set to “Default Config.”

4. To limit the number of subcategories that appear in the top navigation, enter the number in the Maximal Depth field.

   The default Maximal Depth value is zero, which does not place a limit on the number of subcategory levels.

5. When complete, tap Save Config.
Breadcrumb Trail

A breadcrumb trail is a set of links that shows where you are in relation to other pages in the store. You can click any link in the breadcrumb trail to return to the previous page.

The breadcrumb trail can be configured to appear on content pages, as well as catalog pages. The format and position of the breadcrumb trail varies by theme, but it is usually located just below the header. By default, the breadcrumb trail appears on CMS pages.
To remove the breadcrumbs from CMS pages:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose Web. Then, do the following:
   a. Expand the Default Pages section.
   b. Clear the Use system value checkbox.
   c. Set Show Breadcrumbs for CMS Pages to "No."

3. When complete, tap Save Config.
Product Listings

Product listings can be set to appear by default as either a list or grid. You can also determine how many products appear per page, and which attribute is used to sort the list. Each catalog page with a product list has a set of controls that can be used to sort the products, change the format of the list, sort by attribute, and advance from one page to the next.

Products Displayed as a Grid
To configure product listings:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. Scroll down and in the panel on the left, tap Catalog. Then choose Catalog.
3. Expand the Storefront section, and do the following:

   ![Storefront](image)

   **Storefront**

   a. Set the default List Mode to one of the following:

      - Grid Only
      - List Only
      - Grid (default) / List
      - List (default / Grid

   b. In the Products per Page on Grid Allowed Values field, enter the number of products that you want to appear per page when shown in grid format. To enter a selection of values, separate each number by a comma.

   c. In the Products per Page on Grid Default Value field, enter the default number of products to appear in the grid per page.
d. In the **Products per Page on List Allowed Values** field, enter the number of products that you want to appear per page when shown in list format. To enter a selection of values, separate each number by a comma.

e. In the **Products per page on List Default Value** field, enter the default number of products that appear in the list, per page.

f. To give customers the option to list all products, set **Allow All Products on Page** to “Yes.”

g. Set **Product Listing Sorted by** to the default attribute that is initially used to sort the list.

4. If using a flat catalog, do the following:

a. To display a flat category listing of products, set **Use Flat Catalog Category** to “Yes.”

b. To display a flat product listing, set **Use Flat Catalog Product** to “Yes.”

5. If you want to allow dynamic references for media assets in category and product URLs, set **Allow Dynamic Media URLs in Products and Categories** to “Yes.”

6. When complete, tap **Save Config**.

**Page Controls**

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>View As</td>
<td>Displays the products in either a grid or list format.</td>
</tr>
<tr>
<td>Sort By</td>
<td>Changes the sort order of the list.</td>
</tr>
<tr>
<td>Show Per Page</td>
<td>Determines how many products appear per page.</td>
</tr>
<tr>
<td>Pagination Links</td>
<td>Navigation links to other pages.</td>
</tr>
</tbody>
</table>
Pagination Controls

The Pagination settings appear at the top and bottom of the list, and control the format of the pagination links for product listings. You can set the number of links that appear in the control, and configure the Next and Previous links. For the pagination links to appear, there must be more products in the list than are allowed per page in the product list configuration.

Pagination Controls

<table>
<thead>
<tr>
<th>View As</th>
<th>Displays the list in either a Grid or List format.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort By</td>
<td>Changes the sort order of the list.</td>
</tr>
<tr>
<td>Show Per Page</td>
<td>Determines how many products appear per page.</td>
</tr>
<tr>
<td>Pagination Links</td>
<td>Navigation links to other pages.</td>
</tr>
</tbody>
</table>
To configure the pagination controls:

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Configuration**.

2. Find the store view that you want to configure. Then in the **Action** column, click **Edit**.

3. Under **Other Settings**, expand the **Pagination** section.

   a. In the **Pagination Frame** field, enter the number of links that you want to appear in the pagination control.

   b. In the **Pagination Frame Skip** field, enter the number of links that you want to skip ahead before displaying the next set of links in the pagination control.

      For example, if the pagination frame has five links, and you want to jump to the next five links, how many links do you want to skip ahead? If you set this to four, then the last link from the previous set will be the first link in the next set.

   c. In the **Anchor Text for Previous** field, enter the text that you want to appear for the Previous link. Leave blank to use the default arrow.

   d. In the **Anchor Text for Next** field, enter the text that you want to appear for the Next link. Leave blank to use the default arrow.

4. When complete, tap **Save Config**.
Layered Navigation

Layered navigation makes it easy to find products based on category, price range, or any other available attribute. Layered navigation usually appears in the left column of search results and category pages and sometimes on the home page. The standard navigation includes a “Shop By” list of categories and price range. You can configure the display of layered navigation, including product count and price range.

Layered Navigation by Category and Price
Filterable Attributes

Layered navigation can be used to search for products by category or by attribute. For example, when a shopper chooses the Mens/Shorts category from the top navigation, the initial results include all products in the category. The list can be filtered further by choosing a specific style, climate, color, material, pattern, or price—or a combination of values. Filterable attributes appear in an expanding section that lists each attribute value. As an option, the list of products with matching results can be configured to include products with, or without, a match.

The attribute properties, combined with the product input type determines which attributes can be used for layered navigation. Layered navigation is available only for “anchor” categories, but can also be added to search results pages. The Catalog Input Type for Store Owner property of each attribute must be set to “Dropdown,” “Multiple Select,” or “Price.” To make the attributes filterable, the Use in Layered Navigation property of each must be set to either “Filterable (with results)” or “Filterable (no results).”
The following instructions show how to set up basic layered navigation with filterable attributes. For advanced layered navigation with price steps, see: Price Navigation.

Process Overview:
Step 1: Set Up the Attribute Properties
Step 2: Make the Category an Anchor
Step 3: Test the Results

Step 1: Set Up the Attribute Properties

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Product.

2. Find the attribute in the list, and open in edit mode. Then, do the following:

   a. In the panel on the left, choose Storefront Properties. Then, set Use In Layered Navigation to one of the following:

      Filterable (with results) Layered navigation includes only those filters for which matching products can be found. Any attribute value that already applies to all products shown in the list does not appear as an available filter. Attribute values with a count of zero (0) product matches are also omitted from the list of available filters.

      The filtered list of products includes only those that match the filter. The products list is updated only if the selected filter(s) change what is currently shown.

      Filterable (no results) Layered navigation includes filters for all available attribute values and their product counts, including those with zero (0) product matches. If the attribute value is a swatch, the value appears as a filter, but is crossed out.
b. Set **Use In Search Results Layered Navigation** to “Yes.”

3. Repeat these steps for each attribute that you want to include in layered navigation.
Step 2: Make the Category an Anchor

1. On the Admin sidebar, tap Products. Then under Inventory choose Categories.
2. In the categories tree on the left, select the category where you want to use layered navigation.
3. Expand the Display Settings section. Then, set Anchor to “Yes.”
4. Tap Save.

Category Display Settings

Step 3: Test the Results

To test the setting, go to your store and navigate to the category from the main menu. The selection of filterable attributes appears in the layered navigation of the category page.
Price Navigation

Price navigation can be used to distribute products by price range in layered navigation. You can also split each range in intervals. There are ways to calculate price navigation:

- Automatic (Equalize Price Ranges)
- Automatic (Equalize Product Counts)
- Manual

With the first two methods, the navigation steps are calculated automatically. The manual method lets you specify a division limit for price intervals. The following example shows the difference between price navigation steps of 10 and 100.

Iterative splitting provides the best distribution of products among price ranges. With iterative splitting, after choosing the $0.00-$99 range, the customer can drill-down through several sub-ranges of prices. Price-range splitting stops when the number of products reaches the threshold set by the Interval Division Limit.

Example: Price Navigation Steps

<table>
<thead>
<tr>
<th>PRICE STEP BY 10</th>
<th>PRICE STEP BY 100</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20.00 - $29.99 (1)</td>
<td>$0.00 - $99.99 (4)</td>
</tr>
<tr>
<td>$30.00 - $39.99 (2)</td>
<td>$100 - $199.99 (5)</td>
</tr>
<tr>
<td>$70.00 - $79.99 (1)</td>
<td>$400.00 - $499.99 (2)</td>
</tr>
<tr>
<td>$100.00 - $109.99 (1)</td>
<td>$700.00 and above (1)</td>
</tr>
<tr>
<td>$120.00 - $129.99 (2)</td>
<td></td>
</tr>
<tr>
<td>$150.00 - $159.99 (1)</td>
<td></td>
</tr>
<tr>
<td>$180.00 - $189.99 (1)</td>
<td></td>
</tr>
<tr>
<td>$420.00 - $429.99 (1)</td>
<td></td>
</tr>
<tr>
<td>$440.00 - $449.99 (1)</td>
<td></td>
</tr>
<tr>
<td>$710.00 and above (1)</td>
<td></td>
</tr>
</tbody>
</table>
To configure price navigation:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the Layered Navigation section. Then, do the following:
   a. By default, Display Product Count is set to “Yes.” The change the setting, first clear the Use system value checkbox.
   b. Set Price Navigation Steps Calculation to one of the following methods:

   **Method 1: Automatic (equalize price ranges)**

   Leave Price Navigation Steps Calculation set to the default, “Automatic (Equalize Price Ranges.)” This setting uses the standard algorithm for price navigation.

   **Method 2: Automatic (equalize product counts)**

   To change the value of any of the following fields, first clear the Use system value checkbox.
   2. To display a single price when multiple products with the same price, set Display Price Interval as One Price to “Yes.”
   3. In the Interval Division Limit field, enter the threshold for a number of products within a price range. The range cannot be further split beyond this limit. The default value is 9.
**Method 3: Manual**

To change the value of any of the following fields, first clear the **Use system value** checkbox.

2. Enter a value to determine the **Default Price Navigation Step**.
3. Enter the **Maximum Number of Price Intervals** allowed, up to 100.

4. When complete, tap **Save Config**.
Configuring Layered Navigation

The layered navigation configuration determines if a product count appears in parentheses after each attribute, and the size of the step calculation that is used in price navigation.

**To configure layered navigation:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, expand the **Catalog** section. Then choose **Catalog**.
3. Expand the **Layered Navigation** section, and do the following:

   a. To display the number of products found for each attribute, set **Display Product Count** to “Yes.” If necessary, first clear the **Use system value** checkbox.

   b. Set **Price Navigation Step Calculation** to “Automatic (equalize price ranges).” If necessary, first clear the **Use system value** checkbox.

4. When complete, tap **Save Config**.
CHAPTER 29:  
Catalog Search

Research shows that people who use search are more likely to make a purchase than those who rely on navigation alone. In fact, according to some studies, people who use search are nearly twice as likely to make a purchase. In this section of the guide, we will explore how customers search for products in your catalog, and how you can configure catalog search.

- Quick Search
- Advanced Search
- Search Results
- Configuring Catalog Search
- Flat Catalog
Quick Search

The Search box in the header of the store helps visitors find products in your catalog. The search text can be the full or partial product name, or any other word or phrase that describes the product. The search terms that people use to find products can be managed from the Admin.

**To do a quick search:**

1. In the **Search** box, enter the first few letters of what you want to find.
   
   Any matches in the catalog appear below, with the number of results found.

2. Either press the **Enter** key or tap a result in the list of matching products.
Advanced Search

Advanced Search lets shoppers search the catalog based on values entered into a form. Because the form contains multiple fields, a single search can include several parameters. The result is a list of all products in the catalog that match the criteria. A link to Advanced Search is in the footer of your store.

Each field in the form corresponds to an attribute from your product catalog. To add a field, set the frontend properties of the attribute to “Include in Advanced Search.” As a best practice, include only the fields that customers are most likely to use to find a product, because having too many will slow down the search.
To use advanced search:

1. In the footer of the store, click Advanced Search.

2. In the Advanced Search form, full or partial values in as many fields as necessary.

3. Tap Search to display the results.

4. If you don’t see what you are looking for in the search results, tap Modify your search and try another combination of criteria.
Search Results

The Search Results list includes all products that match the search criteria entered in the Quick Search box or the Advanced Search form. Every product list in the catalog has essentially the same controls. The only difference is that one is the result of a search query, and the other is the result of navigation.

The results can be formatted as either a grid or list, and sorted by a selection of attributes. Pagination controls appear if there are more products than fit on the page, and are used to move from one page to the next. The number of records per page is determined by the Catalog Frontend configuration. To learn more, see Product Listings.
Weighted Search

Product attributes that are enabled for catalog search can be assigned a weight to give them a higher value in search results. Attributes with a greater weight are returned before those with a lower weight. For example, if there are two attributes in the system, “color” with a search weight of 3 and “description” with a search weight of 1. A search for the word “red,” returns a list of products with a color attribute value of “red,” but does not return products with descriptions that contain the word “red.” In this example, the color attribute has a greater weight than the description attribute.

To set the search weight properties of an attribute:

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Product.
2. Find the attribute in the list, and open in edit mode.
3. In the panel on the left, choose Storefront Properties. Then, do the following:
   a. To include the attribute in search queries, set Use in Search to “Yes.”
   b. To establish the search value of the attribute, set Search Weight to a number from 1 to 10, where 10 has the highest priority. If no value is entered, all attributes have a search weight of 1.
4. When complete, tap Save Attribute button.
Configuring Catalog Search

Magento uses the fulltext MySQL search engine. By adjusting the Catalog Search configuration, you can control the size of valid query text.

![Catalog Search](image)

**To configure catalog search:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **Catalog**.
3. Expand the **Catalog Search** section, and do the following:
4. To limit the length and word count of search query text, do the following:
   a. Set **Minimal Query Length** to the minimum number of characters that can be submitted in a query.
   b. Set **Maximum Query Length** to the maximum number of characters that can be submitted in a query.
5. Accept the default, **Search Engine**, “MySQL.”
6. When complete, tap **Save Config**.
CHAPTER 30:

Search Terms

You can learn what your customers are looking for by examining the search terms they use to find products in your store. If enough people look for a product that you don’t carry, perhaps it’s time to add it to your catalog. Meanwhile, rather than have them leave them empty handed, why not redirect them to another product in your catalog? Here are a few ways you can leverage customer search terms:

Landing Page

The landing page for a search term can be a content page, a category page, a product detail page, or even a page on a different site.

Synonyms

One way to improve the effectiveness of catalog search is to include different terms that people may use to describe the same item. You don’t want to lose a sale just because someone is looking for a “sofa,” and your product is listed as a “couch.” You can capture a broader range of search terms by entering the words, “sofa” “davenport,” and “loveseat” as synonyms for “couch,” and direct them to the same landing page.

Misspelled Words

Use search terms to capture common misspellings and redirect them to the appropriate page. For example, if you sell wrought iron patio furniture, you know that many people misspell the term as “rod iron,” or even “rot iron.” You can enter each misspelled word as a search term, and make them synonyms for “wrought iron.” Even though the word is misspelled, the search will be directed to the page for “wrought iron.”
Popular Search Terms

The Search Terms link in the footer of your store displays the search terms used by visitors to your store, ranked by popularity. Search terms appear in a “tag cloud” format, where the size of the text indicates the popularity of the term.

By default, Popular Search Terms is enabled as a search engine optimization tool, but has no direct connection to the catalog search process. Because the Search Terms page is indexed by search engines, any terms on the page can help improve your search engine ranking and the visibility of your store. The URL of the Popular Search Terms page is: mystore.com/search/term/popular/
To configure Popular Search Terms:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand Search Engine Optimization section.
4. Clear the Use system value checkbox. Then, set Popular Search Terms as needed.
5. When complete, tap Save Config.
Adding Search Terms

As you learn new words that people use to search for products in your catalog, you can add them to your search terms list to direct people to the most closely matching products in your catalog.

To add a new search term:

1. On the Admin sidebar, tap Marketing. Then under SEO & Search, choose Search Terms.
2. Tap Add New Search Term. Then, do the following:
a. Under General Information in the **Search Query** box, type the word or phrase that you want to add as a new search term.

b. If your store is available in multiple languages, choose the applicable **Store** view.

c. To redirect the search results to another page in your store, or to another website, enter the full URL of the target page in the **Redirect URL** field.

d. If you want this term to be available for use as a suggestion whenever a search returns no results, set **Display in Suggested Terms** to “Yes.”

3. When complete, tap **Save Search**.

**To edit a search term:**

1. In the Search Terms grid, click the row of any record to open the search term in edit mode.

2. Make the necessary changes.

3. When complete, tap **Save Search**.

**To delete a search term:**

1. In the list, mark the checkbox of the term to be deleted.

2. In the upper-left corner of the list, set **Actions** to “Delete.”

3. When complete, tap **Submit**.
Search Terms Report

The Search Terms report shows the number of results for each term, and the number of times (hits) the term was used. The report data can be filtered by term, store, results, and hits, and exported for further analysis.

To view the search terms report:

1. On the Admin sidebar, tap Reports. Then under Marketing, choose Search Terms.
2. Use the controls to filter the report as needed.
CHAPTER 31:
SEO Best Practices

Search engine optimization is the practice of fine-tuning the content and presentation of a site to improve the way the pages are indexed by search engines. Magento Commerce includes a number of features to support your ongoing SEO effort.

Commerce Resources

See the latest Magento eBooks to gain access to expert insight and online business resources to help develop and improve your store.

Meta Data

Learn more about adding and enhancing keyword-rich meta data for your site and store.

Using a Sitemap

A site map improves the way your store is indexed by search engines, and is specifically designed to find pages that might be overlooked by web crawlers. A site map can be configured to index all pages and images.
URL Rewrites

The URL Rewrite tool lets you change any URL that is associated with a product, category, or CMS page.
Meta Data

Your store is loaded with places where you can enter keyword-rich meta data to improve the way search engines index your site. While setting up your store, you might enter preliminary meta data, with the intention of finishing it later. Over time, you can fine-tune the meta data to target the buying patterns and preferences of your customers.

Meta Tags

**Meta Title**

The meta title appears in the title bar and tab of your browser, and search results listings. The meta title should be unique to the page, and less than seventy characters in length.

**Meta Keywords**

Although some search engines ignore meta keywords, others continue to use them. The current best practice is to incorporate high-value keywords in the meta title and meta description.

**Meta Description**

Meta descriptions provide a brief overview of the page for search results listings. Ideally, a meta description should be between 150-160 characters in length, although the field will accept up to 255 characters.
Canonical Meta Tag

The canonical meta tag tells search engines which page to index when multiple URLs have identical or very similar content.

Structured Data Markup

Rich Snippets

Rich snippets provide detailed information for search results listings and other applications. By default, structured data markup that is based on the schema.org standard is added to your store’s product template. As a result, more information is available for search engines to include as “rich snippets” in product listings.
Canonical Meta Tag

Some search engines penalize websites that have multiple URLs that point to the same content. The canonical meta tag tells search engines which page to index when multiple URLs have identical or very similar content. Using the canonical meta tag can improve your site ranking and aggregate pageviews. The canonical meta tag is placed in the <head> block of a product or category page. It provides a link to your preferred URL, so search engines will give it greater weight.

Example 1: Category Path Creates Duplicate URLs

For example, if your catalog is configured to include the category path in product URLs, your store will generate multiple URLs that point to the same product page.

http://mystore.com/gear/bags/driven-backpack.html
http://mystore.com/driven-backpack.html

Example 2: Category Page Full URL

When canonical meta tags for categories are enabled, the category page of your store includes a canonical URL to the full category URL:

http://mystore.com/gear/bags/driven-backpack.html

Example 3: Product Page Full URL

When canonical meta tags for products are enabled, the product page includes a canonical URL to the domain-name/product-url-key because product URL keys are globally unique.

http://mystore.com/driven-backpack.html

If you also include the category path in product URLs, the canonical URL remains domain-name/product-url-key. However, the product can also be accessed using its full URL, which includes the category. For example, if the product URL key is driven-backpack, and is assigned to the Gear > Bags category, the product can be accessed using either URL.

You can avoid being penalized by search engines by omitting the category from the URL, or by using the canonical meta tag to direct search engines to index either by product or category. As a best practice, it is recommended that you enable canonical meta tags for both categories and products.

To enable the canonical meta tag:

1. On the Admin sidebar, tap Stores. Then under Settings, choose elect Configuration.
2. In the panel on the left under Catalog, choose Catalog.
3. Expand the **Search Engine Optimization** section.

To change any field values, you must first clear the **Use system value** checkbox after each field.

![Search Engine Optimization](image)

4. If want search engines to index only category pages using the full category path, do the following:
   
   a. Set **Use Canonical Link Meta Tag for Categories** to “Yes.”
   
   b. Set **Use Canonical Link Meta Tag for Products** to “No.”

5. If you want search engines to index product pages only using the domain-name/product-url-key format, do the following:
   
   a. Set **Use Canonical Link Meta Tag for Products** to “Yes.”
   
   b. Set **Use Canonical Link Meta Tag for Categories** to “No.”

6. When complete, tap **Save Config**.
Using a Sitemap

A sitemap improves the way your store is indexed by search engines, and is specifically designed to find pages that might be overlooked by web crawlers. A sitemap can be configured to index all pages and images.

When enabled, Magento creates a file called `sitemap.xml` that is saved to the root directory of your installation. The configuration gives you the ability to set the frequency of the updates, and the priority for each type of content. Your sitemap should be updated as frequently as the content on your site changes, which might be daily, weekly, or monthly.

While your site is in development, you might include instructions in the `robots.txt` file for web crawlers to avoid indexing the site. Then before the launch, you can change the instructions to allow the site to be indexed.

<table>
<thead>
<tr>
<th>Process Overview:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Configure and Enable the Sitemap</td>
</tr>
<tr>
<td>Step 2: Configure and Enable robots.txt (Optional)</td>
</tr>
<tr>
<td>Step 3: Submit Your Sitemap to Search Engines</td>
</tr>
<tr>
<td>Step 4: Restore the Previous Robot Instructions (Optional)</td>
</tr>
</tbody>
</table>

**Step 1: Configure and Enable the Sitemap**

Complete the XML Sitemap configuration to determine what is included, and how frequently the sitemap is updated.

**Step 2: Configure and Enable robots.txt (Optional)**

Complete the Search Engine Robots configuration with instructions that direct search engines to crawl the parts of your site that you want to be indexed.

**Step 3: Submit Your Sitemap to Search Engines**

You can submit your sitemap to different search engines by providing them a link to the `sitemap.xml` file in the root of your Magento installation. For more information, see the instructions for the specific search engine. Here are links to instructions for two top search engines:

- [Google](#)
- [Microsoft Bing](#)

**Step 4: Restore Previous Robot Instructions (Optional)**

You can now restore either the original, or default restrictions.
Sitemap Configuration

Your sitemap should be updated as frequently as the content on your site changes, which could be on a daily, weekly, or monthly basis. The configuration lets you set the frequency and priority for each type of content.

**Step 1: Set the Frequency and Priority of Content Updates**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Catalog**, choose **XML Sitemap**.
3. Expand the **Categories Options** section. Then, do the following:
   a. Set **Frequency** to one of the following:
      - Always
      - Hourly
      - Daily
      - Weekly
      - Monthly
      - Yearly
      - Never
   b. In the **Priority** field, enter a value between 0.0 and 1.0. Zero has the lowest priority.

4. Click to expand the **Products Options** section. Then, complete the **Frequency** and **Priority** settings as needed.
5. To determine the extent that images are included in the sitemap, set **Add Images into Sitemap** to one of the following:
   - None
   - Base Only
   - All
6. Click to expand the CMS Pages Options section. Then, complete the Frequency and Priority settings as needed.

7. When complete, tap Save Config.

Step 2: Complete the Generation Settings

1. Expand the Generation Settings section.

2. To generate a sitemap, set Enabled to “Yes.” Then, do the following:
   a. Set Start Time to the hour, minute and second that you want the sitemap to be updated.
   b. Set Frequency to one of the following:
      - Daily
      - Weekly
      - Monthly
c. In the Error Email Recipient field, enter the email address of the person who is to receive notification if an error occurs during a sitemap update.

d. Set Error Email Sender to the store contact who appears as the sender of the error notification.

e. Set Error Email Template to the template used for the error notification.

Step 3: Set the Sitemap File Limits

1. Expand the Sitemap File Limits section. Then, do the following:

a. In the Maximum No of URLs per File field, enter the maximum number of URLs that can be included in the sitemap. By default, the limit is 50,000.

b. In the Maximum File Size field, enter the largest size in bytes that is allocated for the sitemap. The default size is 10,485,760 bytes.

Step 4: Set the Search Engine Submission Settings

1. Expand the Search Engine Submission Settings section.

2. If using a robots.txt file to provide instructions to search engines that crawl your site, set Enable Submission to Robots.txt to “Yes.”

3. When complete, tap Save Config.
Search Engine Robots

The Magento configuration includes settings to generate and manage instructions for web crawlers and bots that index your site. The instructions are saved in a file called “robots.txt” that resides in the root of your Magento installation. The instructions are directives that are recognized and followed by most search engines.

By default, the robots.txt file that is generated by Magento contains instructions for web crawler to avoid indexing certain parts of the site that contain files that are used internally by the system. You can use the default settings, or define your own custom instructions for all, or for specific search engines. There are many articles online that explore the subject in detail.

Example: Custom Instructions

Allows Full Access

| User-agent:* |
| Disallow: |

Disallow Access to All Folders

| User-agent:* |
| Disallow: / |

Default Instructions

| Disallow: /lib/ |
| Disallow: /*.php$ |
| Disallow: /pkginfo/ |
| Disallow: /report/ |
| Disallow: /var/ |
| Disallow: /catalog/ |
| Disallow: /customer/ |
| Disallow: /sendfriend/ |
| Disallow: /review/ |
| Disallow: /*SID= |
Search Engine Robots

To configure robots.txt:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Design.
3. Expand the Search Engine Robots section. Then, do the following:
   a. Set Default Robots to one of the following:
      - INDEX, FOLLOW: Instructs web crawlers to index the site and to check back later for changes.
      - NOINDEX, FOLLOW: Instructs web crawlers to avoid indexing the site, but to check back later or changes.
      - INDEX, NOFOLLOW: Instructs web crawlers to index the site once, but to not check back later for changes.
      - NOINDEX, NOFOLLOW: Instructs web crawlers to avoid indexing the site, and to not check back later for changes.
   b. If needed, enter custom instructions into the Edit Custom instruction of robots.txt file box: For example, while a site is in development, you might want to disallow access to all folders.
   c. To restore the default instructions, tap Reset to Default.
4. When complete, tap Save Config.
CHAPTER 32:
URL Rewrites

The URL Rewrite tool lets you change any URL that is associated with a product, category, or CMS page. When the rewrite goes into effect, any links that point to the previous URL are redirected to the new address.

The terms rewrite and redirect are often used interchangeably, but refer to slightly different processes. A URL rewrite changes the way a URL appears in the browser. A URL redirect, on the other hand, updates the URL that is stored on the server. A URL redirect can be either temporary or permanent. Your store uses URL rewrites and redirects to make it easy for you to change the URL key of a product, category, or page and preserve existing links.

By default, **automatic URL redirects** are enabled for your store. The "Create Permanent Redirect for old URL" checkbox is marked under the URL key field of each product.
Configuring URL Rewrites

URL rewrites make it possible to make existing URLs more “search engine friendly” and also easier for humans to read. Enabling Web Server Apache Rewrites is part of the initial Magento setup. Magento routinely uses URL rewrites to remove the file name “index.php” that normally appears in the URL just after the root folder. When Web Server Rewrites are enabled, the system rewrites each URL to omit “index.php.” The rewrite removes words that convey nothing of value to search engines or customers, and has no impact on performance or site rank.

URL without Web Server Rewrite


URL with Web Server Rewrite

http://www.yourdomain.com/magento/storeview/url-identifier

To configure URL rewrites:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Web.
3. Expand the Search Engine Optimization section.

Search Engine Optimization

4. Set Use Web Server Rewrites to your preference.
5. When complete, tap Save Config.
Automatic Product Redirects

Your store can be configured to automatically generate a permanent redirect whenever the URL key of a product or category changes. In the Search Engine Optimization section, the checkbox below the URL key indicates if permanent redirects are enabled. If your store is already configured to automatically redirect catalog URLs, making a redirect is as easy as updating the URL key. The process to create an automatic redirect is the same for both products and categories.

To set up automatic redirects:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Catalog, select Catalog.
3. Expand the Search Engine Optimization section.
4. Set Create Permanent Redirect for URLs if URL Key Changed to “Yes.”
5. When complete, tap Save Config.
To automatically redirect product URLs:

1. On the Admin sidebar, tap Products. Then under Inventory, choose Catalog.
2. Find the product in the list, and click to open the record.
3. Expand the Search Engine Optimization section. Then in the URL Key field, do the following:
   a. Make sure that the Create Permanent Redirect for old URL checkbox is selected. If not, follow the instructions to enable automatic redirects.
   b. Update the URL Key as needed, using all lowercase characters and hyphens instead of spaces.
4. When complete, tap Save.
5. When prompted to refresh the cache, follow the links in the message at the top of the workspace. The permanent redirect is now in effect for the product and any associated category URLs.

To automatically redirect category URLs:

1. On the Admin sidebar, tap Products. Then under Inventory, choose Categories.
2. Find the category in the tree, and click to open the record.
3. Expand the Search Engine Optimization section. Then in the URL Key field, do the following:
   a. Make sure that the Create Permanent Redirect for old URL checkbox is selected. If not, follow the instructions to enable automatic redirects.
   b. Update the URL Key as needed, using all lowercase characters and hyphens instead of spaces.
4. When complete, tap Save.
5. When prompted to refresh the cache, follow the links in the message at the top of the workspace. The permanent redirect is now in effect for the category and any associated product URLs.
Creating URL Rewrites

The URL Rewrite tool can be used to create product and category rewrites, and custom rewrites for any page in your store. When the rewrite goes into effect, any existing links that point to the previous URL are seamlessly redirected to the new address.

URL rewrites can be used to add high-value keywords to improve the way the product is indexed by search engines. You can also use rewrites to create additional URLs for a temporary seasonal change, or permanent change. Rewrites can be created for any valid path, including CMS content pages. Internally, the system always references products and categories by their ID. No matter how often the URL changes, the ID remains the same. Here are some ways you can use URL rewrites:

**System URL**

http://www.example.com/catalog/category/id/6

**Original URL**

http://www.example.com/peripherals/keyboard.html

**Redirected Product URL**

http://www.example.com/ergonomic-keyboard.html

**Additional Category URLs**

http://www.example.com/all-on-sale.html
http://www.example.com/save-now/spring-sale

---

### URL Rewrites

<table>
<thead>
<tr>
<th>ID</th>
<th>Store View</th>
<th>Request Path</th>
<th>Target Path</th>
<th>Redirect Type</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>4180</td>
<td>Main Website</td>
<td>Main Store</td>
<td>English</td>
<td>catalog/product/view/id/104</td>
<td>Yes</td>
</tr>
<tr>
<td>4181</td>
<td>Main Website</td>
<td>Main Store</td>
<td>English</td>
<td>catalog/product/view/id/105</td>
<td>No</td>
</tr>
<tr>
<td>4182</td>
<td>Main Website</td>
<td>Main Store</td>
<td>English</td>
<td>catalog/product/view/id/106</td>
<td>No</td>
</tr>
<tr>
<td>4183</td>
<td>Main Website</td>
<td>Main Store</td>
<td>English</td>
<td>catalog/product/view/id/107</td>
<td>No</td>
</tr>
</tbody>
</table>

URL Rewrites
Product Rewrites

Before you begin, make sure that you understand exactly what the redirect is to accomplish. Think in terms of "target" and "original request," or "redirect to" and "redirect from." Although people might still navigate to the former page from search engines or outdated links, the redirect causes your store to switch to the new target.

If automatic redirects are enabled for your store, there is no need to create a rewrite when a product URL Key is changed.

Process Overview:
Step 1. Plan the Rewrite
Step 2: Create the Rewrite
Step 3. Test the Result

Step 1: Plan the Rewrite

1. To avoid mistakes, write down the "redirect to" path and "redirect from" path. The path includes the URL Key and suffix, if applicable.

If you're not sure, open each product page in your store, and copy the path from the address bar of your browser. When creating a product redirect, you can either include or exclude the category path. For this example, we create a product redirect without a category path.

Product with Category Path

Redirect to: gear/bags/impulse-duffle.html
Redirect from: gear/bags/overnight-duffle.html
Product without Category Path

Redirect to: impulse-duffle.html
Redirect from: overnight-duffle.html

Step 2: Create the Rewrite

1. On the Admin sidebar, tap Marketing. Then under Search & SEO, choose URL Rewrites.

2. Before you proceed, do the following to verify that the "request path" is available.
   a. In the search filter at the top of the Request Path column, enter the URL key of the page that is to be redirected. Then, tap Search.
   b. If there are multiple redirect records for the page, find the one that matches the applicable store view. Then, open the redirect record in edit mode.
   c. In the upper-right corner, tap Delete. When prompted, tap OK to confirm.

3. In the upper-right corner of the URL Rewrites page, tap Add URL Rewrite.

4. When you return to the URL Rewrites page, tap Add URL Rewrite.

5. Set Create URL Rewrite to “For product.”

6. In the grid, find the product that is the target—or destination—of the redirect. Then, click the row.

7. Below the category tree, tap Skip Category Selection. For this example, the redirect does not include a category.
The Add URL Rewrite for a Product page displays a link to the target in the upper-left corner, and the Target Path field displays the system version of the path, which cannot be changed. Initially, the Redirect Path field also displays the target path.

a. If you have multiple store views, set **Store** to the view where the rewrite applies. Otherwise, a rewrite will be created for each view.

b. In the **Request Path** field, type over the default entry, and enter the URL key and suffix—if applicable—of the original product request. This is the "Redirect from" product that you identified in the planning step.

The Request Path must be unique for the specified store. If there is already a redirect that uses the same Request Path, you will receive an error when you try to save the redirect. The previous redirect must be deleted before you can create a new one.

c. Set **Redirect Type** to one of the following:
   - Temporary (302)
   - Permanent (301)

d. For your own reference, enter a brief **Description** of the rewrite.
8. Before saving the redirect, review the following:
   - The link in the upper-left corner displays the name of the target product.
   - The Request Path contains the path for the original "redirect from" product.

9. When complete, tap **Save**.

The new product rewrite now appears at the top of the URL Rewrites grid.

---

**Step 3: Test the Result**

1. Go to the home page of your store.

2. Do one of the following:
   - Navigate to the original "redirect from" product request page.
   - In the address bar of the browser, enter the path to the original "redirect from" product immediately after the store URL. Then, press **Enter**.
The new target product appears instead of the original product request.

### Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create URL Rewrite</td>
<td>Indicates the type of rewrite. The type cannot be changed after the rewrite is created. Options: Custom For category For product For CMS page</td>
</tr>
<tr>
<td>Request Path</td>
<td>The product that is to be redirected. Depending on your configuration, the Request Path might include the .html or .htm suffix, and category. The Request Path must be unique, and cannot be in use by another redirect. If you receive an error that the Request Path already exists, delete the existing redirect, and try again.</td>
</tr>
<tr>
<td>Target Path</td>
<td>The internal path that is used by the system to point to the destination of the redirect. The target path is grayed out and cannot be edited.</td>
</tr>
<tr>
<td>Redirect</td>
<td>Determines the type of redirect. Options: No Permanent (301) Indicatestosearchenginesthattherewriteispermanent.searchenginesgenerallyretain pagerankinformationforpermanentrewrites. Temporary (302) Indicatestosearchenginesthattherewriteisforalimitedtime.searchenginesgenerallydonotretain pagerankinformationfortemporaryrewrites.</td>
</tr>
<tr>
<td>Description</td>
<td>Describes the purpose of the rewrite for internal reference.</td>
</tr>
</tbody>
</table>
Category Rewrites

If a category is removed from your catalog, you can use a category rewrite to redirect links to the URL of another category in your store. Think in terms of "target" and "original request," or "redirect to" and "redirect from." Although people might still navigate to the former page from search engines or outdated links, the redirect causes your store to switch to the new target.

If automatic redirects are enabled for your store, there is no need to create a rewrite when a category URL Key is changed.

### Process Overview:

**Step 1: Plan the Rewrite**

1. To avoid mistakes, write down the "redirect to" path and "redirect from" path. The paths should include the URL Key and suffix, if applicable.

If you're not sure, open each category page in your store, and copy the path from the address bar of your browser.

**Category Path**

- Redirect to: gear/backpacks-and-bags.html
- Redirect from: gear/bags.html
Step 2: Create the Rewrite

1. On the Admin sidebar, tap Marketing. Then under SEO & Search, choose URL Rewrites.

2. Before you proceed, do the following to verify that the "request path" is available,
   a. In the search filter at the top of the Request Path column, enter the URL key of the category that is to be redirected. Then, tap Search.
   b. If there are multiple redirect records for the page, find the one that matches the applicable store view. Then, open the redirect record in edit mode.
   c. In the upper-right corner, tap Delete. When prompted, tap OK to confirm.

3. When you return to the URL Rewrites page, tap Add URL Rewrite.

4. Set Create URL Rewrite to “For category.” Then in the category tree, choose the target category that is the destination of the redirect.

5. In the URL Rewrite section, do the following:
   a. If you have multiple stores, select the Store where the rewrite applies.
   b. In the Request Path field, enter the URL key of the category that the customer requests. This is the "redirect from" category.

The Request Path must be unique for the specified store. If there is already a redirect that uses the same Request Path, you will receive an error when you try to save the redirect. The previous redirect must be deleted before you can create a new one.
c. Set Redirect to one of the following:
   - Temporary (302)
   - Permanent (301)

d. For your reference, enter a brief description of the rewrite.

Category Rewrite Information

6. Before saving the redirect, review the following:
   - The link in the upper-left corner displays the name of the target category.
   - The Request Path contains the path for the original "redirect from" category.

7. When complete, tap the Save button.
   The new category rewrite appears at the top of the URL Rewrites grid.
Step 3: Test the Result

1. Go to the home page of your store.

2. Do one of the following:
   - Navigate to the original "redirect from" category.
   - In the address bar of the browser, enter the path to the original "redirect from" category immediately after the store URL. Then, press Enter.

The new target category appears instead of the original category request.

Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create URL Rewrite</td>
<td>Indicates the type of rewrite. The type cannot be changed after the rewrite is created. Options:</td>
</tr>
<tr>
<td></td>
<td>Custom</td>
</tr>
<tr>
<td></td>
<td>For category</td>
</tr>
<tr>
<td></td>
<td>For product</td>
</tr>
<tr>
<td></td>
<td>For CMS page</td>
</tr>
<tr>
<td>Request Path</td>
<td>The category that is to be redirected. Depending on your configuration, the Request Path might include the .html or .htm suffix, and parent category.</td>
</tr>
<tr>
<td></td>
<td>The Request Path must be unique, and cannot be in use by another redirect. If you receive an error that the Request Path already exists, delete the existing redirect, and try again.</td>
</tr>
<tr>
<td>Target Path</td>
<td>The internal path that is used by the system to point to the destination of the redirect. The target path is grayed out and cannot be edited.</td>
</tr>
<tr>
<td>Redirect</td>
<td>Determines the type of redirect. Options:</td>
</tr>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>No redirect is specified.</td>
</tr>
<tr>
<td></td>
<td>Many operations create redirect requests of this type. For example, every time you add products to a category, a redirect of the &quot;No&quot; type is created each store view.</td>
</tr>
</tbody>
</table>
Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary (302)</td>
<td>Indicates to search engines that the rewrite is for a limited time. Search engines generally do not retain page rank information for temporary rewrites.</td>
</tr>
<tr>
<td>Permanent (301)</td>
<td>Indicates to search engines that the rewrite is permanent. Search engines generally retain page rank information for permanent rewrites.</td>
</tr>
<tr>
<td>Description</td>
<td>Describes the purpose of the rewrite for internal reference.</td>
</tr>
</tbody>
</table>
CMS Page Rewrites

Before you begin, make sure that you understand exactly what the redirect is to accomplish. Think in terms of "target" and "source," or "redirect to" and "redirect from." Although people might still navigate to the former page from search engines or outdated links, the redirect causes your store to switch to the new target.

- **Redirect to:** new-page
- **Redirect from:** old-page

**Process Overview:**
- **Step 1: Plan the Rewrite**
- **Step 2: Create the Rewrite**
- **Step 3: Test the Result**

**Step 1: Plan the Rewrite**

1. To avoid mistakes, write down the URL key of the "redirect to" page and "redirect from" page.

If you're not sure, open each page in your store, and copy the path from the address bar of your browser.

**CMS Page Path**

- **Redirect to:** new-page
- **Redirect from:** old-page
Step 2: Create the Rewrite

1. On the Admin sidebar, tap Marketing. Then under SEO & Search, choose URL Rewrites.

2. Before you proceed, do the following to verify that the “request path” is available.
   a. In the search filter at the top of the Request Path column, enter the URL key of the page that is to be redirected. Then, tap Search.
   b. If there are multiple redirect records for the page, find the one that matches the applicable store view. Then, open the redirect record in edit mode.
   c. In the upper-right corner, tap Delete. When prompted, tap OK to confirm.

3. When you return to the URL Rewrites page, tap Add URL Rewrite.

4. Set Create URL Rewrite to “for CMS page.”

5. Find your new target page in the grid, and open in edit mode.

6. Under URL Rewrite Information, do the following:
   a. If you have multiple store views, select the Store where the rewrite applies.
   b. In the Request Path field, enter the URL key of the original page that the customer requests. This is the “redirect from” page.

   The Request Path must be unique for the specified store. If there is already a redirect that uses the same Request Path, you will receive an error when you try to save the redirect. The previous redirect must be deleted before you can create a new one.

   c. Set Redirect to one of the following:
- Temporary (302)
- Permanent (301)

d. For your reference, enter a brief description of the rewrite.

7. Before saving the redirect, review the following:
   - The link in the upper-left corner displays the name of the target page.
   - The Request Path contains the path for the original "redirect from" page.

8. When complete, tap Save.

The new rewrite appears in the grid at the top of the list.
**Step 3: Test the Result**

1. Go to the home page of your store.

2. Do one of the following:
   - Navigate to the original "redirect from" page.
   - In the address bar of the browser, enter the name of the original "redirect from" page immediately after the store URL. Then, press **Enter**.

The new target page appears instead of the original page request.

**Field Descriptions**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Create URL Rewrite     | Indicates the type of rewrite. The type cannot be changed after the rewrite is created. Options:  
                         | Custom      |
|                        | For category|
|                        | For product |
|                        | For CMS page|
| Request Path           | The CMS page that is to be redirected.  
                         | The Request Path must be unique, and cannot be in use by another redirect. If you receive an error message that the Request Path already exists, delete the existing redirect, and try again.|
| Target Path            | The internal path that is used by the system to point to the destination. The target path is grayed out and cannot be edited.|
| Redirect               | Determines the type of redirect. Options:  
                         | No redirect is specified.  
                         | Temporary (302) Indicates to search engines that the rewrite is for a limited time. Search engines generally do not retain page rank information for temporary rewrites.  
                         | Permanent (301) Indicates to search engines that the rewrite is permanent. Search engines generally retain page rank information for permanent rewrites.|
| Description            | Describes the purpose of the rewrite for internal reference. |
Custom Rewrites

A custom rewrite can be used to manage miscellaneous redirects, such as redirecting a page from your store to an external website. For example, you might have two Magento websites, each with their own domain. You can use a custom redirect to reroute requests for a product, category, or page to the other website. Unlike other redirect types, the target of a custom redirect is not chosen from a list of existing pages in your store.

Before you begin, make sure that you understand exactly what the redirect is to accomplish. Think in terms of "target" and "original request," or "redirect to" and "redirect from." Although people might still navigate to the former page from search engines or outdated links, the redirect causes your store to switch to the new target.

![Add URL Rewrite](image)

---

### Process Overview:

**Step 1: Plan the Rewrite**

**Step 2: Create the Rewrite**

**Step 3: Test the Result**

---

**Step 1: Plan the Rewrite**

1. To avoid mistakes, write down the URL of the "redirect to" page, and the URL key of the "redirect from" page.

If you're not sure, open each page, and copy the URL from the address bar of your browser.

- **Custom Path**
- **Redirect to:** http://www.different-website.com/page.html
- **Redirect from:** cms-page
Step 2: Create the Rewrite

1. On the Admin sidebar, tap Marketing. Then under SEO & Search, choose URL Rewrites.

2. Before you proceed, do the following to verify that the "request path" is available:
   a. In the search filter at the top of the Request Path column, enter the URL key of the page that is to be redirected. Then, tap Search.
   b. If there are multiple redirect records for the page, find the one that matches the applicable store view. Then, open the redirect record in edit mode.
   c. In the upper-right corner, tap Delete. When prompted, tap OK to confirm.

3. When you return to the URL Rewrites page, tap Add URL Rewrite.

4. Set Create URL Rewrite to "Custom."

5. Under URL Rewrite Information, do the following:
   a. If you have multiple store views, select the Store where the rewrite applies.
   b. In the Request Path field, enter the URL key and path—if applicable—of the product, category, or CMS page that is to be redirected.

The Request Path must be unique for the specified store. If there is already a redirect that uses the same Request Path, you will receive an error when you try to save the redirect. The previous redirect must be deleted before you can create a new one.

   c. In the Target Path field, enter the URL of the destination. If the target is located on another website, enter the fully qualified URL.
   d. Set Redirect to one of the following:
      - Temporary (302)
      - Permanent (301)
   e. For your reference, enter a brief description of the rewrite.
6. Before saving the redirect, review the following:
   - The Request Path contains the URL key or path of the original "redirect from" page.
   - The Target Path contains the URL of the "redirect to" page.

7. When complete, tap **Save**. The new rewrite appears in the grid at the top of the list.

---

**Saved URL Rewrite**

**Step 3: Test the Result**

1. Go to the home page of your store.
2. Do one of the following:
• Navigate to the original "redirect from" page.

• In the address bar of the browser, enter the name of the original "redirect from" page immediately after the store URL. Then, press Enter.

The new target page appears instead of the original page request.

**Field Descriptions**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Create URL Rewrite   | Indicates the type of rewrite. The type cannot be changed after the rewrite is created. Options:  
                         Custom  
                         For category  
                         For product  
                         For CMS page  
| Request Path         | The path to the product, category, or CMS page that is to be redirected. Depending on your configuration, the Request Path might include the .html or .htm suffix.  
                         The Request Path must be unique, and cannot be in use by another redirect. If you receive an error that the Request Path already exists, delete the existing redirect, and try again.  
| Target Path          | The path or URL that is the destination of the redirect.  
| Redirect             | Determines the type of redirect. Options:  
                         No  
                         Many operations create redirect requests of this type. For example, every time you add products to a category, a redirect of the "No" type is created each store view.  
                         Temporary (302)  
                         Indicates to search engines that the rewrite is for a limited time. Search engines generally do not retain page rank information for temporary rewrites.  
                         Permanent (301)  
                         Indicates to search engines that the rewrite is permanent. Search engines generally retain page rank information for permanent rewrites.  
| Description           | Describes the purpose of the rewrite for internal reference. |
CHAPTER 33: Google Tools

Your store configuration is integrated with the following Google tools to help optimize your content, analyze your traffic, and connect your catalog to shopping aggregators and marketplaces.

- Google Analytics
- Google Adwords
Google Analytics

Google Analytics gives you the ability to define additional custom dimensions and metrics for tracking, with support for offline and mobile app interactions, and access to ongoing updates.

Process Overview:
Step 1: Sign Up for Google Analytics
Step 2: Complete the Magento Configuration

Step 1: Sign Up for Google Analytics
Visit the Google website, and sign up for a Google Analytics account.

Step 2: Complete the Magento Configuration

1. Return to your store, and log in to the Admin. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, choose Google API.

3. Expand the Google Analytics section. Then, do the following:
   a. Set Enable to “Yes.”
   b. Enter your Google Analytics Account Number.
   c. If you want to conduct A/B testing and other performance tests on your content, set Content Experiments to “Yes.”

4. When complete, tap Save Config.
Google AdWords

Google AdWords is a service that you can use to place ads in Google Search results and on the pages of companies in the Google Display Network. The AdWords dashboard includes tools to manage your campaigns, track response, and measure results.

Conversion tracking shows how many ad clicks lead to a sale or other valuable action. The "Success" page that appears to your customer after an order has been submitted is used to track conversions because it appears only after a sale. After completing the Google AdWords configuration for your store, there is no need to copy the conversion tracking script to the "Success" page, because Magento already has the necessary information. To learn more, see Google AdWords Help.

![Magento Ad in Google Search Results](image)

**Step 1: Create a Google AdWords Campaign**

1. Visit Google AdWords, and sign up for an account.

2. Follow the instructions to create a campaign.

3. To set up conversion tracking for your campaign, do the following:
   a. On the Tools tab of your AdWords dashboard, choose Conversions. Then, tap Conversion.
   b. When prompted for the conversion source, choose Website
   c. Enter a name for the conversion action that you want to track. Then, tap Done.
   d. Click Value. Then if applicable, assign a value to the conversion. For example,
      - If you make $5 on each sale, choose "Each time it happens," and assign a value of $5.
      - If the value of each sale varies, leave the value blank.

   Then, tap Done.

   e. Tap Conversion windows, and complete the settings to determine how long the conversions are to be tracked, the reporting category, and attribution model.

4. When complete, tap Save and Continue.
Step 2: Get Your Conversion Tag

1. Under **Install your tag**, choose to count conversions on **Page load**.

2. As an option, you can add the **Google Site Stats** notification to the conversion page. The notification appears in the lower corner with a link to Google's security standards and cookie usage.

3. To choose how you want to manage the your AdWords tag, do one of the following:
   - If you plan to add the script to your store yourself, choose **Save instructions and tag**.
   - If you plan to have someone else add the script to your store, choose **Email instructions and tag**.

4. When complete, tap **Done**.

Step 3: Configure Your Store

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. If configuring Google AdWords for a specific store view, do the following:
   a. In the upper-left corner, choose the **Store View** that is to be configured.
   b. When prompted to confirm scope switching, tap **OK**.

3. In the panel on the left, under **Sales**, choose **Google API**. Then, expand the **Google AdWords** section and do the following:
   a. If necessary, clear the **Use Website** checkbox for each setting to be changed.
   b. Set **Enable** to “Yes.”.
   c. Enter the **Conversion ID** from your Google AdWords script.
To format the Google Sites Stat notification, do the following:

a. Set **Conversion Language** to the language that is identified in your Google AdWords script.

b. Enter the **Conversion Format** to be used for the Google Sites Stat notification on the conversion page.

   1. Displays a one-line notification with a link to more information about Google tracking.
   2. Displays a two-line notification with a link to more information about Google tracking.
   3. Displays no customer notification.

c. Enter the **hexadecimal code** for the **Conversion Color** that you want to use for the Google Site Stats notification label.

d. Enter the encrypted text for the **Conversion Label** that appears on the Google Sites Stat notification.

For example: MlEYCOKBnGoQz6CZoAM

### Sample Google AdWords Tag Code

```html
<!-- Google Code for Back to School Sale Conversion Page -->
<script type="text/javascript">
/* <![CDATA[ */
var google_conversion_id = 999999999;
var google_conversion_language = "en";
var google_conversion_format = "3";
var google_conversion_color = "ffffff";
var google_conversion_label = "MlEYCOKBnGoQz6CZoAM";
var google_remarketing_only = false;
/* ]]> */
</script>
<script type="text/javascript" src="//www.googleadservices.com/pagead/conversion.js"></script>
<noscript>
<div style="display:inline;">  
</div>
</noscript>
```
5. **Set Conversion Value Type** to one of the following:

- **Dynamic**: Determines that a conversion has occurred based on the dynamic Order Amount value.
- **Constant**: Determines that a conversion has occurred based on a specific value entered.

For a Constant conversion value type, enter a specific **Value** for the Order Amount to qualify as a conversion.

6. When complete, tap **Save Config**.

**Step 4: Verify the Configuration**

Within a few hours, the tracking status in your Google AdWords dashboard changes from "Unverified" to "No recent conversions" or "Recording conversions." When someone clicks your ad and makes a purchase, the conversion appears on the Conversion Actions page of your dashboard and campaign report.
CONTENT
Content Elements

In this section of the guide, you’ll learn how to create and manage content pages and blocks, and use variables and widgets to add dynamic content.

Content Menu
Pages
Core Content Pages
Workspace Controls
Adding a New Page
Using the Editor
Inserting a Link
Inserting an Image
Inserting a Widget
Inserting a Variable
Configuring the Editor
Adding a Lightbox or Slider
Using Media Storage

Blocks
Adding a New Block
Adding Social Plugins
Positioning Blocks on a Page

Widgets
Widget Types
Creating a Widget
New Products List

Design & Theme
CHAPTER 34: 

Content Menu

The term content marketing\(^1\) refers to the art of promoting your products or services by providing valuable information to your customers at no charge. The quality of your content helps distinguish your store from others, increases your visibility to search engines, and provides support to your customers. This soft-sell approach is often more effective than advertising, builds credibility and trust, and can turn your store into a destination. Content is still king.

Your content should reflect the branding of your store, and be delivered with your distinctive visual presentation and voice to convey your message. Use pictures to tell a story. Educate, inspire, and entertain. Keep in mind that with quality content, sometimes less is more.

\(^1\)The art of promoting products or services by providing valuable information at no charge.
Menu Options

Pages
Create pages with text, images, blocks, variables, and widgets, that can be incorporated into the navigation of your store, and linked to other pages.

Blocks
Create blocks of content without writing any code. Blocks can contain text, images, and even video, and can be assigned to any part of the page layout.

Widgets
Display dynamic data and add blocks, links, and interactive elements most anywhere in your store.
Design

Learn to manage the visual presentation of your store, apply themes, and schedule design changes.
CHAPTER 35:

Pages

All content can be viewed in terms of its shelf life, just as any product in a store. Did you know that the shelf life of social media content is less than twenty-four hours? The potential shelf life of the content you create can help you decide where to invest your resources.

Content with a long shelf life is sometimes referred to as evergreen content\(^1\). Examples of evergreen content include customer success stories, "how to" instructions, and Frequently Asked Questions (FAQ.) In contrast, content is perishable by nature includes events, industry news, and press releases.

\(^1\)Content that has a long shelf life.
Core Content

The Magento demo store has examples of core content pages to help you get started. Take a look at the following pages in your store, to make sure that the content conveys your message, voice, and brand.

Content Pages

Home

The demo “Home” page includes a banner, an image carousel, several static blocks with links, and a list of new products.

About Us

The “About Us” page is linked from the footer of your store. You can include images, video, links to press releases and announcements. The sample page has an image on the right, and one of a decorative sort to indicate the end of the page.

Customer Service

The “Customer Service” page is another node in the page hierarchy. The two headers on the page have content that only becomes visible when the header is clicked.
Privacy Policy

Your store’s “Privacy Policy” page should be updated with your own information. As a best practice, your privacy policy should explain to your customers the type of information that your company collects and how it is used.

404 Not Found

The "404 Page Not Found" page is named for the response code that is returned when a page cannot be found. URL redirects reduce the number of times that this page appears. However, for those times when it is necessary, you might as well take advantage of the opportunity to offer some links to products that the customer might find interesting.

Enable Cookies

The “Enable Cookies” page appears when visitors to your site do not have cookies enabled in their browsers. The page provides step-by-step, illustrated instructions to enable cookies for the most popular browsers.

Service Unavailable

The “503 Service Unavailable” page is named for the response code that is returned when the server is unavailable.
Default Pages

The Default Pages configuration determines the landing page that is associated with the base URL, and the corresponding home page. It also determines which page appears when a “Page Not Found” error occurs, and if a breadcrumb trail appears at the top of each page.

To configure the default pages:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Web.
3. Expand the Default Pages section. Then, do the following:

   ![Default Pages configuration settings](image)

    **Default Pages**

   a. In the Default Web URL field, enter the relative path to the folder in the Magento installation that contains the landing page. The default value is “cms.”

   For a specific store view, clear the Use Default checkbox next to the Default Web URL field, and any other default fields to be changed.

   b. Set CMS Home Page to the CMS page to be used as the home page.

   c. In the Default No-route URL field, enter the relative path to the folder in the Magento installation where the page is redirected when a “404 Page Not Found” error occurs. The default value is “cms/index/noRoute.”

   d. Set CMS No Route Page to the CMS page that appears when a “404 Page Not Found” error occurs.

   e. Set CMS No Cookies Page to the CMS page that appears when cookies are disabled in the browser.

   f. If you want a breadcrumb trail to appear at the top of all CMS pages, set Show Breadcrumbs for CMS Pages to “Yes.”

4. When complete, tap Save Config.
Workspace Controls

The page workspace includes tools to help you quickly find the pages you need, and commands to perform routine maintenance on individual or multiple pages. You can also quickly update page properties from the grid.

To quickly update page properties:

1. Click any row in the grid. To select multiple records, mark the checkbox of each row that you want to update.

2. Update any of the following properties:
   - Title
   - URL Key
   - Status
   - Layout

3. When complete, tap Save.
## Workspace Controls

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add New Page</td>
<td>Adds a new page.</td>
</tr>
<tr>
<td>Search</td>
<td>Initiates a catalog search based on the current filters.</td>
</tr>
<tr>
<td>Actions</td>
<td>Lists all actions that can be applied to selected items in the list. To</td>
</tr>
<tr>
<td></td>
<td>apply an action to a page, or to multiple pages, mark the checkbox in the</td>
</tr>
<tr>
<td></td>
<td>first column of each record that is subject to the action. Options:</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
</tr>
<tr>
<td></td>
<td>Disable</td>
</tr>
<tr>
<td></td>
<td>Enable</td>
</tr>
<tr>
<td></td>
<td>Edit</td>
</tr>
<tr>
<td>Select</td>
<td>The control in the header of the first column can be used to select</td>
</tr>
<tr>
<td></td>
<td>multiple records as the target of action. Mark the checkbox in the first</td>
</tr>
<tr>
<td></td>
<td>column of each record that you want to select. Options: Select All /</td>
</tr>
<tr>
<td></td>
<td>Deselect All</td>
</tr>
<tr>
<td>Save Edits</td>
<td>Applies the current action to selected records.</td>
</tr>
<tr>
<td>Edit</td>
<td>Opens the record in edit mode. You can accomplish the same thing by</td>
</tr>
<tr>
<td></td>
<td>clicking anywhere on the row.</td>
</tr>
</tbody>
</table>
## Columns

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select</td>
<td>The checkbox in the first column is used to select multiple records: Options: Select All, Deselect All</td>
</tr>
<tr>
<td>ID</td>
<td>The ID is an incrementing number that is assigned to each page.</td>
</tr>
<tr>
<td>Title</td>
<td>The page title appears at the top of each page.</td>
</tr>
<tr>
<td>URL Key</td>
<td>The URL key is similar to a file name, and identifies the page in the URL.</td>
</tr>
<tr>
<td>Layout</td>
<td>Determines if the page appears with sidebars to the right or left of the main content area. Options: 1 column, 2 columns with left bar, 2 columns with right bar, 3 columns, Empty</td>
</tr>
<tr>
<td>Store View</td>
<td>Can be used to associate the page with a specific store view.</td>
</tr>
<tr>
<td>Status</td>
<td>Indicates if the page is currently online or offline. Options: Enabled / Disabled</td>
</tr>
<tr>
<td>Created</td>
<td>The date the page was created.</td>
</tr>
<tr>
<td>Modified</td>
<td>The data the page was last modified.</td>
</tr>
<tr>
<td>Action</td>
<td>The actions that can be applied to an individual record include: Edit (Opens the page in edit mode), Delete (Deletes the page), View (Displays the page in preview mode).</td>
</tr>
</tbody>
</table>
Page Search

The Search box in the upper-left of the page grid can be used to find specific pages by keyword. For a more advanced search, you can filter the search by multiple parameters.

**Keyword Search Results**

**To search by keyword:**

1. Enter a search term into the page search box.
2. Tap **Search (🔍)** to display the results. The results include all pages that contain the keyword.
To filter search:

1. If necessary, click **Clear All** to clear the previous search criteria.
2. Tap the **Filters (▼)** tab to display the selection of search filters.
3. Complete as many of the filters as necessary to describe the page(s) that you want to find.
4. Tap **Apply Filters** to display the results.
### Search Filters

<table>
<thead>
<tr>
<th>FILTER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Filter the search by page record ID.</td>
</tr>
<tr>
<td>Title</td>
<td>Filter the search based on the page title.</td>
</tr>
<tr>
<td>URL Key</td>
<td>Filter the search by the URL Key.</td>
</tr>
<tr>
<td>Created</td>
<td>Filter the search by the date the page was created.</td>
</tr>
<tr>
<td>Modified</td>
<td>Filter the search based on the date the page was last modified.</td>
</tr>
<tr>
<td>Store View</td>
<td>Filter the search based on store view. Options: (All available Store Views)</td>
</tr>
<tr>
<td>Layout</td>
<td>Filter the search based on page layout. Options:</td>
</tr>
<tr>
<td></td>
<td>1 column</td>
</tr>
<tr>
<td></td>
<td>2 columns with left bar</td>
</tr>
<tr>
<td></td>
<td>2 columns with right bar</td>
</tr>
<tr>
<td></td>
<td>3 columns</td>
</tr>
<tr>
<td></td>
<td>Empty</td>
</tr>
<tr>
<td>Status</td>
<td>Filter the search on the page status. Options: Disables / Published</td>
</tr>
</tbody>
</table>

- **Apply Filters** Applies all filters to the search.
- **Cancel** Cancels the current search.
- **Clear All** Clears all search filters.
Page Actions

Pages can be edited, disabled, enabled, and deleted. To apply an action to an individual page, mark the checkbox in the first column. To select or deselect all pages, use the mass actions control at the top of the column.

To apply an action:
The Action column on the far right can be used to apply any of the following actions to the individual page:

- Edit
- Delete
- View
Page Grid Layout

The selection of columns and their order in the grid can be changed according to your preference. To keep the new column arrangement, you can save it as a view.

Moving a Column

To change the selection of columns:

In the upper-right corner, tap the **Columns (ﬁ)** control. Then, do the following:

- Mark the checkbox of any column you want to add to the grid.
- Clear the checkbox of any column you want to remove from the grid.

To move a column:

1. Tap the header of the column, and hold.
2. Drag the column to the new position, and release.
To save a view:

1. Tap the View (⟮) control. Then, tap Save Current View.

2. Enter a name for the view. Then, click the arrow (⟳) to save all changes. The name of the view now appears as the current view.

To change the view:

Tap the View (⟮) control. Then, do one of the following:

- Choose the view that you want to use.
- To change the name of a view, tap the Edit (⟯) icon. Then, update the name.
Adding a New Page

The process of adding a new content page to your store is essentially the same for any type of page you might want to create. You can include text, images, blocks of content, variables, and widgets. Most content pages are designed to be read by search engines first, and by people second. Keep the needs of each of these two very different audiences in mind when choosing the page title, and URL, and when composing the meta data, and content.

The following instructions walk you through each step to create a basic page. Some advanced features are skipped over, but are covered in other topics.

### Process Overview:

1. **Step 1: Add a New Page**
2. **Step 2: Complete the Content**
3. **Step 3: Complete the SEO Information**
4. **Step 4: Define the Scope**
5. **Step 5: Make Design Changes (Optional)**
6. **Step 6: Preview the Page**
7. **Step 7: Publish the Page**

### Step 1: Add a New Page

1. On the Admin sidebar, tap **Content**. Then under **Elements**, choose **Pages**.
2. Tap **Add New Page**.
3. On the new page, do the following:
   a. By default, a new page is published when the record is saved. If you do not want to publish the page immediately, set **Enable Page** to "No."
   b. Enter the **Page Title**. The Page Title is the name that appears in the breadcrumb trail navigation.

4. To schedule design changes, expand ☑ the **Custom Design Update** section. Then, do the following:
   a. Use the calendar (📅) to choose the **From** and **To** dates when the design change is to be in effect.
   b. If applicable, set **New Theme** to a different theme that is to be used for the page.
   c. If applicable, set **New Layout** to one of the following:
      - 1 column
      - 2 columns with left bar
      - 2 columns with right bar
      - 3 columns
      - Empty
Step 2: Complete the Content

1. Expand the Content section.

2. In the Content Heading box, type the heading that you want to appear at the top of the page.

3. By default, the editor opens in WYSIWYG mode with the toolbar at the top.
   - If you prefer to work directly with the HTML code, tap Show / Hide Editor.

4. Complete the content and format the text as needed. You can add images, variables, and widgets as needed. To learn more, see: Using the Editor.

5. Tap Save and Continue Edit.

Step 3: Complete the SEO Information

1. Expand the Search Engine Optimization section. Then, do the following:
   a. When the page was saved, a default URL key was created that is based on the Content Heading. You can accept the default, or enter another URL Key that consists of all lowercase characters, with hyphens instead of spaces.
   b. Enter a Meta Title for the page. The Meta Title should be less than seventy characters in length, and appears in the browser title bar and tab.
   c. Enter your choice of high-value Meta Keywords that search engines can use to index the page. Separate multiple words with a comma. Meta keywords are ignored by some search engines, but used by others.
   d. In the Meta Description field, enter a brief description of the page for search results listings. Ideally, the description should be from 150-160 characters in length, with a maximum limit of 255.
2. Tap **Save and Continue Edit**.

**Step 4: Define the Scope of the Page**

1. Expand the **Page in Websites** section.

2. In the **Store View** list, select each view where the page is to be available. If the installation has multiple websites, select each website and store view where the page is to be available.

**Step 5: Enter Any Design Changes** (Optional)

1. Expand the **Design** section. Then, do the following:
a. To change the page layout, set Layout to one of the following:
   - 1 column
   - 2 columns with left bar
   - 2 columns with right bar
   - 3 columns
   - Empty

b. To include additional layout instructions, enter valid XML code in the Layout Update XML box.

**Step 6: Preview the Page**

1. To return to the Pages grid, tap Save Page.
2. Find the page in the grid. Then in the Action column, select View.
3. To return to the grid, tap Back in the upper-left corner of the browser window.

**Step 7: Publish the Page**

1. In the Action column of the grid, select Edit.
2. Set Enable Page to "Yes."
3. Tap [Save Page].

Now that your page is complete, it can be added to your store navigation, linked to other pages, or added as a link in the footer of your store. You can also use it as your new home page.
Switching Home Pages

You can maintain a selection of different home pages, and activate the page that you want to use as the default home page.

**To Change the Home Page:**

1. Complete the steps to add a new page.
2. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
3. In the panel on the left under General, choose Web.
4. Expand the Default Pages section. Then, do the following:

   ![Default Pages](image)

   **Default Pages**

   a. Set CMS Home Page to the new page.
   b. Tap Save Config.

5. In the message at the top of the workspace, tap the Cache Management link, and refresh any invalid caches.
Media Storage

Media storage helps you organize and gain access to media files that are stored on the server. The path to the location of the files is determined by the Base URL configuration. Files in media storage can be accessed from the editor while working on pages and static blocks. Media storage is usually located in the file system on the same server as the Magento program files.

Alternatively, media files can be managed in a database, or located on a separate server or content delivery network. The editor can be configured to use either static or dynamic media URLs for catalog content in category or product descriptions.

To insert an image from media storage:

Open the page or block to be edited. Then, use one of the following methods to insert an image from media storage:

Method 1: From WYSIWYG Mode

1. On the toolbar of the WYSIWYG editor, click Insert Image (Insert Image (WYSIWYG Mode)).
2. After the Image URL field, click Browse (Browse (WYSIWYG Mode)).
3. In the directory tree on the left, navigate to the folder where the image is stored.

4. Select the tile of the image. Then, tap **Insert File**.

Method 2: **From HTML Mode**

1. Position the cursor in the code where the `<img>` tag is to be inserted.

2. Tap **Insert Image**.
**To upload files to media storage:**

The first two steps are the same as if you are inserting an image.

1. On the toolbar of the WYSIWYG editor, click **Insert Image**.

2. After the **Image URL** field, click **Browse**.

3. In the directory tree on the left, do one of the following:
   - Navigate to the folder where you want to save the uploaded image.
   - Navigate to the place where you want to create a new folder, and tap **Create Folder**. Then, enter the folder name, and tap **OK**.

4. To upload file(s) to media storage, tap **Choose Files**. Then, do the following:
   a. In the directory of your local computer, navigate to the location of the images.
   b. Select each image that is to be uploaded.
   c. Tap **Open**.

The images are uploaded to the current media storage folder on the server.
Using the Editor

The WYSIWYG editor gives you the ability to enter and format while working in a “What You See Is What You Get” view of the content. If you prefer to work directly with the underlying HTML code, you can easily change modes. The editor can be used to create content for pages, blocks, and product descriptions. When working in the product catalog, the editor is accessed by clicking the WYSIWYG Editor button. For a complete list of toolbar buttons, see: Using the Editor in the online guide.

Inserting a Link

An easy way to insert a link is to use the Link button in the editor toolbar. It doesn’t require any knowledge of HTML, and the result is the same.

To insert a link:

1. Highlight the text where you want to create the link. Then, in the editor toolbar, tap the Link button.

2. In the Link URL field, enter one of the following:
   - The URL Key of a page in your store.
   - The full URL of an external page to be linked.

3. Set Target to one of the following:
   - Open link in the same window
   - Open in a new window

4. In the Title field, enter the tooltip text to appear when someone hovers over the link.

5. Tap Insert to create the link.
Inserting an Image

From the editor, you can insert an image that has been uploaded to Media Storage, or link to an image that resides on another server.

Method 1: Insert an Image from Media Storage

1. If necessary, tap Show / Hide Editor to work directly with the code.
2. Position the cursor where you want the code for the image to be inserted. Then, tap Insert Image.
3. Choose the image that you want to use, and tap Insert File.
4. To view the image in WYSIWYG mode, tap Show / Hide Editor again.

Method 2: Insert an Image from Another Server

Use this method to insert an image that is available online, but resides on another server. You must have the full URL of the image to complete the process.

1. If necessary, tap Show / Hide Editor to work in WYSIWYG mode.
2. Position your cursor where you want the image to appear.
3. On the Editor toolbar, tap the Insert Image button. Then, do the following:
**Inserting a Widget**

The **Widget** tool can be used to add a variety of content elements to the page, including links to any content page or node, product, or category. Links can be positioned on the page in a block format, or incorporated directly into the content. You can use the Widget tool to create links to the following types of content:

- Content Pages
- Catalog Categories
- Catalog Products

By default, links inherit their style from the style sheet of the theme.

**To insert a widget:**

1. Open the content page to be edited.
2. In the panel on the left, choose **Content**. Then, use either of the following methods:

   **Method 1: WYSIWYG Mode**
   
   1. Tap **Show / Hide Editor** to work in WYSIWYG mode.
   2. Position the cursor in the text where you want the widget to appear.
   3. On the editor toolbar, tap **Insert Widget**.

   **Method 2: HTML Mode**

   From the HTML editor, tap **Insert Widget**.

   3. When prompted, choose the **Widget Type**. This example shows how to insert a link to a product.

   4. To use the product name, leave the **Anchor Custom Text** field empty.
5. Enter a Anchor Custom Title for best SEO practice. (The title isn’t visible on the page.)

6. Set Template to one of the following:
   - To incorporate the link into text, select “Product Link Inline Template.”
   - To place the link on a separate line, select “Product Link Block Template.”

7. Tap Select Product, and do the following:
   a. In the tree, navigate to the category you want.
   b. In the list, choose the linked product.
   c. Click Insert Widget to place the link on the page. In the HTML, a markup tag for the link appears at the top of the page, enclosed in double curly braces.
   d. If needed, use Cut (Ctrl + x) and Paste (Ctrl + v) to position the markup tag in the code where you want the link to appear.

8. Tap Show / Hide Editor to see the link in WYSIWYG mode.
   You can continue editing the page, and incorporate other links into the content.

Inserting a Variable

Your store includes many predefined variables that can be incorporated into content pages and other communications. In addition, you can include your own custom variables that are specific to your needs.

To insert a variable on a page:

1. Do one of the following:
   - Open an existing page.
   - Create a new page.

2. In the panel on the left, choose Content. Then from the editor, do one of the following:
   - Position the cursor where you want the variable to appear, and tap Insert Variable.
   - If you prefer to work with the code, click Show / Hide Editor. Position the insertion point in the text where you want the variable to appear. Then, tap Insert Variable.

3. In the list of available variables, choose the one you want to insert into the page.

4. When complete, tap Save.
Configuring the Editor

The WYSIWYG editor is enabled by default, and can be used to edit content on CMS pages and blocks, and in products and categories. From the configuration you can activate or deactivate the editor, and elect to use static—rather than dynamic—URLs for media content in product and category descriptions.

To configure the editor:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Content Management.
3. Expand the WYSIWYG Options section, and do the following:
   a. Set Enable WYSIWYG Editor to your preference. The editor is enabled by default.
   b. Set Static URLs for Media Content in WYSIWYG for Catalog to your preference for media content that is included in category and product field descriptions.
4. When complete, tap Save Config.
CHAPTER 36:

Content Blocks

A block is a modular unit of content that can be positioned most anywhere on the page. Content blocks are sometimes referred to as static blocks, or CMS blocks, and can be used to display fixed information such as text, images, and embedded video, as well as dynamic information from a widget or that originates in a database or other source. Most elements on the home page are blocks that can be easily managed.

You can create custom blocks of content without writing any code, and assign them to appear in a specific place in the page layout. Blocks can also be defined and positioned by making a layout update in XML code.
Adding New Blocks

Custom blocks of content can be added to any page, group of pages, or even to another block. You can place code for a carousel image slider in a block, and then position the block on the home page.

The Blocks workspace uses the same basic controls as the Pages workspace to help you find blocks and perform routine maintenance operations.
To create a block:

1. On the Admin sidebar, tap Content. Then under Elements, choose Blocks.

2. In the upper-right corner, tap Add New Block. Then, do the following:

   a. By default the status of the new block is enabled. If you want to change the status, set Enable Block to “No.”

   b. Assign a Block Title for internal reference.

   c. Assign a unique Identifier for the block. Use all lowercase characters, with underscores instead of spaces.

   d. Select each Store View where the block is to be available.

   e. Complete the block Content as needed.

      - Use the editor to format text, create links and tables, images, video, and audio.

      - If you prefer to work with the HTML code, tap Show / Hide Editor.

3. When complete, tap Save Block.

   The new block appears at the bottom of the list in the Blocks grid.
Adding Social Plugins

Social networking sites have a numerous of plugins that can easily be added to your store. In addition, there are many extensions on Magento Connect that can be used to integrate your store with social media. The following example shows how to add a Facebook “Like” button to your store.

**Facebook Plugins**

**Step 1: Get the Button Code**

1. On the Facebook website, go to the button setup page.
2. In the URL to Like field, enter the URL of the page in your store that you want people to Like. For example, you might enter the URL of your store’s home page. Then, do the following:
   a. Choose the Layout for the button.
   b. Enter the Width in pixels that is available on your site for the button and any associated text message.
   c. Set Action Type to one of the following:
      - Like
      - Recommend
3. Tap Get Code to copy the generated code to the clipboard.
Like Button Setup

Step 2: Create a Content Block

1. Return to your store. On the Admin sidebar, tap Content. Then under Elements, choose Blocks.

2. In the upper-right corner, click tap Add New Block. Then, do the following:
   a. Enter a descriptive Block Title for internal reference. For example: Facebook Like Button.
   b. Assign a unique Identifier to the block, using all lowercase characters, and underscores instead of spaces. For example: facebook_like_button.
   c. If your Magento installation has multiple store views, choose each Store View where the block is to be available.
   d. Paste the snippet of code that you copied from the Facebook site into the Content box.
   e. If the block is not ready to “go live,” set Enable Block to “No.”

3. When complete, tap Save Block.

Step 3: Place the Block

1. On the Admin sidebar, tap Content. Then under Elements, choose Widgets.

2. In the upper-right corner, tap Add Widget. Then, do the following:
   a. In the Settings section, set Type to “CMS Static Block.” Then, tap Continue.
   b. Verify that Design Theme is set to the current theme.
   c. Tap Continue.

3. In the Storefront Properties section, do the following:
a. In the **Widget Title** field, enter a title for internal reference.

b. Set **Assign to Store Views** to “All Store Views,” or to the view where the app will be available. To select more than one, hold the Ctrl key down and select each option.

c. Enter a number in the **Sort Order** field to determine the order of the block if it assigned to appear in the same location on the page as other content elements. The top position is zero.

4. In the Layout Updates section, tap **Add Layout Update**. Then, set **Display On** to the category, product, or page where you want the block to appear.

For example, if you choose “All Pages,” and position the block in either the header or footer, the block will appear in the same place on every page of the store.

To place the block on a specific page, do the following:

a. Set **Display On** to “Specified Page.” Then, select the **Page** where you want the block to appear.

b. Choose the **Block Reference** to identify the place on the page where the block is to be placed.

c. Accept the default setting for **Template**, which is set to "CMS Static Block Default Template."

d. Tap **Save and Continue Edit**.

5. In the panel on the left, choose **Widget Options**.

6. Tap **Select Block…**. Then in the list, choose the block that you want to place.

7. When complete, tap **Save**.

8. When prompted, follow the instructions at the top of the workspace to update the index and page cache.

The widget now appears in the Widgets grid.

**Step 4: Verify the Location in Your Store**

Return to your storefront to verify that the block is in the correct location. To move the block, you can reopen the widget try a different page or block reference.
Adding a Lightbox or Slider

There is a wide assortment of jQuery-based image lightboxes, sliders, and carousels available on Magento Marketplace, and some are free. A recent search on the term “slider” returned thirty-three results.

Slider Extensions

To add a lightbox or slider to your store, download the extension from Magento Marketplace, and follow the instructions from the developer.
Positioning Blocks

The code that controls the page layout and placement of blocks is written in XML. Widgets make it easy to position a block at a specific place on the page, and even for a specific product or category without writing any code. You can choose each option from a list, rather than trying to remember all of the possible combinations.

The following list shows the locations by page type where blocks are typically placed. To learn more about how areas on the page are defined, see: Standard Page Layouts.

Category and CMS Pages

<table>
<thead>
<tr>
<th>BLOCK REFERENCE</th>
<th>POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadcrumbs</td>
<td>The navigation aid at the top of many pages that shows your current location as a link. Any additional content placed in the Breadcrumbs reference floats to the right of the breadcrumbs, if displayed.</td>
</tr>
<tr>
<td>Left Column</td>
<td>Content is added to the left column.</td>
</tr>
<tr>
<td>Main Content Area</td>
<td>Content is added to the main content area.</td>
</tr>
<tr>
<td>My Cart Extra Actions</td>
<td>Content appears below the Cart Subtotal in the My Cart popup located within the top link.</td>
</tr>
<tr>
<td>Navigation Bar</td>
<td>Content appears below the main navigation bar.</td>
</tr>
<tr>
<td>Page Bottom</td>
<td>Content appears at the bottom of the page.</td>
</tr>
<tr>
<td>Page Footer</td>
<td>Content appears above the footer of the page.</td>
</tr>
<tr>
<td>Page Header</td>
<td>Content appears below the header of the page.</td>
</tr>
<tr>
<td>Page Top</td>
<td>Content appears at the top of the page.</td>
</tr>
<tr>
<td>Right Column</td>
<td>Content appears in the right column.</td>
</tr>
<tr>
<td>Store Language</td>
<td>Content appears in the upper-left corner of the header.</td>
</tr>
</tbody>
</table>
### Product Page

<table>
<thead>
<tr>
<th>BLOCK REFERENCE</th>
<th>POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alert URLs</td>
<td>Content appears below the title of the product on the product detail page.</td>
</tr>
<tr>
<td>Bottom Block Options Wrapper</td>
<td>If custom options are added, content appears below the Add to Cart button.</td>
</tr>
<tr>
<td>Breadcrumbs</td>
<td>Content appears to the right of breadcrumbs—the navigation aid that provides links as a path—that’s showcased below the navigation bar.</td>
</tr>
<tr>
<td>Info Column Options Wrapper</td>
<td>If a custom options are added, content appears to the right. The same location applies to configurable options.</td>
</tr>
<tr>
<td>Left Column</td>
<td>Content appears below the left column blocks.</td>
</tr>
<tr>
<td>Main Content Area</td>
<td>Content appears below the main content area.</td>
</tr>
<tr>
<td>My Cart Extra Actions</td>
<td>Content appears below the Cart Subtotal in the My Cart popup located within the top link.</td>
</tr>
<tr>
<td>Navigation Bar</td>
<td>Content appears below the main navigation bar.</td>
</tr>
<tr>
<td>Page Bottom</td>
<td>Content appears at the bottom of the page.</td>
</tr>
<tr>
<td>Page Footer</td>
<td>Content appears above the footer of the page.</td>
</tr>
<tr>
<td>Page Header</td>
<td>Content appears below the header of the page.</td>
</tr>
<tr>
<td>Page Top</td>
<td>Content appears at the top of the page.</td>
</tr>
<tr>
<td>PayPal Express Checkout (Payflow Edition) Shortcut Wrapper</td>
<td>If the PayPal payment method is enabled, content appears below the PayPal buy button.</td>
</tr>
<tr>
<td>PayPal Express Checkout Shortcut Wrapper</td>
<td>If the PayPal payment method is enabled, content appears below the PayPal buy button.</td>
</tr>
<tr>
<td>Product Tags List</td>
<td>Content appears below the products tag bar.</td>
</tr>
<tr>
<td>Product View Extra Hint</td>
<td>Content appears below the main top price of the product.</td>
</tr>
<tr>
<td>Right Column</td>
<td>Content appears below the right column blocks.</td>
</tr>
<tr>
<td>Store Language</td>
<td>Content appears to the right of the language chooser.</td>
</tr>
<tr>
<td>Tags List Before</td>
<td>Content appears above the Add Your Tags field.</td>
</tr>
</tbody>
</table>
Using a Widget

The CMS Static Block widget gives you the ability to place an existing content block most anywhere in your store.

Process Overview:
Step 1: Choose the Type
Step 2: Complete the Layout Updates
Step 3: Place the Block

Step 1: Choose the Type

1. On the Admin sidebar, tap Content. Then under Elements, choose Widgets.
2. In the upper-right corner, tap Add Widget. Then do the following:
   a. In the Settings section, set Type to “CMS Static Block.” Then, tap Continue.
   b. Verify that Design Theme is set to the current theme.
   c. Tap Continue.
3. In the Storefront Properties section, do the following:
   
   **a.** In the **Widget Title** field, enter a descriptive title for internal reference.
   
   **b.** Set **Assign to Store Views** to “All Store Views,” or to the view where the app will be available. To select more than one, hold the Ctrl key down and select each option.
   
   **c.** Enter a number in the **Sort Order** field to determine the order of the block if it assigned to appear in the same location on the page as other content elements. The top position is zero.
Step 2: Complete the Layout Updates

1. In the Layout Updates section, tap `Add Layout Update`. Then, do the following:

2. Set **Display On** to the category, product, or page where you want the block to appear. To place the block on a specific page, do the following:
   a. Choose the **Page** where you want the block to appear.
   b. Choose the **Block Reference** that identifies the place on the page where the block is to be placed.
   c. Accept the default setting for **Template**, which is set to "CMS Static Block Default Template."

![Layout Updates](image)

**Step 3: Place the Block**

1. In the panel on the left, select **Widget Options**.

2. Tap **Select Block…** Then in the list, choose the block that you want to place.

3. When complete, tap **Save**. The app now appears in the list.

4. When prompted, follow the instructions at the top of the workspace to update the index and page cache.

5. Return to your storefront to verify that the block appears in the correct location. To move the block, you can reopen the frontend app try a different page or block reference.
Using a Layout Update

Blocks can be placed in the left or right sidebar of a specific page by making a layout update to the XML code. With a few simple changes to the code, you can position the block in either sidebar, and control its position in relation to other blocks.

The term callout\(^1\) is sometimes used to refer to a block that is defined as a layout update with XML code. The term sidebar\(^2\) refers to the left or right columns of the page layout. When entering layout update code, make sure to follow the syntax exactly as shown in the example.

To place a block in the sidebar, the page must have a two-or three-column layout. To learn more, see: Page Layout.

To place a block in the sidebar of a page:

1. On the Admin sidebar, tap Content. Then under Elements, choose Blocks.
2. In the grid, find the block you want to place, and take note of its Identifier. Make sure that you have the correct spelling.
3. On the Admin sidebar, tap Content. Then under Elements, choose Pages.
4. Find the page where you want to place the block, and open the page in edit mode.
5. In the panel on the left, choose Design. Then, do the following:
   a. In the Layout Update XML box, enter the code for the right or left sidebar.
   
   Code for CMS Block in Sidebar
   
   \[
   \begin{verbatim}
   <reference name="right">
   <block type="cms/block" name="right.permanent.callout">
   <action method="setBlockId"><block_id>your-block-id</block_id></action>
   </block>
   </reference>
   \end{verbatim}
   
   b. Change the reference name to identify either the “right” or “left” column, according to the layout of the page.
   c. Change the block_id to the identifier of the block that is being placed.
6. When complete, tap Save Page.

---

\(^1\)A term that is sometimes used to describe a block that is defined as a layout update using XML code.

\(^2\)The right or left column of a two-column page layout.
CHAPTER 37:
Widgets

A widget is a snippet of code that makes it possible to display a wide range of content and place it at specific block references in your store. Many display real-time, dynamic data and create opportunities for your customers to interact with your store. The Widget tool makes it easy to place existing content such as blocks with images and text, and interactive elements most anywhere in your store.

You can use widgets to create landing pages for marketing campaigns, display promotional content at specific locations throughout the store. Widgets can also be used to add interactive elements and action blocks for external review systems, video chats, voting, and subscription forms, or to provide navigation elements for tag clouds and image sliders.

![New Product List Widget](image-url)
## Widget Types

### Widgets

<table>
<thead>
<tr>
<th>TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS Page Link</td>
<td>Displays a link to a specific CMS page. Allows you to specify custom text and title. When the link is complete, it can be used in content pages and blocks.</td>
</tr>
<tr>
<td>CMS Static Block</td>
<td>Displays a block of content at a specific location on a page.</td>
</tr>
<tr>
<td>Catalog Category Link</td>
<td>Displays either an inline or block-style link to a selected catalog category. When the link is complete, it can be used in content pages and blocks.</td>
</tr>
<tr>
<td>Catalog New Products List</td>
<td>Displays a block of products which have been designated as new, for the duration of time specified in the product record.</td>
</tr>
<tr>
<td>Catalog Product Link</td>
<td>Displays either an inline or block-style link to a selected catalog product. When the link is complete, it can be used in content pages and blocks.</td>
</tr>
<tr>
<td>Catalog Products List</td>
<td>Displays a list of products from the catalog.</td>
</tr>
<tr>
<td>Orders and Returns</td>
<td>Gives guests the ability to check the status of their orders and submit requests to return merchandise. The widget appears only for guests and customers who are not logged in to their accounts.</td>
</tr>
<tr>
<td>Recently Compared Products</td>
<td>Displays the block of recently compared products. You can specify the number of products included, and format them as a list or product grid.</td>
</tr>
<tr>
<td>Recently Viewed Products</td>
<td>Displays the block of recently viewed products. You can specify the number of products included, and format them as a list or product grid.</td>
</tr>
</tbody>
</table>
Creating a Widget

The process of creating a widget is nearly the same for each type. You can follow the first part of the instructions, and then complete the last part for the specific type of widget.

**Process Overview:**

- **Step 1:** Choose the Type
- **Step 2:** Specify Where It Goes
- **Step 3:** Complete the Options
- **Step 4:** Check It Out!
**Step 1: Choose the Type**

1. On the Admin sidebar, tap **Content**. Then under **Elements**, choose **Widgets**.

2. Tap **Add Widget**. Then, do the following;
   a. In the Settings section, set **Type** to the type of widget that you want to create. Then, tap **Continue**.
   b. Verify that **Design Theme** is set to the current theme.

3. Tap **Continue**.

![Widgets Settings](image)
4. Under **Storefront Properties**, do the following:

   a. In the **Widget Title** field, enter a descriptive title for internal reference only.

   b. Set **Assign to Store Views** to “All Store Views,” or to the view where the app will be available. To select more than one, hold the Ctrl key down and select each option.

   c. Enter a number in the **Sort Order** field to determine the order of the block if it appears in the same location as other content elements. The top position is zero.
Step 2: Specify Where It Goes

1. In the Layout Updates section, tap **Add Layout Update**.
2. Set **Display On** to the type of page where it is to appear.
3. In the **Block Reference** list, choose the area of the page layout where it is to be placed.

4. If the widget is a link, set **Template** to one of the following:
   - Block Template: Formats the content so it can be placed as a standalone unit on the page.
   - Inline Template: Formats the content so it can be placed inside other content. For example, a link that goes inside a paragraph of text.

Step 3: Complete the Options

The options for each widget type vary slightly, but the process is essentially the same. The following example displays the product list for a specific category, with pagination controls.

1. In the panel on the left, choose **Widget Options**.
2. Tap **Select Block**.
3. Enter a **Title** to appear above the list. For example, “Featured Products.”
4. For pagination controls, set **Display Page Control** to “Yes.” Then, do the following:
   a. Enter the **Number of Products per Page**.
   b. Enter the total **Number of Products to Display**.
   c. Set **Condition** to the category of products to be featured. The process is the same as setting a condition for a price rule.
5. When complete, tap **Save**.

6. When prompted, follow the instructions at the top of the workspace to update the cache, as needed.

**Step 4: Check It Out!**

Return to your storefront to verify that the widget is working correctly. To move it to a different location, you can reopen the widget and try a different page or block reference.
New Products List

The list of new products is an example of dynamic content, and consists of live data that is pulled from your product catalog. By default, the “New Products” list includes the first eight of the most recently added products. However, it can also be configured to include only products within a specified date range.

Process Overview:
Step 1: Set the Date Range for Each Product
Step 2: Create the Widget
Step 3: Choose the Location
Step 4: Configure the List
Step 5: Preview Your Work

Step 1: Set the Date Range for Each Product

To make a product appear in the list by date range, the “New From” dates must be entered in the product. The product then appears in the New Products list during the date range specified.

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.
2. Find each product that you want to feature, and open in edit mode. Then, do the following:
   a. In the **Set Product as New From** field, tap the calendar (📅). Then, choose the first date that you want the product to be featured.
   b. In the **To** field, tap the calendar (📅). Then, choose the last date that you want the product to be featured.
3. When complete, tap **Save**.

4. When you are prompted to reindex and refresh the page cache, click the links at the top of the workspace, and follow the instructions.

The list of products now appears on the Home Page for the specified date range.

**Step 2: Create the Widget**

The code that determines the content of the New Products list and its placement in your store is generated by the Widget tool.

1. On the Admin sidebar, tap **Content**. Then under **Elements**, choose **Widgets**.

2. In the upper-right corner, tap **Add Widget**.

3. In the Settings section, do the following:
   a. Set **Type** to “Catalog New Products List.”
   b. Choose the **Design Theme** that is used by the store.

4. Tap **Continue**.

5. In the **Storefront Properties** section, complete the following fields:
Widget Title  Enter a descriptive title for your widget. This title is visible only from the Admin.

Assign to Store Views  Select the store views where the widget will be visible. You can select a specific store view, or "All Store Views."

Sort Order  (Optional) Enter a number to determine the order this items appears with others in the same part of the page. (0 = first, 1 = second, 3= third, and so on.)

---

**Step 3: Choose the Location**

1. In the Layout Updates section, tap **Add Layout Update**. Then, do the following:
   a. Set **Display On** to “Specified Page.”
   b. Set **Page** to “CMS Home Page.”
   c. Set **Block Reference** to “Main Content Area.”
   d. Set **Template** to one of the following:
      - New Product List Template
      - New Products Grid Template

---

*Magento Commerce User Guide*
2. Tap **Save and Continue Edit**.

For now, you can ignore the message to refresh the cache.

### Step 4: Configure the List

1. In the panel on the left, choose **Widget Options**. Then, do the following:

2. Set **Display Products** to one of the following:

   All Products
   
   Lists products in sequence, starting with those most recently added.

   New Products
   
   Lists only the products which are identified as “New.” A product is considered to be new during the date range that is specified in the “Set Product As New From/To” fields. The list will be empty if the date range expires without any new products defined.

3. Complete the remaining information as follows:

   a. To provide navigation control for lists with multiple pages, set **Display Page Control** to “Yes.” Then, in the **Number of Products per Page** field, enter the number of products you want to appear on each page.

   b. Set **Number of Products to Display** to the number of new products that you want to include in the list. The default setting is 10.

   c. In the **Cache Lifetime (Seconds)** field, choose how often you want to refresh the list of new products. By default, the cache is set to 86400 seconds, or 24 hours.
4. When complete, tap **Save**.

5. When prompted to refresh the cache, click the link in the message at the top of the workspace, and follow the instructions.

**Step 5: Preview Your Work**

1. On the Admin sidebar, tap **Content**. Then under **Elements**, choose **Pages**.

2. Find the page in the grid where the New Products list is to appear. Then, in the **Action** column, click the **Preview** link.

**Orders and Returns Widget**

The Orders and Returns widget gives guests the ability to check the status of their orders, print invoices, and track shipments. When the widget is added to the storefront, it is visible only for guests and for customers who are not logged into their accounts. Guests can find orders by providing the Order ID, Billing Last Name, and either the Email Address or ZIP Code.
To use the Orders and Returns Widget:

1. Choose one of the following fields to be used to find the order:
   - Email Address
   - ZIP Code

2. Enter the Order ID and Billing Last Name. Then, enter either the billing Email Address or ZIP Code that is associated with the order.

3. Tap Search to retrieve the order.

To set up the Orders and Returns widget:

1. On the Admin sidebar, tap Content. Then under Elements, choose Widgets.

2. In the upper-right corner, tap Add Widget.

3. In the Settings section, do the following:
   a. Set Type to “Orders and Returns”.
   b. Choose the Design Theme that is used by the store.

4. Tap Continue.
5. In the **Storefront Properties** section, complete the following fields:

- **Widget Title**: Enter a descriptive title for your widget. This title is visible only from the Admin.
- **Assign to Store Views**: Select the store views where the widget will be available. You can select a specific store view, or "All Store Views."
- **Sort Order**: (Optional) Enter a number to determine the relative order of this item when it appears with other content in the same part of the page. (0 = first, 1 = second, 3= third, and so on.)

6. In the **Layout Updates** section, tap **Add Layout Update**. Then, do the following:
   a. Set **Display On** to the type of page where the widget is to appear.
   b. Complete the rest of the layout update information to determine where the widget is to appear on the page.

7. When complete, tap **Save**. Then when prompted, refresh each invalid cache.
Design & Theme
Your store’s theme is like a window dressing that can be changed for a season or promotion. In this section, you will learn about page layouts, how to make simple HTML changes, and apply a new theme to your store.

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Design Menu

Magento provides a variety of easy-to-use design options that you can use to make simple changes to your store. In addition, you will find many professionally designed themes available on Magento Connect. Like the window dressing of your store, you can change the theme for the season or for a promotion.

More advanced users appreciate the flexibility of working with an object-oriented environment that assembles pages from separate components. After you understand the basics, you’ll appreciate working in such a flexible and fluid environment. To learn more, see the Frontend Developer Guide.
Menu Options

**Configuration**

The Design configuration lets you easily maintain different settings for each website, store, and view in your Magento installation.

**Themes**

The theme determines the visual presentation of your store, and consists of a collection of layout files, template files, translation files, and skins.

**Schedule**

Themes can be activated for a period of time, according to a schedule. Use the schedule to plan theme changes in advance for a season or promotion.
Design Configuration

The Design Configuration makes it easy to edit design-related rules and configuration settings by displaying the settings on a single page.

To edit the design configuration:

1. On the Admin menu, tap Content. Then under Design, choose Configuration.

2. Find the store view that you want to configure. Then in the Action column, click Edit.

   The page displays the current design settings for the store view.

3. To change the Default Theme, set Applied Theme to the theme that you want to apply to the view.

   If no theme is specified, the system default theme is used. Some third-party extensions modify the system default theme.

4. If the theme is to be used for only a specific device, do the following:
   b. In the Search String column, enter the browser ID for the specific device.
   c. A search string can be either a normal expression or Perl Compatible Regular Expression (PCRE). To learn more, see: User Agent. The following search string identifies Firefox:

   ```
   /^mozilla/i
   ```
   d. In the Theme Name column, choose the theme that is to be used for the specified device.
User-Agent Rules

e. Repeat the process to enter additional devices. Search strings are matched in the order they are entered.

5. Under Other Settings, expand each section and edit the settings as needed.

Edit Design Configuration

- HTML Head
- Header
- Footer
- Pagination
- Product Image Watermarks
- Transactional Emails

6. When complete, tap Save Configuration.
CHAPTER 39:
Page Setup

The main sections of the page are controlled, in part, by a set of standard HTML tags. Some of these tags can be used to determine the selection of fonts, color, size, background colors, and images that are used in each section of the page. Other settings control page elements such as the logo in the header, and the copyright notice in the footer. The Page Setup sections correspond to the underlying structure of the HTML page, and many of the basic properties can be set from the Admin.
HTML Head

The settings in the HTML Head section correspond to the `<head>` tag of an HTML page, and can be configured for each store view. In addition to meta data for the page title, description, and keywords, the section includes a link to the favicon, and miscellaneous scripts. Instructions for search engine robots and the display of the store demo notice are also configured in this section.

To configure the HTML Head:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.
2. Find the store view that you want to configure. Then in the Action column, click Edit.
3. Under Other Settings, expand the HTML Head section.
4. Update the fields as needed. (See the Configuration Reference for a description of each field.)
5. When complete, tap Save Config.
Header

The Header section identifies the path to your store logo, and specifies the logo alt text and welcome message.

To configure the header:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.
2. Find the store view that you want to configure. Then in the Action column, click Edit.
3. Under Other Settings, expand the Header section.
4. Make any changes necessary to the logo and welcome message settings.
5. When complete, tap Save Config.
Footer

The Footer configuration section is where you can update the copyright notice that appears at the bottom of the page, and enter miscellaneous scripts that must be positioned before the closing <body> tag.

To configure the footer:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.
2. Find the store view that you want to configure. Then in the Action column, click Edit.
3. Under Other Settings, expand the Footer section.
4. Make any changes necessary to the Copyright and Miscellaneous HTML settings.
5. When complete, tap Save Config.
CHAPTER 40:
Page Layout

The layout of each page in your store consists of distinct sections, or containers, that define the header, footer, and content areas of the page. Depending on the layout, each page might have one, two, three columns, or more. You can think of the layout as the “floor plan” of the page.

Content blocks float to fill the available space, according to the section of the page layout where they are assigned to appear. You will discover that if you change the layout from a three-column to a two-column layout, the content of the main area expands to fill the available space, and any blocks that are associated with the unused sidebar seem to disappear. However, if you restore the three-column layout, the blocks reappear. This fluid approach, or liquid layout, makes it possible to change the page layout without having to rework the content. If you are used to working with individual HTML pages, you will discover that this modular, “building block” approach requires a different way of thinking.
Standard Page Layouts

1 Column

The “1 Column” layout can be used to create a dramatic home page with a large image or focal point. It's also a good choice for a landing page, or any other page that has a combination of text, images, and video.

2 Columns with Left Bar

The “2 Columns with Left Bar” layout is often used for pages with navigation on the left, such as a catalog or search results pages with layered navigation. It is also an excellent choice for home pages that need additional navigation or blocks of supporting content on the left.

2 Columns with Right Bar

With a “2 Columns with Right Bar” layout, the main content area is large enough for an eye-catching image or banner. This layout is also often used for Product pages with blocks of supporting content on the right.
3 Columns

The “3 Column” layout has a center column that is wide enough for the main text of the page, with room on each side for additional navigation and blocks of supporting content.

Empty

The “Empty” layout can be used to define custom page layouts. To learn more, see the Magento Designer's Guide.
Storefront Examples

The column dimensions are determined by style sheet of the theme. Some themes apply a fixed pixel width to the page layout, while others use percentages to make the page respond to the width of the window or device.

Most desktop themes have a fixed width for the main column, and all activity takes place within this enclosed area. Depending on your screen resolution, there is empty space on each side of the main column.

1 Column Layout

The content area of a “1 Column” layout spans the full-width of the main column. This layout is often used for a home page with a large banner or slider, or pages that require no navigation, such as a login page, splash page, video, or full-page advertisement.
2 Columns with Left Bar

The content area of this layout is divided into two columns. The main content column floats to the right, and the side bar floats to the left.

2 Columns Left Bar

2 Columns with Right Bar

This layout is a mirror image of the other two-column layout. This time, the side bar floats to the right, and the main content column floats to the left.

2 Columns Right Bar
3 Columns

A 3-column layout has a main content area with two side columns. The left side bar and main content column are wrapped together, and float as a unit to the left. The other side bar floats to the right.
Layout Updates

Before you begin working with custom layout updates, it is important to understand how the pages of your store are constructed, and the difference between the terms layout and layout update. The term layout\(^1\) refers to the visual and structural composition of the page. However, the term layout update\(^2\) refers to a specific set of XML instructions that determines how the page is constructed.

The XML layout of your Magento Commerce store is a hierarchical structure of blocks. Some elements appear on every page, and others appear only on specific pages. You can see how these structural blocks are referenced by examining the layout update code for your home page. To do so, simply open your home page in edit mode, and choose the Design tab to view the Page Layout section. Depending on the theme, it might contain instructions to remove blocks, unset blocks, and add blocks by referencing specific areas of the page layout.

In many cases, the same result can be achieved with the Widget tool. To place a block of content as a widget, you must identify the page, and location on the page where you want the block to appear. You can use the Widget tool to place a block on most any page in your store, including the home page and all content pages. However, to place a block in the sidebar of a specific page, you must make the change by entering code as a layout update.

---

\(^1\)The visual and structural composition of a page.

\(^2\)A specific set of XML instructions that determines how the page is constructed.
Standard Block Layout

In the following diagram, the block names that can be used to refer to a block in the layout are black, and the block types, or block class paths, are blue.
### Block Descriptions

<table>
<thead>
<tr>
<th>BLOCK TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>page/html</td>
<td>There can be only one block of this type per page. The block name is &quot;root,&quot; and, it is one of the few root blocks in the layout. You can also create your own block and name it &quot;root,&quot; which is the standard name for blocks of this type.</td>
</tr>
<tr>
<td>page/html_head</td>
<td>There can be only one block of this type per page. The block name is &quot;head,&quot; and it is a child of the root block. This block must not be removed from layout.</td>
</tr>
<tr>
<td>page/html_notices</td>
<td>There can be only one block of this type per page. The block name is &quot;global_notices,&quot; and it is a child of the root block. If this block is removed from the layout, the global notices will not appear on the page.</td>
</tr>
<tr>
<td>page/html_header</td>
<td>There can be only one block of that type per page. The block name is &quot;header,&quot; and it is a child of the root block. This block corresponds to the visual header at the top of the page, and contains several standard blocks. This block must not be removed.</td>
</tr>
<tr>
<td>page/html_wrapper</td>
<td>Although included in the default layout, this block is deprecated, and only is included to ensure backward compatibility. Do not use blocks of this type.</td>
</tr>
<tr>
<td>page/html_breadcrumbs</td>
<td>There can be only one block of this type per page. The name of this block is &quot;breadcrumbs,&quot; and it is a child of the header block. This block displays breadcrumbs for the current page.</td>
</tr>
<tr>
<td>page/html_footer</td>
<td>There can be only one block of this type per page. The block name is &quot;footer,&quot; and it is a child of the root block. The footer block corresponds to the visual footer at the bottom of the page, and contains several standard blocks. This block must not be removed.</td>
</tr>
<tr>
<td>page/template_links</td>
<td>There are two blocks of this type in the standard layout. The &quot;top.links&quot; block is a child of the header block, and corresponds to the top navigation menu. The &quot;footer_links&quot; block is a child of the footer block, and corresponds to the bottom navigation menu. It is possible to manipulate the template links, as shown in the examples.</td>
</tr>
<tr>
<td>page/switch</td>
<td>There are two blocks of this type in a standard layout. The &quot;store_language&quot; block is a child of the header block, and corresponds to the top language switcher. The &quot;store_switcher&quot; block is a child of the footer block, and corresponds to the bottom store switcher.</td>
</tr>
<tr>
<td>core/messages</td>
<td>There are two blocks of this type in a standard layout. The &quot;global_messages&quot; block displays global messages. The &quot;messages&quot; block is used to display all other messages. If you remove these blocks, the customer won't be able to see any messages.</td>
</tr>
</tbody>
</table>
### Block Descriptions (cont.)

<table>
<thead>
<tr>
<th>BLOCK TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>core/text_list</td>
<td>This type of block is widely used throughout Magento, and is used as a placeholder for rendering children blocks.</td>
</tr>
<tr>
<td>core/profiler</td>
<td>There is only one instance of this type of block per page. It is used for the internal Magento profiler, and should not be used for any other purpose.</td>
</tr>
</tbody>
</table>
Layout Update Examples

The following blocks types can be manipulated with custom layout instructions. Each action must be specified using the full syntax of the instruction. In the following examples, a simplified notation is used to refer to each action, which corresponds to the full syntax of the instruction.

Full Syntax

```xml
<!-- Action can be specified inside either a <block> or <reference> instruction. -->

<action method="someActionName">
    <arg1>Value 1</arg1>
    <arg2>Value 2</arg2>
    <!-- -->
    <argN>Value N</argN>
</action>
<!-- -->
```

Simplified Syntax

```
someActionName($arg1, $arg2, ..., $argN)
```
### page/template_links

**Syntax**

<table>
<thead>
<tr>
<th>ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>addLink($label, $url, $title, $prepare)</td>
<td>Adds another link to the end of the list of existing links. Just specify the $label (link caption), $url (link URL) and $title (link tooltip), and you'll see a new link in the corresponding place. The $prepare parameter must be &quot;true&quot; if you want the URL to be prepared, or converted to the full URL from the shortened URL. For example, the new page becomes BASE_URL/newpage if prepared.</td>
</tr>
</tbody>
</table>

| removeLinkByUrl($url)     | Removes a link from the block by its URL. Note that the URL must be properly specified and exactly match corresponding URL of the link you want to remove. |

### cms/block

**Syntax**

<table>
<thead>
<tr>
<th>ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>setBlockId($blockId)</td>
<td>Specifies the ID of a CMS block, so its content can be fetched and displayed when the page is rendered.</td>
</tr>
</tbody>
</table>

```xml

<reference name="content">
  <block type="cms/block" name="additional.info" as="additionalInfo">
    <action method="setBlockId"><id>additional_info</id></action>
  </block>
</reference>
```

?  

<!---- -->
**core/text**

A core/text block can be used to enter free form text directly into the template.

**Syntax**

<table>
<thead>
<tr>
<th>ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>addText($textContent)</td>
<td>Specifies text to be rendered as the block's content. After the text is specified, the layout update instructions must continue to be a valid XML statement. If you use HTML tags as part of the text, it is recommended to use:</td>
</tr>
<tr>
<td></td>
<td>&lt;!-- &lt;![CDATA[...]]&gt;</td>
</tr>
</tbody>
</table>

```xml
<reference name="content">
  <block type="core/text" name="test.block">
    <action method="addText">
      <txt> <!-- <![CDATA[<h2>ATTENTION!</h2><p>Check your options carefully before you submit.</p>]]> -->
    </action>
  </block>
</reference>
```

**page/html_welcome**

This block can be used to duplicate the "Welcome, <USERNAME>!" message that appears in the header block. When the user is not logged in, the welcome message specified in the configuration appears.
Layout Update Syntax

Custom layout updates can be applied to product category pages, product pages, and content page to achieve a variety of results, such as:

- `<block>` Create new block.
- `<reference>` Update existing content.
- `<action>` Assign actions to blocks.
- `<remove>` Remove blocks.

Any change made to the layout is applied when the associated entity—which can be either a product, category, or CMS page—becomes active in the frontend of the store.

Custom layout update instructions consist of well-formed XML tags, without the `<?xml ...>` declaration and root tag. As with normal XML, every tag must either be empty or properly closed, as shown in the following examples:

```
<tag attribute="value" />
<tag attribute="value"> ... </tag>
```
<block>

Creates a new block within the current context. Layout block nesting defines the ordering of block initialization location of the blocks on the page.

Syntax

<table>
<thead>
<tr>
<th>NAME</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>type</td>
<td>* block class path</td>
</tr>
<tr>
<td></td>
<td>An identifier of the block class path that corresponds to the class of the block. See the list of the available block types below.</td>
</tr>
<tr>
<td>name</td>
<td>* block name identifier</td>
</tr>
<tr>
<td></td>
<td>A name that can be used to address the block in which this attribute is assigned. If you create a new block with the name that is the same as one of the existing blocks, your newly created block substitutes the previously existing block. See the list of names of existing blocks below.</td>
</tr>
<tr>
<td>before</td>
<td>block name</td>
</tr>
<tr>
<td></td>
<td>Is used to position the block before a block with the name specified in the value. If &quot;-&quot; value used the block is positioned before all other sibling blocks.</td>
</tr>
<tr>
<td>after</td>
<td>block name</td>
</tr>
<tr>
<td></td>
<td>Is used to position the block after a block with the name specified in the value. If &quot;-&quot; value used the block is positioned after all other sibling blocks.</td>
</tr>
<tr>
<td>template</td>
<td>template filename</td>
</tr>
<tr>
<td></td>
<td>A template filename used for the specific block type. As you have no way to see the list of template files, use whatever template value is demanded for every block type listed below.</td>
</tr>
<tr>
<td>as</td>
<td>block alias</td>
</tr>
<tr>
<td></td>
<td>An alias name by which a template calls the block in which this attribute is assigned. Sometimes it’s necessary to specify the alias for a specific block type.</td>
</tr>
</tbody>
</table>
<reference>
Changes the context for all included instructions to a previously defined block. An empty <reference> tag if of no use, because it affects only the instructions which are children.

Syntax

<table>
<thead>
<tr>
<th>NAME</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>* block name</td>
</tr>
<tr>
<td></td>
<td>A name of a block to reference.</td>
</tr>
</tbody>
</table>

<action>

Used to access block API, in other words, call block's public methods. It is used to set up the execution of a certain method of the block during the block generation. Action child tags are translated into block method arguments. The list of all available methods depends on the block implementation (e.g. public method of the block class).

Syntax

<table>
<thead>
<tr>
<th>NAME</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>method</td>
<td>* block method name</td>
</tr>
<tr>
<td></td>
<td>A name of the public method of the block class this instruction is located in that is called during the block generation.</td>
</tr>
</tbody>
</table>

<remove>

Removes an existing block from the layout.

Syntax

<table>
<thead>
<tr>
<th>NAME</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>* block name</td>
</tr>
<tr>
<td></td>
<td>The name of the block to be removed.</td>
</tr>
</tbody>
</table>

<extend>

This instruction performs final modifications to blocks which are already part of the layout. Every attribute in the <block> instruction—except for the block name—is subject for change. In addition, the special attribute parent can be used to change the parent of the block. Simply put the name of the new parent block into the <extend> instruction, and the parent of the block that is referenced will be changed in the layout.
## Syntax

<table>
<thead>
<tr>
<th>NAME</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>name</td>
<td>block name</td>
</tr>
<tr>
<td></td>
<td>The name of any block to be extended.</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>any other</td>
</tr>
<tr>
<td></td>
<td>Any other attribute specific for the <code>&lt;block&gt;</code> instruction.</td>
</tr>
<tr>
<td>parent</td>
<td>block name</td>
</tr>
<tr>
<td></td>
<td>The name of the block that should become a new parent for the referenced block.</td>
</tr>
<tr>
<td></td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>Indicates a required value</td>
</tr>
</tbody>
</table>
Controlling Block Order

Sometimes more than one content element is assigned to the same structural block. For example, there might be several block that appear in a sidebar. You can control the order of blocks by including a “before” or “after” positioning property in the code. To place a block either before, or after a specific block, replace the hyphen with the block identifier, as shown in the following examples:

- before="-" Places the block at the top of the sidebar, before other blocks.
- after="-" Places the block at the bottom of the sidebar, after other blocks.

Code to Position Content Blocks

```xml
<block type="cms/block" before="-" name="left.permanent.callout">
<block type="cms/block" before="some-other-block"
name="left.permanent.callout">
<block type="cms/block" after="-" name="left.permanent.callout">
<block type="cms/block" after="some-other-block"
name="left.permanent.callout">
```
XML Load Sequence

For developers, it is important to understand that blocks and layout updates must be loaded in the correct order, in keeping with the rules of precedence and load sequence\(^1\) which determine how the page is rendered. Magento supports the following page layout scenarios:

**Scenario 1: Default Layout**

The default layout consists of the visual elements that are visible from every page of the store. Whether it is a menu item, or a shopping cart block, each item has a handle\(^2\) in the default section of the layout definition.

**Scenario 2: Changes to Specific Pages**

The second case allows you to create a different layout for a specific page. The XML layout for specific pages is constructed in the same sequence that Magento loads modules, and is determined by the system configuration.

In addition to the instructions in the layout update files which are specific to each module, you can make a custom layout update that applies to a special case in the backend, and is merged each time the special case occurs.

---

\(^1\)The order in which scripts are loaded into memory. To work correctly, some scripts must be loaded before others.

\(^2\)In programming, a name used to reference an object.
CHAPTER 41:

Themes

A theme is a collection of files that determines the visual presentation of your store. When you first install Magento Commerce, the design elements of the store are based on the “Default” Theme. In addition to the initial default theme that comes with your Magento installation, there is a wide variety of themes that are available “off the shelf” on Magento Connect.

Magento themes include layout files, template files, translation files, and skins. A skin is a collection of supporting CSS, images, and JavaScript files that together, create the visual presentation and interactions that your customers experience when they visit your store. Themes and skins can be modified and customized by a developer or designer who has knowledge of Magento theme design and access to your server. To learn more, see the Frontend Developer Guide.

Luma Theme
Using the Default Theme

Magento’s default responsive theme renders the display of your storefront for different devices, and incorporates best practices for desktop, table, and mobile devices. Some themes are designed to be used only with specific devices. When Magento detects a specific browser ID, or user agent, it uses the theme that is configured to be used for the specific browser. The search string can also include Perl-Compatible Regular Expressions (PCRE). To learn more, see: User Agent.

To view the current theme settings:

1. On the Admin sidebar, tap Content. Then under Design, choose Themes.

2. In the list of installed themes, find the theme that you want to examine, and click the row to display the settings.

3. To view a sample page, tap the Theme Preview Image.
To apply a theme:

1. On the Admin sidebar, tap Content. Then under Design, choose Configuration.
2. Find the store view that you want to configure. Then in the Action column, click Edit.
3. Under Default Theme, set Applied Theme to the one that you want to use for the current view.

To add a user agent rule:

1. Under Design Rule, tap Add New User Agent Rule. Then, do the following:
   a. In the Search String field, enter the browser ID for the specific device. For example:
      Search strings are matched in the order they are entered. For example, for Firefox enter:
      /^mozilla/i
   b. Repeat the process to enter additional devices.
2. When complete, tap Save Config.
Installing a New Theme

When you first install Magento, the design elements of the store are based on the “Default” theme. The Luma theme is also available if you installed the sample data. You can modify a theme, add themes created by others, or create new ones. Magento Marketplace contains a growing selection of themes that you can install to change the appearance of your store. To learn how to create or modify a theme, see the Frontend Developer Guide.

To install a new theme:

1. Before you begin, make sure that you have a valid set of Magento 2 Access Keys.

2. Follow the steps outlined in the Marketplace Quick Tour, to:
   - Find a Theme
   - Evaluate the Product
   - Make a Purchase
   - Download the Software
   - Install the Theme

3. To apply the theme to your store, see: Using the Default Theme,
Theme Assets

The term static files\(^1\) refers to the collection of assets, such as CSS, fonts, images, and JavaScript, that is used by a theme. The location of static files is specified in the Base URL configuration.

A digital signature can be added to the URL of each static file to make it possible for browsers to detect when a newer version is available. The newer version of the file is used if the signature differs from what is stored in the browser's cache.

For a standard installation, the assets associated with a theme are organized in the web folder at the following location below the Magento root.

\[
{\text{magento_root}}/\text{app/design/frontend/Magento/}\text{[theme_name]}/\text{web}
\]

\(^1\)The collection of assets, such as CSS, fonts, images, and JavaScript that is used by a theme.
To sign static files:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the Static Files Settings section.

4. Set Sign Static Files to "Yes."
5. When complete, tap Save Config.

<table>
<thead>
<tr>
<th>FILE TYPE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS</td>
<td>Directory that contains the CSS files that control the visual styling that is associated with the skin. Example location on server: [magento]/app/design/frontend/Magento/[theme]/web/css</td>
</tr>
<tr>
<td>Fonts</td>
<td>Directory that contains the fonts that are available to be used by the theme. Location on server: [magento]/app/design/frontend/Magento/[theme]/web/fonts</td>
</tr>
<tr>
<td>Images</td>
<td>Directory that contains all images used by the theme, including buttons, background textures, and so on. Example location on server: [magento]/app/design/frontend/Magento/[theme]/web/images</td>
</tr>
<tr>
<td>JS</td>
<td>Directory that contains theme-specific JavaScript routines and callable functions. Example location on server: [magento]/app/design/frontend/Magento/[theme]/web/js</td>
</tr>
</tbody>
</table>
Merging CSS Files

As part of an effort to optimize your site and reduce page load time, you can reduce the number of separate CSS files by merging them into a single condensed file. If you open a merged CSS file, you’ll find one continuous stream of text, with line breaks removed. Because you can’t edit the merged file, it’s best to wait until you are out of the development mode, and no longer making frequent changes to the CSS.

To merge CSS files:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the CSS Settings section.
4. Set Merge CSS Files to “Yes.”
5. When complete, tap Save Config.
Merging JavaScript Files

Multiple JavaScript files can be merged into a single, condensed file to reduce page load time. If you open a merged JavaScript file, you’ll find one continuous stream of text, with line breaks removed. If you are finished with the development process, and the code contains no errors, you might consider merging the files.

To merge JavaScript files:
1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the JavaScript Settings section.
4. Set Merge JavaScript Files to “Yes.”
5. When complete, tap Save Config.
Scheduling Design Changes

Design changes can be scheduled in advance, so they go into effect on schedule. You can use scheduled design changes for seasonal changes, promotions, or just to add variation.

To schedule a design change:

1. On the Admin sidebar, tap **Content**. Then under **Design**, choose **Schedule**.

2. Tap **Add Design Change**. Then under General Settings, do the following:
   
a. Set **Store** to the view where the change applies.
   
b. Set **Custom Design** to the theme, or variation of a theme, that is to be used.
   
c. To define the period when the change is in effect, use the calendar (📅) to choose the values for the **Date From** and **Date To** fields.

3. When complete, tap **Save**.
CUSTOMERS
In this section of the guide, you will become familiar with the customer account dashboard, and learn to configure customer accounts according to your preference. You will also learn how to create customer groups that can be referenced in promotions and tax classes.
CHAPTER 42:
Customers Menu

The Customers menu provides access to customer account management tools, and gives you the ability to see who is currently online in your store.

To display the Customers menu:
On the Admin sidebar, tap Customers.
Menu Options

All Customers
Lists all customers who have registered for an account with your store, or were added by the administrator.

Now Online
Lists all customers and visitors who are currently online in your store.
All Customers

The Customers page lists all customers who have registered for an account with your store, or were added by the administrator.

To view customer information:

1. On the Admin sidebar, tap Customers. Then, choose All Customers.
2. Open any customer record in edit mode.
3. In the panel on the left, choose the information you need to edit. Then, make the necessary changes.
4. When complete, tap Save Customer.
Now Online

The Now Online option on the Customers menu lists all customers and visitors who are currently online in your store. The length of the online session is set in the configuration, and determines how long the customer’s activity is visible from the Admin. By default, a customer’s online session lasts fifteen minutes.

To see all customers who are online now:

1. On the Admin sidebar, tap Customers.
2. Choose Online Now.

To help an online customer complete a purchase, see: Shopping Assistance.
### Column Descriptions

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>The customer ID of a registered customer.</td>
</tr>
<tr>
<td>First Name</td>
<td>The first name of a registered customer.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The last name of a registered customer.</td>
</tr>
<tr>
<td>Email</td>
<td>The email address of a registered customer.</td>
</tr>
<tr>
<td>Last Activity</td>
<td>The date and time of the customer’s last activity in your store.</td>
</tr>
<tr>
<td>Type</td>
<td>Identifies the type of shopper: Options include: Customer / Visitor</td>
</tr>
</tbody>
</table>
CHAPTER 43:
Customer Accounts

The header of every page in your store extends an invitation for shoppers to “Log in or register” for an account with your store. Customers who open an account with your store enjoy a range of benefits, including:

- **Faster checkout.** Registered customers move through checkout faster because much of the information is already in their accounts.

- **Self service.** Registered customers can update their information, check the status of orders, and even reorder from their account dashboard.

Customers can access their account dashboard by clicking the “My Account” link in the header of the store. They can use their account dashboard to view and modify their information, including past and current addresses, billing and shipping preferences, newsletter subscriptions, wishlist, and more.
Customer Sign In

Customer have easy access to their accounts from every page in your store. Depending on the configuration, customers can be redirected to their account dashboard, or continue shopping after they log in to their accounts. When customers forget their passwords, a reset link is sent to the email address that is associated with the account.

To sign in to your customer account:

1. In the header of the store, tap Sign in.
2. When prompted, enter the Email Address that is associated with your account, and your Password. Then, tap Login.
To reset your password:

1. On the Login page, tap **Forgot Your Password?**.

2. When prompted, enter the **Email Address** that is associated with your account, and tap **Submit**.

   If the email address you entered matches the one that is associated with the account, you will receive a "Password Reset Confirmation" email with a link to reset your password.

3. Tap the link in the email, and when prompted, enter your **New Password**. Enter it again to confirm, and tap **Reset Password**.

   Your new password must be six or more characters in length, without spaces.

When you receive confirmation that the password is updated, you can use the new password to log in to your account.
Account Dashboard

My Dashboard

The customer's account dashboard gives them the ability to track orders, manage shipping addresses, and manage other store activities.

Account Information

Customers can update their account information and change their password as needed. The store Admin can also update customer accounts and access the information to offer shopping assistance.

Address Book

The customer address book includes the default billing and shipping address, and additional address entries.

Downloadable Products

Lists all downloadable products the customer has purchased, with a link to each.
Orders

Displays a list of all customer orders, with a link to each. If enabled in the configuration, any order can be reordered by simply clicking the Reorder link.

Billing Agreements

Displays a list of any customer billing agreements.

Newsletter Subscriptions

Lists all available newsletters. Those to which the customer is currently subscribed have a checkmark.

My Product Reviews

Displays a list of all product reviews submitted by the customer, with a link to each.

My Wish List

This section is a placeholder for API applications that link the customer account to other applications or extensions.
Configuring Customer Accounts

The customer account settings determine the information that is collected during customer registration, and the experience that customers have during the process. Customer configuration settings include:

- Online Session Length
- Account Scope
- Login Landing Page
- New Account Options
- Name and Address Options
- Password Options
Online Session Length

The length of each customer session is set by default to fifteen minutes. If there is no keyboard activity during that time, the current session ends, and customers must log back into their accounts to continue shopping. If Persistent Cart is enabled, the contents of their carts are saved for the next time they sign in to their accounts.

To configure the online session length:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Online Now.
2. In the panel on the left under Customers, choose Customer Configuration.
3. Expand the Online Customers Options section.
4. In the Online Minutes Interval field, enter the number of minutes before the customer session. Leave the field empty to accept the default interval of fifteen minutes.
5. When complete, tap Save Config.
Login Landing Page

You can configure your store to redirect customers to their account dashboard after they log in, or let them continue shopping.

**To set the login landing page:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, under **Customers**, choose **Customer Configuration**.
3. Expand the **Login Options** section.

4. Set **Redirect Customer to Account Dashboard after Logging in** to one of the following:
   - Yes The account dashboard appears when customers log in to their accounts.
   - No Customers can continue shopping after logging in to their accounts.

5. When complete, tap **Save Config**.
New Account Options

In the Create New Account Options section of the configuration, the basic account options are combined with more advanced options that relate to VAT ID Validation and custom integrations. The following instructions cover only the most frequently used options. To learn about automatic customer group assignments, see: VAT ID Validation.

<table>
<thead>
<tr>
<th>Create New Account Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable Automatic Assignment to Customer Group</td>
<td>No</td>
</tr>
<tr>
<td>Default Group</td>
<td>General</td>
</tr>
<tr>
<td>Default Value for Disable Automatic Group Changes Based on VAT ID</td>
<td>No</td>
</tr>
<tr>
<td>Show VAT Number on Storefront</td>
<td>No</td>
</tr>
<tr>
<td>Default Email Domain</td>
<td>example.com</td>
</tr>
<tr>
<td>Default Welcome Email</td>
<td>New Account (Default)</td>
</tr>
<tr>
<td>Default Welcome Email Without Password</td>
<td>New Account Without Password (Default)</td>
</tr>
<tr>
<td>Email Sender</td>
<td>General Contact</td>
</tr>
<tr>
<td>Require Email Confirmation</td>
<td>No</td>
</tr>
<tr>
<td>Confirmation Link Email</td>
<td>New Account Confirmation Key (Default)</td>
</tr>
<tr>
<td>Welcome Email</td>
<td>New Account Confirmed (Default)</td>
</tr>
<tr>
<td>Generate Human-Friendly Customer ID</td>
<td>No</td>
</tr>
</tbody>
</table>

Create New Account Options
To set up the basic customer account options:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Customers, choose Customer Configuration.

3. Expand the Create New Account Options section. Then, do the following:
   
   a. Set Default Group to the customer group that is assigned to new customers when an account is created.
   
   a. If you have a Value Added Tax number, and want it to be visible to customers, set Show VAT Number on Storefront to “Yes.”
   
   b. Enter the Default Email Domain for the store. For example: mystore.com
   
   c. Set Default Welcome Email to the template that is used for the Welcome email sent to new customers.
   
   d. Set Default Welcome Email without Password to the template that is used when a customer account is created that does not yet have a password. For example, a customer account created from the Admin does not yet have a password assigned.
   
   e. Set Email Sender to the store contact that appears as the sender of the Welcome email.
   
   f. To require that customers confirm their request to open an account with your store, set Require Emails Confirmation to “Yes.” Then, set Confirmation Link Email to the template that is used for the confirmation email.
   
   g. Set Welcome Email to the template that is used for the Welcome message that is sent after the account is confirmed.

4. When complete, tap Save Config.
Name and Address Options

The Name and Address Options determine the values in the drop-down lists for the prefix and suffix part of the customer name.

To configure the customer name and address:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Customers, choose Customer Configuration.
3. Expand the Name and Address Options section.
1. Enter the **Number of Lines in a Street Address**. If left blank, the street address defaults to 2.

2. To include a prefix before the name, do the following:
   a. Set **Show Prefix** to one of the following:
      - Optional
      - Required
   b. In the **Prefix Dropdown Options** field, enter each prefix that you want to appear in the list, separated by a semicolon. Place a semicolon before the first value to display an empty value at the top of the list.

3. To include a suffix after the name, do the following:
   a. Set **Show Suffix** to one of the following:
      - Optional
      - Required
   b. In the **Suffix Dropdown Options** field, enter each prefix that you want to appear in the list, separated by a semicolon. Place a semicolon before the first value to display an empty value at the top of the list.

4. To include additional fields, do the following:
   a. Set **Show Date of Birth** to “Yes.”
   b. Set **Show Tax/VAT Number** to “Yes.”
   c. Set **Show Gender** to “Yes.”

5. When complete, tap **Save Config**.
Password Options

The customer password options control the level of security that is used for password reset requests, and determines the email templates that are used for customer notification, and the lifetime of the password recovery link. You can allow customers to change their own passwords, or require that only store administrators can do so.

**To configure customer password options:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Customers**, choose **Customer Configuration**. Then, expand the **Password Options** section.

   ![Password Options](image)

3. Set **Password Reset Protection Type** to the method you want to use for managing password reset requests:

   - **By IP and Email** The password can be reset online after a response is received from a reset notification sent to the email address associated with the Admin account.
   - **By IP** The password can be reset online without additional confirmation.
By Email The password can be reset only by responding to an email notification that is sent to the email address associated with the Admin account.

None The password can be reset only by the store administrator.

4. To limit the number of password reset requests sent per hour, do the following:
   a. In the **Max Number of Password Reset Requests** field, enter the maximum number of password reset requests that can be sent per hour.
   b. In the **Min Time Between Password Reset Requests** field, enter the minimum number of minutes that must elapse between requests.

5. To configure the password reset email notification, do the following:
   a. Set **Forgot Email Template** to the template that is used for the email sent to customers who have forgotten their passwords.
   b. Set **Remind Email Template** to the template that is used when a password hint is sent to customers.
   c. Set **Reset Password Template** to the template that is used when customers change their passwords.
   d. Set **Password Template Email Sender** to the store contact that appears as the sender of password-related notifications.

6. Complete the following password reset security options:
   a. In the **Recovery Link Expiration Period (hours)** field, enter the number of hours before the password recovery link expires.
   b. In the **Number of Required Character Classes** field, enter the number of different character types that must be included in a password, based on the following character classes:
      - Lowercase
      - Uppercase
      - Numeric
      - Special Characters
   c. In the **Maximum Login Failures to Lockout Account** field, enter the number of failed login attempts until the Admin account is locked. For unlimited attempts, enter zero (0).
   d. In the **Minimum Password Length** field, enter the minimum number of characters that can be used in a password. The number must be greater than zero.
   e. In the **Lockout Time (minutes)** field, enter the number of minutes an Admin account is locked after too many failed attempts to log in.

7. When complete, tap **Save Config**.
CHAPTER 44:

Customer Groups

Customer groups determine which discounts are available, and the tax class that is associated with the group. The default customer groups are General, Not Logged In, and Wholesale.

To create a customer group:

1. On the Admin sidebar, tap Customers. Then choose Customer Groups.
2. Tap Add New Customer Group. Then, do the following:
   a. Enter a unique Group Name less than 32 characters to identify the group.
   b. Select the Tax Class that applies to the group.
3. When complete, tap **Save Customer Group**.

**Group Information**

To edit a customer group:

1. On the Admin sidebar, tap **Customers**. Then choose **Customer Groups**.
2. Open the record in edit mode.
3. Make the necessary changes.
4. When complete, tap **Save Customer Group**.
To assign a customer to a different group:

1. On the Admin sidebar, tap Customers. Then, choose All Customers.

2. Find the customer in the list, and mark the checkbox in the first column. Then, do the following:
   
   a. Set the Actions control to “Assign a Customer Group.”
   
   b. Set the Group control to the new group.
   
   c. When prompted to confirm, tap OK.
SALES
Contents

In this section of the guide, you’ll learn how to manage all aspects of the order process, including point of purchase support, order processing, payments, and fulfillment.

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    Product Return Workflow
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  Billing Agreements

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  Payments
  Shipping
CHAPTER 45:
Sales Menu

The Sales menu lists transactions according to where they are in the order workflow. You might think of each of option as a different stage in the lifetime of an order.

To display the Sales menu:
On the Admin sidebar, tap Sales.
Menu Options

Orders

When an order is placed, a sales order is created as a temporary record of the transaction. Payment has not been processed, and the order can still be canceled.

Invoices

An invoice is a record of the receipt of payment for an order. Multiple invoices can be created for a single order, each with as many, or as few of the purchased products that you specify. Depending on the payment action, payment can be automatically captured when the invoice is generated.

Shipments

A shipment is a record of the products in an order that have been shipped. As with invoices, multiple shipments can be associated with a single order, until all of the products in the order are shipped.
Billing Agreements

A billing agreement is similar to a purchase order, except that it isn't limited to a single purchase. During checkout, the customer chooses Billing Agreement as the payment method. A billing agreement streamlines the checkout process because the customer doesn't have to enter payment information for each purchase.

Transactions

The Transactions page lists all payment activity that has taken place between your store and all payment systems, and provides access to more detailed information.

Archive

Archiving orders and other sales documents on a regular basis improves performance and keeps your workspace free of unnecessary information.
Point of Purchase
Contents

In this section of the guide, you'll learn how to configure the cart and checkout options, and offer assistance to your customers.

Cart
  Cart Configuration
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  Redirect to Cart
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  Cart Thumbnails
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Shopping Assistance
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    Creating an Order
      Updating an Order
CHAPTER 46:
Shopping Cart

The cart is positioned at the end of the path to purchase, at the intersection of “Buy” and “Abandon,” and is perhaps, the most important page in the store. The cart is where the order total is calculated, along with discount coupons and estimated shipping and tax. It’s a great place to show your trust badges and seals, and an ideal opportunity to offer one last item. You can choose the items to be offered as a cross-sell impulse purchase whenever a specific item appears in the cart.
Cart Configuration

The cart configuration determines when the customer is redirected to the cart page, and which images are used for product thumbnails. You can require an order to reach a minimum amount before the checkout process begins, specify the number of days quoted prices remain valid, and specify the order of items in the Totals section.

- My Cart Link
- Cart Sidebar
- Redirect to Cart
- Quote Lifetime
- Minimum Order Amount
- Cart Thumbnails

See also:
Checkout Configuration
My Cart Link

The cart link in the upper-right corner of the header gives a quick summary of the contents of the cart. The link can be configured to display the number of different products (or SKUs) in the cart, or the total quantity of all items. If the Shopping Cart Sidebar is enabled, you can click the link to display more detail.

To configure the cart link:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the My Cart Link section.
4. Set Display Cart Summary to one of the following:
   - Display item quantities
   - Display number of items (different products) in cart.
5. When complete, tap Save Config.
Cart Sidebar

The Cart Sidebar is often called the “mini cart,” and displays a summary of the items in the cart. It is enabled by default, and appears when you click the number of items in the Cart Link.

To configure the mini cart:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Shopping Cart Sidebar section. Then, do the following:

   a. Set Display Shopping Cart Sidebar to your preference.
   b. In the Maximum Display Recently Added Item(s) field, enter the maximum number of recently added items that you want to appear in the mini cart.
4. When complete, tap Save Config.
Redirect to Cart

The shopping cart page can be configured to appear whenever an item is added to the cart, or only when customers choose to go to the page. The basic information about the items currently in the cart is always available in the mini cart. The decision is a matter of balancing the benefits letting customers continue shopping, with the benefit of encouraging customers to proceed to checkout. If might be simply a matter of personal preference. However, if you want back it up with numbers, you can run an A/B test to see which approach produces a higher conversion rate.

To configure when the cart appears:
1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Shopping Cart section.
4. Set After Adding a Product Redirect to Shopping Cart to your preference.
5. Tap Save Config.

Redirect to Cart
Quote Lifetime

You can determine how long a price is valid by setting the cart quote lifetime in the configuration. For example, if a shopper leaves a cart unattended after several days, the quotes price for some items might no longer be the same. By default, the quote lifetime is set to thirty days.

To configure the quote lifetime:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Shopping Cart section.
4. In the Quote Lifetime (days) field, enter the number of days that a quoted price remains valid.
5. When complete, tap Save Config.
Minimum Order Amount

The configuration allows you to specify a minimum amount, after discounts are applied, that order subtotals are required to meet. Orders shipped to multiple address can be required to meet the minimum order amount per address. The Checkout button becomes available only after the minimum order amount is reached.

To configure a minimum order amount:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Sales.
3. Expand the Minimum Order Amount section. Then, do the following:
Minimum Order Amount

a. To require a minimum order amount, set Enable to “Yes.”

b. Enter the Minimum Amount that is required for the subtotal, after discounts are applied.

c. Set Include Tax to Amount to one of the following:
   
   Yes      Requires the subtotal to meet the minimum amount with tax included.
   No       Requires the subtotal to meet the minimum amount without tax.

d. To change the default message that appears at the top of the cart when the subtotal doesn’t meet the minimum amount, enter the text in the Description Message box. Leave the box blank to use the default message.

e. To change the default error message, enter the text in the Error to Show in Shopping Cart box.
f. To require that each address in a multi-address order meet the minimum order amount, set **Validate Each Address Separately in Multi-address Checkout** to “Yes.”

**g.** To change the default message at the top of the cart for orders that are to be shipped to multiple addresses, but do not meet the minimum, enter the text in the **Multi-address Description Message** box.

**h.** To change the default error message for orders that are to be shipped to multiple addresses, but do not meet the minimum, enter the text in the **Multi-address Error to Show in Shopping Cart** box.

**4.** When complete, tap **Save Config**.
Allow Reorders

When enabled, reorders can be made directly from the customer account or from the original order in the Admin. Reorders are enabled by default.

To configure customer reorders:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Sales.
3. Expand the Reorder section.
4. Set Allow Reorder to your preference.
Cart Thumbnails

The thumbnail images in the cart give customers a quick overview of the items they are about to purchase. However, for products with multiple options, the image might not match the variation of the product that is in the cart. If the customer purchases an item in a specific color, ideally, the thumbnail in the cart should match.

The thumbnail image for both grouped and configurable products can be set to display the image from either the “parent” product or from the product variation. The setting applies to all grouped or configurable products in the current store view.

*Thumbnail Images in Cart*
To configure cart thumbnails:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Shopping Cart section. Then, do the following:

   ![Shopping Cart](image)

   a. Set Grouped Product Image to one of the following:
      - Product Thumbnail Itself
      - Parent Product Thumbnail
   b. Set Configurable Product Image to one of the following:
      - Product Thumbnail Itself
      - Parent Product Thumbnail
4. When complete, tap Save Config.
Persistent Cart

A persistent shopping cart keeps track of unpurchased items which are left in the cart, and saves the information for the customer’s next visit. Customers who are “remembered” can have the contents of their shopping carts restored the next time they visit your store.

Using a persistent shopping cart can help reduce the number of abandoned shopping carts and increase sales. It is important to understand that the persistent shopping cart does not expose sensitive account information at any time. While the persistent shopping cart is use, both registered customers and guest shoppers are required to either log in to an existing account, or create a new account before going through checkout. For guest shoppers, a persistent shopping cart is the only way to retrieve information from a previous session.

To use the persistent shopping cart, the customer’s browser must be set to allow cookies. During operation, the following cookies are used:

**Session Cookie**

A short-term session cookie exists for the duration of a single visit to your site, and expires when the customer leaves, or after a set period of time.

**Persistent Cookie**

A long-term persistent cookie continues in existence after the end of the session, and saves a record of the customers’ shopping contents for future reference.
Persistent Cart Workflow

When Persistent Shopping Cart is enabled, the workflow depends on the values of the “Enable Remember Me” and “Clear Persistence on Log Out” settings, the customer’s decision to select or clear the “Remember Me” checkbox, and when the persistent cookie is cleared.

The persistent cookie retains settings for the Shopping Cart, Wish List, Recently Ordered Items, Currently Compared Products, Comparison History, Recently Viewed Products, and Customer Group association. The persistent settings for all related entities are either cleared or retained according to the Persistent Shopping Cart setting.

When a persistent cookie is applied, a Not %Jane Smith%? link appears in the page header, to give the customer the ability to terminate the persistent session and start working as a guest, or log in as a different customer. The system retains a record of the shopping cart contents, even if the customer later uses different devices to shop in your store. For example, a customer can add an item to the shopping cart from a laptop, edit the cart contents from a desktop computer, add more items from a mobile device, and complete the checkout process from a tablet.

There is a separate independent persistent cookie for each browser. If the customer uses multiple browsers while visiting your store during a single, persistent session, any changes made in one browser will be reflected in any other browser when the page is refreshed. While the persistent shopping cart is enabled, your store creates and maintains a separate persistent cookie for each browser that is used by a customer to log in or create an account.

An Open Session on a Shared Computer

Jane is finishing up her holiday shopping with a persistent session, and adds a present for John to her cart, as well as something for her mother. Then she goes to the kitchen for some milk and cookies.

John sits down at the computer to do some quick shopping while Jane’s in the kitchen. Without noticing the “Not %Jane%” link at the top of the page, he finds a nice present for Jane and adds it to the cart. When he goes to checkout and logs in as himself, both the items in Jane’s cart are added to his cart. John’s in such a hurry that he doesn’t notice the additional item during Order Review, and submits the order. Jane’s cart is now empty, and John bought presents for both Jane and her mother.

Jane brings John some milk and cookies, and asks, “What’s up?” He says, “Oh, nothing.”
CHAPTER 46: Shopping Cart

Persistent Cart

Remember Me

Customers can click the “Remember Me” checkbox on the Login page to save the contents of their shopping carts.

Yes A persistent cookie is created, and the contents of the shopping cart is saved for the customer’s next logged-in session.

No If “Remember Me” is not selected or is cleared, a persistent cookie is not created, and the cart information is not saved for the customer’s next logged-in session.

Continue Persistence on Logout (No)

No When the customer logs in, the persistent cookie is invoked, in addition to the session cookie which is already in use.

No When the customer logs out, the session cookie is deleted, but the persistent cookie remains in effect. The next time the customer logs in, the cart items are restored, or added to any new items that have been placed in the cart.

No If the customer does not log out, but the session cookie expires, the persistent cookie remains in effect.

Clear Persistence on Logout (Yes)

Yes When the customer logs in, the persistent cookie is invoked, in addition to the session cookie which is already in use.

Yes When the customer logs out, both cookies are deleted.

Yes If the customer does not log out, but the session cookie expires, the persistent cookie remains in effect.
### Persistent Cart Settings and Effects

<table>
<thead>
<tr>
<th>SETTINGS</th>
<th>EFFECT</th>
</tr>
</thead>
</table>
| Enable Remember Me = “No”  
Clear Persistence on Log Out = any value | The Remember Me checkbox is not available on the login and registration page. The persistent cookie is not used. |
| Enable Remember Me = “Yes”  
Clear Persistence on Log Out = any value  
Remember Me (not selected) | The session cookie is applied as usual; the persistent cookie is not used. |
| Enable Remember Me = “Yes”  
Clear Persistence on Log Out = “Yes”  
Remember Me = “Yes” | When a customer logs in, both cookies are applied. When a customer logs out, both cookies are deleted. If a customer does not log in, but the session cookie expires, the persistent cookie is still used. Apart from logging out, the persistent cookie is deleted when its lifetime runs out or when the customer clicks the Not %Jane Smith% link. |
| Enable Remember Me = “Yes”  
Clear Persistence on Log Out = “No”  
Remember Me = “Yes” | When a customer logs in, both cookies are applied. When a customer logs out, the session cookie is deleted, the persistent session continues. The persistent cookie is deleted when its lifetime runs out or when the customer clicks the Not %Jane Smith% link. |
Configuring a Persistent Cart

During the setup of a persistent shopping cart, you can specify the lifetime of the cookies, and which options you want to make available for various customer activities.

If the session cookie expires while the customer is logged in, the persistent cookie remains active.

To configure a persistent cart:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Customers, choose Persistent Shopping Cart.
3. If necessary, expand the General Options section.
4. To enable the persistent shopping cart and display additional options, set Enable Persistence to “Yes.” Then, do the following:

   **General Options**

   a. In the Persistence Lifetime (seconds) field, enter the length of time, in seconds, that you want the persistent cookie to last. The default value of 31,536,000 seconds is equal to one year, and is the maximum time allowed.
   
   b. Set Enable “Remember Me” to one of the following:

      Yes Displays the “Remember Me” checkbox on the Login page of your store, so customers can choose to save their shopping cart information.
      
      No Persistence can still be enabled, but customers are not given the option to choose if they want to save their information.
   
   c. To preselect the “Remember Me” checkbox, set Remember Me Default Value to “Yes.”
   
   d. Set Clear Persistence on Log Out to one of the following:
Yes     Clears persistent settings for all entities when a registered customer logs out. Entities with persistent settings include: Shopping Cart, Wish List, Recently Ordered Items, Currently Compared Products, Comparison History, Recently Viewed Products, and Customer Group association.

No      Retains persistent settings for all entities when a registered customer logs out.

If the session cookie expires while the customer is still logged in, the persistent cookie remains in use.

e.    Set **Persist Shopping Cart** to one of the following:

Yes     If the session cookie expires, the persistent cookie is preserved. If a customer later logs in, the shopping cart is restored.

No      The shopping cart is not preserved for guests after the session cookie expires.

5.    When complete, tap **Save Config**.
CHAPTER 47: 

Shopping Assistance

Customers sometimes need assistance to complete a purchase. Some customers like to shop online, but would rather the order by phone. You can offer immediate assistance both guests and customers who have registered for an account with your store.

- Creating Customer Accounts
- Creating Orders
Creating Customer Accounts

Customers usually create their own accounts from your store. However, you can also create customer accounts directly from the Admin, which is useful when customers order by phone.

Step 1: Create a New Customer Account

1. On the Admin sidebar, tap Customers. Then, choose All Customers.
2. Tap Add New Customer.
3. In the Account Information section, do the following:
Customer Information

a. To associate the customer with a specific store view, set **Associate to Website** to the view.

b. Assign the customer to a **Customer Group**.

c. If using VAT ID Validation, and want to **Disable Automatic Group Change Based on VAT ID**, mark the checkbox.

4. Complete the following required fields:
   - First Name
   - Last Name
   - Email

5. Complete the optional fields as needed:
   - Prefix
   - Middle Name/Initial
   - Suffix
   - Date Of Birth
   - Tax/VAT Number
   - Gender

6. Set **Send Welcome Email From** to the customer identity to appear as the sender of the Welcome email.

7. Tap **Save and Continue Edit**.
When the customer account is saved, the full set of options appears in the panel on the left and in the menu at the top of the page. The Customer View tab displays a summary of account activity.

**Customer Account Saved**

**Step 2: Complete the Customer Address and Contact Information**

1. In the panel on the left, choose **Addresses**. Then, do the following:
   a. To add a new address, tap **Add New Addresses**.

   ![Add Address to New Customer Account](image)

   b. To define the type of address, mark one of the following checkboxes:
      - Default Billing Address
      - Default Shipping Address
   c. If the name of another person is associated with the address, complete the name information as needed. If the name fields are left blank, the customer name will be used for the address.
d. Complete the following address fields as needed:
   - Company
   - Street Address
   - City
   - Country
   - State/Province
   - Zip/Postal Code

e. Complete the following information if available:
   - Phone Number
   - Fax
   - VAT Number

2. When complete, tap Save Customer.

Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACCOUNT INFORMATION</strong></td>
<td></td>
</tr>
<tr>
<td>Associate to Website</td>
<td>Identifies the website associated with the customer account.</td>
</tr>
<tr>
<td>Group</td>
<td>Identifies the customer group to which the customer belongs. Select the checkbox to disable automatic group change based on VAT.</td>
</tr>
<tr>
<td>Prefix</td>
<td>If used, the prefix that is associated with the customers name. For example: Mr, Mrs. or Dr. Depending on the configuration, the input control might be a text field or a drop-down list of options.</td>
</tr>
<tr>
<td>First Name</td>
<td>The customer's first name.</td>
</tr>
<tr>
<td>Middle Name / Initial</td>
<td>The customer's middle name or middle initial.</td>
</tr>
<tr>
<td>Last Name</td>
<td>The customer's last name.</td>
</tr>
<tr>
<td>Suffix</td>
<td>If used, the suffix that is associated with the customer's name. For example: Jr., Sr., or III. Depending on the configuration, the input control might be a text field or a drop-down list of options.</td>
</tr>
<tr>
<td>Email</td>
<td>The customer's email address.</td>
</tr>
<tr>
<td>Date Of Birth</td>
<td>The customer's date of birth.</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax / VAT Number</td>
<td>The customer’s Tax or Value Added Tax number, if applicable.</td>
</tr>
<tr>
<td>Gender</td>
<td>Identifies the customer's gender as Male or Female.</td>
</tr>
<tr>
<td>Send Welcome Email From</td>
<td>If you have multiple stores, select the store from which the welcome message will be sent.</td>
</tr>
</tbody>
</table>

### Addresses

- **New Addressees**: Identifies the type of new address. Options:
  - Default Billing Address
  - Default Shipping Address

- **Company**: The company name, if applicable for this address.
- **Street Address**: The street address of the customer. The second line of the street address can be used if needed.
- **City**: The city where the customer resides at this address.
- **Country**: The country where the customer resides at this address.
- **State/Province**: The state or province of the customer at this address.
- **Zip/Postal Code**: The ZIP or postal code of the customer at this address.
- **Phone Number**: The phone number where the customer can be reached at this address.
- **Fax**: The fax number where the customer can be reached at this address.
- **VAT Number**: If applicable, the value added tax number that applies to the customer at this address.
Updating Customer Accounts

The panel on the left of the Customer Information page includes information about customer activity, such as when the customer last signed in or out of their account, addresses, order statistics, recent orders, shopping cart contents, product reviews, newsletter subscriptions, and so on.

To update customer information:

1. On the Admin sidebar, tap **Customers**. Then, choose **All Customers**.

2. Find the customer in the grid. Then in the **Action** column, click **Edit**.

3. In the panel on the left, choose the type of information you need to edit. Then, make any necessary changes to the customer account.

4. When complete, tap **Save Customer**.
<table>
<thead>
<tr>
<th>OPTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset</td>
<td>Resets any unsaved changes in the customer form to their previous values.</td>
</tr>
<tr>
<td>Create Order</td>
<td>Creates a new order that is associated with the customer account.</td>
</tr>
<tr>
<td>Reset Password</td>
<td>Resets the customer’s password.</td>
</tr>
<tr>
<td>Force Sign-In</td>
<td>Clears the tokens associated with the customer’s password, and provides the administrator access to the account,</td>
</tr>
<tr>
<td>Save and Continue Edit</td>
<td>Saves any changes to the customer account, and keeps the customer record open.</td>
</tr>
<tr>
<td>Save Customer</td>
<td>Saves any changes to the customer account, and closes the customer record.</td>
</tr>
</tbody>
</table>
Creating an Order

For registered customers who need assistance, you can create an entire order directly from the Admin. The Create New Order form includes all the information that is needed to complete the normal checkout process, with activity summaries from the customer's account dashboard.

To create a new order:

1. On the Admin sidebar, tap Customers.
2. Find the customer in the grid. Then in the Action column, click Edit.
3. In the workspace header, tap Create Order.
4. If your store has multiple views, choose the store view where the order is to be placed.
5. To add products from the Customer’s Activities, mark the checkbox of each product in the panel on the left. Then, scroll down and tap Update Changes. The item appears in the order form.
6. To add products from the catalog, tap **Add Products**. Then, do the following:

   **Add Products**

   a. In the grid, mark the checkbox of each product to be added to the cart, and enter the **Qty** to be purchased.

   **Select Products**
b. If the product has multiple options, tap **Configure**. Complete the options as needed, and tap **OK**. Then, click the **Add Selected Product(s) to Order** link to update the cart.

c. To override the price of an item, mark the **Custom Price** checkbox. Then, enter the new price in the box below. To update the cart totals, tap **Update Items and Quantities**.

d. Complete the following sections as needed for the order:

- Apply Coupon Codes
- Payment Method
- Shipping Method
- Order Comments

7. When complete, tap **Submit Order**. A confirmation is sent to the customer, and the customer can view the order details from their account.
Updating an Order

After a customer places an order, it is sometimes necessary to edit the order, place it on hold, or cancel it entirely. When you change an order, the original order is canceled and a new order is generated. You can, however, change the billing or shipping address without generating a new order.

To edit an order:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.
2. Find the order to be edited. Then in the Action column, click the View link.
3. Tap Edit. When prompted to confirm, tap OK to continue.
4. Make the necessary changes to the order.
5. When complete, do one of the following:
   - To save changes made to the billing or shipping address, tap Save.
   - To save changes made to line items, and reprocess the order, tap Submit Order.
To place an order on hold:

If the customer’s preferred method of payment is not available, or if the item is temporarily out of stock, you can put the order on hold.

1. In the Orders grid, find the pending order that you want to place on hold.
2. In the Action column, click the View link.
3. Tap Hold to place the order on hold.

4. When you are ready to return the order to an active state, repeat the process and tap Unhold.

To cancel an order:

Canceling an order changes its status from “Pending” to “Canceled.”

1. In the Orders grid, find the pending order to be canceled.
2. In the Action column, click the View link.
3. Tap Cancel.
Cancel Order

The status of the order is now “Canceled.”
CHAPTER 48: Checkout

When the checkout process begins, the transaction shifts to a secure, encrypted channel. A padlock symbol appears in the address bar of the browser, and the URL changes from “http” to “https”.

From this point on, the goal is to gather the information necessary to complete the transaction. The Checkout page leads the customer through each step of the process. Customers who are logged into their accounts can complete checkout quickly, because much of the information is already in their accounts.

Checkout Steps

- **Step 1: Shipping**
  
The first step of the checkout process is for the customer to complete the shipping address information, and to choose the shipping method.

- **Step 2: Review & Payments**
  
  During the second step of the checkout process, the customer chooses the payment method, and applies any coupons with promotional codes to the purchase.
  
The order confirmation appears after the order is placed. For registered customers, the page includes the order number with a link to the customer’s account, and a link to generate a receipt.
Checkout Step 1: Shipping

The first step of the checkout process is for the customer to complete the shipping address information, and to choose the shipping method. If the customer has an account, the shipping address is entered automatically, but can be changed if needed. The progress bar at the top of the page follows each step of the checkout process, and the Order Summary shows the information entered so far.
Checkout Step 2: **Review & Payments**

During the second step of the checkout process, the customer chooses the payment method, and applies any coupons with promotional codes to the purchase. All information can be reviewed, and edited if needed. If enabled, the customer must agree to the terms and conditions of the sale before placing the order.
Order Confirmation

The order confirmation appears after the order is placed. For registered customers, the page includes the order number with a link to the customer’s account, and a link to generate a receipt. Registered customers are told that they will receive order confirmation and tracking info by email. Guests are encouraged to create an account to track the order. Registered customers can generate a receipt by clicking a link.

The order confirmation page is also called the “Success” page, and is used by analytics programs to track conversions.
Checkout Configuration

The checkout configuration determines the format of the page, the requirements to make a purchase, and the options that are presented during the checkout process.

- Guest Checkout
- Terms and Conditions
- One Page Checkout
- Checkout Totals Sort Order
Checkout Options

The checkout configuration determines the layout of the checkout page, and if shoppers must register for an account and agree to the terms and conditions of the sale before making a purchase.

To change the checkout options:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Checkout Options section.
4. Set the following to your preference:
   - Enable Onepage Checkout
   - Allow Guest Checkout
   - Enable Terms and Conditions

5. When complete, tap Save Config.
Guest Checkout

Your store can be configured to require that shoppers open an account before making a purchase, or to allow unregistered guests to go through the checkout process. The default setting allows guests to make purchases, with an option to register for an account after they complete the checkout process.

To change the guest checkout setting:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Checkout Options section.
4. If necessary, clear the Use system value checkbox. Then, do the following:
   a. If the setting is for a specific store view, choose the store view where the configuration applies.
   b. When prompted, tap OK to continue.
5. Set Allow Guest Checkout to your preference:
6. When complete, tap Save Config.
Terms and Conditions

When Terms and Conditions is enabled, customers are required to agree to the terms and conditions of the sale before the purchase is finalized. The Terms and Conditions of the sale typically includes disclosure information that might be required by law for B2C or B2B sites, and outlines the rights of the buyer and seller. The Terms and Conditions message appears after the payment information, just before the Place Order button.

Terms and Conditions at Checkout

Step 1: Enable Terms and Conditions

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Checkout Options section. Then, do the following:
   a. Verify that Enable Onepage Checkout is set to “Yes.”
   b. Set Enable Terms and Conditions to “Yes.”

Checkout Options

4. When complete, tap Save Config.
Step 2: Add Your Terms and Conditions

1. On the Admin sidebar, tap Stores. Then under Settings, choose Terms and Conditions.
2. In the upper-right corner, tap Add New Condition.

Terms and Conditions Information

3. In the Terms and Conditions Information section, complete the following:

   a. Enter the Condition Name for internal reference.
   b. Set Status to “Enabled.”
c. Set *Show Content as* to one of the following:

- **Text** Displays the terms and conditions content as unformatted text.
- **HTML** Displays the content as HTML which can be formatted.

4. Select each **Store View** where the Terms and Conditions is to be used.

5. Enter the **Checkbox Text** to be used as the text for the Terms and Conditions link. For example, “I understand and accept the terms and conditions of the sale.”

6. In the **Content** box, enter the full text of the terms and conditions of the sale.

7. (Optional) Enter the **Content Height (css)** in pixels, to determine the height of the text box where the terms and conditions statement appears during checkout. For example, to make the text box one inch high on a 96 dpi display, enter 96. A scroll bar appears if the content extends beyond the height of the box.

8. When complete, tap **Save Condition**.
One Page Checkout

The purpose of OnePage Checkout is to gather the information that is needed, and complete the sale as quickly as possible. When Onepage Checkout is enabled, the entire checkout process takes place on a single page. Each section of the checkout information is expanded as needed.

Magento’s Onepage Checkout is enabled by default. If you are implementing a custom integration or checkout extension, it might be necessary to disable Onepage Checkout.

To disable Onepage Checkout:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Checkout.
3. Expand the Checkout Options section.
4. If necessary, clear the Use system value checkbox. Then, do the following:
   a. If the setting is for a specific store view, choose the store view where the configuration applies.
   b. When prompted, tap OK to continue.
5. Set Enable Onepage Checkout to “No.”
6. When complete, tap Save Config.
Gift Options

The selection of available gift options appears during the Shipping Method step of the checkout process. The Gift Options configuration determines if customers have the option to add a gift message to the complete order, and for individual items. The scope of the Gift Options configuration applies to the entire website, but can be overridden at the product level.

To enable gift options:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Sales.
3. Expand the Gift Options section.
4. If necessary, clear the Use system value checkbox. Then, do the following:
   a. If the setting is for a specific store view, choose the store view where the configuration applies.
   b. When prompted, tap OK to continue.
5. Set the Gift Message options according to your preference:
   - Allow Gift Messages on Order Level
   - Allow Gift Messages for Order Items
6. When complete, tap Save Config.
Checkout Totals Sort Order

During Order Review, the total appears at the bottom of the order, with any adjustments for discounts, shipping charges, store credit, and tax. The order of each item determines the sequence of the calculations, and is set in the configuration by a number that is assigned to each item. For example, the Subtotal is the first item in the section, and is assigned a value of 10. The Grand Total appears last, and is assigned a value of 100. All of the other items in the totals section are assigned a value between those values.

To configure the checkout totals:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Sales.
3. Expand the Checkout Totals Sort Order section.
4. If necessary, clear the Use system value checkbox. Then, do the following:
a. If the setting is for a specific store view, choose the store view where the configuration applies.

b. When prompted, tap OK to continue.

5. Change the number assigned to each item to determine its order in the Totals section.

6. When complete, tap Save Config.
Order Management
Contents

In this section of the guide, you will learn about each stage of the order workflow, and how to process orders, create invoices, and shipments. You will also learn how to issue credit memos and manage returns.

Orders
Orders Workspace
Order Actions
Order Search
GridLayout

Order Workflow
Processing Orders

Order Status
Order Status Workflow
Custom Order Status

Scheduled Operations
Pending Payment Order Lifetime
Scheduled Grid Updates

Invoices
Creating an Invoice
Printing Multiple Invoices

Shipments

Credit Memos
Product Return Workflow
Issuing a Credit Memo
Printing Credit Memos

Billing Agreements

Transactions
CHAPTER 49:
Orders

The Orders workspace lists all current orders. Each row in the grid represents an order, and each column represents an attribute, or data field. Use the standard controls to sort and filter the list, find orders, and apply actions to selected orders. You can view existing orders, and create new orders. The tabs above the pagination controls can be used to filter the list, change the default view, change and rearrange columns, and export data.
# Workspace Controls

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Search</td>
<td>Initiates a search for orders based on keywords entered in the search box, and current filters.</td>
</tr>
<tr>
<td>Create New Order</td>
<td>Creates a new order.</td>
</tr>
<tr>
<td>Go to Archive</td>
<td>Displays the list of archived orders.</td>
</tr>
<tr>
<td>Search</td>
<td>Initiates a search for orders based on the current filters.</td>
</tr>
<tr>
<td>Reset Filter</td>
<td>Restores all filters to a blank state.</td>
</tr>
<tr>
<td>Actions</td>
<td>Lists all actions that can be applied to selected orders. To apply an action to an order, or group of orders, mark the checkbox in the first column of each order. Order actions: Cancel Hold Unhold Print Invoices Print Packing Slips Print Credit Memos Print All Move to Archive</td>
</tr>
<tr>
<td>Mass Actions</td>
<td>Can be used to select multiple records as the target of action. Mark the checkbox in the first column of each record that is subject to the action. Options: Select All, Unselect All, Select Visible, and Unselect Visible</td>
</tr>
<tr>
<td>Submit</td>
<td>Applies the current action to the selected order records.</td>
</tr>
<tr>
<td>Edit</td>
<td>Opens the order in edit mode.</td>
</tr>
</tbody>
</table>
### Columns

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection State</td>
<td>Filters the list of orders based on checkbox status. Options:</td>
</tr>
<tr>
<td></td>
<td>- Any: Lists all records, regardless of checkbox status.</td>
</tr>
<tr>
<td></td>
<td>- Yes: Lists only records with the checkbox marked.</td>
</tr>
<tr>
<td></td>
<td>- No: Lists only records without the checkbox marked.</td>
</tr>
<tr>
<td>ID</td>
<td>A unique, sequential number that is assigned when a new order is saved for the first time.</td>
</tr>
<tr>
<td>Purchase Point</td>
<td>Identifies the store view where the order was placed.</td>
</tr>
<tr>
<td>Purchase Date</td>
<td>The date the order was placed.</td>
</tr>
<tr>
<td>Bill-to Name</td>
<td>The name of the person who is responsible to pay for the order.</td>
</tr>
<tr>
<td>Ship-to Name</td>
<td>The name of the person to whom the order is to be shipped.</td>
</tr>
<tr>
<td>Grand Total (Base)</td>
<td>The grand total of the order.</td>
</tr>
<tr>
<td>Grand Total (Purchased)</td>
<td>The grand total of products purchased in the order.</td>
</tr>
<tr>
<td>Status</td>
<td>The current order status.</td>
</tr>
<tr>
<td>Action</td>
<td>The View link opens the order.</td>
</tr>
</tbody>
</table>
Order Workspace

The Order workspace lists all current orders. Each row in the grid represents a customer order, and each column represents an attribute, or data field. Use the standard controls to sort and filter the list, find orders, and apply actions to selected orders. From the grid, you can view existing orders, and create new orders. The tabs above the pagination controls are used to filter the list, change the default view, change and rearrange columns, and export data.
### Workspace Controls

<table>
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</tr>
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<tr>
<td>Search</td>
<td>Initiates a search for orders based on keywords entered in the search box, and current filters.</td>
</tr>
<tr>
<td>Create New Order</td>
<td>Creates a new order.</td>
</tr>
<tr>
<td>Go to Archive</td>
<td>Displays the list of archived orders.</td>
</tr>
<tr>
<td>Search</td>
<td>Initiates a search for orders based on the current filters.</td>
</tr>
<tr>
<td>Reset Filter</td>
<td>Restores all filters to a blank state.</td>
</tr>
<tr>
<td>Actions</td>
<td>Lists all actions that can be applied to selected orders. To apply an action to an order, or group of orders, mark the checkbox in the first column of each order. Order actions: Cancel Hold Unhold Print Invoices Print Packing Slips Print Credit Memos Print All Move to Archive</td>
</tr>
<tr>
<td>Mass Actions</td>
<td>Can be used to select multiple records as the target of action. Mark the checkbox in the first column of each record that is subject to the action. Options: Select All, Unselect All, Select Visible, and Unselect Visible</td>
</tr>
<tr>
<td>Submit</td>
<td>Applies the current action to the selected order records.</td>
</tr>
<tr>
<td>Edit</td>
<td>Opens the order in edit mode.</td>
</tr>
</tbody>
</table>
## Columns

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection State</td>
<td>Filters the list of orders based on checkbox status. Options:</td>
</tr>
<tr>
<td></td>
<td>Any Lists all records, regardless of checkbox status.</td>
</tr>
<tr>
<td></td>
<td>Yes Lists only records with the checkbox marked.</td>
</tr>
<tr>
<td></td>
<td>No Lists only records without the checkbox marked.</td>
</tr>
<tr>
<td>ID</td>
<td>A unique, sequential number that is assigned when a new order is saved for the first time.</td>
</tr>
<tr>
<td>Purchase Point</td>
<td>Identifies the store view where the order was placed.</td>
</tr>
<tr>
<td>Purchase Date</td>
<td>The date the order was placed.</td>
</tr>
<tr>
<td>Bill-to Name</td>
<td>The name of the person who is responsible to pay for the order.</td>
</tr>
<tr>
<td>Ship-to Name</td>
<td>The name of the person to whom the order is to be shipped.</td>
</tr>
<tr>
<td>Grand Total (Base)</td>
<td>The grand total of the order.</td>
</tr>
<tr>
<td>Grand Total (Purchased)</td>
<td>The grand total of products purchased in the order.</td>
</tr>
<tr>
<td>Status</td>
<td>The current order status. Options:</td>
</tr>
<tr>
<td>Action</td>
<td>The View link opens the order.</td>
</tr>
</tbody>
</table>

### Order Actions

To apply an action to specific orders, mark the checkbox in the first column of each order. To select or deselect all orders, use the control at the top of the column.
Order Search

The Search box in the upper-left of the Orders grid can be used to find specific orders by keyword, or by filtering the order records in the grid.

To search for a match:

1. Enter a search term into the page search box.
2. Tap Search (🔍) to display the results.

To filter the search:

1. Tap the Filters (▼) tab to display the selection of search filters.
2. Complete as many of the filters as needed to describe the order(s) that you want to find.
3. Tap Apply Filters to display the results.
### Order Filters

#### Search Filters

<table>
<thead>
<tr>
<th>FILTER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID</td>
<td>Filters the search based on order ID.</td>
</tr>
<tr>
<td>Bill-to Name</td>
<td>Filters the search by the name of the person who is responsible to pay for the order.</td>
</tr>
<tr>
<td>Ship-to Name</td>
<td>Filters the search by the name of the person to whom each order is shipped.</td>
</tr>
<tr>
<td>Purchase Point</td>
<td>Filters the search by website, store, or store view where the order was placed.</td>
</tr>
<tr>
<td>Status</td>
<td>Filters the search based on order status. Options:</td>
</tr>
<tr>
<td></td>
<td>Canceled</td>
</tr>
<tr>
<td></td>
<td>Closed</td>
</tr>
<tr>
<td></td>
<td>Complete</td>
</tr>
<tr>
<td></td>
<td>Suspected Fraud</td>
</tr>
<tr>
<td></td>
<td>On Hold</td>
</tr>
<tr>
<td></td>
<td>Payment Review</td>
</tr>
<tr>
<td></td>
<td>PayPal Canceled Reversal</td>
</tr>
<tr>
<td></td>
<td>Pending</td>
</tr>
<tr>
<td></td>
<td>Pending Payment</td>
</tr>
<tr>
<td></td>
<td>Processing</td>
</tr>
<tr>
<td>Purchase Date</td>
<td>Filters the search based on the date purchased. To find orders within a range of dates, enter both the From and To dates.</td>
</tr>
</tbody>
</table>
Search Filters (cont.)

<table>
<thead>
<tr>
<th>FILTER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total (Base)</td>
<td>Filters the search based on the Grand Total of each order.</td>
</tr>
<tr>
<td>Grand Total (Purchased)</td>
<td>Filters the search based on Grand Total of items purchased in each order.</td>
</tr>
<tr>
<td>Apply Filters</td>
<td>Applies all filters to the search.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Cancels the current search.</td>
</tr>
<tr>
<td>Clear All</td>
<td>Clears all search filters.</td>
</tr>
</tbody>
</table>

Order Grid Layout

The selection of columns and their order in the grid can be changed according to your preference. The new layout can be saved as a grid “view.” By default, only nine of twenty available columns are included in the grid.

To change the column selection:
In the upper-right corner, tap the Columns (⚙️) control. Then, do the following:

- Mark the checkbox of any column you want to add to the grid.
- Clear the checkbox of any column you want to remove from the grid.

Make sure to scroll down to see all available columns.
To move a column:

1. Tap the header of the column, and hold.
2. Drag the column to the new position, and release.

To save a grid view:

1. Tap the View control. Then, tap Save Current View.
2. Enter a name for the view. Then, click the arrow to save all changes.
   The name of the view now appears as the current view.

To change the view:

Tap the View control. Then, do one of the following:

- To use a different view, tap the name of the view.
- To change the name of a view, tap the Edit icon. Then, update the name.
Order Workflow

When a customer places an order, a sales order is created as a temporary record of the transaction. In the Orders grid, sales orders initially have a status of “Pending,” and can be canceled at any time until the payment is processed. After payment is confirmed, the order can be invoiced and shipped.

1. **Place Order.** The checkout process begins when the shopper clicks the Go to Checkout button on the shopping cart page or reorders directly from their customer account.

2. **Order Pending.** In the Orders grid, the status of the sales order is initially “Pending.” Payment has not been processed, and the order can still be canceled.

3. **Receive Payment.** The status of the order changes to “Processing.” when payment is received or authorized. Depending on the payment method, you might receive notification when the transaction is authorized or processed.

4. **Invoice Order.** An order is typically invoiced after payment is received. Some payment methods generate an invoice automatically when payment is authorized and captured. The payment method determines which invoicing options are needed for the order. After the invoice is generated and submitted, a copy is sent to the customer.

5. **Ship Order.** The shipment is submitted, and the packing slip and shipping label are printed. The customer receives notification, and the package is shipped. If tracking numbers are used, the shipment can be tracked from the customer’s account.
Processing Orders

When a customer places an order, a sales order is created as a temporary record of the transaction. The sales order has a status of “Pending” until payment is received. Sales orders can be canceled until an invoice is generated. An easy way to think of it is this: Orders become invoices, and invoices become shipments. The Orders grid lists all orders, regardless of where they are in the workflow.
To view an order:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.
2. Find the order in the grid, and in the Action column, click View.
   - A pending order can be modified, put on hold, canceled, or invoiced and shipped.
   - A completed order can be reordered.
Order Status

All orders have an order status that is associated with a stage in the order processing workflow. The status of each order is shown in the Status column of the Orders grid. Your store has a set of predefined order status and order state settings. The order state describes the position of an order in the workflow.

### Predefined Order Status

<table>
<thead>
<tr>
<th>ORDER STATUS</th>
<th>STATUS CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing</td>
<td>processing</td>
</tr>
<tr>
<td>Suspected Fraud</td>
<td>fraud</td>
</tr>
<tr>
<td>Pending Payment</td>
<td>pending_payment</td>
</tr>
<tr>
<td>Payment Review</td>
<td>payment_review</td>
</tr>
<tr>
<td>Pending</td>
<td>pending</td>
</tr>
<tr>
<td>On Hold</td>
<td>holded</td>
</tr>
<tr>
<td>Complete</td>
<td>complete</td>
</tr>
<tr>
<td>Closed</td>
<td>closed</td>
</tr>
<tr>
<td>Canceled</td>
<td>canceled</td>
</tr>
<tr>
<td>PayPal Canceled Reversal</td>
<td>paypay_canceled_reversal</td>
</tr>
<tr>
<td>Pending PayPal</td>
<td>pending_paypal</td>
</tr>
<tr>
<td>PayPal Reversed</td>
<td>paypal_reversed</td>
</tr>
</tbody>
</table>

Order Status
Order Status Workflow
Custom Order Status

In addition to the preset order status settings, you can create custom order status settings of your own, assign them to order states, and set a default order status for order states. For example, you might need a custom order status for orders such as “packaging” or “backordered,” or for a status that is specific to your needs. You can create a descriptive name for the custom status, and assign it to the associated order state in the workflow.

Only default custom order status values are used in the order workflow. Custom status values that are not set as default can be used only in the comments section of the order.
To create a custom order status:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Order Status.
2. In the upper-right corner, tap Create New Status.

3. Under Order Status Information section, do the following:
   
a. Enter a Status Code for internal reference. The first character must be a letter (a-z), and the rest can be any combination of letters and numbers (0-9). Use the underscore character instead of a space.

   b. Enter a Status Label to identify the status setting in both the Admin and storefront.

4. In the Store View Specific Labels section, enter any labels that are needed for different store views.

5. When complete, tap Save Status.
To assign an order status to a state:

1. On the Order Status page, tap **Assign Status to State**.

2. In the **Assignment Information** section, do the following:
   a. Choose the **Order Status** that you want to assign. They are listed by status label.
   b. Set **Order State** to the place in the workflow where the order status belongs.
   c. To make this status the default for the order state, mark the **Use Order Status as Default** checkbox.
   d. To make this status visible from the storefront, mark the **Visible On Storefront** checkbox.
3. When complete, tap **Save Status Assignment**.

**To edit an existing order status:**

1. In the Order Status grid, open the status record in edit mode.
2. Update the status settings as needed.
3. When complete, tap **Save Status**.

**To remove an order status from an assigned state:**

A status setting cannot be unassigned from a state if the status is currently in use.

1. In the Order Status grid, find the order status record to be unassigned.
2. In the **Action** column on the far right of the row, tap the **Unassign** link.

   A message appears at the top of the workspace that the order status has been unassigned. Although the order status label still appears in the list, it is no longer assigned to a state. Order status settings cannot be deleted.

**Order State**

<table>
<thead>
<tr>
<th>ORDER STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
</tr>
<tr>
<td>Pending Payment</td>
</tr>
</tbody>
</table>
Order State (cont.)

ORDER STATE

Processing  When the state of new orders is set to “Processing,” the option to “Automatically Invoice All Items” becomes available in the configuration.

Complete
Closed
Canceled
On Hold
Payment Review

Order Status Notification

Customers can track the status of their orders by RSS feed if the Order RSS feed is enabled in the configuration. When enabled, a link to the RSS feed appears on each order.

To enable Order Status Notification:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Catalog, choose RSS Feeds.
3. Expand the Order section.
4. Set Customer Order Status Notification to “Enable”.
5. When complete, tap Save Config.
Scheduled Operations

Magento cron jobs can be used to schedule the following order management tasks:

- Pending Payment Order Lifetime
- Scheduled Grid Updates

Pending Payment Order Lifetime

The lifetime of orders with pending payments is determined by the Orders Cron Settings configuration. The default value is set to 480 minutes, which is eight hours.

To set the lifetime of orders with pending payments:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Sales.
3. Expand the Orders Cron Settings section.
4. In the Pending Payment Order Lifetime (minutes) field, enter the number of minutes before a pending payment expires.
5. When complete, tap Save Config.
Scheduled Grid Updates

The Grid Settings configuration schedules updates to the following order management grids, and reindexes the data as scheduled by Cron:

- Orders
- Invoices
- Shipments
- Credit Memos

The benefits of scheduling these tasks is to avoid the locks that occur when data is saved, and to reduce processing time. When enabled, any updates take place only during the scheduled cron job. For best results, Cron should be configured to run once every minute.

**To enable scheduled grid updates and reindexing:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Advanced**, choose **Developer**.
3. Expand the **Grid Settings** section.
4. Set **Asynchronous Indexing** to “Enable.”

![Grid Settings](image.png)

**Grid Settings**

5. When complete, tap **Save Config**.
CHAPTER 50: Invoices

An invoice is a record of the record of payment for an order. Multiple invoices can be created for a single order, and each can include as many or as few of the purchased products that you specify. You can upload a high-resolution logo for a print-ready PDF invoice, and include the Order ID in the header. To customize the invoice template with your logo, see: Preparing Your Invoice Logo.
Creating an Invoice

Creating an invoice for an order converts the temporary sales order into a permanent record of the order that cannot be canceled. A new invoice page looks similar to a completed order, with some additional fields. Every activity that is related to an order is noted in the Comments section of the invoice.

Normally, orders are invoiced and shipped after payment is received. However, if the method of payment is a purchase order, the order can be invoiced and shipped before payment is received. You can generate an invoice with a packing slip, and also print shipping labels from your carrier account. A single order can be divided into partial shipments which are invoiced separately, if necessary.

When the state of new orders is set to “Processing,” the option to “Automatically Invoice All Items” becomes available in the configuration. Some credit card payment methods complete the invoicing step as part of the process when Payment Action is set to “Authorize and Capture.” In such a case, the Invoice button does not appear, and the order is ready to ship.

Before an invoice can be printed, it must first be generated for the order. To view or print the PDF, first download and install a PDF reader such as Adobe Acrobat Reader.
To invoice an order:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.

2. Find the order in the grid, and do the following:
   a. In the Action column, click the View link.
   b. In the upper-right corner, tap Invoice. The new invoice page looks similar to a completed order page, with additional fields that can be edited.
      
      The Invoice button does not appear for orders placed with the “Authorize and Capture” payment action.

3. If the items are ready to ship, you can generate a packing slip for the shipment at the same time you create the invoice. To create a packing slip, do the following:
   a. In the Shipping Information section, mark the Create Shipment checkbox. A shipment record will be created at the same time the invoice is generated.

   ![Create Shipment](Create Shipment.png)

   To include a tracking number, tap Add Tracking Number. Then, enter the following:
   - Carrier
   - Title
   - Number

   c. If you need to generate a partial invoice, do the following:
      
      In the Items to Invoice section, update the Qty to Invoice column to include only specific items on the invoice. Then, tap Update Qty’s.
Items to Invoice

4. If an online payment method was used for the order, set Amount to the appropriate option.

5. To notify customers by email when the invoice is generated, do the following:
   a. Mark the Email Copy of Invoice checkbox.
   b. Enter any Invoice Comments. To include the comments in the notification email, mark the Append Comments checkbox.

6. When complete, tap Submit Invoice at the bottom of the page. The status of the order changes from "Pending" to "Complete."

Submit Invoice
#000000006

Order & Account Information

Order # 000000006 (The order confirmation email was sent)

<table>
<thead>
<tr>
<th>Order Date</th>
<th>Dec 16, 2015, 2:59:10 PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Status</td>
<td>Complete</td>
</tr>
<tr>
<td>Purchased From</td>
<td>Main Website</td>
</tr>
<tr>
<td></td>
<td>Main Website Store</td>
</tr>
<tr>
<td></td>
<td>English</td>
</tr>
<tr>
<td>Placed from IP</td>
<td>10.237.184.95</td>
</tr>
</tbody>
</table>

Account Information

<table>
<thead>
<tr>
<th>Customer Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
</tr>
<tr>
<td>Customer Group</td>
</tr>
</tbody>
</table>

Address Information

Billing Address  Edit

Jane Smith  
10441 Jefferson Blvd, Suite 200  
Culver City, California, 90232  
United States  
T: (000) 123-4567

Shipping Address  Edit

Jane Smith  
10441 Jefferson Blvd, Suite 200  
Culver City, California, 90232  
United States  
T: (000) 123-4567

Payment & Shipping Method

Payment Information

Check / Money order  
The order was placed using USD

Shipping Information

Best Way - Table Rate  
Total Shipping Charges: $10.00
To print the invoice:

1. At the top of the workspace, tap **Print** to generate a PDF of the invoice
2. Do one of the following:
   - Send the PDF invoice to a printer.
   - Save the PDF file.

To customize the default invoice, see: Preparing Your Invoice Logo.
### Payment Actions

<table>
<thead>
<tr>
<th>PAYMENT ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capture Online</td>
<td>Upon invoice submission, the system captures the payment from the third-party payment gateway. You have the ability to create a credit memo and void the invoice.</td>
</tr>
<tr>
<td>Capture Offline</td>
<td>Upon invoice submission, the system does not capture the payment. It is assumed that the payment is captured directly through the gateway, and you no longer have the option to capture this payment through Magento. You have the ability to create a credit memo, but you do not have the option to void the invoice. (Even though the order used an online payment, the invoice is essentially an offline invoice.)</td>
</tr>
<tr>
<td>Not Capture</td>
<td>When the invoice is submitted, the system does not capture the payment. It is assumed that you will capture the payment through Magento at a later date. There is a Capture button in the completed invoice. Before capturing, you are able to cancel the invoice. After capturing you are able to create a credit memo and void the invoice.</td>
</tr>
</tbody>
</table>

Do not select Not Capture unless you are certain that you are going to capture the payment through Magento at a later date. You will not be able to create a credit memo until the payment has been captured using the Capture button.
Printing Multiple Invoices

Invoices can be printed individually or as a batch. However, before an invoice can be printed, it must first be generated for the order. To add your logo and address to the invoice, see: Preparing Your Invoice Logo.

To view or print the PDF, you must have a PDF reader. You can download Adobe Reader at no charge.

To print multiple invoices:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Invoices.
2. In the Invoices grid, mark the checkbox of each invoice to be printed.
3. Set the Actions control to “PDF Invoices.”

Print Invoices

The invoices are saved in a single PDF file that can be sent to a printer, or saved.
CHAPTER 51:
Shipments

The Shipments grid lists the shipment record of all invoices that have been prepared for shipping. A shipment record can be generated when an order is invoiced.
CHAPTER 52:
Credit Memos

A credit memo is a document that shows the amount that is owed to the customer. The amount can be applied toward a purchase, or refunded to the customer. You can print a credit memo for a single order, or for multiple orders as a batch. Before a credit memo can be printed, it must first be generated for the order. The credit memo grid lists the credit memos that have been issued to customers.
To create a credit memo:

1. On the Admin sidebar tap Sales. Then under Operations, choose Orders.

2. Find the completed order in the grid. Then in the Action column, click the View link to open the order.

3. In the upper right corner, tap Credit Memo. (The button appears only after an order is invoiced.)

Create Credit Memo

The New Credit Memo page looks similar to the completed order page, with an Items to Refund section that lists each item from the invoice.

Items to Refund

If an online payment method was used, you will not be able to edit these fields.

4. Do one of the following:
   - If the product is to be returned to inventory, mark the Return to Stock checkbox.
   - If the product will not be returned to inventory, leave the checkbox blank.
The Return to Stock checkbox appears only if inventory Stock Options are set to “Decrease Stock When Order Is Placed.”

5. Complete the following:
   a. In the Qty to Refund box, enter the number of items to be returned. Then, press the Enter key to record the change. The Update Qty’s button becomes active.
   b. Enter 0 for the Qty to Refund of any items that are not to be refunded.
   c. Tap Update Qty’s to recalculate the total. (The amount to be credited cannot exceed the maximum amount that is available for refund.)

6. In the Refund Totals section, do the following, as applicable:
   a. In the Refund Shipping field, enter any amount that is to be refunded from the shipping fee. This field initially displays the total shipping amount from the order that is available for refund. It is equal to the full shipping amount from the order, less any shipping amount that has already been refunded. Like the quantity, the amount can be reduced, but not increased.
   b. In the Adjustment Refund field, enter a value to be added to the total amount refunded as an additional refund that does not apply to any particular part of the order (shipping, items, or tax). The amount entered cannot raise the total refund higher than the paid amount.
   c. In the Adjustment Fee field, enter a value to be subtracted from the total amount refunded. This amount is not subtracted from a specific section of the order such as shipping, items, or tax.
   d. If the purchase was paid with store credit, mark the Refund to Store Credit checkbox. The amount will be credited to the customer’s account balance.
   e. To add a comment, enter the text in the Credit Memo Comments box.
   f. To send an email notification to the customer, mark the Email Copy of Credit Memo checkbox.
   g. To include the comments you have entered in the email, mark the Append Comments checkbox.

The status of a credit memo notification appears in the completed credit memo next to the credit memo number.

7. To complete the process and generate the credit memo, choose one of the following refund option buttons, according to the payment type:
   - Refund Offline
   - Refund Online

8. To add a comment to the completed credit memo, scroll down to the Comments History section, and enter the comment in the box. A history of all activity related to the order is listed below.
To send the comment to the customer by email, mark the **Notify Customer by Email** checkbox.

To post the comment in the customer's account, mark the **Visible on Frontend** checkbox.

Then, tap **Submit Comment**.

9. In the panel on the left, choose **Credit Memos**. Any credit memos that are associated with this order appear in the list.
Product Return Workflow

Customer returns item

Create credit memo

Select "Return Items to Inventory"

Add note to explain refund

Refund

Credit

Select "Online Refund"

Submit to send credit memo

Refund applied to credit card

Select "Refund to Store Credit"

Submit to send credit memo

Refund applied to customer account

Product Return Workflow
Issuing a Credit Memo

Before a credit memo can be printed, it must first be generated for the order. If you create a credit memo for an order that includes gift options, the refund for the gift wrapping and/or printed card appears in the Refund Totals section of the credit memo. To exclude these costs from the amount to be refunded, enter the amount as an Adjustment Fee. If multiple credit memos are issued for the same order, the refund for gift options appears in the first credit memo.

To issue a credit memo:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.

2. Find the completed order in the grid. Then in the Action column, click the View link to open the order in edit mode.

3. In the upper right corner, tap Credit Memo. (The Credit Memo button appears only for completed orders.)

   The New Credit Memo page looks similar to a completed order, but with an Items to Refund section that lists each item from the invoice.

4. Do one of the following:
   
   • If the product is to be returned to inventory, mark the Return to Stock checkbox.
   
   • If the product will not be returned to inventory, leave the checkbox blank.

   The Return to Stock checkbox appears only if inventory Stock Options are set to “Decrease Stock When Order Is Placed.”

   If an online payment method was used, you will not be able to mark the checkbox.
5. Complete the following:
   a. If the quantity of products to be refunded is less than the quantity purchased, enter the number of items to be returned in the **Qty to Refund** box. Then, press the **Enter** key to record the change. The Update Qty's button appears.

   If applicable, make sure to set the **Qty to Refund** of any items not to be refunded to zero.

   b. Tap **Update Qty's** to recalculate the total. (The amount to be credited cannot exceed the maximum quantity that is available for refund.)

6. In the **Refund Totals** section, do the following, as applicable:
   a. In the **Refund Shipping** field, enter the amount that is to be refunded from the shipping fee. This field initially displays the total shipping amount from the order that is available for refund. It is equal to the full shipping amount from the order, less any shipping amount that has already been refunded. Like the quantity, the amount can be reduced, but not increased.

   b. In the **Adjustment Refund** field, enter a value to be added to the total amount refunded as an additional refund that does not apply to any particular part of the order, such as shipping or tax. The amount entered cannot raise the total refund higher than the paid amount.

   c. In the **Adjustment Fee** field, enter a value to be subtracted from the total amount refunded. This amount is not subtracted from a specific section of the order such as shipping, items, or tax.

   d. If the purchase was paid with store credit, mark the **Refund to Store Credit** checkbox. The amount will be credited to the customer’s account balance.

   e. To add a comment, enter the text in the **Credit Memo Comments** box.

   f. To send an email notification to the customer, mark the **Email Copy of Credit Memo** checkbox.

   g. To include the comments you have entered in the email, mark the **Append Comments** checkbox.

The status of a credit memo notification appears in the completed credit memo next to the credit memo number.
7. To explain the refund, enter the text in the **Comment Text** box.
   - To send the comment to the customer by email, mark the **Email Copy of Credit Memo** checkbox.

To refund the amount to the customer's store credit, mark the **Refund to Store Credit** checkbox. Then if applicable, enter the amount to be refunded to store credit.

8. To complete the process and generate the credit memo, tap one of the following refund buttons that appears according to the payment type:
   - Refund Offline
   - Refund Online

You can view the completed credit memo from the **Credit Memo** tab of the order, and also in the main **Credit Memos** grid. For a hard copy of the credit memo, see: [Printing Credit Memos](Printing_Credit_Memos).
Printing Credit Memos

To print or view the completed credit memo, you must have a PDF reader installed on your computer. You can download Adobe Reader at no charge.

To print a credit memo:

1. On the Admin sidebar, tap Sales. Then under Operations, choose Credit Memos.
2. Use one of the following methods to print the credit memo:
Method 1: **Print current credit memo**

1. In the grid, open the credit memo.
2. Tap **Print**.

![Print Credit Memo](image)

**Print Credit Memo**

Method 2: **Print multiple credit memos**

1. In the list, mark the checkbox of each credit memo that you want to print.
2. Set the **Actions** control to “PDF Credit Memos. Then, tap **Submit**.
3. When prompted, do one of the following:
   - To save the document, tap **Save**. Then, follow the prompts to save the file to your computer. When the download is complete, open the PDF in Adobe Reader, and print the document.
   - To view the document, tap **Open**. The printed-ready PDF credit memo opens in Adobe Reader. From here, you can either print the credit memo or save it to your computer.
CHAPTER 53:

Billing Agreements

The Billing Agreements grid lists all billing agreements between your store and its customers. The store administrator can filter the records by the customer or billing agreement information including billing agreement reference ID, status, and creation date. Each record includes general information about the billing agreement, and all sales orders that have used it as a payment method. The store administrator can view, cancel, or delete customer's billing agreements. A canceled billing agreement can be deleted only by the store administrator.

Billing Agreements
CHAPTER 54: Transactions

The Transactions grid lists all payment activity that has taken place between your store and a payment system, and provides access to more detailed information.

To view transactions:
On the Admin sidebar, tap Sales. Then under Operations, choose Transactions.
Payments
Contents

In this section of the guide, you will learn about the payment methods, services, and gateways that you can make available to your customers, and how to configure them.

**Recommended Solutions**

- PayPal
  - PayPal Business Account
  - PayPal All-In-One Solutions
    - PayPal Payments Advanced
    - PayPal Payments Pro
    - PayPal Payments Standard
  - PayPal Payment Gateways
    - PayPal Payflow Pro
    - PayPal Payflow Link
    - PayPal Express Checkout
    - PayPal In-Context Checkout
    - PayPal Fraud Management Filter
  - PayPal Payment Solutions
    - PayPal Solutions by Country
- Braintree
  - Basic Payment Methods
    - Check / Money Order
    - Cash On Delivery
    - Bank Transfer
    - Purchase Order
    - Zero Subtotal Checkout
  - Other Payment Solutions
    - Authorize.Net Direct Post
CHAPTER 55: Recommended Solutions

The following payment solutions provide an easy way for merchants who are just starting out to accept online payments. As your business grows, you can combine these with additional PayPal payment solutions.

PayPal Express Checkout

Use PayPal Express Checkout as a standalone option, or combine it with another PayPal payment solution.

Braintree

Braintree allows you to accept credit/debit cards and PayPal without any setup or monthly fees. Your customers never leave your store to complete the purchase.
PayPal Express Checkout

PayPal Express Checkout helps boost sales by giving your customers the ability to pay by credit card or from the security of their personal PayPal accounts. During checkout, the customer is redirected to the secure PayPal site to complete the payment information. The customer is then returned to your store to complete the remainder of the checkout process. Choosing Express Checkout adds the familiar PayPal button to your store, which has been reported to increase sales.*

Customers with current PayPal accounts can make a purchase in a single step by clicking the “Check out with PayPal” button. Express Checkout can be used as a standalone, or in combination with one of PayPal’s All-In-One solutions. If you already accept credit cards online, you can offer Express Checkout as an additional option to attract new customers who prefer to pay with PayPal.

Requirements

- Merchant: Personal PayPal Account
- Customer: Personal PayPal Account
Checkout Workflow

Unlike other payment methods, PayPal Express Checkout allows the customer to check out at the beginning of the usual checkout workflow from the product page, the mini shopping cart, and shopping cart.

1. **Customer Places Order.** The customer taps the “Check out with PayPal” button.

2. **Customer Is Redirected to PayPal Site.** The customer is redirected to the PayPal site to complete the transaction. The customer taps the “Check out with PayPal” button and is redirected to the PayPal site to complete the transaction.

3. **Customer Logs into their PayPal Account.** The customer must log into their PayPal account to complete the transaction. The payment system uses the customer’s billing and shipping information from their PayPal account.

4. **Customer Returns to the Checkout Page.** The customer is redirected back to the checkout page in your store to review the order.

5. **Customer Places Order.** The customer places the order, and the order information is submitted to PayPal.

6. **PayPal Settles the Transaction.** PayPal receives the order and settles the transaction.

PayPal Express Checkout does not support orders with multiple-addresses.
Setting Up PayPal Express Checkout

You can have two PayPal solutions active at the same time: Express Checkout, plus an All-In-One solution. If you enable a different solution, the one used previously is automatically deactivated.

**Process Overview:**

Step 1: Configure Your PayPal Account
Step 2: Complete the Required Settings
Step 3: Advertise PayPal Credit
Step 4: Complete the Basic Settings
Step 5: Complete the Advanced Settings
Step 1: **Configure Your PayPal Account**

1. Before you begin, you must configure your PayPal merchant account on the PayPal website.
   b. Go to Service Settings > Hosted Checkout Pages > Set Up, and make the following settings:
      - AVS: No
      - CSC: No
      - Enable Secure Token: Yes
   c. Save the settings.

2. PayPal recommends that you set up an additional user on your account. To set up an additional user, do the following:
   a. Go to manager.paypal.com and log in to your account.
   b. Follow the instructions to set up an additional user.
   c. Save the changes.

3. Expand ☑️ the **Required PayPal Settings** section, and do the following:
   a. Enter the Email Address that is associated with your PayPal merchant account.

   **Important!** Email addresses are case sensitive. To receive payment, the email address you enter must match the email address specified in your PayPal merchant account.

   b. Set API Authentication Methods to one of the following:
      - API Signature
      - API Certificate
   c. If necessary, click the Get Credentials from PayPal button. Then, complete the following:
      - API Username
      - API Password
      - API Signature
   d. If you are using credentials from your sandbox account, set Sandbox Mode to “Yes.”
      If necessary, click the Sandbox Credentials button and follow the instructions to set up your testing environment.
When testing the configuration in a sandbox, use only credit card numbers that are recommended by PayPal. When you are ready to “go live,” return to the configuration and set Sandbox Mode to “No.”

e. If your system uses a proxy server to establish the connection between Magento and the PayPal payment system, set API Uses Proxy to “Yes.” Then, complete the following:
   - Proxy Host
   - Proxy Port

4. When these sections are complete, set Enable this Solution to “Yes.”

5. To enable PayPal In-Context Checkout, do the following:
   a. Set Enable In-Context Checkout Experience to “Yes.”
   b. Enter your PayPal Merchant Account ID.

   Your Merchant Account ID is in your PayPal business account profile.

6. To offer financing through PayPal to your customers, see PayPal Credit to learn more.

You have now completed the Required PayPal Settings. At this point, you can either continue with the Basic and Advanced Settings, or click the Save Config button. You can return later fine-tune the configuration.

Step 2: Complete the Required Settings

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Sales, choose Payment Methods.

3. If your Magento installation has multiple websites, stores or views, in the upper-left corner, choose the Store View where the configuration applies.

4. In the Merchant Location section, select the Merchant Country where your business is located.

5. Under Recommended Solutions in the PayPal Express Checkout section, tap Configure. Then, do the following:
   a. Enter the Email Address that is associated with your PayPal merchant account.

   Important! Email addresses are case sensitive. To receive payment, the email address you enter must match the email address specified in your PayPal merchant account.

   b. Set API Authentication Methods to one of the following:
      - API Signature
      - API Certificate

   c. If necessary, tap Get Credentials from PayPal. Then, complete the following:
• API Username
• API Password
• API Signature

d. If you are using credentials from your sandbox account, set Sandbox Mode to “Yes.”
If necessary, click the Sandbox Credentials button and follow the instructions to set up your testing environment.
e. If your system uses a proxy server to establish the connection between Magento and the PayPal payment system, set API Uses Proxy to “Yes.” Then, complete the following:
  • Proxy Host
  • Proxy Port

6. Set Enable This Solution to “Yes.”

7. If you want to offer PayPal Credit to your customers, set Enable PayPal Credit to “Yes.”

You have now completed the required settings. You can either continue with the remaining settings, or save and return later fine-tune the configuration.

**Step 4: Complete the Basic Settings**

1. Expand the Basic Settings - PayPal Express Checkout section.

2. Enter a Title to identify this payment method during checkout. It is recommended to set the title to “PayPal” for each store view.

3. If you offer multiple payment methods, enter a number in the Sort Order field to determine the sequence in which PayPal Payments Standard is listed with the other methods. Payment methods appear in ascending order based on the Sort Order value.

4. Set Payment Action to one of the following:

   - Authorization : Approves the purchase, but puts a hold on the funds. The amount is not withdrawn until it is “captured” by the merchant.
   - Sale : The amount of the purchase is authorized and immediately withdrawn from the customer’s account.
Order

The amount of the order is neither captured nor authorized in the customer’s balance, bank account, or credit card at PayPal. The Order payment action represents an agreement between the PayPal payment system and the merchant, which enables the merchant to capture one or more amounts up to the “ordered” total from the customer’s buyer account, over a period of up to 29 days. After the funds are “ordered,” the merchant can capture them at any time during the following 29 day period. Capturing of the order amount can be done only from the Magento Admin by creating one or more invoices.

5. To display the “Checkout with PayPal” button on the product page, set Display on Product Details Page to “Yes.”

6. If Payment Action is set to “Order,” complete the following fields:

Authorization Honor Period (days)

Determines how long the primary authorization remains valid. The value should be equal to the corresponding value in your PayPal merchant account. The default value in your PayPal merchant account is 3. To increase this number you need to contact PayPal. The authorization becomes invalid at 11:49 p.m., U.S. Pacific Time, of the last day.

Order Valid Period (days)

Determines how long the order remains valid. When the order becomes invalid, you can no longer create invoices for it. Specify the value equal to the Order Valid Period value in your PayPal merchant account. The default value in your PayPal merchant account is 29. To change this number, you must contact PayPal.

Number of Child Authorizations

Specifies the maximum number of authorizations for a single order, which determines the maximum number of online partial invoices that you can create for an order. The number in this field should be equal to the corresponding setting in your PayPal merchant account. The default number of child authorizations in your PayPal account is 1. To increase this number, you must contact PayPal.
Step 5: **Complete the Advanced Settings**

1. Expand the **Advanced Settings** section. Then, complete the following:

   a. Set **Display on Shopping Cart** to “Yes.”

   b. Set **Payment Applicable From** to one of the following:

      - **All Allowed Countries** Accepts payment from the countries already specified in your configuration.
      - **Specific Countries** Accepts payments from only the countries you specify. Hold the Ctrl key down and in the Payment Applicable From list, click each country where you accept payment.

   c. Set **Debug Mode** to “Yes” to write communications with the payment system into the log file. The log file for PayPal Payments Advanced is payments_payflow_advanced.log.

      In accordance with PCI Data Security Standards, credit card information is not recorded in the log file.

   d. To enable host authenticity verification, set **Enable SSL Verification** to “Yes.”

   e. To display a full summary of the customer’s order by line item from the PayPal site, set **Transfer Cart Line Items** to “Yes.”

      To include up to ten shipping options in the summary, set **Transfer Shipping Options** to “Yes.” (This option appears only if line items are set to transfer.)

   f. To determine the type of image used for the PayPal acceptance button, set **Shortcut Buttons Flavor** to one of the following:

      - **Dynamic** (Recommended) Displays an image that can be dynamically changed from the PayPal server.
      - **Static** Displays a specific image that cannot be dynamically changed.

   g. To allow customers without PayPal accounts to make a purchases with this method, set **Enable PayPal Guest Checkout** to “Yes.”

   h. Set **Require Customer’s Billing Address** to one of the following:

      - **Yes** Requires the customer’s billing address for all purchases.
      - **No** Does not require the customer's billing address for any purchases.
      - **For Virtual Quotes Only** Requires the customer’s billing address for virtual quotes only.

   i. To specify whether the customer can sign a **billing agreement** with your store in the PayPal payment system when there are no active billing agreements available in the customer account, set **Billing Agreement Signup** to one of the following:
Auto The customer can either sign a billing agreement during the Express Checkout flow or use another method of payment.

Ask Customer The customer can decide whether to sign a billing agreement during the Express Checkout flow.

Never The customer cannot sign a billing agreement during the Express Checkout flow.

Merchants must ask PayPal Merchant Technical Support to enable billing agreements in their accounts. The Billing Agreement Signup parameter is enabled only after PayPal confirms that billing agreements are enabled for your merchant account.

To allow the customer to complete the transaction from the PayPal site without returning to your Magento store for Order Review, set **Skip Order Review Step** to “Yes.”

**Advanced Settings**

2. Complete the following sections as needed for your store:

**PayPal Billing Agreement Settings**

A billing agreement is a sales agreement between the merchant and customer that has been authorized by PayPal for use with multiple orders. During the checkout process, the Billing
Agreement payment option appears only for customers who have already entered into a billing agreement with your company. After PayPal authorizes the agreement, the payment system issues a unique reference ID to identify each order that is associated with the agreement. Similar to a purchase order, there is no limit to the number of billing agreements a customer can set up with your company.

1. Expand ☑ the PayPal Billing Agreement Settings section.

2. Set Enabled to “Yes.” Then, do the following:
   a. Enter a Title to identify the PayPal Billing Agreement method during checkout.
   b. If you offer multiple payment methods, enter a number in the Sort Order field to determine the sequence in which Billing Agreement appears when listed with other payment methods during checkout.
   c. Set Payment Action to one of the following:
      - Authorization: Approves the purchase, but puts a hold on the funds. The amount is not withdrawn until it is “captured” by the merchant.
      - Sale: The amount of the purchase is authorized and immediately withdrawn from the customer’s account.
   d. Set Payment Applicable From to one of the following:
      - All Allowed Countries: Accepts payment from the countries already specified in your configuration.
      - Specific Countries: Accepts payments from only the countries you specify. Hold the Ctrl key down and in the Payment Applicable From list, click each country where you accept payment.
   e. To record communications with the payment system in the log file, set Debug Mode to “Yes.”

   The log file is stored on the server and is accessible only to developers. In accordance with PCI Data Security Standards, credit card information is not recorded in the log file.

   f. To enable SSL verification, set Enable SSL verification to “Yes.”
   g. To display a summary of each line item in the customer’s order on your PayPal payments page, set Transfer Cart Line Items to “Yes.”
   h. To allow customers to initiate a billing agreement from the dashboard of their customer account, set Allow in Billing Agreement Wizard to “Yes.”
Billing Agreement Settings

Settlement Report Settings

1. Click to expand the Settlement Report Settings section.
2. If you have signed up for PayPal’s Secure FTP Server, enter the following SFTP login credentials:
   - Login
   - Password
3. To run test reports before “going live” with Express Checkout on your site, set Sandbox Mode to “Yes.”
4. Enter the Custom Endpoint Hostname or IP Address. By default, the value is: reports.paypal.com
5. Enter the Custom Path where reports are saved. By default, the value is: /ppreports/outgoing
6. To generate reports according to a schedule, under Scheduled Fetching, make the following settings:
   a. Set Enable Automatic Fetching to “Yes.”
   b. Set Schedule to one of the following:
      - Daily
      - Every 3 Days
      - Every 7 Days
      - Every 10 Days
Every 14 Days
Every 30 Days
Every 40 Days

PayPal retains each report for forty-five days.

c. Set **Time of Day** to the hour, minute, and second when you want the reports to be generated.

---

**Frontend Experience Settings**

The frontend experience settings give you the opportunity to choose which PayPal logos appear on your site, and to customize the appearance of your PayPal merchant pages.

1. Click to expand the **Frontend Experience Settings** section.

2. Select the **PayPal Product Logo** that you want to appear in the PayPal block in your store. The PayPal logos are available in four styles and two sizes. Options include:
   - No Logo
   - We Prefer PayPal (150 x 60 or 150 x 40)
   - Now Accepting PayPal (150 x 60 or 150 x 40)
   - Payments by PayPal (150 x 60 or 150 x 40)
   - Shop Now Using PayPal (150 x 60 or 150 x 40)
3. To customize the appearance of your PayPal merchant pages, do the following:
   a. Enter the name of the **Page Style** that you want to apply to your PayPal merchant pages. Options include:
      - **paypal**: Uses the PayPal page style.
      - **primary**: Uses the page style that you identified as the “primary” style in your account profile.
      - **your_custom_value**: Uses a custom payment page style, which is specified in your account profile.
   b. In the **Header Image URL** field, enter the URL of the image that you want to appear in the upper-left corner of the payment page. The maximum file size is 750 pixels wide by 90 pixels high.
      
      PayPal recommends that the image be located on a secure (https) server. Otherwise, the customer’s browser may warn that “the page contains both secure and nonsecure items.”
   c. Enter the six-character hexadecimal code, without the “#” symbol, for each of the following:
      - **Header Background Color**: Background color for the checkout page header.
      - **Header Border Color**: 2-pixel border around the header.
      - **Page Background Color**: Background color for the checkout page and around the header and payment form.

3. When complete, tap **Save Config**.
PayPal In-Context Checkout

PayPal’s In-Context Checkout makes it easier than ever to pay online. Customers never lose sight of your store during this simplified one- or two-click seamless checkout. In-Context Checkout works equally well on Macs and PCs, and offers a consistent experience on desktop computers, tablets, and mobile devices. To learn more, see: In-Context Checkout in Express Checkout.

PayPal In-Context Checkout Demo
To configure In-Context Checkout:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Sales, choose Payment Methods.

3. In the PayPal Express Checkout section, tap Configure. Then, do the following:
   a. In the Required PayPal Settings section, set Enable In-Context Checkout Experience to “Yes.”
   b. Enter your PayPal Merchant Account ID. Your Merchant Account ID is in your PayPal business account profile.

4. When complete, tap Save Config.
PayPal Billing Agreements

To simplify the checkout process, customers can enter into a billing agreement with PayPal, as the payment service provider. During checkout, the customer chooses the billing agreement as the payment method. The payment system verifies the billing agreement by its unique number, and charges the customer’s account. With a billing agreement in place, it is no longer necessary for the customer to enter payment information for each purchase. Customers can manage their billing agreements from the dashboard of their customer account, where the status of each is shown as “Active” or “Canceled.” When a billing agreement is canceled, it cannot be reactivated.

The Billing Agreements grid lists all billing agreements between your store and its customers. The store administrator can filter the records by the customer or billing agreement information including billing agreement reference ID, status, and creation date. Each record includes general information about the billing agreement, and all sales orders that have used it as a payment method. The store administrator can view, cancel, or delete customer’s billing agreements. A canceled billing agreement can be deleted only by the store administrator.
Billing Agreement Workflow

1. **Customer signs up for a billing agreement.** After a billing agreement is in place, additional billing agreements can be added only from the customer account. There is no limit to the number of billing agreements a customer can create. Customers can use any of the following methods to sign up for billing agreements:

   - **Sign up in customer account.** Customers can sign up for a billing agreement from their customer accounts.
   - **Sign up at checkout.** Customers who pay for a purchase with PayPal Express Checkout can mark a checkbox to create a billing agreement. Although the billing agreement is not used for the current order, it becomes available as a payment method option the next time the customer places an order.
   - **Sign up by store administrator.** On a customer’s request, the store administrator can create a sales order using the customer’s billing agreement.

2. **PayPal Verifies and Records Agreement.** When the customer places the order with payment by billing agreement, the billing agreement reference ID and sales order payment details are transferred to PayPal, and recorded in the customer account, along with reference information. If the payment is authorized, an order is created in Magento. The billing agreement reference ID is sent to the customer and to the store.
PayPal Settlement Reports

The PayPal Settlement report provides the store administrator with the information about each transaction that affects the settlement of funds.

Before generating settlement reports, the store administrator must request PayPal Merchant Technical Services to create an SFTP user account, enable settlement reports generation, and enable SFTP in their PayPal business account.

After configuring and enabling settlement reports in the PayPal merchant account, Magento will start generating reports during the following twenty-four hours. The list of available settlement reports can be viewed from the Admin.

To view settlement reports:

1. On the Admin sidebar, tap Reports. Then under Sales, choose select PayPal Settlement.
2. For the most recent updates, tap Fetch Updates in the upper-right corner.

The system connects to the PayPal SFTP server to fetch the reports. When the process is complete, a message appears with the number of reports fetched. The report includes the following information for each transaction:
## Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PayPal Reference ID Type</td>
<td>One of the following reference codes:</td>
</tr>
<tr>
<td></td>
<td>Order ID</td>
</tr>
<tr>
<td></td>
<td>Transaction ID</td>
</tr>
<tr>
<td></td>
<td>Subscription ID</td>
</tr>
<tr>
<td>Preapproved Payment ID</td>
<td>Options include:</td>
</tr>
<tr>
<td></td>
<td>Custom</td>
</tr>
<tr>
<td></td>
<td>The text entered by the merchant on the transaction in PayPal.</td>
</tr>
<tr>
<td></td>
<td>Transaction Debit or Credit</td>
</tr>
<tr>
<td></td>
<td>The direction of money movement of gross amount.</td>
</tr>
<tr>
<td></td>
<td>Fee Debit or Credit</td>
</tr>
<tr>
<td></td>
<td>The direction of money movement for fee.</td>
</tr>
</tbody>
</table>
Braintree

Braintree offers a fully customizable checkout experience with fraud detection and PayPal integration. Braintree reduces the PCI compliance burden for merchants because the transaction takes place on the Braintree system.

Setting Up Braintree

Process Overview:
Step 1: Get Your Braintree Credentials
Step 2: Complete the Basic Settings
Step 3: Complete the Advanced Settings
Step 4: Complete the Country-Specific Settings
Step 5: Complete the PayPal through Braintree Settings
Step 6: Complete the 3D Verification Settings

Step 1: Get Your Braintree Credentials
Visit Braintree Payments and sign up for an account.

Step 2: Complete the Basic Settings

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Sales, choose Payment Methods.
   
   - If your Magento installation has multiple websites, stores or views, in the upper-left corner, choose the Store View where the configuration applies.
   
   - In the Merchant Location section, verify that Merchant Country is set to the location of your business.

3. Under Recommended Solutions, in the Braintree section, tap Configure. Then, do the following:
a. Enter a **Title** to identify Braintree as a payment option during checkout.

b. Set the current operating **Environment** for Braintree transactions to one of the following:
   - Sandbox
   - Production

When testing the configuration in a sandbox, use only **credit card numbers** that are recommended by Braintree. When you are ready to go live with Braintree, set **Environment** to “Production.”

c. Set **Payment Action** to one of the following:

   **Authorize Only** Approves the purchase and puts a hold on the funds. The amount is not withdrawn from the customer’s bank account until the sale is “captured” by the merchant.

   **Authorize and Capture** The amount of the purchase is authorized and immediately withdrawn from the customer’s account.

d. In the **Merchant ID** field, enter the **Braintree Merchant Account ID** that is to be associated with Braintree transactions.

   In your Braintree account, the Merchant Account ID is located in the same place as the public/private API keys.

e. Enter the following credentials from your Braintree account:
   - Public Key
   - Private Key

![Basic Braintree Settings](image)

### Basic Settings

4. Set **Enable this Solution** to “Yes.”
5. To include PayPal as a payment option with Braintree, set **Enable PayPal through Braintree** to “Yes.”

6. If you want the ability to store customer information securely, so customers don’t have to reenter it each time they make a purchase, set **Vault Enabled** to “Yes.”

---

### Step 3: Complete the Advanced Settings

1. Expand the **Advanced Braintree Settings** section.

2. In the **Vault Title** field, enter a descriptive title for your reference that identifies the vault where your customer card information is stored.

3. In the **Merchant ID** field, enter the **Merchant Account ID** that is to be associated with Braintree transactions. If left blank, the default merchant account from your Braintree account is used.

   > In your Braintree account, the Merchant ID and Merchant Account ID are two different credentials.

4. To use Braintree fraud protection for all transactions, set **Advanced Fraud Protection** to “Yes.” Make sure that Advanced Fraud Protection is enabled in the Settings/Protection section of your account.

5. If you want the system to save a log file of interactions between your store and Braintree, set **Debug** to “Yes.”

6. To require customers to provide the three-digit security code from the back of a credit card, set **CVV Verification** to “Yes.”

   If using CVV verification, make sure to enable AVS and/or CVV in the Settings/Processing section of your Braintree account.

7. In the **Credit Card Types** box, hold down the Ctrl key and select each credit card that is accepted by your store as payment through Braintree.

8. In the **Sort Order** field, enter a number to determine the sequence in which Braintree appears when listed with other payment methods during checkout.
Step 4: **Complete the Country Specific Settings**

1. Set **Payment from Applicable Countries** to one of the following:
   - All Allowed Countries
   - Specific Countries

For **Payment from Specific Countries**, hold down the Ctrl key and select each country from which you accept payment.
To set up **Country Specific Credit Card Types**, do the following:

- Tap **Add**.
- Set the **Country**, and choose each **Allowed Credit Card Type**.
- Repeat to identify the credit cards that are accepted from each country.

**Step 5: Complete the PayPal through Braintree Settings**

Do the following to identify your PayPal through Braintree configuration:

- Enter a **Title** to identify Braintree’s payment by PayPal option during checkout.
- In the **Vault Title** field, enter a descriptive title to identify the vault where your customer card information is to be stored.
- In the **Sort Order** field, enter a number to determine the sequence in which Braintree’s PayPal payment option appears when listed with other payment options during checkout.
- To display your merchant name differently than what is defined in your store configuration, enter the name as you want it to appear in the **Override Merchant Name** field.

2. Set **Payment Action** to one of the following:
Authorize Approves the purchase and puts a hold on the funds. The amount is not withdrawn from the customer’s bank account until the sale is “captured” by the merchant.

Authorize and Capture The amount of the purchase is authorized and immediately withdrawn from the customer’s account.

3. Set Payment from Applicable Countries to one of the following for Braintree transactions processed by PayPal:
   - All Allowed Countries
   - Specific Countries

For Payment from Specific Countries, hold down the Ctrl key and select each country from which you accept payment.

4. To require that customers provide a billing address, set Require Customer’s Billing Address to “Yes.”

This feature must first be enabled for your account by PayPal Technical Support.

5. If you want customers to be able to edit the shipping address while completing a PayPal transaction, set Allow to Edit Shipping Address Entered During Checkout on PayPal Side to “Yes.”

6. To save a log file of interactions between your store and PayPal through Braintree, set Debug to “Yes.”

7. If you want to bypass the Order Review step before the order is submitted, set Skip Order Review to “Yes.”

By default, Order Review is the last stage of the checkout process.

8. To display the PayPal button on both the mini shopping cart and shopping cart page, set Display on Shopping Cart to “Yes.”
Step 6: Complete the 3D Verification Settings

1. If you want to add a verification step for customers using credit cards that are enrolled in a verification program such as “Verified by VISA,” set **3D Secure Verification** to “Yes.” During the process, the transaction amount that is submitted for verification is checked against the amount that is sent for authorization.

2. In the **Threshold Amount** field, enter the maximum amount that is allowed to be processed by Braintree for a single order.

   The Threshold Amount defines the maximum amount that is allowed for an authorized sale. Authorization is declined if the order amount exceeds the Threshold Amount.

3. Set **Verify for Applicable Countries** to one of the following:
   - All Allowed Countries
   - Specific Countries
To **Verify for Specific Countries**, hold down the Ctrl key and select each country from which payments are to be verified.

### 3D Secure Verification Settings

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3D Secure Verification</td>
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<td>Anay and Barbuda</td>
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<tr>
<td></td>
<td>Argentina</td>
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</tbody>
</table>

### Step 7: Dynamic Descriptors

The following descriptors are used to identify purchases on customer credit card statements. You can reduce the number of chargebacks by clearly identifying the company that is associated with each purchase. If Dynamic Descriptors are not enabled for your account, contact [Braintree support](#).
1. Enter the Dynamic Descriptor for the **Name**, **Phone**, and **URL** according to these guidelines:

   **Name**
   
   There are two parts to the Name descriptor, which are separated by an asterisk (*). For example:
   
   company*myproduct
   
   The first part of the descriptor identifies the company or DBA, and the second part identifies the product. The length of the Company and Product parts of the descriptor can be allocated in the following ways, for a combined length of up to twenty-two characters.

   **Characters in Name Descriptor**

<table>
<thead>
<tr>
<th>Company</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Option 1</td>
<td>Must be 3 characters</td>
</tr>
<tr>
<td>Option 2</td>
<td>Must be 7 characters</td>
</tr>
<tr>
<td>Option 3</td>
<td>Must be 12 characters</td>
</tr>
</tbody>
</table>

   **Phone**
   
   The Phone descriptor must be ten to fourteen characters in length, and can include only numbers, dashes, parentheses, and periods. For example:
   
   9999999999
   
   (999) 999-9999
   
   999.999.9999

   **URL**
   
   The URL descriptor represents your domain name, and can be up to thirteen characters long. For example: company.com

2. When your Braintree configuration is complete, tap **Save Config.**
Other PayPal Solutions

PayPal is a global leader in online payments and a fast and secure way for your customers to pay online. With PayPal and Magento Commerce, you can accept payments from all major debit and credit cards. PayPal offers additional convenience without extra effort, because even your customers who don’t have a PayPal account can pay for their purchases with PayPal. In this guide, PayPal payments solutions are organized as follows:

- **Recommended Solutions**
- **PayPal All-In-One Payment Solutions**
- **PayPal Payment Gateways**

The selection of available PayPal solutions varies by merchant location. PayPal Express Checkout and PayPal Payments Standard can be used in all parts of the world. To learn more, see: PayPal Solutions by Country.

You cannot have more than one PayPal method enabled at a time, with the exception of PayPal Express Checkout. PayPal Express Checkout can be used in combination with other PayPal payment methods. except for PayPal Payments Standard. If you change payment solutions, the one used previously is disabled.
PayPal All-In-One Payment Solutions

In the United States, PayPal offers the following PCI-compliant solutions to meet the needs of your growing business.

- PayPal Payments Advanced
- PayPal Payments Pro
- PayPal Payments Standard

PayPal Payment Gateways

PayPal offers a choice of two payment gateway solutions for your business. You can let PayPal host your checkout on its secure payment site, or you can take control of the entire payment experience with a completely customizable solution.

- PayPal Payflow Pro
- PayPal Payflow Link
PayPal Payments Advanced

PayPal Payments Advanced is a PCI-compliant solution that lets your customers pay by debit or credit card without leaving your site. It includes an embedded checkout page that can be customized to create a seamless and secure checkout experience.

PayPal Payments Advanced

Even customers without a PayPal account can make purchases through PayPal’s secure payment gateway. Accepted cards include Visa, MasterCard, Switch/Maestro, and Solo credit cards in the United States and United Kingdom. For additional convenience, PayPal Express Checkout is included with PayPal Payments Advanced.

You can have two PayPal solutions active at the same time: Express Checkout, plus any All-In-One or Payment Gateway solution. If you change payment solutions, the one that was used previously is disabled.

PayPal Payments Advanced cannot be used for orders created from the Admin of your store.

Requirements

- PayPal Business Account
- If you manage multiple Magento websites, you must have a separate PayPal merchant account for each website.
Checkout Workflow

1 **Customer Chooses Payment Method.** During checkout, the customer chooses to pay with PayPal Payments Advanced. The Pay Now button appears instead of the Place Order button.

2 **Pay Now.** The customer taps Pay Now, and a PayPal-hosted form appears. The customer enters the card information, and the card is verified. If successful, the order confirmation page appears.

3 **Pay with PayPal.** The form also includes the Pay with PayPal button, which redirects the customer to the PayPal site, where payment can be made with PayPal Express Checkout.

**Troubleshooting.** If the transaction fails for any reason, an error message appears on the checkout page and the customer is instructed to try again. Any issues are managed by PayPal.

Order Processing Workflow

Processing orders with PayPal Payments Advanced is the same as for any regular PayPal order. Orders are invoiced and shipped, and credit memos generated for both online and offline refunds. However, multiple online refunds are not available for orders paid with PayPal Payments Advanced.

1 **Customer Places Order.** In the final stage of checkout, the customer taps the Place Order button.

2 **PayPal Responds.** PayPal evaluates the request. If found to be valid, PayPal processes the transaction.
**Magento Sets Order Status.** Magento receives response from PayPal, and sets the order status to one of the following:

- **Processing**  The transaction was successful.
- **Pending Payment**  The system did not receive any response from PayPal.
- **Canceled**  The transaction was not successful for some reason.
- **Suspected Fraud**  The transaction did not pass some of the PayPal fraud filters. The system receives the response from PayPal that the transaction is under review by Fraud Service.

**Merchant Fulfills Order.** The merchant invoices and ships the order.

**Setting Up PayPal Payments Advanced**

For step-by-step configuration instructions, see PayPal Payments Advanced in the Magento Commerce online user guide.
PayPal Payments Pro

PayPal Payments Pro brings you all the benefits of a merchant account and payment gateway in one, plus the ability to create your own, fully customized checkout experience. PayPal Express Checkout is automatically enabled with PayPal Payments Pro, so you can tap into more than 110 million active PayPal users.

For merchants outside the US, this method is called “PayPal Website Payments Pro.”

You can have two PayPal solutions active at the same time: PayPal Express Checkout, plus any one of the All-In-One solutions. If you change payment solutions, the one used previously is automatically disabled.

Requirements

- PayPal Merchant Account (with Direct Payments Activated)

Checkout Workflow


2. Customer Chooses Payment Method. During checkout, customer chooses the PayPal Direct Payment option, and enters the credit card information.
   - If paying with PayPal Payments Pro, the customer stays on your site during the checkout process.
   - If paying with PayPal Express Checkout, the customer is redirected to the PayPal site to complete the transaction.

At the customer’s request, the store administrator can also create an order from the Admin, and process the transaction with PayPal Payments Pro.
Order Processing Workflow

1. **Order Placed.** The order can be processed either the Admin of your store, or from your PayPal merchant account.

2. **Payment Action.** The payment action specified in the configuration is applied to the order. Options include:
   - **Authorize:** Magento creates a sales order with the “Processing” status. In this case, the amount of money to be authorized is pending approval.
   - **Sale:** Magento creates both a sales order and invoice.
   - **Capture:** PayPal transfers the order amount from the buyer’s balance, bank account or credit card to the merchant’s account.

3. **Invoicing.** An invoice is created in Magento after PayPal sends an instant payment notification message to Magento.
   
   Make sure that instant payment notifications are enabled in your PayPal merchant account.

   If required, an order can be partially invoiced for a specified quantity of products. For each partial invoice submitted, a separate Capture transaction with a unique ID becomes available, and a separate invoice is generated.

   Authorization-only payment transactions are closed only after the full order amount is captured.

   An order can be voided online at any time until the order amount is fully invoiced.

4. **Returns.** If for any reason the customer returns the purchased products and claims a refund, as with order amount capturing and invoice creation, you can create an online refund either from the Admin or from your PayPal merchant account.
Setting Up PayPal Payments Pro

For step-by-step configuration instructions, see PayPal Payments Pro in the Magento Commerce online user guide.
PayPal Payments Standard

PayPal Payments Standard is the easiest way to accept payments online. You can offer your customers the convenience of payment both by credit card and PayPal by simply adding a checkout button to your store.

For merchants outside the US, this method is called “PayPal Website Payments Standard.”

With PayPal Payments Standard, you can swipe credit cards on mobile devices. There is no monthly fee, and you can get paid on eBay. Supported credit cards include Visa, MasterCard, Discover, and American Express. In addition, customers can pay directly from their personal PayPal accounts. PayPal Payments Standard is available in all countries on the PayPal worldwide reference list.

Merchant Requirements

- PayPal Business Account

Checkout Workflow

For customers, PayPal Payments Standard is a one-step process if the credit card information the their personal PayPal accounts is up to date.

1. **Customer Places Order.** The customer taps the “Pay Now” button to complete the purchase.

2. **PayPal Processes the Transaction.** The customer is redirected to the PayPal site to complete the transaction.
Setting Up PayPal Payments Standard

PayPal Payments Standard cannot be used simultaneously with any other PayPal method, including Express Checkout. If you change payment solutions, the one used previously is disabled.

For step-by-step configuration instructions, see PayPal Payments Standard in the online user guide.
PayPal Payflow Pro

PayPal Payflow Pro gateway, formerly known as Verisign, is available for customers of the United States, Canada, Australia, and New Zealand. Unlike other PayPal payment methods, merchants are charged a fixed monthly fee, plus a fixed fee for each transaction, regardless of their number.

![PayPal Payflow Pro (Includes Express Checkout)](image)

Configure

Requirements

- PayPal Business Account
  
The PayPal Payflow Pro gateway links the merchant account at PayPal with the merchant’s website, and acts both as a gateway and a merchant account.

- If you manage multiple Magento websites, you must have a separate PayPal merchant account for each website.

Customer Workflow

1. **Customer Goes to Checkout.** During checkout, the customer chooses to pay with PayPal PayFlow Pro, and enters the credit card information.
   
   Customers are not required to have personal PayPal accounts. However, depending on the merchant country, customers can also use their personal PayPal account to pay for the order.

2. **Customer Submits Order.** The customer submits the order, and the order information is sent to PayPal for processing. The customer does not leave the checkout page of your site.

3. **PayPal Completes the Transaction.** Payments are accepted at the time the order is placed. Depending on the payment action specified in the configuration, either a sales order or a sales order and an invoice is created.
Online Order Processing Workflow

1. **Administrator Submits Online Invoice.** The store administrator submits an online invoice, and as a result a corresponding transaction and an invoice is created.

2. **PayPal Receives the Transaction.** The order information is sent to PayPal. A record of the transaction and an invoice is generated. You can view all Payflow Pro Gateway transactions in your PayPal merchant account.

Partial invoices and partial refunds are not supported by PayPal Payflow Pro.

**Step 1: Configure Your PayPal Account**

   a. Log in to your PayPal business account.
   b. Go to Service Settings > Hosted Checkout Pages > Set Up Menu, and make the following settings:
      - AVS: No
      - CSC: No
      - Enable Secure Token: Yes
   c. Save the settings.

If you have multiple Magento websites, you must create a separate PayPal Payments Advanced account for each.

2. When prompted to create a layout, do the following:
   a. At the top of the page, tap Customize.
   b. Choose Layout C.
   c. Tap Save and Publish.

3. PayPal recommends that you set up an additional user on your account. To set up an additional user, do the following:
   a. Log in to your PayPal business account.
   b. Follow the instructions to set up an additional user.
   c. Save the changes.
Step 2: Complete the Required Settings

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration, and do the following:
   a. In the panel on the left, under Sales, choose Payment Methods.
   b. If your Magento installation has multiple websites, stores or views, set Store View to the store view where the configuration applies.
   c. In the Merchant Location section, select the Merchant Country where your business is located.

   This setting determines the selection of PayPal Solutions that appear in the configuration.

2. Under PayPal Payment Gateways, in the PayPal Payflow Pro section, tap Configure. Then in the Required PayPal Settings section under Payments Pro and Express Checkout, do the following:
   a. (Optional) Enter the Email Associated with your PayPal Merchant Account.

   Important! Email addresses are case sensitive. To receive payment, the email address must match the email address specified in your PayPal merchant account.

   If you don’t yet have a PayPal account, click the link, Start accepting payments via PayPal.

   b. Enter one of the following credentials that you use to log in to your PayPal merchant account:

   Partner     Your PayPal Partner ID.
   User        The ID of an additional user who is set up on your PayPal account.
   Vendor      Your PayPal user login name.

   c. Enter the Password that is associated with your PayPal account.

   d. If you want to run test transactions, set Test Mode to “Yes.”

   When testing the configuration in a sandbox, use only credit card numbers that are recommended by PayPal. When you are ready to “go live,” return to the configuration and set Test Mode to “No.”

3. If your system uses a proxy server to establish the connection to the PayPal system, set Use Proxy to “Yes.” Then, do the following:
   a. Enter the IP address of the Proxy Host.
   b. Enter the port number of the Proxy Port.

   A proxy is used when the server firewall prevents direct access to the PayPal server. In such a case, a third-party server is used to relay traffic.
4. Set **Enable This Solution** to “Yes.”

5. If you want to offer PayPal Credit to your customers, set **Enable PayPal Credit** to “Yes.”

---

**Step 3: Advertise PayPal Credit** (Optional)

1. Expand ☑ the **Advertise PayPal Credit** section. Then, do the following:

   a. Tap **Get Publisher ID from PayPal**, and follow the instructions to get your account information.

   b. Enter your **Publisher ID**.
2. Expand the Home Page section. Then, do the following:
   
a. To place a banner on the page, set Display to “Yes.”

b. Set Position to one of the following:
   - Header (center)
   - Sidebar (right)

c. Set Size to one of the following:
   - 190 x 100
   - 234 x 60
   - 300 x 50
   - 468 x 60
   - 728 x 90
   - 800 x 66

3. Repeat the previous step for the remaining sections:
   - Catalog Category Page
   - Catalog Product Page
   - Checkout Cart Page
Step 4: Complete the Basic Settings

1. In the Basic Settings - PayPal Payflow Pro section, enter a Title to identify PayPal Payflow Pro during checkout. It is recommended that you use the title “Debit or Credit Card.”

2. If you offer multiple payment methods, enter a number in the Sort Order field to determine the sequence in which PayPal Payflow Pro appears when listed with other payment methods during checkout.

3. Set Payment Action to one of the following:

   - Authorization: Approves the purchase, but puts a hold on the funds. The amount is not withdrawn until it is “captured” by the merchant.
   - Sale: The amount of the purchase is authorized and immediately withdrawn from the customer’s account.

4. Under Credit Card Settings, select each credit card that you accept for payment in your store. To make multiple selections, hold down the Ctrl key and click each item.

   American Express requires an additional agreement.
Step 5: Complete the Advanced Settings

1. Expand ☑ the Advanced Settings section. Then, do the following:
   
a. Set Payment Applicable From to one of the following:

   **All Allowed Countries**
   Accepts payment from the countries already specified in your configuration.

   **Specific Countries**
   Accepts payments from only the countries you specify. Hold the Ctrl key down and in the Payment Applicable From list, click each country where you accept payment.

   b. Set Debug Mode to “Yes” to write communications with the payment system into the log file.

   In accordance with PCI Data Security Standards, credit card information is not recorded in the log file.

   c. To enable host authenticity verification, set Enable SSL Verification to “Yes.”

   d. To require that customers enter a CVV code, set Require CVV Entry to “Yes.”

2. Expand ☑ the CVV and AVS Settings section.

3. To determine when a transaction should be rejected when the Address Verification System identifies a mismatch, specify how to handle each of the following scenarios:

   a. To reject a transaction based on a mismatched street mismatch, set AVS Street Does Not Match to “Yes.”

   b. To reject a transaction based on a mismatched ZIP code, set AVS Zip Does Not Match to “Yes.”

   c. To reject a transaction based on mismatched country identifier, set International AVS Indicator Does Not Match to “Yes.”
**d.** To reject a transaction based on a mismatched CVV code, set Card Security Code Does Not Match to “Yes.”

![CVV and AVS Settings](image)

**CVV and AVS Settings**

4. **Settlement Report Settings**

1. Expand the **Settlement Report Settings** section.

2. If you have signed up for PayPal’s Secure FTP Server, enter the following SFTP login credentials:
   - Login
   - Password

3. To run test reports before “going live” with Express Checkout on your site, set **Sandbox Mode** to “Yes.”

4. Enter the **Custom Endpoint Hostname or IP Address**. By default, the value is: reports.paypal.com

5. Enter the **Custom Path** where reports are saved. By default, the value is: /ppreports/outgoing

6. To generate reports according to a schedule, under Scheduled Fetching, make the following settings:
   a. Set **Enable Automatic Fetching** to “Yes.”
   b. Set **Schedule** to one of the following:
PayPal Settlement Report Settings

### Frontend Experience Settings

The frontend experience settings give you the opportunity to choose which PayPal logos appear on your site, and to customize the appearance of your PayPal merchant pages.

1. Expand the **Frontend Experience Settings** section.
2. Choose the **PayPal Product Logo** that you want to appear in the PayPal block in your store. The PayPal logos are available in four styles and two sizes. Options include:

**Daily**
- Every 3 Days
- Every 7 Days
- Every 10 Days
- Every 14 Days
- Every 30 Days
- Every 40 Days

PayPal retains each report for forty-five days.

- **Set Time of Day** to the hour, minute, and second when you want the reports to be generated.
- No Logo
- We Prefer PayPal (150 x 60 or 150 x 40)
- Now Accepting PayPal (150 x 60 or 150 x 40)
- Payments by PayPal (150 x 60 or 150 x 40)
- Shop Now Using (150 x 60 or 150 x 40)

3. To customize the appearance of your PayPal merchant pages, do the following:
   a. Enter the name of the Page Style that you want to apply to your PayPal merchant pages. Options include:
      - paypal: Uses the PayPal page style.
      - primary: Uses the page style that you identified as the “primary” style in your account profile.
      - your_custom_value: Uses a custom payment page style, which is specified in your account profile.
   b. In the Header Image URL field, enter the URL of the image that you want to appear in the upper-left corner of the payment page. The maximum file size is 750 pixels wide by 90 pixels high.
      
      PayPal recommends that the image be located on a secure (https) server. Otherwise, the customer’s browser may warn that “the page contains both secure and nonsecure items.”
   c. Enter the six-character hexadecimal code, without the “#” symbol, for each of the following:
      - Header Background Color: Background color for the checkout page header.
      - Header Border Color: 2-pixel border around the header.
      - Page Background Color: Background color for the checkout page and around the header and payment form.
Step 6: Basic Settings - PayPal Express Checkout

1. Expand the Basic Settings - PayPal Express Checkout section.

2. Enter a Title to identify this payment method during checkout. It is recommended to set the title to “PayPal” for each store view.

3. If you offer multiple payment methods, enter a number in the Sort Order field to determine the sequence in which PayPal Payments Standard is listed with the other methods. Payment methods appear in ascending order based on the Sort Order value.

4. Set Payment Action to one of the following:

   Authorization Approves the purchase, but puts a hold on the funds. The amount is not withdrawn until it is “captured” by the merchant.

   Sale The amount of the purchase is authorized and immediately withdrawn from the customer’s account.

5. To display the “Check out with PayPal” button on the product page, set Display on Product Details Page to “Yes.”
**Step 7: Advanced Settings - PayPal Express Checkout**

1. Click to expand the **Advanced Settings** section. Then, do the following:
   
   a. Set **Display on Shopping Cart** to “Yes.”
   
   b. Set **Payment Applicable From** to one of the following:
      
      - *All Allowed Countries*  
        Accepts payment from the countries already specified in your configuration.
      
      - *Specific Countries*  
        Accepts payments from only the countries you specify. Hold the Ctrl key down and in the Payment Applicable From list, click each country where you accept payment.
   
   c. Set **Debug Mode** to “Yes” to write communications with the payment system into the log file.
      
      In accordance with PCI Data Security Standards, credit card information is not recorded in the log file.
   
   d. To enable host authenticity verification, set **Enable SSL Verification** to “Yes.”
   
   e. To display a full summary of the customer’s order by line item from the PayPal site, set **Transfer Cart Line Items** to “Yes.”
   
   f. To allow the customer to complete the transaction from the PayPal site without returning to your Magento store for Order Review, set **Skip Order Review Step** to “Yes.”
2. When complete, tap **Save Config**.

**Step 8: Add Google reCAPTCHA**

To better protect PayPal PayFlow Pro checkout, enable Google reCAPTCHA. It includes options to run reCAPTCHA using a clickable interface or an invisible check to validate the customer. We recommend the invisible option to increase sales conversion and protect your store.

For details, see [Google reCAPTCHA](#).
PayPal Payflow Link

PayPal PayFlow Link is available for merchants in the United States and Canada only. Customers are not required to have a personal PayPal account, and enter their credit card information in a form that is hosted by PayPal. The information is never stored on your Magento server. PayFlow Link cannot be used for orders that are created from the Admin.

Configure

Credit memos are supported for both online and offline refunds. However, multiple online refunds are not supported.

Requirements

- **PayPal Business Account**
  The PayPal Payflow Pro gateway links the merchant account at PayPal with the merchant’s website, and acts both as a gateway and a merchant account.
  
  - If you manage multiple Magento websites, you must have a separate PayPal merchant account for each website.

Customer Workflow

1. **Customer Goes to Checkout.** During checkout, the customer chooses to pay with PayPal PayFlow link, and enters the credit card information. The customer is not required to have a personal PayPal account.

2. **Customer Chooses Pay Now.** The customer taps the Pay Now button to submit the order.

3. **Customer Enters Credit Card Info.** The customer enters the credit card information on a form that is hosted by PayPal. If the customer clicks the Cancel Payment link, the customer returns to the Payment Information stage of checkout, and the order status changes to “Canceled.”

4. **Customer Submits the Order.** The credit card information is submitted directly to PayPal, and is not retained anywhere on the Magento site.
Order Workflow

1. **PayPal Receives Request.** PayPal receives the request from the customer to Pay Now.

2. **PayPal Verifies the Payment Information.** PayPal verifies the credit card information, and assigns the appropriate status.
   - **Payment Verified:** If verified, the “Pending Payment” the applicable status is initially assigned to the order until the transaction is settled.
     - Processing: The transaction was successful.
     - Pending Payment: The system did not receive any response from PayPal.
     - Canceled: The transaction was not successful for some reason.
     - Suspected Fraud: The transaction did not pass some of the PayPal fraud filters. The system receives the response from PayPal that the transaction is under review by Fraud Service.
   - **Cancel Payment.** If the customer clicks the Cancel Payment link, the customer returns to the Payment Information stage of checkout, and the order status changes to “Canceled.”

3. **Customer Is Redirected to Confirmation Page.** If the transaction completes successfully, the customer is redirected to the order confirmation page in your store. If the transaction fails on any reason, an error message appears on the checkout page and the customer is directed to repeat the checkout process. These situations are managed by PayPal.

4. **Merchant Fulfills Order.** The merchant invoices, and ships the order as usual.
Setting Up PayPal Payflow Link

For step-by-step configuration instructions, see PayPal Payflow Link in the Magento Commerce online user guide.
## PayPal Quick Reference

<table>
<thead>
<tr>
<th>PAYPAL SOLUTION</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td><strong>EXPRESS CHECKOUT</strong></td>
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<tr>
<td>PayPal Express Checkout</td>
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<tr>
<td><strong>ALL-IN-ONE SOLUTIONS</strong></td>
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<tr>
<td>PayPal Payments Advanced (Includes Express Checkout)</td>
<td>Allows you to accept payments with a PCI-compliant checkout that keeps customers on your site.</td>
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<tr>
<td>PayPal Payments Pro (Includes Express Checkout)</td>
<td></td>
</tr>
<tr>
<td>PayPal Website Payments Pro (Outside US)</td>
<td>Allows you to accept payments with a completely customizable checkout.</td>
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<tr>
<td>PayPal Payments Standard (Includes Express Checkout)</td>
<td></td>
</tr>
<tr>
<td>PayPal Website Payments Standard (Outside US)</td>
<td>Adds PayPal as an additional payment method to your checkout page.</td>
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<tr>
<td><strong>PAYMENT GATEWAYS</strong></td>
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<tr>
<td>PayPal Payflow Pro (Includes Express Checkout)</td>
<td>Connects your merchant account with a fully customizable gateway that lets customers pay without leaving your site.</td>
</tr>
<tr>
<td>PayPal Payflow Link (Includes Express Checkout)</td>
<td>Connects your merchant account with a PCI-compliant gateway that lets customers pay without leaving your site.</td>
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<td><strong>OTHER PAYPAL SOLUTIONS</strong></td>
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<td>PayPal Website Payments Pro Hosted Solution</td>
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</tr>
<tr>
<td>PayPal Payments Pro Hosted Solution (includes Express Checkout)</td>
<td></td>
</tr>
</tbody>
</table>
PayPal Business Account

To offer PayPal as a payment method in your store, you must have a PayPal business account and/or a PayPal Payflow account. The account requirements are specified in the description of each PayPal solution. Your PayPal merchant account is also used to manage any fraud filters that are applied to purchases made from your store.

Customers who use PayPal Express Checkout or Express Checkout for Payflow Pro must have a PayPal buyer account. PayPal Payments Standard (which is some countries is called Website Payments Standard) can be used directly or through a buyer account, provided that the merchant enables PayPal Account Optional. By default, this parameter is enabled. Customers can choose to enter their credit card information, or create a buyer account with PayPal. When disabled, customers must first create a PayPal buyer account before making a purchase.

Website Payments Pro, Website Payments Pro Payflow Edition, Payflow Pro Gateway, and Payflow Link require customers to enter credit card information during checkout.
PayPal Credit

PayPal Credit offers your customers quick access to financing, so they can buy now and pay later, at no additional cost to you. You are not charged when customers choose PayPal Credit, and pay only your normal PayPal transaction fee.

According to a recent study, nearly 40% of PayPal Credit users say they spent more online because financing was available. Plus, their transactions are up to 68% larger than credit/debit purchases.\(^1\) To learn more, see PayPal Credit on the PayPal website.

Give your sales a boost when you advertise financing. PayPal helps turn browsers into buyers with financing with PayPal Credit. Your customers can pay over time, while you get paid up front – at no additional cost to you. Use PayPal’s free banner ads that let you advertise PayPal Credit financing as a payment option when your customers check out with PayPal. The PayPal Advertising Program has been shown to generate additional purchases as well as increase consumer’s average purchase sizes by 15% or more.

You can easily add free, ready-made banner ads to pages of your site, and the PayPal Credit button to your shopping cart during checkout to remind your customers that financing is readily available.

### PayPal Credit Button

Add a PayPal Credit button to your cart to make it easier for your customers to make a purchase.

### PayPal Credit Banners

Use banners on your home page, product pages, and shopping cart to turn “window shoppers” into buyers.

For US merchants, PayPal Credit is included as a PayPal Express Checkout option, and is available with PayPal All-In-One Solutions (Payment Advanced, Payments Pro, and Payments Standard) and PayPal Payment Gateways (PayFlow Pro and PayFlow Link). Before you configure PayPal Credit for your Magento store, make sure it is enabled in your PayPal account.

\(^1\) As reported in Neilsen’s PayPal Credit Average Order Value Study for activity occurring from April 2015 to March 2016 (small merchants) and October 2015 to March 2016 (midsize merchants), which compared PayPal Credit transactions to credit and debit card transactions on websites that offer PayPal Credit as a payment option or within the PayPal Wallet. Nielsen measured 284890 transactions across 27 mid and small merchants. Copyright Nielsen 2016.
PayPal Fraud Management Filter

PayPal fraud management filters make it easier to detect and respond to fraudulent transactions, and can be configured to flag, hold for review, or deny riskier payments. Magento order status values changed according to the fraud filter settings.

Filter Actions

<table>
<thead>
<tr>
<th>ACTION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review</td>
<td>If you set the filter action to “Review,” the suspected order receives the status &quot;Payment Review” when the order is placed. You can review the order and approve, or cancel the payment in the Admin, or on the PayPal side. When you click the Accept Payment or the Deny Payment buttons, no new transactions for the order are created. If you change the status of the transaction on the PayPal site, you must click the Get Payment Update button in the upper-right corner of the Order page in the Admin to apply the changes. If you click Accept Payment or Deny Payment, the changes made at the PayPal site are applied.</td>
</tr>
<tr>
<td>Deny</td>
<td>If you set the filter action to “Deny,” the suspected order cannot be placed by the customer, because the corresponding transaction is rejected by PayPal. To deny the payment from the Admin, click the Deny Payment button in the upper-right corner of the page. The order status changes to “Canceled,” the transaction is reverted, and funds are released on the customer’s account. The corresponding information is added in the Comments History section of the order view.</td>
</tr>
<tr>
<td>Flag</td>
<td>If you set the filter action to “Flag”, the suspected order gets the status &quot;Processing” when it is placed. The corresponding transaction is marked with a “flag” in the list of the merchant account transactions.</td>
</tr>
</tbody>
</table>
## PayPal by Country

### PayPal Payment Solutions

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PAYPAL PAYMENT SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Payflow Pro</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Pro Hosted Solution</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>Canada</td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Pro</td>
</tr>
<tr>
<td></td>
<td>PayPal Payflow Pro</td>
</tr>
<tr>
<td></td>
<td>PayPal Payflow Link (includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>France</td>
<td>PayPal Integral Evolution</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>Germany</td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>Hong Kong SAR China</td>
<td>PayPal Website Payments Pro Hosted Solution</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>Italy</td>
<td>PayPal Pro</td>
</tr>
<tr>
<td></td>
<td>PayPal Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>Japan</td>
<td>PayPal Website Payments Plus</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>New Zealand</td>
<td>PayPal Payflow Pro</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Standard</td>
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<tr>
<td></td>
<td>PayPal Express Checkout</td>
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<tr>
<td>Spain</td>
<td>PayPal Pasarela Integral</td>
</tr>
<tr>
<td></td>
<td>PayPal Website Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
</tbody>
</table>
## PayPal Payment Solutions (cont.)

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>PAYPAL PAYMENT SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Kingdom</td>
<td>PayPal Payments Pro Hosted Solution (includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Payments Standard</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
<tr>
<td>United States</td>
<td>PayPal Payments Advanced (Includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Payments Pro (Includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Payments Standard+</td>
</tr>
<tr>
<td></td>
<td>PayPal Payflow Pro (Includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Payflow Link (Includes Express Checkout)</td>
</tr>
<tr>
<td></td>
<td>PayPal Express Checkout</td>
</tr>
</tbody>
</table>

## OTHER COUNTRIES

PayPal Express Checkout and PayPal Website Payments Standard are available in the following countries:

Argentina, Austria, Belgium, Brazil, Bulgaria, Chile, Costa Rica, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Estonia, Finland, French Guiana, Gibraltar, Greece, Guadeloupe, Hungary, Iceland, India, Indonesia, Ireland, Israel, Jamaica, Latvia, Liechtenstein, Lithuania, Luxembourg, Malaysia, Malta, Martinique, Mexico, Netherlands, Norway, Philippines, Poland, Portugal, Réunion, Romania, San Marino, Singapore, Slovakia, Slovenia, South Africa, South Korea, Sweden, Switzerland, Taiwan, Thailand, Turkey, United Arab Emirates, Uruguay, Venezuela, Vietnam
CHAPTER 56:
Other Payment Methods

Magento Commerce supports the following payment solution that offer merchant services in all parts of the world. Unlike some payment solutions that transfer control to another site to complete the transaction, a payment gateway makes it possible for you to accept credit card payments directly from your store without the customer leaving your site.

- Authorize.Net Direct Post
Authorize.Net Direct Post

Authorize.Net handles all steps in the transaction process — such as payment data collection, data submission, and response to the customer — while the customer remains in your store. Authorize.Net Direct Post can be used with orders created from the Admin as well as from the store.

Deprecation Notice: Authorize.Net has deprecated the use of MD5 Hash. When configuring, enter a Signature Key using SHA-512. These instructions include the updated step. Payment processing will not complete until you add the correct Signature Key. For details, see Authorize.Net's MD5 Hash End of Life & Signature Key Replacement and What is a Signature Key. To install the patch, see the Magento KB article Update Authorize.Net Direct Post from MD5 to SHA-512.

Customer Workflow

1. **Customer chooses payment method.** During checkout, the customer chooses Authorize.Net Direct Post as the payment method.

2. **Customer submits the order.** The customer enters the credit card information, reviews the order, and taps the Place Order button.

3. **Authorize.Net completes the transaction.** Authorize.Net validates the card information, and processes the transaction.
   - If successful, the customer is redirected to the order confirmation page.
   - If the transaction fails, an error message appears, and the customer can try a different card, or choose a different payment method.

Step 1: Enable Direct Post

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Payment Methods**.
3. Expand the **Authorize.Net Direct Post** section. Then, do the following:
   a. Set **Enabled** to “Yes.”
   b. Set **Payment Action** to one of the following:
Authorize Only  Funds on the customer's card are authorized by Authorize.Net, and an order is created in your store's Admin. You can later create an invoice and capture the funds.

Authorize and Capture  Funds on the customer's card are authorized and captured by Authorize.Net, and an order and invoice are created in your store's Admin.

c. Enter a Title to identify the Authorize.Net Direct Post payment method during checkout.

Enable Authorize.Net Direct Post

Step 2: Enter Your Credentials

1. Enter the following credentials from your Authorize.Net account:
   - API Login ID
   - Transaction Key

2. In the Signature Key field, enter a Signature Key from your Authorize.Net merchant Account. To generate a new SHA-512 Signature Key, see Authorize.Net’s What is a Signature Key.

   This field was previously Merchant MD5. That field and value were deprecated. For details, see Authorize.Net’s MD5 Hash End of Life & Signature Key Replacement.

3. Set New Order Status to one of the following:
   - Processed Ogone Payment
   - Processing

4. To operate temporarily in a test environment, set Test Mode to “Yes.” When you are ready to process live transactions, set Test Mode to “No.”

   When testing the configuration in a sandbox, use only the credit card numbers that are recommended by Authorize.Net.

5. Enter the Gateway URL that establishes the connect to the Authorize.Net server. The default value is:
If you have received a temporary URL for test transactions, don’t forget to restore the original URL when you are ready to process live transactions.

**Step 3: Complete Payment and Notification Information**

1. Verify that *Accepted Currency* is set to “US Dollar.”

2. To save messages transmitted between your store and the Authorize.Net Direct Post system, set *Debug* to “Yes.”

3. To set the notification options, do the following:
   a. If you want Authorize.Net to send an order confirmation notification to the customer, set *Email Customer* to “Yes.”
   b. In the *Merchant’s Email* field, enter the email address where you want to receive notification of orders placed with Direct Post. Leave blank if you do not want to receive notification.

4. To complete the payment options, do the following:
   a. In the *Credit Card Types* list, select each credit card that is accepted in your store.
   b. To require customers to enter a card verification value (CVV), set *Credit Card Verification* to “Yes.”
Complete the Payment Information

c. Set **Payment from Applicable Countries** to one of the following:

**All Allowed Countries**
Customers from all countries specified in your store configuration can use this payment method.

**Specific Countries**
After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.

Specify the Applicable Countries

d. Enter the **Minimum Order Total** and **Maximum Order Total** for Direct Post transactions. To qualify, the order total must exactly match the minimum or maximum threshold, or fall somewhere in between.

e. Enter a **Sort Order** number to determine the position of Direct Post in the list of payment methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

Specify the Applicable Countries

5. When complete, tap **Save Config.**
CHAPTER 57: Basic Payment Methods

The payment methods covered in this section are built in to Magento, and do not require the services of a third-party payment processing company.

Offline Payments

Magento supports a number of offline payment methods, including payment by check or money order, and cash on delivery (COD).

Online Payments

Bank transfer is a basic payment method that is included with all Magento stores.
Check / Money Order

Magento Commerce allows you to accept payments by check or money order. The Check / Money Order payment method is enabled for your story by default. You can accept checks and money orders from only specific countries, and fine-tune the configuration with minimum and maximum order total limits.
To configure payment by check or money order:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Sales, choose Payment Methods.

3. Expand the Check / Money Order section. Then, do the following:
   a. To accept payment by check or money order, set Enabled to “Yes.”
   b. Enter a Title to identify the Check / Money Order payment method during checkout.
   c. Set New Order Status to “Pending” until receipt of payment is confirmed.
   d. Set Payment from Applicable Countries to one of the following:
      - All Allowed Countries: Customers from all countries specified in your store configuration can use this payment method.
      - Specific Countries: After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.
   e. In the Make Check Payable To field, enter the name of the party to whom the check must be payable.
   f. In the Send Check To field, enter the street address or PO Box where the checks are mailed.
   g. Set Minimum Order Total and Maximum Order Total to the order amounts required to qualify for this payment method.
      
      An order qualifies if the total falls between, or exactly matches, the minimum or maximum total values.

   h. Enter a Sort Order number to determine the position of Check / Money Order in the list of payment methods that is shown during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap Save Config.
Cash On Delivery

Magento Commerce allows you to accept COD payments for purchases. You can accept COD payment from only specific countries, and fine-tune the configuration with minimum and maximum order total limits.

The shipping carrier receives payment from the customer at the time of delivery, which is then transferred to you. You can make an adjustment for any fee charged by the carrier service in your shipping and handling charges.
To set up cash on delivery payments:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, select Payment Methods.

3. Expand the Cash On Delivery Payment section. Then, do the following:
   a. To activate Cash On Delivery Payment, set Enabled to “Yes.”
   b. Enter a Title to identify the COD payment method during checkout.
   c. Set New Order Status to “Pending” until receipt of payment is confirmed.
   d. Set Payment from Applicable Countries to one of the following:
      - All Allowed Countries: Customers from all countries specified in your store configuration can use this payment method.
      - Specific Countries: After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.
   e. Enter the Instructions for accepting delivery of a COD order.
   f. Set Minimum Order Total and Maximum Order Total to the order amounts that are required to qualify for COD payment.

   An order qualifies if the total is between, or matches, the minimum or maximum order total.

   g. Enter a Sort Order number to determine the sequence in which Cash On Delivery is listed with other payment methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap Save Config.
Bank Transfer

Magento Commerce allows you to accept payment that is transferred from a customer's bank account and deposited into your merchant bank account.

Bank Transfer Payment

Bank Transfer Payment
To configure bank transfer payments:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, choose Payment Methods.

3. Expand the Bank Transfer Payment section. Then, do the following:
   
a. To activate bank transfers, set Enabled to “Yes.”

b. Enter a Title to identify the Bank Transfer Payment method during checkout.

c. Set New Order Status to “Pending” until payment is authorized.

d. Set Payment from Applicable Countries to one of the following:

   All Allowed Countries  Customers from all countries specified in your store configuration can use this payment method.

   Specific Countries  After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.

e. Enter the Instructions your customers must follow to set up a bank transfer. Depending on the country where your bank is located and the requirements of the bank, you might need to include the following information:

   - Bank account name
   - Bank account number
   - Bank routing code
   - Bank name
   - Bank address

f. Set Minimum Order Total and Maximum Order Total to the amounts required to qualify to use this payment method.

   An order qualifies if the total falls between, or exactly matches, the minimum or maximum total values.

4. Enter a Sort Order number to determine the position of Bank Transfer in the list of payment methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

5. When complete, tap [Save Config].
Purchase Order

A purchase order (PO) allows commercial customers to pay for authorized purchases by referencing the PO number. The purchase order is authorized and issued in advance by the company that is making the purchase. During checkout, the customer chooses Purchase Order as the method of payment. Upon receipt of your invoice, the company processes the payment in their accounts payable system, and pays for the purchase.

Before accepting payment by purchase order, always establish the credit worthiness of the commercial customer.
To configure payment by purchase order:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, choose Payment Methods.

3. Expand the Purchase Order section. Then, do the following:
   a. To activate this payment method, set Enabled to “Yes.”
   b. Enter a Title to identify this payment method during checkout.
   c. Set New Order Status to “Pending” until payment is authorized.
   d. Set Payment from Applicable Countries to one of the following:
      - All Allowed Countries: Customers from all countries specified in your store configuration can use this payment method.
      - Specific Countries: After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.
   e. Set Minimum Order Total and Maximum Order Total to the amounts required to qualify for this payment method.
      An order qualifies if the total falls between, or exactly matches, the minimum or maximum total values.
   f. Enter a Sort Order number to determine the position of Purchase Order in the list of payment methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap Save Config.
Zero Subtotal Checkout

Zero Subtotal Checkout can be used for orders with a subtotal of zero that are taxed after a discount is applied. For example, Zero Subtotal Checkout might be used in the following situations:

- A discount covers the entire price of the purchase, with no additional charge for shipping.
- The customer adds a downloadable or virtual product to the shopping cart, and the price equals zero.
- The price of a simple product is zero, and the Free Shipping method is available.
- A coupon code covers the full price of products and shipping.

To save time, zero subtotal orders can be set to invoice automatically.
1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, select Payment Methods.

3. Click to expand the Zero Subtotal Checkout section. Then, do the following:
   a. Enter a Title to identify the Zero Subtotal method during checkout.
   b. Set Enabled to “Yes” to activate Zero Subtotal Checkout.
   c. If orders typically wait for authorization, set New Order Status to “Pending” until payment is authorized.

       Pending The order is waiting for authorization.

       Processing Payment has been authorized, and the transaction is being processed.

   d. Set Automatically Invoice All Items to “Yes” if you want to automatically invoice all items that have a zero balance.
   e. Set Payment from Applicable Countries to one of the following:

       All Allowed Countries Customers from all countries specified in your store configuration can use this payment method.

       Specific Countries After choosing this option, the Payment from Specific Countries list appears. Select each country in the list where customers can make purchases from your store.

   f. Enter a Sort Order number to determine the position of Zero Subtotal Checkout in the list of payment methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap Save Config.
Shipping
Contents

Studies show that stores offering customers a choice of several shipping methods have higher conversion rates than those that use a single method for all shipments. In this section of the guide, you will learn how to set up a variety of shipping methods and carriers, and print shipping labels.

- Shipping Settings
- Shipping Policy
- Basic Shipping Methods
  - Free Shipping
  - Flat Rate
  - Table Rate
  - Dimensional Weight

- Carriers

- Shipping Labels
  - Shipping Label Workflow
  - Configuring Shipping Labels
  - Creating Shipping Labels
CHAPTER 58:

Shipping Settings

The shipping configuration establishes the point of origin for all shipments, your shipping policy, and the handling of shipments to multiple addresses.

- Point of Origin
- Shipping to Multiple Addresses
- Shipping Policy
Point of Origin

The point of origin is used to calculate the charge for shipments made from your store or warehouse, and also determines the tax rate for products sold. When calculating EU taxes, make sure that the Default Tax Destination Calculation for each store view corresponds to the Shipping Settings point of origin.

To establish the point of origin:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Shipping Settings.
3. Expand the Origin section, and complete the following:
   - Country
   - Region / State
   - ZIP / Postal Code
   - City
   - Street Address (and line 2, if needed)
4. When complete, tap Save Config.
Multiple Addresses

The Multiaddress Shipping options enable customers to ship an order to multiple addresses during checkout, and determine the maximum number of addresses to which an order can be shipped.

To configure multiple address shipping:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Multishipping Settings.
3. Expand the Options section. Then, do the following:
   a. Set Allow Shipping to Multiple Addresses to “Yes.”
   b. Enter the Maximum Qty Allowed for Shipping to Multiple Addresses.
4. When complete, tap Save Config.

Multiaddress Shipping Options
Shipping Policy

To display your shipping policy during checkout, complete the Shipping Policy Parameters in the configuration.

![Shipping Policy Parameters](image)

**To configure your shipping policy:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, under **Sales**, choose **Shipping Settings**.
3. Expand the **Shipping Policy Parameters** section, and do the following:
   
   a. Set Apply **Custom Shipping Policy** to “Yes.”
   
   a. Either paste or enter your **Shipping Policy** into the text box.
4. When complete, tap **Save Config**.
CHAPTER 59:

Basic Shipping Methods

Magento Commerce supports a wide range of shipping methods and carriers. In this chapter you will learn how to set up those shipping methods that do not require an account with a third-party provider.

- Free Shipping
- Flat Rate
- Table Rates
- Dimensional Weight
Free Shipping

Free shipping is one of the most effective promotions you can offer. It can be based on a minimum purchase, or set up as a cart price rule that is applied when a set of conditions is met. If both apply to the same order, the configuration setting takes precedence over the cart rule.

Check your shipping carrier configuration for any additional settings that may be required for free shipping.

---

**Step 1: Configure Free Shipping**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, under **Sales**, choose **Shipping Methods**.
3. Expand the **Free Shipping** section. Then, do the following:
   a. Set **Enabled** to “Yes.”
   b. Enter a **Title** to identify the Free Shipping method during checkout.
   c. Enter a **Method Name** to describe this shipping method.
**d.** Enter the **Minimum Order Amount** to qualify for free shipping.

To use Free Shipping with **Table Rates**, make the Minimum Order Amount so high that it is never met. This prevents Free Shipping from going into effect, unless it is triggered by a price rule.

**e.** In the **Displayed Error Message** box, type the message to appear if free shipping becomes unavailable.

**f.** Set **Ship to Applicable Countries** to one of the following:

- **All Allowed Countries**
  - Customers from all **countries** specified in your store configuration can use free shipping.
- **Specific Countries**
  - After choosing this option, the Ship to Specific Countries list appears. Select each country in the list where free shipping can be used.

**g.** Set **Show Method if Not Applicable** to one of the following:

- **Yes**
  - Always shows the Free Shipping method, even when not applicable.
- **No**
  - Shows the Free Shipping method only when applicable.

**h.** Enter a **Sort Order** number to determine the position of free shipping in the list of shipping methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap **Save Config**.

---

**Step 2: Enable Free Shipping in the Carrier Configuration**

Make sure to complete any configuration that is required for each carrier that you plan to use for free shipping. For example, if your UPS configuration is otherwise complete, make the following settings to enable and configure free shipping:

1. From the Shipping Methods configuration, click to expand the **UPS** section.

2. Expand the **UPS** section. Then, set **Free Method** to “Ground.”

3. To require a minimum order for free shipping, set **Free Shipping with Minimum Order Amount** to “Enable.”

4. Enter the required amount in the **Minimum Order Amount for Free Shipping** field.

5. When complete, tap **Save Config**.
Flat Rate

Flat rate is a fixed, predefined charge that can be applied per item, or per shipment. Flat rate is a simple shipping solution, especially when used with the flat-rate packaging that is available from some carriers.

To set up flat rate shipping:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Sales, choose Shipping Methods.
3. Expand the Flat Rate section. Then, do the following:
   a. Set Enabled to “Yes.”

   Flat Rate appears as an option in the Estimate Shipping and Tax section of the shopping cart, and also in the Shipping section during checkout.
b. Enter a descriptive **Title** for the Flat Rate method.

c. Enter a **Method Name** to appear next to the calculated rate in the shopping cart. The default method name is “Fixed.” If you charge a handling fee, you can change the Method Name to “Plus Handling,” or something else that is suitable.

d. To describe how flat rate shipping can be used, set **Type** to one of the following:

   - **None**
     Disables the payment type. The Flat Rate option is listed in the cart, but with a rate of zero—which is the same as free shipping.
   
   - **Per Order**
     Charges a single flat rate for the entire order.
   
   - **Per Item**
     Charges a single flat rate for each item. The rate is multiplied by the number of items in the cart, regardless of whether there are multiple quantities of the same, or of different items.

e. Enter the **Price** that you want to charge for flat rate shipping.

f. If charging an additional handling fee, set **Calculate Handling Fee** to one of the following:

   - **Fixed**
   
   - **Percent**

   Then, enter the **Handling Fee** rate according to the method used to calculate the fee. For example, if the fee is calculating based on a percentage, enter 0.06 for 6 percent. If using a fixed amount calculation, enter the fee as a decimal.

g. In the **Displayed Error Message** box, type the message that appears if Flat Rate Shipping becomes unavailable.

h. Set **Ship to Applicable Countries** to one of the following:

   - **All Allowed Countries**
     Customers from all **countries** specified in your store configuration can use flat rate shipping.
   
   - **Specific Countries**
     After choosing this option, the Ship to Specific Countries list appears. Select each country in the list where flat rate shipping can be used.

i. Enter a **Sort Order** number to determine the position of the Flat Rate in the list of shipping methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

4. When complete, tap **Save Config**.
Table Rates

The table rate shipping method references a table of data to calculate shipping rates based on a combination of conditions, including:

- Weight v. Destination
- Price v. Destination
- # of Items v. Destination

For example, if your warehouse is in Los Angeles, it costs less to ship to San Diego than to Vermont. You can use table rate shipping to pass the savings on to your customers.

The data that is used to calculate table rates is prepared in a spreadsheet and imported into your store. When the customer requests a quote, the results appear in the shipping estimate section of the shopping cart.

Only one set of table rate data can be active at a time.
Process Overview:
Step 1: Complete the Default Settings
Step 2: Prepare the Table Rate Data
Step 3: Import the Table Rate Data
Step 4: Verify the Rates

Step 1: Complete the Default Settings

The first step is to complete the default settings for table rates. You can complete this step without changing the scope of the configuration.

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Sales, choose Shipping Methods.

3. Expand the Table Rates section. Then, do the following:
   a. Set Enabled to “Yes.”
      
      If necessary, clear the Use system value checkbox to edit for any field to be edited.

   b. Enter the Title that you want to appear for table rates section during checkout. (The default title is “Best Way.”)

   c. Enter the Method Name that you want to appear as a label next to the calculated rate in the shopping cart.

   d. Set Condition to one of the following calculation methods:
      
      - Weight v. Destination
      - Price v. Destination
      - # of Items v. Destination

   e. For orders that include virtual products, set Include Virtual Products in Price Calculation to “Yes” if you want to be able to include the virtual product(s) in the calculation.

   f. If charging a handling fee, set Calculate Handling Fee to one of the following:
      
      - Fixed
      - Percent

      Then, enter the Handling Fee rate according to the method used to calculate the fee.

Because virtual products—such as services—have no weight, they cannot change the result of a calculation that is based on the Weight v. Destination condition. However, virtual products can change the result of a calculation that is based on either the Price v. Destination or # of Items vs Destination condition.
If the handling fee is based on a percent, enter the whole number without the percent sign.

**g.** In the **Displayed Error Message** box, type the message that appears when this method is not available.

**h.** Set **Ship to Applicable Countries** to one of the following:

- **All Allowed Countries** Customers from any country specified in your store configuration can use table rate shipping.
- **Specific Countries** After choosing this option, the “Ship to Specific Countries” list appears. Select each country where customers can use table rate shipping.

**i.** Enter a **Sort Order** number to determine where table rates appear in the list of shipping methods during checkout. (0 = first, 1 = second, 2 = third, and so on.)

**4.** When complete, tap **Save Config**.
Step 2: Prepare the Table Rate Data

1. In the upper-left corner, set **Store View** to “Main Website,” or to any other website where the configuration applies. When prompted to confirm, tap **OK**.

   The Export and Import options now appear in the Table Rates section, with “Use Default” checkboxes to the right of each option.

   To change any of the current settings, you must first clear the “Use Default” checkbox next to the field.

2. To change the **Condition**, clear the **Use Default** checkbox. Then, choose another option.

3. Tap **Export CSV**. Then, save the **tablerates.csv** file to your computer.

4. Open the file in a spreadsheet. Then, complete the table with appropriate values for the shipping calculation condition.

   - Use an asterisk (*) as a wildcard to represent all possible values in any category.
   - The Country column must contain a valid three-character code for each row.
   - Sort the data by Region/State so the specific locations are at the top of the list, and the wildcard locations at the bottom. This will process the rules with the absolute values first, and the wildcard values later.
5. When complete, save the `tablerates.csv` file.

**Step 3: Import the Table Rate Data**

1. Return to the **Table Rates** section of your store configuration.
2. In the upper-left corner, set **Store View** to the website where this method will be used.
3. Next to the **Import** field, tap **Choose File**. Select your completed `tablerates.csv` file, and import the rates.

4. When complete, tap **Save Config**.
Step 4: **Verify the Rates**

To make sure that the table rate data is correct, go through the payment process with several different addresses to make sure the shipping and handling rates are calculated correctly.

**Example 1: Price v. Destination**

This example uses the Price v. Destination condition to create a set of three different shipping rates based on the amount of the order subtotal for the continental United States, Alaska, and Hawaii. The asterisk (*) is a wildcard that represents all values.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>REGION / STATE</th>
<th>ZIP / POSTAL CODE</th>
<th>ORDER SUBTOTAL (and above)</th>
<th>SHIPPING PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>HI</td>
<td>*</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>USA</td>
<td>HI</td>
<td>*</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>USA</td>
<td>HI</td>
<td>*</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>USA</td>
<td>AK</td>
<td>*</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>USA</td>
<td>AK</td>
<td>*</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>USA</td>
<td>AK</td>
<td>*</td>
<td>0</td>
<td>20</td>
</tr>
<tr>
<td>USA</td>
<td>*</td>
<td>*</td>
<td>100</td>
<td>5</td>
</tr>
<tr>
<td>USA</td>
<td>*</td>
<td>*</td>
<td>50</td>
<td>10</td>
</tr>
<tr>
<td>USA</td>
<td>*</td>
<td>*</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>
Example 2: **Weight v. Destination**

This example uses the Weight v. Destination condition to create different shipping rates based on the weight of the order.

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>REGION / STATE</th>
<th>ZIP / POSTAL CODE</th>
<th>WEIGHT (AND ABOVE)</th>
<th>SHIPPING PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUS</td>
<td>NT</td>
<td>*</td>
<td>9</td>
<td>39.95</td>
</tr>
<tr>
<td>AUS</td>
<td>NT</td>
<td>*</td>
<td>0</td>
<td>19.95</td>
</tr>
<tr>
<td>AUS</td>
<td>VIC</td>
<td>*</td>
<td>9</td>
<td>19.95</td>
</tr>
<tr>
<td>AUS</td>
<td>VIC</td>
<td>*</td>
<td>0</td>
<td>5.95</td>
</tr>
<tr>
<td>AUS</td>
<td>WA</td>
<td>*</td>
<td>9</td>
<td>39.95</td>
</tr>
<tr>
<td>AUS</td>
<td>WA</td>
<td>*</td>
<td>0</td>
<td>19.95</td>
</tr>
<tr>
<td>AUS</td>
<td>*</td>
<td>*</td>
<td>9</td>
<td>29.95</td>
</tr>
<tr>
<td>AUS</td>
<td>*</td>
<td>*</td>
<td>0</td>
<td>9.95</td>
</tr>
</tbody>
</table>

Example 3: **Restrict Free Shipping to the Continental United States**

1. Create a table rates.csv file that includes all the state destinations to which you are willing to provide free shipping.

2. Complete the table rate configuration with the following settings:

<table>
<thead>
<tr>
<th>SETTING</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condition</td>
<td>Price v. Destination</td>
</tr>
<tr>
<td>Method Name</td>
<td>Free Shipping</td>
</tr>
<tr>
<td>Ship to Applicable Countries</td>
<td>Specific Countries</td>
</tr>
<tr>
<td>Ship to Specific Countries</td>
<td>Select only United States</td>
</tr>
<tr>
<td>Show method if not applicable</td>
<td>No</td>
</tr>
</tbody>
</table>

3. Set **Store View** to the main website. Then, tap [Import] to import the table rates.csv file.
Dimensional Weight

Dimensional weight, sometimes called volumetric weight, is a common industry practice that bases the transportation price on a combination of weight and package volume. In simple terms, dimensional weight is used to determine the shipping rate based on the amount of space a package occupies in the cargo area of the carrier. Dimensional weight is typically used when a package is relatively light compared to its volume.

All major carriers now apply dimensional weight to some shipments. However, the manner in which dimensional weight pricing is applied varies from one carrier to another.

- DHL
- FedEx
- UPS
- USPS

We recommend that you become familiar with the method used by each carrier to determine and apply dimensional weight. If your company has a high volume of shipments, even a slight difference in shipping price can translate to thousands of dollars over the course of a year. Magento’s native shipping configuration does not include support for dimensional weight.
CHAPTER 60: Carriers

If you have a commercial account with a supported carrier, you can offer your customers the convenience of choosing that carrier during checkout. The rates are automatically downloaded, so you do not need to look up the information.

Before you can offer your customers a selection of shipping carriers, you must first complete the shipping settings to establish the point of origin for your store. Then, complete the configuration for each carrier service that you want to offer. The configuration options vary for each carrier. However, all require that you first open a shipping account with the carrier, and enter your account number or user ID, and the gateway URL to their system into the configuration of your store. See Magento Connect for additional shipping services for your Magento Commerce installation.
See the online user guide for step-by-step configuration instructions for the following carriers:

**UPS**

United Parcel Service offers domestic and international shipping services by land and air to more than 220 countries.

**USPS**

The United States Postal Service is the independent postal service of United States government. USPS offers domestic and international shipping services by land and air.

**FedEx**

Offers domestic and international shipping services by land and air to more than 220 countries.

**DHL**

Offers integrated international services and tailored, customer-focused solutions for managing and transporting letters, goods and information.
CHAPTER 61: Shipping Labels

Magento Commerce includes a high level of integration with major shipping carriers, which gives you access to carrier shipping systems to track orders, create shipping labels, and more. Shipping labels can be created for regular shipments and products with return merchandise authorization. In addition to the information provided by the shipping carrier, the label also includes the Magento order number, number of the package, and the total quantity of packages for the Magento shipment.
Shipping Label Workflow

Shipping labels can be produced at the time a shipment is created, or later. Shipping labels are stored in PDF format and are downloaded to your computer.

1. **Administrator submits shipping label request.** The store Administrator completes the information necessary to generate labels, and submits the request.

2. **Request sent to carrier.** Magento contacts the shipping carrier, and creates an order in the carrier’s system. A separate order is created for each package that is shipped.

3. **Carrier sends label and tracking number.** The carrier sends the shipping label and tracking number for the shipment.
   - A single shipment with multiple packages receives multiple shipping labels.
   - If you generate the same shipping labels multiple times, the original tracking numbers are preserved.
   - For returned products with RMA numbers, the old tracking numbers are replaced with new ones.

4. **Administrator downloads and prints the label.** After the shipping label is generated, the new shipment is saved and the label can be printed. If the shipping label cannot be created due to problems with the connection or any other reason, the shipment is not created.

   Depending on your browser settings, the PDF file can be opened and printed. Each label appears on a separate page in the PDF.
Configuring Shipping Labels

The following settings must be made at the product level, as well as in the configuration of each carrier that is used to print labels. To print labels, all carriers require that you open an account. Then, complete the configuration in your store for each carrier that you plan to use.

Step 1: Verify the Country of Manufacture

The country of manufacture is required for all products that are shipped internationally by USPS and FedEx. If you have many products that need to be updated, you can either import the updates, or use the Inventory grid to update multiple records.

1. On the Admin sidebar, tap Products. Then under Inventory, choose Catalog.

Method 1: Update a Single Record

a. In the grid, find the product to be updated, and open in edit mode.

b. In the panel on the left under Advanced Settings, choose Autosettings.

c. Update the Country of Manufacture field.

d. When complete, tap Save.
Method 2: Update Multiple Records

a. In the grid, mark the checkbox of each product to be updated. For example, all products that are manufactured in China.

b. Set the Actions control to “Update Attributes.” Then, tap Submit.

c. In the Update Attributes form, find the Country of Manufacture field and mark the Change checkbox. Then, choose the country.

d. When complete, tap Save.

Step 2: Verify the Store Information

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left, under Sales, choose Shipping Settings. Then, do the following:

   a. Expand the Origin section, and verify that the following fields are complete:

      Street Address The street address of the place from which shipments are sent. For example, the location of your company or warehouse. This field is required for shipping labels.

      Street Address Line 2 Any additional address information, such as the floor, entrance and so on. We strongly recommend that you use this field.

   b. In the panel on the left under Sales, choose Shipping Methods. Then, expand the USPS section, and verify that the following fields are complete:
Secure Gateway URL
Magento automatically enters the gateway URL.

Password
The password is provided by USPS, and gives you access to their system through Web Services.

Length, Width Height, Girth
The default dimensions of the package. To make these fields appear, set Size to “Large.”

c. Expand the FedEx section, and verify that the following fields are complete:

- Meter Number
- Key
- Password

This information is provided by the carrier, and is required to gain access to their system through Web Services.

d. In the panel on the left under General, choose General. Expand the Store Information section, and verify that the following fields are complete:

- Store Name
  The name of the store or store view.

- Store Contact Telephone
  The telephone number of the primary contact for the store or store view.

- Country
  The country where your store is based.

- VAT Number
  If applicable the Value Added Tax number of your store. (Not required for stores based in the U.S.)

- Store Contact Address
  The street address of the primary contact for the store or store view.

e. If you have multiple stores, and the contact information differs from the default, set Store View for each, and verify that the information is complete. If the information is missing, you’ll get an error when you try to print the labels.
3. When complete, tap **Save Config**.

### Carrier Requirements

<table>
<thead>
<tr>
<th>CARRIER</th>
<th>REQUIREMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>USPS</td>
<td>Requires a USPS account.</td>
</tr>
<tr>
<td>UPS</td>
<td>Requires a UPS account. Shipping labels are available only for shipments that originate in the U.S. Specific credentials are required for stores outside the US.</td>
</tr>
<tr>
<td>FedEx</td>
<td>Requires a FedEx account. For stores outside of the U.S., shipping labels are supported for international shipments only. FedEx does not allow domestic shipments that originate outside of the U.S.</td>
</tr>
<tr>
<td>DHL</td>
<td>Requires a DHL account. Shipping labels are supported only for shipments that originate in the U.S.</td>
</tr>
</tbody>
</table>
Creating Shipping Labels

To create shipping labels, you must first set up your shipping carrier account to support labels. Then, follow the prompts to enter a description of the package and its contents.

**Process Overview:**

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Contact Your Shipping Carriers</td>
</tr>
<tr>
<td>2.</td>
<td>Update the Configuration for Each Carrier</td>
</tr>
<tr>
<td>3.</td>
<td>Create Shipping Labels</td>
</tr>
<tr>
<td>4.</td>
<td>Print the Labels</td>
</tr>
</tbody>
</table>

**Step 1: Contact Your Shipping Carriers**

Before you begin, make sure that your shipping accounts are set up to process labels. Some carriers might charge an additional fee to add shipping labels to your account.

1. Contact each carrier that you use to activate shipping labels for your store.

2. Follow the instructions provided by each carrier to add shipping label support to your account.

   - **FedEx** Contact [FedEx Web Services](https://www.fedex.com) regarding their label evaluation process.
   - **USPS** Contact uspstechsupport@esecurecare.net to request that API Signature Confirmation V3 be enabled for your live USPS API Access account.
   - **UPS** Contact [UPS](https://www.ups.com) to confirm your account type supports shipping labels. To generate shipping labels, you must use the UPS XML option.
   - **DHL** Contact the [DHL Resource Center](https://www.dhl.com) to learn more about their services or send an inquiry through their Contact Center.

**Step 2: Update the Configuration for Each Carrier**

1. Make sure that your Store Information is complete.

2. Follow the instructions below for each carrier account that has been activated for label printing.
**UPS Configuration**

United Parcel Service ships both domestically and internationally. However, shipping labels can be generated only for shipments that originate within the United States.

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Shipping Methods**.
3. Expand the **UPS** section. Then, verify that your **UPS Shipper Number** is correct. Your Shipper Number appears only when United Parcel Service XML is enabled.
4. When complete, tap **Save Config**.

**USPS Configuration**

The United States Postal Service ships both domestically and internationally.

1. Continuing in the **Shipping Methods** configuration, expand the **USPS** section. Then, do the following:
   a. Verify that the **Secure Gateway URL** is entered. The correct URL should be entered automatically.
   b. Enter the **Password** provided to you by USPS.
   c. Set **Size** to “Large.” Then, enter the following dimensions:
      - Length
      - Width
      - Height
      - Girth
2. When complete, tap **Save Config**.
FedEx Configuration

FedEx ships domestically and internationally. Stores located outside the United States can create FedEx labels for international shipments only.

1. Continuing in the Shipping Methods configuration, expand the FedEx section. Then, make sure that the following FedEx credentials are correct:
   - Meter Number
   - Key
   - Password

2. When complete, tap Save Config.

DHL Configuration

DHL provides international shipping services.

1. Continuing in the Shipping Methods configuration, expand the DHL section. Then, do the following:
   a. Verify that the Gateway URL is entered. The correct URL should be entered automatically.
   b. Make sure that the following credentials are complete:
      - Access ID
      - Password
      - Account Number

2. When complete, tap Save Config.
Step 3: Create Shipping Labels

Process Overview:
Method 1: Create Label for New Shipment
Method 2: Create Label for Existing Shipment

Method 1: Create Label for New Shipment

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.

2. Find the order in the grid, and open the record. The status of the order must be either “Pending” or “Processing.”

3. In the upper-right corner, tap Ship. Then, confirm the shipping information according to carrier requirements.

4. In the lower-right corner, mark the Create Shipping Label checkbox. Then, tap Submit Shipment, and do the following:
   a. To add products from the order to the package, tap Add Products. The Quantity column shows the maximum number of products that are available for the package.
   b. Mark the checkbox of each product to be added to the package, and enter the Quantity of each. Then, tap Add Selected Product(s) to Package.

   - To add a new package, tap Add Package.
   - To delete a package, tap Delete Package.

   If you use a package type other than the default, or require a signature, the cost of shipping might differ from what you have charged the customer. Any difference in the cost of shipping is not reflected in your store.

5. When complete, tap OK.

If you need to cancel an order, tap Cancel. A shipping label will not be created, and the Create Shipping Label checkbox is cleared.

Magento connects to the shipping carrier system, submits the order, and receives a shipping label and tracking number for each package.

   - If the label is successfully created, the shipment is submitted, the tracking number appears in the form, and the label is ready to print.
   - If the carrier cannot create the label due to the problems with connection, or for any other reason, the shipment is not processed.
Method 2: Create Label for Existing Shipment

1. On the Admin sidebar, tap Sales. Then under Operations, choose Orders.
2. Find the order in the grid, and open the Shipping form. Then, do the following:
   a. In the Shipping and Tracking Information section, tap Create Shipping Label.
   b. Distribute the ordered product(s) to the appropriate package(s), and tap OK.
   c. To review the package information, tap Show Packages.

Magento connects to the shipping carrier system, submits an order, and receives a shipping label and a tracking number.

If a shipping label for this shipment already exists in the system, it is replaced with a new one. However, existing tracking numbers are not replaced. Any new tracking number is added to the existing one.

Step 4: Print the Labels

Shipping labels are generated in PDF format, and can be printed from the Admin. Each label includes the order number and package number.

Because an individual shipment order for each package is created, multiple shipping labels might be received for a single shipment.

Process Overview:
Method 1: Print Label from Shipment Form
Method 2: Print Labels for Multiple Orders
Method 1: Print Label from Shipment Form

1. On the Admin sidebar, tap Sales. Then, do one of the following:
   - Choose Orders. Find the order in the grid, and open the record. In the panel on the left, choose Shipments. Then, open the shipment record.
   - Choose Shipments. Find the order in the grid, and open the record.

2. To download the PDF file, go to the Shipping and Tracking section of the form, and tap **Print Shipping Label**. Depending on your browser settings, the shipping labels can be viewed and printed directly from the PDF file.

   The Print Shipping Label button appears only after the carrier generates labels for the shipment. If the button is missing, click **Create Shipping Label**. The button appears after Magento receives the label from the carrier.

Method 2: Print Labels for Multiple Orders

1. On the Admin sidebar, tap Sales. Then, choose one of the following:
   - Orders
   - Shipments

2. In the grid, mark the checkbox of each order with shipping labels to be printed.

3. Set the Actions control to "Print Shipping Labels."

4. Tap **Submit**.

   A complete set of shipping labels is printed for each shipment that is related to the selected orders.

Required Carrier Configuration Settings

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Package types differ by carrier and method. The default package type for each carrier is initially selected. USPS does not require the package type for domestic shipments.</td>
</tr>
<tr>
<td>Customs Value</td>
<td>(International shipments only) The declared value or sales price of the contents of an international shipment.</td>
</tr>
<tr>
<td>Total Weight</td>
<td>The total weight of all products added to the package is calculated automatically. The value can also be changed manually, and entered as pounds or kilograms.</td>
</tr>
<tr>
<td>Length, Width, Height</td>
<td>(Optional) The package dimensions are used for custom packages only. You can specify the measurements units as inches or centimeters.</td>
</tr>
</tbody>
</table>
### Required Carrier Configuration Settings (cont.)

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Required</td>
<td>No confirmation of delivery is sent to the store by the shipping carrier.</td>
</tr>
<tr>
<td>No Signature</td>
<td>A delivery confirmation without the signature of the recipient is sent to the store by the shipping carrier.</td>
</tr>
<tr>
<td>Signature Required</td>
<td>The shipping carrier obtains the signature of the recipient and provides the store with a printed copy.</td>
</tr>
<tr>
<td>Direct</td>
<td>(FedEx Only) FedEx obtains a signature from someone at the delivery address. If no one is available to sign for the package, the carrier tries to deliver the package at another time.</td>
</tr>
<tr>
<td>Indirect</td>
<td>(FedEx Residential Deliveries Only) FedEx obtains the signature of someone, possibly a neighbor or building manager, at the delivery address. The recipient can leave a signed FedEx door tag to authorize the package to be left without anyone present to sign for it.</td>
</tr>
<tr>
<td>Contents</td>
<td>(USPS Only) Select one of the following descriptions of the package: Gift, Documents, Commercial Sample, Returned Goods, Merchandise, Other</td>
</tr>
<tr>
<td>Explanation</td>
<td>(USPS Only) A detailed description of the package contents.</td>
</tr>
<tr>
<td>Adult Required</td>
<td>The shipping carrier obtains the signature of an adult recipient and provides the store with a printed copy.</td>
</tr>
</tbody>
</table>
Label Packages

The Create Packages window appears when you choose to create a shipping label. You can start configuring the first package immediately.

To configure a package:

1. Complete the fields as described below.

   If you select the non-default value in the Type field or choose to require a signature confirmation, the price of a shipment may differ from the one you charged to the customer.

2. To view a list of shipped products and add them to the package, tap **Add Products**.

   The Qty column shows the maximum quantity that is available to add. For the first package, the number is the total quantity of the product to be shipped.

3. Specify the products and quantities. To add the products to the package, tap **Add Selected Product(s) to Package**.

   - To add a new package, tap **Add Package**. You can add several packages, and edit them at the same time.
   - To delete a package, tap **Delete Package**.

   After products are added to the package, the quantity cannot be edited directly.

To increase the quantity:

1. Tap **Add Selection**.

2. Enter the additional quantity.

   The number is added to the previous quantity of the product in the package.
To decrease the quantity:

1. Delete the product from the package.

2. Tap **Add Selection**.

3. Enter the new, smaller value.

After you distribute all products, the total number of the packages you are going to use equals the number of the last package in the list. The OK button is disabled until all shipped items are distributed to packages, and all necessary information is complete.

4. When complete, tap **OK** to generate the labels.

   If you need to stop the process, tap **Cancel**. The packages are not saved, and the shipping label process is canceled.
# Field Descriptions

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Specifies the type of a package. Select one of the predefined values. Available package types are different for each shipping carrier. When the Create Packages pop-up window opens, the default package for the shipping carrier appears in the Type field. If you select a package that is not designed by a shipping carrier, you must enter the dimensions of the package. For shipping labels created for DHL, FedEx, and UPS shipments, the “Type of Goods” field is set to “Merchandise.” For USPS, the Type field reflects the value from the Contents field in the Create Packages window.</td>
</tr>
<tr>
<td>Total Weight</td>
<td>The total weight of a package. The field is pre-populated with the total weight of products in a package. The unit of measurement can be set to either pounds or kilograms.</td>
</tr>
<tr>
<td>Length</td>
<td>The length of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The unit of measurement can be set to either inches or centimeters.</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>The width of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The measurement units can be specified using the drop-down menu next to the Height field; select between inches and centimeters.</td>
</tr>
<tr>
<td>Height</td>
<td>The height of a package, integer and floating point numbers. The field is enabled if the custom package type is used. The measurement units can be specified using the drop-down menu next to the Height field; select between inches and centimeters.</td>
</tr>
<tr>
<td>Signature</td>
<td>Confirmation Defines delivery confirmation. Options:</td>
</tr>
<tr>
<td></td>
<td>Not Required</td>
</tr>
<tr>
<td></td>
<td>No Signature</td>
</tr>
<tr>
<td></td>
<td>Signature Required</td>
</tr>
<tr>
<td></td>
<td>Adult Required</td>
</tr>
<tr>
<td></td>
<td>Direct (FedEx only)</td>
</tr>
<tr>
<td></td>
<td>Indirect (FedEx only)</td>
</tr>
</tbody>
</table>
### Field Descriptions (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>(Available for USPS shipments only) Description of the package contents. Options: Gift Documents Commercial Sample Returned Goods Merchandise Other</td>
</tr>
<tr>
<td>Explanation</td>
<td>(USPS shipments only) Detailed description of the package content.</td>
</tr>
</tbody>
</table>
Contents

In this section of the guide, you will learn how to filter data and online generate reports. The report data can be opened in a spreadsheet or imported into other applications.
CHAPTER 62: Reports Menu

Magento Commerce provides a wide selection of reports to keep you informed on your marketing efforts, sales products, and customer activity. The Reports menu provides easy access to current information about your sales, products, customers, and promotions.

To display the Reports menu:
On the Admin sidebar, tap Reports.
Menu Options

Marketing Reports

A selection of marketing reports, including Products in Cart, Search Terms, Abandoned Carts, and Newsletter Problem Reports.

Review Reports

The selection of product review reports includes By Customer and By Product.

Sales Reports

The selection of sales reports includes Orders, Tax, Invoiced, Shipping, Refunds, Coupons, and PayPal Settlement.

Customer Reports

The selection of customer reports includes Order Total, Order Account, and New.

Product Reports

The selection of product reports includes Views, Bestsellers, Low Stock, Ordered, and Downloads.

Statistics

Statistics is a tool that reduces the performance impact of generating reports by calculating and storing statistical data. Rather than recalculate the statistics every time a report is generated, the stored statistics are used until you refresh the statistics.
Refresh Statistics

To reduce the performance impact of generating sales reports, Magento calculates and stores the required statistics for each report. Rather than recalculate the statistics every time a report is generated, the stored statistics are used, unless you refresh the statistics. To include the most recent data, the report statistics must be refreshed before a sales report is generated.

To refresh report statistics:

1. On the Admin sidebar, tap Reports. Then under Statistics, choose Refresh Statistics.
2. In the list, mark the checkbox of each report to be refreshed.
3. Set the Actions control to one of the following:
   - Refresh Lifetime Statistics
   - Refresh Statistics for the Last Day
4. When complete, tap Submit.
CHAPTER 63:
Marketing Reports

Marketing reports provide information about the status of shopping carts, the use of search terms, and newsletter transmissions.
Reports

Products in Cart

The Products in Cart Report lists all products currently in shopping carts, and includes the name and price of each item, the number of carts with the item, and the number of times each item has been ordered.

Search Terms

The Search Terms Report shows what your customers are looking for in each store view. The report includes the number of matching items found in the catalog, and how many times the search term has been used.

Abandoned Carts

The Abandoned Carts Report lists all registered customers who have abandoned carts that have not yet expired. The report includes the customer name and email address, the number of products in the cart and subtotal, the date created, and date last updated.

Newsletter Problems

The Newsletter Problems Report includes information about any newsletter queue that failed to transmit successfully. The report includes the name of each subscriber, and queue date and subject, the information about the error.
CHAPTER 64:
Review Reports

The Review Reports provide information about product reviews by customer and by product.

- By Customers
- By Products

![Review Report by Product](image-url)
Reports

By Customers

The Customer Reviews Report lists all customers who have submitted product reviews. The report includes the number of reviews submitted by each customer, and a link to the list of reviews.

By Products

The Product Reviews Report lists all products that have been reviewed by customers. The report includes the number of reviews and average rating, the product was last reviewed, and a link to the list of reviews for each product.
CHAPTER 65:

Sales Reports

The selection of sales reports includes Orders, Tax, Invoiced, Shipping, Refunds, Coupons, and PayPal Settlement.
Reports

Orders

The Orders Report can be filtered by time interval, date and status. The report includes the number of orders placed and canceled, with totals for sales, amounts invoiced, refunded, tax collected, shipping charged, and discounts.

Tax

The Tax Report can be filtered by time interval, date, and status. The report includes the tax rule applied, tax rate, number of orders, and amount of tax charged.

Invoiced

The Invoice Report can be filtered by time interval, date, and status. The report includes the number of orders and invoices during the time period, with amounts invoiced, paid, and unpaid.
Shipping

The Shipping Report can be filtered by time interval, date, and status. The report includes the number of orders for carrier or shipping method used, with amounts for total sales shipping and and total shipping.

Refunds

The Refunds Report can be filtered by time interval, date, and status. The report includes the number of refunded orders, and total amount refunded online and offline.

Coupons

The Coupons Report can be filtered by time interval, date, and status. The report includes each coupon code used during the specified time interval, related price rule, and number of times used with totals and subtotals for sales and discounts.

PayPal Settlement

The PayPal Settlement Report can be filtered by date, merchant account, transaction ID, invoice ID, or PayPal reference ID. The report includes the type of event, such as a debit card transaction, the start and finish dates, gross amount, and related fees. The report can be automatically updated with the most current data from PayPal.
CHAPTER 66: Customer Reports

Customer reports provide insight into customer activity during a specified period of time or date range.

Order Total Report
Reports

**Order Total**

The Order Total Report shows customer orders for a specified time interval or date range. The report includes the number of orders per customer, average order amount, and total amount.

**Order Count**

The Order Count Report shows the number of orders per customer for a specified time interval or date range. The report includes the number of orders per customer, average order amount, and total amount.

**New Accounts**

The New Accounts Report shows the number of new customer accounts opened during a specified time interval or date range.
CHAPTER 67:

Product Reports

The product reports give you insight regarding products viewed and ordered, bestsellers, stock levels, and downloads.
Reports

Product Views

The Product Views Report shows the products that have been viewed during a time interval or range of dates. The report includes the product name, price, and number of views.

Bestsellers

The Bestsellers Report shows the five top-selling five during an interval of time or date range. The report includes the product name, price, and quantity ordered.

Low Stock

The Low Stock Report lists all products with stock levels within a specified range.
Ordered Products

The Ordered Products Report lists all products ordered for a specified time interval or date range. The report includes the product name and quantity ordered.

Downloads

The Downloads Report lists all downloads during the specified time interval or date range. The report includes the product name, download link, and SKU, with the number of purchases and downloads.
CHAPTER 68:

New Relic Reporting

New Relic is a SaaS based subscription service that provides detailed real-time visibility into business and performance metrics for data-driven decision making.

Step 1: Sign Up for a New Relic Account

1. Visit the New Relic website, and sign up for an account. You can also sign up for a free trial account.
2. Follow the instructions on the site. When prompted choose the product that you want to install first.
3. While you are in your account, locate the following credentials that you will need to complete the configuration:

   **Account ID**  
   From your New Relic account dashboard, the Account ID is the number in the URL after: /accounts

   **Application ID**  
   From your New Relic account dashboard, tap New Relic APM. In the menu, choose Applications. Then, choose your application. The Application ID is the number in the URL after: /applications/

   **New Relic API Key**  
   From your New Relic account dashboard, tap Account Settings. In the menu on the left under Integrations, choose Data Sharing. Your API key can be created, regenerated, or deleted from this page.

   **Insights API Key**  
   From your New Relic account dashboard, tap Insights. In the menu on the left under Administration, choose API Keys. Your Insights API Key(s) appear on this page. If necessary, click the plus sign (+) next to Insert Keys to generate a key.

Step 2: Install the New Relic Agent on Your Server

To use New Relic APM Pro to gather and transmit data, the PHP agent must be installed on your server.

1. When prompted to choose a web agent, tap PHP.
2. Follow the instructions to set up the PHP agent on your server. If you need help, see: New Relic for PHP.
3. Make sure that cron is running on your server. To learn more, see: Configure and run cron.

**Step 3: Configure Your Store**

1. On the Admin menu, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **General**, choose **New Relic Reporting**. Then, do the following:

   ![New Relic Reporting](image)

   **New Relic Reporting**

   a. Set **Enable New Relic Integration** to “Yes.”

   b. In the **Insights API URL**, replace the percent (%) symbol with your New Relic Account ID.

   c. Enter your **New Relic Account ID**.

   d. Enter your **New Relic Application ID**.

   e. Enter your **New Relic API Key**.

   f. Enter your **Insights API Key**.

3. In the **New Relic Application Name** field, enter a name to identify the configuration for internal reference.

4. When complete, tap **Save Config**.
Step 4: Enable Cron for New Relic Reporting

1. Expand the Cron section.

2. Set Enable Cron to "Yes."

3. When complete, tap Save Config.

New Relic Queries

New Relic Insights data is based on statements that are written in New Relic Query Language (NRQL), as well as any custom parameters that you might include. Data can be returned from adhoc queries, or by queries saved to your dashboard. To learn more, see the NRQL Reference in the New Relic documentation.

Admin Events

Active Admin Users
Widget Name: Active Admin Users
Description: Returns the number of active admin users.

```
SELECT uniqueCount(AdminId)
FROM Transaction
WHERE appName='<your_app_name>' SINCE 15 minutes ago
```

Currently Active Admins
Widget Name: Currently Active Admins
Description: Returns the names of active admin users.

```
SELECT uniques(AdminName)
FROM Transaction
WHERE appName='<your_app_name>' SINCE 15 minutes ago
```
Recent Admin Activity
Widget Name: Recent Admin Activity
Description: Returns the number of recent admin actions.

```
SELECT count(AdminId)
FROM Transaction
WHERE appName = '<your_app_name>' FACET AdminName SINCE 1 day ago
```

Latest Admin Activity
Widget Name: Latest Admin Activity
Description: Returns detail information about recent admin actions, including the admin username, duration, and application name.

```
SELECT AdminName, duration, name
FROM Transaction
WHERE appName = '<your_app_name>' AND AdminName IS NOT NULL
AND AdminName != 'N/A' LIMIT 50
```

Cron Events

Category Count
Widget Name: Category Count
Description: Returns the number of application events by category during the specified time period.

```
SELECT average(CatalogCategoryCount)
FROM Cron
WHERE CatalogCategoryCount IS NOT NULL
AND appName = '<your_app_name>' TIMESERIES 2 minutes
```

Current Catalog Count
Widget Name: Current Catalog Count
Description: Returns the average number of application events in the catalog by category during the specified time period.

```
```
**Active Products**

**Widget Name:** Active Products

**Description:** Returns the number of application events by product during the specified time period.

```
SELECT average(CatalogCategoryCount)
FROM Cron
WHERE CatalogCategoryCount IS NOT NULL
AND CatalogCategoryCount > 0
AND appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```

**Active Product Count**

**Widget Name:** Active Product Count

**Description:** Returns the average number of active application events by product during the specified time period.

```
SELECT average(CatalogProductActiveCount)
FROM Cron
WHERE CatalogProductActiveCount IS NOT NULL
AND appName = '<your_app_name>' TIMESERIES 2 minutes
```

**Configurable Products**

**Widget Name:** Configurable Products

**Description:** Returns the average number of application events for configurable products during the specified time period.

```
SELECT average(CatalogProductConfigurableCount)
FROM Cron
WHERE CatalogProductActiveCount IS NOT NULL
AND CatalogProductActiveCount > 0
AND appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```
WHERE CatalogProductConfigurableCount IS NOT NULL
AND appName = '<your_app_name>' TIMESERIES 2 minutes

**Configurable Product Count**

**Widget Name:** Configurable Product Count  
**Description:** Returns the average number of application events by configurable product during the specified time period.

```sql
SELECT average(CatalogProductConfigurableCount)
FROM Cron
WHERE CatalogProductConfigurableCount IS NOT NULL
AND CatalogProductConfigurableCount > 0
AND appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```

**Product Count (all)**

**Widget Name:** Product Count (all)  
**Description:** Returns the total number of application events for all products.

```sql
SELECT average(CatalogProductCount)
FROM Cron
WHERE CatalogProductCount IS NOT NULL
AND appName = '<your_app_name>' TIMESERIES 2 minutes
```

**Current Product Count (all)**

**Widget Name:** Current Product Count (all)  
**Description:** Returns the average number of application events for all products during the specified time period.

```sql
SELECT average(CatalogProductCount)
FROM Cron
WHERE CatalogProductCount IS NOT NULL
AND CatalogProductCount > 0
AND appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```
**Customer Count**

**Widget Name:** Customer Count  
**Description:** Returns the average number of application events by customer.

```
SELECT average(CustomerCount)  
FROM Cron  
WHERE CustomerCount IS NOT NULL  
AND CustomerCount > 0  
AND appName = '<your_app_name>' TIMESERIES 2 minutes
```

**Current Customer Count**

**Widget Name:** Current Customer Count  
**Description:** Returns the average number of customers during the specified time period.

```
SELECT average(CustomerCount)  
FROM Cron  
WHERE CustomerCount IS NOT NULL  
AND CustomerCount > 0  
AND appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```

**Module Status**

**Widget Name:** Module Status  
**Description:** Returns the average number of times application modules are enabled, disabled, or installed during the specified time period.

```
SELECT average(ModulesDisabled), average(ModulesEnabled), average(ModulesInstalled)  
FROM Cron  
WHERE appName = '<your_app_name>' TIMESERIES 2 minutes
```
Current Module Status

**Widget Name:** Current Module Status  
**Description:** Returns the average number of times modules were enabled, disabled, or installed during the specified time period.

```
SELECT average(ModulesDisabled), average(ModulesEnabled), average(ModulesInstalled)
FROM Cron
WHERE appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```  

Website and Store Counts

**Widget Name:** Website and Store Counts  
**Description:** Returns the average number of application events by website and store during the specified time period.

```
SELECT average(StoreViewCount), average(WebsiteCount)
FROM Cron
WHERE appName = '<your_app_name>' TIMESERIES 2 minutes
```  

Current Website and Store Counts

**Widget Name:** Current Website and Store Counts  
**Description:** Returns the average number of current application events during the specified time period.

```
SELECT average(StoreViewCount), average(WebsiteCount)
FROM Cron
WHERE appName = '<your_app_name>' SINCE 2 minutes ago LIMIT 1
```  

Cron - All Data from Event

**Widget Name:** Cron - All Data from Event  
**Description:** Returns all application event data.

```
SELECT *
```
FROM Cron
WHERE appName = '<your_app_name>'

**Customers**

**Active Customer Count**

Widget Name:  Active Customer Count  
Description:  Returns the number of active customers during the specified time period.

```sql
SELECT uniqueCount(CustomerId)
FROM Transaction
WHERE appName = '<your_app_name>' SINCE 15 minutes ago
```

**Active Customers**

Widget Name:  Active Customers  
Description:  Returns the names of active customers during the specified time period.

```sql
SELECT uniques(CustomerName)
FROM Transaction
WHERE appName='<your_app_name>' SINCE 15 minutes ago
```

**Top Customers**

Widget Name:  Top Customers  
Description:  Returns the top customers during the specified time period.

```sql
SELECT count(CustomerId)
FROM Transaction
WHERE appName = '<your_app_name>' FACET CustomerName SINCE 1 day ago
```

**Recent Admin Activity**

Widget Name:  Recent Admin Activity  
Description:  Returns a defined number of records of recent activity, that include the customername and duration of visit.

```sql
SELECT * FROM AdminActivity
WHERE appName = '<your_app_name>' SINCE 1 day ago
```
SELECT CustomerName, duration, name
FROM Transaction
WHERE appName='<your_app_name>'
AND CustomerName IS NOT NULL
AND CustomerName != 'N/A' LIMIT 50

Orders

Number of Orders Placed

Widget Name: Number of Orders Placed
Description: Returns the number of orders placed during the specified time period.

SELECT count(`Order`) FROM Transaction SINCE 1 day ago

Total Order Value

Widget Name: Total Order Value
Description: Returns the total number of line items ordered during the specified time period.

SELECT sum(LineItemCount) FROM Transaction SINCE 1 day ago

Total Line Items Ordered

Widget Name: Total Line Items Ordered
Description: Returns the total number of line items ordered during the specified time period.

SELECT sum(LineItemCount) FROM Transaction SINCE 1 day ago
OPERATIONS
Stores

In this section of the guide, you'll learn how to set up a store hierarchy, create attributes, and manage the settings used by each store to calculate taxes, and currency rates.
Updating Currency Rates

Attributes

Product Attributes
  Creating an Attribute
  Attribute Sets
CHAPTER 69:

Stores Menu

The Stores menu manages settings that are used less frequently, but referenced throughout your Magento installation, including setting up the store hierarchy, configuration, sales and order settings, tax and currency, product attributes, product review ratings, and customer groups.

To display the Stores menu:
On the Admin sidebar, tap **Stores**.
Menu Options

All Stores
Manage the hierarchy of websites, stores and store views in your Magento installation, and all configuration settings. In addition, you can set up the Terms and Conditions of a sale, and manage order status settings.

Taxes
Set up the tax rules for your store, define customer and product tax classes, and manage tax zones and rates. You can also import tax rate data into your store.

Currency
Manage the rates for the currencies that are accepted as payment in your store, and customize the currency symbols that appear in product prices and sales documents.

Attributes
Manage attributes that are used for product information and product ratings. You can create new attributes, edit existing attributes, and manage attribute sets.

Other Settings
Manage the tax class that is assigned to each customer group.
CHAPTER 70: All Stores

When Magento Commerce is installed, a hierarchy that includes a main website, store, and store view is created. You can create additional websites, stores, and store views, as needed. For example, in addition to your main website, you might have an additional website with a different domain. Within each website, you can have multiple stores, and within each store, separate store views. Many installations have one website and one store, but with multiple store views to support different languages.

Before you begin, plan your store hierarchy in advance because it is referred to throughout the configuration. Each store can have a separate root category, which makes it possible to have an entirely different set of main menu options for each store.

*Store Hierarchy*
Adding Store Views

Store views are typically used to make the store available in different locales. Shoppers can use the language chooser in the header of the store to change the store view.

To create a new store view:

1. On the Admin sidebar, tap Stores. Then under Settings, choose All Stores.

2. Tap Create Store View. Then, do the following:
Store View Information

a. Set Store to the parent store of this view.

b. Enter a Name for this store view. The name appears in the language chooser in the store header. For example: Spanish.

c. Enter a Code in lowercase characters to identify the view. For example: spanish.

d. To activate the view, set Status to “Enabled.”

e. (Optional) Enter a Sort Order number to determine the sequence in which this view is listed with other views.

3. When complete, tap Save Store View.
Editing a Store View

Because the view name appears in the language choosers, you might eventually want to change the name of the default view to something more descriptive. The Name field is simply a label, and can be easily changed.

If your Magento installation has a multisite or multistore setup, do not change the store Code field without verifying that the value is not referenced in the index.php file. If you do not have access to the server to examine the file, ask a developer for help.

<table>
<thead>
<tr>
<th>FIELD</th>
<th>ORIGINAL VALUE</th>
<th>UPDATED VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Default Store View</td>
<td>English</td>
</tr>
<tr>
<td>Code</td>
<td>default</td>
<td>english</td>
</tr>
</tbody>
</table>

**To edit a store view:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **All Stores**.

2. In the **Store View** column of the grid, click the name of the view that you want to edit.

   When editing the default view, the Store and Status fields are not available.

![Editing the Default View](image-url)
3. Update the following fields as applicable:
   - Store (non-default views only)
   - Name
   - Code (only if not used in `index.php`)
   - Status (non-default views only)
   - Sort Order

4. When complete, tap **Save Store View**.
Adding a Language

Most of the text that appears to be hard-coded on pages throughout your store can be instantly changed to a different language by changing the locale of the view. Changing the locale doesn’t actually translate the text word-for-word, but simply references a different translation table that provides the interface text that is used throughout the store. The text that can be changed includes navigational titles, labels, buttons, and links such as “My Cart” and “My Account.” You can also use the Inline Translation tool to touch up text in the interface.

Language packs can be found under "Translations & Localization" on Magento Marketplace. New extensions are continually added to Marketplace, so check back often!

**Step 1: Install a Language Pack**

Follow the standard instructions to install the language pack extension from Component Manager.

**Step 2: Create a Store View for the Language**

1. On the Admin sidebar, tap Stores. Then under Settings, choose All Stores.

2. Tap Create Store View. Then, do the following:
   a. Choose the Store that is the parent of the view.
   b. Enter a Name for the store view. For example: Portuguese.
      In the header of the store, the name appears in the “language chooser.”
   c. Enter a Code in lowercase characters to identify the view. For example: portuguese.
   d. To activate the view, set Status to “Enabled.”
   e. (Optional) Enter a Sort Order number to determine the sequence in which this view is listed with other views.

3. When complete, tap Save Store View.
Step 3: Change the Locale of the Store View

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the upper-left corner, set Store View to the specific view where the configuration is to apply. When prompted to confirm scope switching, tap OK.

3. Expand the Locale Options section.

4. Clear the Use Website checkbox after the Locale field. Then, set Locale to the language that you want to assign to the view.

   If there are several variations of the language available, make sure to choose the one for the specific region or dialect.

5. When complete, tap Save Config.

   After you change the language of the locale, the remaining content that you have created, including product names and descriptions, categories, CMS pages, and blocks must be translated separately for each store view.
Translating Products

If your store has multiple views in different languages, the same products are available in each store view. You can use the same basic product information, such as SKU, price, and inventory level, regardless of language. Then, translate only the product name, description fields, and meta data as needed for each language.

Process Overview:
Step 1: Translate Product Fields
Step 2: Translate Field Labels
Step 3: Translate All Categories

Step 1: Translate Product Fields

1. On the Admin sidebar, tap Products. Then under Inventory, choose Catalog.
2. In the grid, find the product to be translated, and open in edit mode.
3. In the upper-left corner set Store View to the view for the translation. When prompted to confirm, tap OK.
4. For each field to be edited, do the following:
   a. Clear the Use Default Value checkbox to the right of the field.
   b. Either paste or type the translated text into the field.

Make sure to translate all text fields, including image labels and Alt text, Search Engine Optimization fields and any Custom Options information.
5. When complete, tap Save.

Step 2: Translate Field Labels

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Product.
2. In the list, find the attribute to be translated, and open in edit mode.
3. In the panel on the left, choose Manage Labels.
4. In the Manage Titles section, enter a translated label for each store view.
CHAPTER 70: All Stores

Enter Translated Labels

5. When complete, tap **Save Attribute**.

**Step 3: Translate All Categories**

1. On the Admin sidebar, tap **Products**. Then under Inventory, choose **Categories**.

2. In the upper-left corner set **Store View** to the view for the translation. When prompted to confirm, tap **OK**.

3. In the tree, find the category to be translated and open in edit mode.

4. On the **General Information** tab, translate the following fields:
   - Name
   - Description
   - Page Title
   - Meta Keywords
   - Meta Description

5. To translate the **URL Key**, do the following:
   a. Clear the **Use Default Value** checkbox to the right of the field.
   b. Enter the translated text.
   c. Make sure that the **Create Permanent Redirect for old URL** checkbox is selected

6. When complete, tap **Save Category**.

7. Repeat the process for all categories used in the store.
Translating Content

If your store has multiple views in different languages, and you have set the locale for each view to a different language, the result is a partially translated site. The next step is to create a translated version of each page that is available from the specific store view. The Store View column of the Manage Pages list shows each view that has a translated version of the page.

To translate a content page, you must create a new page that has the same URL Key as the original, but is assigned to the specific store view. Then, update the page for the specific view with the translated text. The following example shows how to create a translated version of the “About Us” page for the Spanish store view.

**To create a translated page for a view:**

1. On the Admin sidebar, tap Content. Then under Elements, choose Pages.
2. In the grid, find the page to be translated, and open in edit mode.
3. Copy the URL Key to the clipboard. Then, press the Back button to return to the Pages grid.
4. Tap Add New Page. Then, do the following:
   a. Enter the translated Page Title.
   b. Paste the URL Key that you copied from the original page.
   c. In the Store View box, choose the store view where the page is to be available.
   d. In the panel on the left, choose Content. Then, complete the translated text for the page.
   e. On the Design tab, set the column Layout of the page.
   f. On the Meta Data tab, enter the translated text for the Keywords and Description.
5. When complete, tap Save Page. Then when prompted, refresh any invalid caches.
6. To verify the translation, go to the storefront and use the language chooser to change the store view.

Notice that there are still some elements on the page that need to be translated, including the company footer links block, the welcome message, and product information.
Adding Stores

A single installation of Magento can have multiple stores that share the same Admin. Stores that are under the same website have the same IP address and domain, use the same security certificate, and share a single checkout process.

The important thing to understand is that the stores use the same Magento code, and share the same Admin. Each store can have a separate catalog, or share the same catalog. Each store can have a separate root category, which makes it possible to have a different main menu for each store. Stores can have different branding, presentation, and content. Before you begin, take some time to plan your store hierarchy with future growth in mind, because it is used throughout the configuration.

Here are some examples of how URLs can be configured for multiple stores:

- yourdomain.com/store1
- yourdomain.com/store2
- store1.yourdomain.com
- store2.yourdomain.com

Each store has a different path, but shares the same domain.

Each store has a different subdomain of the primary domain.

**Process Overview:**

1. Choose the Store Domain
2. Create the New Store
3. Create a Default Store View
4. Configure the Store URL
Step 1: **Choose the Store Domain**

The first step is to choose how you want to position the store. Will the stores share the same domain, each have a subdomain, or have distinctly different domains? For each store, do one of the following:

- To place the store one level below the primary domain, you don’t have to do anything.
- Set up a subdomain of your primary domain.
- Set up a different primary domain.

Step 2: **Create the New Store**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **All Stores**.

2. Tap **Create Store**. Then, do the following:
   
   a. Choose the **Web Site** that is to be the parent of the new store. If the installation has only one web site, accept the default, “Main Website.”
   
   b. Enter a **Name** for the new store. The name is for internal reference only.
   
   c. Set **Root Category** to the root category that defines the category structure for the main menu of the new store. If you have already created a specific root category for the store, select it. Otherwise, select “Default Category.” You can come back later and update the setting.

3. When complete, tap **Save Store**.
Step 3: Create a Default Store View

1. Tap **Create Store View**. Then, do the following:
   
a. Set **Store** to the new store you created.

b. Enter a **Name** for the view. For example, "English."

c. Enter a **Code** for the view in lowercase characters.

d. Set **Status** to "Enabled."

e. In the **Sort Order** field, enter a number to determine the store’s position when listed with other stores.

2. Tap **Save Store View**.

   If you were to open your store in edit mode, you would see that it now has a default view.

Step 4: Configure the Store URL

1. On the menu bar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left under **General**, choose **Web**.

3. In the upper-left corner, set **Store View** to the view that you created for the new store. When prompted to confirm **scope** switching, tap **OK**.
4. Expand the **Base URLs** section. Then, do the following:
   a. After the Base URL field, clear the **Use Website** checkbox.
   b. Enter the **Base URL** for the store.

5. Expand the **Secure Base URLs** section, and repeat the previous step as needed to configure the store’s **secure URL**.

6. When complete, tap **Save Config**.
Adding Websites

Multiple websites can be set up that use the same Magento installation. The websites can be set up to use the same domain, or different domains. If you want each store to have a dedicated checkout process under its own domain, each store must have a distinct IP address and separate security certificate.

**Step 1: Create a New Website**

1. On the Admin sidebar, tap Stores. Then under Settings, choose All Stores.
2. Tap Create Website. Then, do the following:
a. In the **Name** field, enter the domain of the new website. For example, “domain.com.”

b. Enter a **Code** that will be used on the server to point to the domain.
   
   The code must begin with a lowercase (a-z) letter, and can include any combination of letters (a-z), numbers (0-9), and the underscore (_) symbol.

c. (Optional) Enter a **Sort Order** number to determine the sequence in which this site is listed with other sites. Enter a zero to make this site appear at the top of the list.

d. To make this the default website for your Magento installation, mark the **Set as Default** checkbox.

3. When complete, tap **Save Website**.

4. Set up each **store** and **store view** that is needed for the new website.

**Step 2: Configure the Store URL**

Follow the instructions to configure the **store URLs**.
**Store URLs**

Each website in a Magento installation has a base URL that is assigned to the storefront, and another URL that is assigned to the Admin. Magento uses variables to define internal links in relation to the base URL, which makes it possible to move an entire store from one location to another without updating the links. Standard base URLs begin with http, and secure base URLs begin with https.

- **Base URL**
  - http://www.yourdomain.com/magento/
- **Secure Base URL**
  - https://www.yourdomain.com/magento/
- **URL with IP address**
  - http://###.###.###.###/magento/
  - https://###.###.###.###/magento/

**Important!** Do not change the Admin URL from the default Base URL configuration. To change the Admin URL or path, see: Using a Custom Admin URL.

**Use Secure Protocol**

The base URLs for your store were initially set up during the Web Configuration step of the Magento installation. If a security certificate was available at the time, you could specify for secure (https) URLs to be used for the store, Admin, or both. If your Magento installation includes multiple stores, or if you plan to later add more stores, you can include the store code in the URL. All Magento resources and operations can be used with secure protocol.

If a security certificate wasn’t available for the domain at the time of the installation, make sure to update the configuration before launching your store. After a security certificate is established for your domain, you can configure either or both base URLs to operate with encrypted Secure Sockets Layer (SSL) and Transport Layer Security (TLS) protocol.

Magento strongly recommends for all pages of a production site, including content and product pages, to be transmitted with secure protocol.

Magento can be configured to deliver all pages over https by default. If your store has been running up until now with standard protocol, you can improve security by enabling [HTTP Strict Transport Security](https://www.w3.org/TR/transport-security/) (HSTS). and by upgrading any insecure page requests that are received by the store. HSTS is an opt-in protocol that prevents browsers from rendering standard http pages that are transmitted with unsecure protocol for the specified domain. Because search engines might have already indexed each page of your store with standard http URLs, you can configure Magento to automatically upgrade any unsecure page requests to https, so you don’t lose any traffic. When Magento is configured to use secure URLs for both the store and Admin, two additional fields appear that allow you to enable HSTS.
To configure the base URL:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under General, choose Web.
3. Expand the Base URL section, and do the following:
   a. Enter the fully qualified Base URL for your store. Make sure to end the URL with a forward slash, so it can be extended with additional URL Keys from your store. For example:

   ![Base URL example](http://yourdomain.com/)

   Do not change the placeholder in the Base Link URL field. It is a placeholder that is used to create relative links to the base URL.

   b. (Optional) To specify an alternate location for the Base URL for Static View Files, enter the path starting with the following placeholder:

   ```
   {{unsecure_base_url}}
   ```

   c. (Optional) To specify an alternate location for the Base URL for User Media Files, enter the path starting with the following placeholder:

   ```
   {{unsecure_base_url}}
   ```

   For a typical installation, there is no need to update the paths for the static view files or media files because they are relative to the base URL.

4. When complete, tap Save Config.
To configure the secure base URL:

If your domain has a valid security certificate, you can configure the URLs of both the storefront and Admin to transmit data over a secure (https) channel. Without a valid security certificate, your store cannot operate with secure (SSL/TLS) protocol.

1. Expand ☑️ the **Base URLs (Secure)** section. Then, do the following:

   **Base URLs (Secure)**

   a. Enter the full **Secure Base URL**, followed by a forward slash. For example:

   ```
   https://yourdomain.com/
   ```

   b. Do not change the placeholder in the **Secure Base Link URL** field. It is used to create relative links to the secure base URL.

   c. (Optional) To specify an alternate location for the **Secure Base URL for Static View Files**, enter the path starting with the following placeholder:

   ```
   {{secure_base_url}}
   ```

   d. (Optional) To specify an alternate location for the **Secure Base URL for User Media Files**, enter the path starting with the following placeholder:

   ```
   {{secure_base_url}}
   ```
2. To enhance security, set both of the following options to "Yes."
   
   - Use Secure URLs on Storefront
   - Use Secure URLs in Admin

   When the following additional fields appear, do the following:

   ![Enhanced Security Settings]

   **a.** If you want your store to display only secure https page requests, set **Enable HTTP Strict Transport Security (HSTS)** to "Yes."

   **b.** To upgrade any requests for standard unsecured http pages to secure https, set **Upgrade Insecure Requests** to "Yes."

3. When complete, tap **Save Config**.
To include the store code in URLs:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the panel on the left, under **General**, choose **Web**.

3. Expand the **URL Options** section.

4. Set **Add Store Code** to your preference.

### URL with Store Code

http://www.yourdomain.com/magento/[store-code]/index.php-url-identifier

### URL without Store Code

5. When complete, tap **Save Config**.

6. After the setting is saved, you will be prompted to refresh the cache. Tap the **Cache Management** link in the message at the top of the workspace. Then, follow the instructions to refresh the cache.
Using a Custom Admin URL

As a security best practice, Magento recommends that you use a unique, custom Admin URL instead of the default “admin” or a common term such as “backend”. Although it will not directly protect your site from a determined bad actor, it can reduce exposure to scripts that try to gain unauthorized access.

Check with your hosting provider before implementing a custom Admin URL. Some hosting providers require a standard URL to meet firewall protection rules.

In a typical Magento installation, the Admin URL and path is immediately below the Magento base URL. The path to the store Admin is one directory below the root.

**Default Base URL**

http://yourdomain.com/magento/

**Default Admin URL and Path**

http://yourdomain.com/magento/admin

Although it is possible to change the Admin URL and path to another location, any mistake removes access to the Admin, and must be corrected from the server.

As a precaution, do not try to change the Admin URL by yourself unless you know how to edit configuration files on the server.

**Method 1: Change from the Magento Admin**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, under **Advanced**, choose **Admin**.
3. Expand the **Admin Base URL** section. Then, do the following:
   a. Clear the first **Use system value** checkbox. Then, set **Use Custom Admin URL** to “Yes”.
   b. Clear the next **Use system value** checkbox. Then, enter the **Custom Admin URL** in the following format:

      http://yourdomain.com/magento/

   **Important!** The Admin URL must be in the same Magento installation, and have the same document root as the storefront.
   c. Clear the next **Use system value** checkbox. Then, set **Custom Admin Path** to “Yes”.


d. Clear the next **Use system value** checkbox. Then, enter the **Custom Admin Path**.

The path that you enter is appended to the Custom Admin URL after the last forward slash.

```
sample_custom_admin
```

4. When complete, tap **Save Config**.

5. After the changes are saved, **Sign Out** of the Admin. Then, log back in using the new Admin URL and path.

**Method 2: Change from the Server Command Line**

1. Open the `app/etc/env.php` file in a text editor, and change the name of the `[admin]` path. Make sure to use only lowercase characters. Then, save the file.

   On the server, the admin path is located in the `app/etc/env.php` file. Look for the `<adminhtml>` argument in the `<admin>` section:

   **Default Admin Path**

   ```
   # <frontName><![CDATA[admin]]></frontName>
   ```

   **New Admin Path**

   ```
   # <frontName><![CDATA[backend]]></frontName>
   ```

2. Use one of the following methods to clear the Magento cache:

   - On the Admin sidebar, tap **System**. Under **Tools**, choose **Cache Management**. Then, tap **Flush Magento Cache**.
   - On the server, navigate to the `var/cache` folder, and delete the contents of the cache folder.
CHAPTER 71:

Configuration

The online Configuration Reference has field descriptions for every configuration setting in Magento Commerce. To learn how to apply configuration settings to specific store views, see: Scope.

Configuration Tabs

General

Includes basic configuration settings for the store, URLs, theme, currency, email addresses, store contacts, editor, and dashboard reports.

Catalog

Determines product and inventory settings, controls sitemap and RSS feed generation, and specifies the email template that is used to share products with friends.
Customers

Establishes basic customer account and login options, newsletter settings, wish list, and the format of auto-generated coupon codes.

Sales

Determines checkout and tax settings, payment and shipping options, sales email and PDF print-outs, and Google API settings.

Services

Configures Magento API settings, including SOAP and OAuth.

Advanced

Determines default Admin settings, various system configuration settings, advanced module controls, and developer tools.
CHAPTER 72: Taxes

In this section of the guide, you will learn how to set up taxes according to the requirements of your locale. You can set up tax classes for products and customer groups, and create tax rules that combine product and customer classes, tax zones, and rates. In addition, you’ll learn more advanced topics such as setting up fixed product taxes, compound taxes, and displaying consistent prices across international borders. If you are required to collect a value-added tax, you will learn how to set up your store to automatically calculate the appropriate amount with validation.

Magento provides a variety of options to define taxes. Tax classes are used to define “tax rules.” Tax rules are a combination of a Product Class, a Customer Class and a Tax Zone and Rate. Magento also supports the calculation of Value-Added Tax (VAT) for business-to-business transactions in the European Union.

General Tax Settings

The following instructions take you through the basic tax configuration for your Magento installation. Before setting up your taxes, make sure that you are familiar with the tax requirements of your locale. Then, complete the tax configuration according to your requirements.

Admin permissions can be set to restrict access to tax resources, based on the business “need to know.” To create an Admin role with access to tax settings, choose both the Sales/Tax and System/Tax resources. If setting up a website for a region that differs from your default shipping point of origin, you must also allow access to the System/Shipping resources for the role. The shipping settings determine the store tax rate that is used for catalog prices.

To configure the general tax settings:

1. On the Admin sidebar, choose Stores. Then under Settings, choose Configuration.

2. For a multisite configuration, set Store View to the website and store that is the target of the configuration.

3. Complete the following configuration settings. If necessary, clear the Use System value checkbox of any settings that are grayed out.

Tax Classes

1. In the panel on the left under Sales, choose Tax.
2. Expand the **Tax Classes** section. Then, do the following:

![Tax Classes](image)

**Tax Classes**

a. Set **Tax Class for Shipping** to the appropriate class. The default classes are:
   - None
   - Taxable Goods

b. Set **Default Tax Class for Product** to the appropriate class. The default classes are:
   - None
   - Taxable Goods

c. Set **Default Tax Class for Customer** to the appropriate class. The default class is:
   - Retail Customer
   - Wholesale Customer

3. When complete, tap `Save Config`.

**Calculation Settings**

1. Expand the **Calculation Settings** section. Then, do the following:
## Calculation Settings

- **Tax Calculation Method Based On**
  - **Unit Price**: The price of each product.
  - **Row Total**: The total of the line item in the order, less discounts.
  - **Total**: The order total

- **Tax Calculation Based On**
  - **Shipping Address**: The address where the order is to be shipped.
  - **Billing Address**: The billing address of the customer or company.
  - **Shipping Origin**: The address that is specified as the point of origin for your store.

- **Catalog Prices**
  - **Excluding Tax**: 
  - **Including Tax**: 

- **Shipping Prices**
  - **Excluding Tax**: 
  - **Including Tax**: 

- **Apply Customer Tax on**
  - **After Discount**: 

- **Apply Discount On Prices**
  - **Excluding Tax**: 
  - **Including Tax**: 

- **Apply Tax on**
  - **Custom price if available**: 

- **Enable Cross Border Trade**
  - **No**: 

---

**Calculation Settings**

**a.** Set **Tax Calculation Method Based On** to one of the following:

- **Unit Price**: The price of each product.
- **Row Total**: The total of the line item in the order, less discounts.
- **Total**: The order total

**b.** Set **Tax Calculation Based On** to one of the following:

- **Shipping Address**: The address where the order is to be shipped.
- **Billing Address**: The billing address of the customer or company.
- **Shipping Origin**: The address that is specified as the point of origin for your store.

**c.** Set **Catalog Prices** to one of the following:

- **Excluding Tax**
- **Including Tax**

**d.** Set **Shipping Prices** to one of the following:
• Excluding Tax
• Including Tax
e. Set **Apply Customer Tax** to one of the following to determine whether tax is applied to the original or discounted price.

• After Discount
• Before Discount
f. Set **Apply Discount on Prices** to one of the following to determine if discounts include or exclude tax.

• Excluding Tax
• Including Tax
g. Set **Apply Tax On** to one of the following:

• Custom price if available
• Original price only
h. Set **Enable Cross-Border Trade** to one of the following:

Yes Use consistent pricing across different tax rates. If the catalog price includes tax, choose this setting to fix the price regardless of the customer's tax rate.

No Vary the price by tax rate.

**Important!** If **cross-border trade** is enabled, the profit margin changes by tax rate. Profit is determined by the formula (Revenue - CustomerVAT - CostOfGoodsSold). To enable cross-border trade, prices must be set to include tax.

2. Expand the **Default Tax Destination Calculation** section. Then, specify the country that is to be the default for tax calculations.

3. When complete, tap **Save Config.**
Price Display Settings

**Important!** Some combinations of settings related to a price display that both includes and excludes tax can be confusing to the customer. To avoid triggering a warning message, see the recommended settings.

1. Expand ☑ the **Price Display Settings** section. Then, do the following:

   ![Price Display Settings](image)

   **Price Display Settings**

   a. Set **Display Product Prices in Catalog** to one of the following:

      - **Excluding Tax**
        Catalog prices that appear in the storefront do not include tax.
      - **Including Tax**
        Catalog prices in the storefront include tax only if a tax rule matches the tax origin, or if the customer's address matches the tax rule. This might happen after a customer creates an account, logs in, or uses the Estimate Tax and Shipping tool in the cart.
      - **Including and Excluding Tax**
        Catalog prices that appear in the storefront are displayed both with, and without tax.

   b. Set **Display Shipping Prices** to one of the following:

      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax

2. Expand ☑ the **Shopping Cart Display Settings** section.

   For each of the following settings, choose how you want taxes and prices to appear in the cart, according to the requirements of your store and locale.

   a. Set **Display Prices** to one of the following:

      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax

   b. Set **Display Subtotal** to one of the following:
General Tax Settings

- Excluding Tax
- Including Tax
- Including and Excluding Tax
c. Set **Display Shipping Amount** to one of the following:
  - Excluding Tax
  - Including Tax
  - Including and Excluding Tax
d. Set the following to either “Yes” or “No,” according to your needs:
  - Include Tax in Order Total
  - Display Full Tax Summary
  - Display Zero Tax Subtotal

![Shopping Cart Display Settings](image)

**Shopping Cart Display Settings**

3. Expand the **Orders, Invoices, Credit Memos Display Settings** section. Then, do the following to specify how prices and taxes appear in orders, invoices, and credit memos.
   a. Set **Display Prices** to one of the following.
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax
   b. Set **Display Subtotal** to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax
c. Set **Display Shipping Amount** to one of the following:
   - Excluding Tax
   - Including Tax
   - Including and Excluding Tax

d. Set the following to “Yes” or “No,” according to your requirements:
   - Include Tax in Order Total
   - Display Full Tax Summary
   - Display Zero Tax Subtotal

4. When complete, tap **Save Config**.

**Cross Border Price Consistency**

Cross-border trade (also referred to as price consistency) supports European Union (EU) and other merchants who want to maintain consistent prices for customers whose tax rates are different than the store tax rate.

Merchants operating across regions and geographies can show their customers a single price by including the tax in the price of the product. Pricing is clean and uncluttered regardless of tax structures and rates that vary from country to country.

**Important!** When cross-border trade is enabled, your profit margin changes by tax rate. Profit is determined by the formula: (Revenue - CustomerVAT - CostOfGoodsSold).
To enable cross-border price consistency:

1. On the Admin sidebar, choose Stores. Then under Settings, choose Configuration.

2. For a multisite configuration, set Store View to the website and store that is the target of the configuration.

3. In the panel on the left, under Sales, choose Tax.

4. Expand the Calculation Settings section. Then, do the following:

   ![Calculation Settings](image)

   **Calculation Settings**
   
   a. Set Catalog Prices to “Including Tax.”
   
   b. To enable cross-border price consistency, set Enable Cross Border Trade to “Yes.”

5. When complete, tap Save Config.
Tax Rules

Tax rules incorporate a combination of product class, customer class and tax rate. Each customer is assigned to a customer class, and each product is assigned a product class. Magento analyzes the shopping cart of each customer and calculates the appropriate tax according to the customer and product classes, and the region (based on the customer's shipping address, billing address or shipping origin).

When numerous taxes must be defined, you can simplify the process by importing them.

Step 1: Complete the Tax Rule Information

1. On the Admin sidebar, tap Stores. Then under Taxes, choose Tax Rules.
2. In the upper-right corner, tap Add New Tax Rule.
3. Under Tax Rule Information, tap a Name for the new rule.
4. Choose the Tax Rate that applies to the rule. If you need to edit an existing tax rate, do the following:
   a. Hover over the tax rate, and tap the Edit icon.
   b. Update the form as needed, and tap Save.
To enter tax rates, use either of the following methods:

**Method 1: Enter Tax Rates Manually**

1. Tap **Add New Tax Rate**.
2. Complete the form as needed. For more information, see: Tax Zones and Rates.
3. When complete, tap **Save**.
Method 2: Import Tax Rates

1. Scroll down to the section at the bottom of the page.

2. To import tax rates, do the following:
   a. Tap Choose File, and navigate to the CSV file with the tax rates to be imported.
   b. Tap Import Tax Rates.

3. To export tax rates, tap Export Tax Rates.

To learn more, see: Import/Export Tax Rates.

Step 2: Complete the Additional Settings

4. Tap Additional Settings to open the section. Then, do the following:
   a. Choose the Customer Tax Class to which the rule applies.
      - To edit a customer tax class, tap the edit icon. Then, update the form as needed, and tap Save.
      - To create a new tax class, tap Add New Tax Class. Then, complete the form as needed, and tap Save.
   b. Choose the Product Tax Class to which the rule applies.
      - To edit a product tax class, tap the edit icon. Then, update the form as needed, and tap Save.
      - To create a new tax class, tap Add New Tax Class. Then, complete the form as needed, and tap Save.
   c. In the Priority field, enter a number to indicate the priority of this tax, when more than one tax applies. If two tax rules with the same priority apply, then the taxes are added together. If two taxes with different priority settings apply, then the taxes are compounded.
   d. If you want taxes to be based on the order subtotal, mark the Calculate off Subtotal Only checkbox.
e. In the **Sort Order** field, enter a number to indicate the order of this tax rule when listed with others.

![Additional Settings](image)

**Additional Settings**

5. When complete, tap **Save Rule**.
Tax Classes

Tax classes can be assigned to customers, products, and shipping. Magento analyzes the shopping cart of each customer and calculates the appropriate tax according to the class of the customer, the class of the products in the cart, and the region (as determined by the customer's shipping address, billing address or shipping origin). New tax classes can be created when a tax rule is defined.

Customer

You can create as many customer tax classes as you need, and assign them to customer groups. For example, in some jurisdictions, wholesale transactions are not taxed, but retail transactions are. You can associate members of the Wholesale Customer group with the Wholesale tax class.

Product

Product classes are used in calculations to determine the correct tax rate is applied in the shopping cart. When you create product, it is assigned to a specific tax class. For example, food might not be taxed, or be taxed at a different rate.

Shipping

If your store charges an additional tax on shipping, you should designate a specific product tax class for shipping. Then in the configuration, specify it as the tax class that is used for shipping.
Configuring Tax Classes

The tax class that is used for shipping, and the default tax classes for products and customers are set in the Sales configuration.

To configure tax classes:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Tax.
3. Expand the Tax Classes section. Then, choose the tax class for each of the following:
   - Set Tax Class for Shipping
   - Default Tax Class for Product
   - Default Tax Class for Customer
4. When complete, tap Save Config.
Default Tax Destination

The default tax destination settings determine the country, state, and ZIP or postal code that are used as the basis of tax calculations.

To configure the default tax destination for calculations:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configure.
2. In the panel on the left under Sales, choose Tax.
3. Expand the Default Tax Destination Calculation section. Then, do the following:
   a. Set Default Country to the country upon which tax calculations are based.
   b. Set Default State to the state or province that is used as the basis of tax calculations.
   c. Set Default Post Code to the ZIP or postal code that is used as the basis of local tax calculations.
4. When complete, tap Save Config.
EU Place of Supply for Digital Goods

European Union (EU) merchants must report their digital goods sold by quarter to each member country. Digital goods are taxed based on the customer’s shipping address. The law requires merchants to run a tax report and identify the relevant tax amounts for digital goods, as opposed to physical goods.

Merchants must report all digital goods sold by EU member countries on a quarterly basis to a central tax administration, along with payment due for tax collected during the period.

Merchants who have not yet reached the threshold (50k/100k Euro of annual business) must continue to report physical goods sold to the EU states where they have registered VAT numbers.

Merchants who are audited for taxes paid for digital goods, must provide two pieces of supporting information to establish the customer place of residence.

- The customer’s shipping address and a record of a successful payment transaction can be used to establish the customer place of residence. (Payment is accepted only if the shipping address matches payment provider information.)
- The information can also be captured directly from the data store in the Magento database tables.

To collect digital goods tax information:

1. Load the tax rates for all EU member countries.
2. Create a digital goods product tax class.
3. Assign all your digital goods to the digital goods product tax class.
4. Create tax rules for your physical goods, using physical product tax classes, and associate them with the appropriate tax rates.
5. Create tax rules for your digital goods, using use the product tax class for digital goods, and associate them with the appropriate tax rates for EU member countries.
6. Run the tax report for the appropriate period, and collect the required digital goods information.
7. Export the tax amounts that are related to the tax rates for the digital goods product tax class.

See also:
- European Commission Taxation and Customs Union
- EU 1015 Place of Supply Changes
Fixed Product Tax

Some tax jurisdictions have a fixed tax that must be added to certain types of products. You can set up a fixed product tax (FPT) as needed for your store's tax calculations. For example, in some countries FPT can be used to set up a Waste Electrical and Electronic Equipment Directive (WEEE) tax, also known as "ecological tax" or "eco tax," that is collected on certain types of electronics to offset the cost of recycling. This tax is a fixed amount, rather than a percentage of the product price.

Fixed product taxes apply at the item level, based on the product. In some jurisdictions this tax is subject to an additional % tax calculation. Your tax jurisdiction might also have rules about how the product price appears to customers, either with or without tax. Be sure that you understand the rules, and set your FPT display options accordingly.

We recommend that you exercise caution when quoting FPT prices in email, because the difference in price can affect customer confidence in their orders. For example, if you display Order Review prices without showing FPT, customers who buy items with associated FPT will see a total that includes the FPT tax amount, but without an itemized breakdown. The difference in price might lead some customers to abandon their carts because the total differs from the amount expected.

**FPT Display Prices**

<table>
<thead>
<tr>
<th></th>
<th>DISPLAY SETTING AND CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Not Taxed</strong></td>
<td></td>
</tr>
<tr>
<td>Excluding FPT</td>
<td>FPT appears as a separate row in the cart, and the value is used in appropriate tax calculations.</td>
</tr>
<tr>
<td>Including FPT</td>
<td>FPT is added to the base price of an item; but is not included in tax-rule-based calculations.</td>
</tr>
<tr>
<td>Excluding FPT, FPT Description, Final Price</td>
<td>Prices appear without FPT amount or description. FPT is not included in tax-rule-based calculations.</td>
</tr>
<tr>
<td><strong>Taxed</strong></td>
<td></td>
</tr>
<tr>
<td>Excluding FPT</td>
<td>FPT appears as a separate row in the cart, and the value is used in appropriate tax calculations.</td>
</tr>
<tr>
<td>Including FPT</td>
<td>FPT is included in the price of an item, and no change to tax calculations is required.</td>
</tr>
<tr>
<td>Excluding FPT, FPT Description, Final Price</td>
<td>Prices appear without the FPT amount or description. However, FPT is included in tax-rule-based calculations.</td>
</tr>
</tbody>
</table>
Configuring FPT

The Fixed Product Tax input type creates a section of fields for managing tax for each region.

The following instructions show how to set up a fixed product tax for your store, using “eco tax” as an example. After setting the scope for the tax and the countries and states where the tax applies, and depending on the options you choose, the input fields can change according to the local requirements. To learn more, see: Creating Attributes.

<table>
<thead>
<tr>
<th>Process Overview:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1: Enable Fixed Product Tax</td>
</tr>
<tr>
<td>Step 2: Create an FPT Attribute</td>
</tr>
<tr>
<td>Step 3: Add the FPT Attribute to an Attribute Set</td>
</tr>
<tr>
<td>Step 4: Apply FPT to Products</td>
</tr>
</tbody>
</table>

Step 1: Enable Fixed Product Tax

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Sales, choose Tax.
3. Expand the Fixed Product Taxes section. Then, do the following:
   a. Set Enable FPT to “Yes.”
   b. To determine how fixed product taxes are used in store prices, choose the FPT setting for each of the following price display locations. (The options are the same for each location.)
      - Product View Page
      - Sales Modules
      - Emails
      - OPTIONS
        Including FPT Only
        Including FPT and FPT description
        Excluding FPT. Including FPT description and final price
        Excluding FPT
   c. Set Apply Tax to FPT as needed.
   d. Set Include FPT in Subtotal as needed.
4. When complete, tap **Save Config**.

**Step 2: Create an FPT Attribute**

1. On the Admin sidebar, tap **Stores**. Then under **Attributes** choose **Product**.

2. In the upper-right corner, tap **Add New Attribute**. Then, do the following:
   a. Enter a **Default Label** to identify the attribute.
   b. Set **Catalog Input for Store Owner** to “Fixed Product Tax.”

3. Expand the **Advanced Attribute Properties** section. Then, do the following:
   a. In the **Attribute Code** field, enter a unique identifier in lowercase, without spaces or special characters. The maximum length is 30 characters. You can leave the field blank to the text from the Default Label field.
   b. If you want the FPT field to appear in the Inventory grid, set **Add to Column Options** to “Yes.”
c. If you want to be able to filter products in the grid based on the value of the FPT field, set Use in Filter Options to “Yes.”

![Advanced Attribute Properties]

Advanced Attribute Properties

4. (Optional) In the panel on the left, choose Manage Labels. Then, enter a label to use instead of the default label for each store view.

![Manage Labels]

Manage Labels

5. When complete, tap Save Attribute. Then when prompted, refresh the cache.
Step 3: Add the FPT Attribute to an Attribute Set

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Attribute Set.

2. In the list, tap the attribute set to open the record in edit mode.

3. Drag the FPT attribute from the list of Unassigned Attributes on the right to the Groups list in the center column.

Each group folder corresponds to a section of product information. You can place the attribute wherever you want it to appear when the product is open in edit mode.
4. When complete, tap **Save**.

5. Repeat this step for each attribute set that needs to include fixed product tax.

**Step 4: Apply FPT to Specific Products**

1. On the Admin sidebar, tap **Products**. Then under **Inventory**, choose **Catalog**.

2. Open the product that needs a fixed product tax in edit mode.

3. Find the FPT section of fields that you added to the attribute set. Tap **Add Tax**, and do the following:

   ![Fixed Product Tax for Belgium](image)

   **Fixed Product Tax for Belgium**

   a. If your Magento installation has multiple websites, choose the appropriate **Website** and base currency. In this example, the field is set by default to “All Websites [USD],”

   b. Set **Country/State** to the region where the fixed product tax applies.

   c. Enter the fixed product tax as a decimal amount in the **Tax** field.

   c. To add more fixed product taxes, tap **Add Tax**, and repeat the process.

4. When complete, tap **Save**.
Price Display Settings

The price display settings determine if product and shipping prices include or exclude tax, or show two versions of the price; one with, and the other without tax.

If the product price includes tax, the tax appears only if there is a tax rule that matches the tax origin, or if a customer address matches the tax rule. Events that can trigger a match include when a customer creates an account, logs in, or generates a tax and shipping estimate from the shopping cart.

**Important!** Showing prices that include and exclude tax can be confusing to the customer. To avoid triggering a warning message, see the guidelines for your country, and recommended settings, to avoid warning messages.

---

**Step 1: Configure Price Display Settings**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Sales**, choose **Taxes**.
3. Expand the **Price Display Settings** section. Then, do the following:
   a. Set **Display Product Prices in Catalog** to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax
   b. Set **Display Shipping Prices** to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax
Step 2: **Configure Shopping Cart Display Settings**

1. Expand the **Shopping Cart Display Settings** section. Then, do the following:

   ![Shopping Cart Display Settings](image)

   * **Display Prices**: Set to one of the following:
     - Excluding Tax
     - Including Tax
     - Including and Excluding Tax
   * **Display Subtotal**: Set to one of the following:
     - Excluding Tax
     - Including Tax
     - Including and Excluding Tax
   * **Display Shipping Amount**: Set to one of the following:
     - Excluding Tax
     - Including Tax
     - Including and Excluding Tax
   * **Include Tax in Order Total**, **Display Full Tax Summary**, **Display Zero Tax Subtotal**: Set the following to “Yes” or “No” according to your preference:
     - Include Tax in Order Total
     - Display Full Tax Summary
     - Display Zero Tax Subtotal
Step 3: Configure Order, Invoice & Credit Memo Display Settings

1. Expand the Orders, Invoices, Credit Memos Display Settings section. Then, do the following:

   ![Orders, Invoices, Credit Memos Display Settings]

   Orders, Invoices, Credit Memos Display Settings

   a. Set Display Prices to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax

   b. Set Display Subtotal to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax

   c. Set Display Shipping Amount to one of the following:
      - Excluding Tax
      - Including Tax
      - Including and Excluding Tax

   d. Set the following to “Yes” or “No” according to your preference:
      - Include Tax in Order Total
      - Display Full Tax Summary
      - Display Zero Tax Subtotal

2. When complete, tap Save Config.
Tax Zones and Rates

Tax rates generally apply to transactions that take place within a specific geographical area. The Tax Zones and Rates tool enables you to specify the tax rate for each geographical area from which you collect and remit taxes. Because each tax zone and rate has a unique identifier, you can have multiple tax rates for a given geographic area (such as places that do not tax food or medicine, but do tax other items).

Store tax is calculated based on the store’s address. The actual customer tax for an order is calculated after the customer completes the order information. Magento then calculates the tax based upon the tax configuration of the store.

To define a new tax rate:

2. In the upper-right corner, tap Add New Tax Rate.
3. Enter a Tax Identifier.
4. To apply the tax rate to a single ZIP or postal code, enter the code in the Zip/Post Code field.
5. The asterisk wildcard (*) can be used to match up to ten characters in the code. For example, 90* represents all ZIP codes from 90000 through 90999.
6. To apply the tax rate to a range of ZIP or postal codes, do the following:
   a. Mark the Zip/Post is Range checkbox.
   b. Enter the first ZIP or postal code in the range.
   c. Enter the last ZIP or postal code in the range.
   d. Choose the State where the tax rate applies.
   e. Choose the Country where the tax rate applies.
f. Enter the **Rate Percent** that is used for the tax rate calculation.

7. When complete, tap **Save Rate**.

![New Tax Rate](image)

**New Tax Rate**

**To edit an existing tax rate:**

1. On the Admin sidebar, tap **Stores**. Then under **Taxes**, choose **Tax Zones and Rates**.

2. Find the tax rate in the Tax Zones and Rates grid, and open the record in edit mode. If there are many rates in the list, use the filter controls to find the rate you need.

3. Make the necessary changes to the **Tax Rate Information**.

4. Update the **Tax Titles** as needed.

5. When complete, tap **Save Rate**.
Import/Export Tax Rates

If you conduct business in several states and ship a large quantity of product, entering tax rates manually can be very time consuming. It is faster and more efficient to download tax rates by ZIP code and import them into Magento. The following example shows how to import a set of California tax rates downloaded from the Avalara website. Avalara is a Magento Technology Partner and provides tax rate tables for every ZIP code in the United States, which you can download at no charge.

Process Overview:
Step 1: Export the Magento Tax Rate Data
Step 2: Prepare the Import Data
Step 3: Import the Tax Rates

Step 1: Export the Magento Tax Rate Data

1. On the Admin sidebar, tap System. Then under Data Transfer, choose Import/Export Tax Rates.

2. Tap Export Tax Rates. Look for the download file in the lower-left corner of the browser window.

3. Save the file, and then open it in a spreadsheet. (In this example, we use OpenOffice Calc.)

The exported Magento tax rate data includes the following columns:

- Code
- Country
- State
- Zip/Post Code
- Rate
- Range From
- Range To
- A column for each store view

![Exported Tax Rate Data](image.png)
4. Open the new tax rate data in a second instance of the spreadsheet, so you can see both, side by side.

In the new tax rate data, take note of any additional tax rate data that you might need to set up in your store before the data is imported. For example, the tax rate data for California also includes:

- TaxRegionName
- CombinedRate
- StateRate
- CountyRate
- CityRate
- SpecialRate

If you need to import additional tax zones and rates, you must first define them from the Admin of your store, and update the tax rules as needed. Then, export the data, and open the file in OpenOffice Calc, so it can be used for reference. However, to keep this example simple, we will import only the standard tax rate columns.

**Step 2: Prepare the Import Data**

You now have two spreadsheets open, side by side. One with the Magento export file structure, and the other with the new tax rate data that you want to import.

1. To create a place to work in the spreadsheet with the new data, insert as many blank columns at the far left as needed. Then, use cut and paste to rearrange the columns so they match the order of the Magento export data.

2. Rename the column headers to match the Magento export data.

3. Delete any columns that have no data. Otherwise, the structure of the import file should match the original Magento export data.

4. Before saving the file, scroll down and make sure that the tax rate columns contain only numeric data. Any text found in a tax rate column will prevent the data from being imported.

5. Save the prepared data as a .CSV file. When prompted, verify that a comma is used a **Field delimiter**, and double quotes as the **Text delimiter**. Then, tap [OK].
**Step 3: Import the Tax Rates**

1. On the Admin sidebar, tap **System**. Then under **Data Transfer**, choose **Import/Export Tax Rates**.

2. Tap **Browse** and choose the .CSV tax rate file that you prepared to import. Then, tap **Import Tax Rates**. It might take several minutes to import the data. When the process is complete, the message, "The tax rate has been imported" appears. If you receive an error message, correct the problem in the data and try again.

3. On the Admin sidebar, tap **Stores**. Then under **Taxes**, choose **Tax Zones and Rates**. The imported rates appear in the list. Use the page controls to view the new tax rates.

4. Run some test transactions in your store with customers from different ZIP codes to make sure that the new tax rates work correctly.
Value Added Tax (VAT)

Some countries charge a value added tax, or VAT, on goods and services. There can be different VAT rates depending on which stage you as a merchant are at in the manufacture or distribution of the products, materials, or services that you sell to your customers. In this case you may need to use more than one VAT rate in your store for tax calculation purposes.

Configuring VAT

The following instructions include a sample procedure to set up a 20% VAT in the U.K. for sales to retail customers. For other tax rates and countries, follow the general procedure but enter specific information that corresponds to your country, VAT rate, customer types, and so on.

Before proceeding, make sure to find out which rules and regulations apply to VAT in your area.

In certain business-to-business transactions, VAT is not assessed. Magento can validate a customer's VAT ID to ensure that VAT is assessed (or not assessed) properly. To learn more, see: VAT Validation.

Process Overview:
Step 1: Set Up Customer Tax Classes
Step 2: Set Up Product Tax Classes
Step 3: Set Up Tax Zones and Rates
Step 4: Set Up Tax Rules
Step 5: Apply Tax Classes to Products

Step 1: Set Up Customer Tax Classes

1. On the Admin sidebar, tap Stores. Then choose, select Tax Zones and Rates.

2. Ensure that there is a customer tax class that is appropriate to use with the VAT. For this example, ensure that there is a customer tax class named Retail Customer. If Retail Customer does not exist, click the Add New button and add it.

Step 2: Set Up Product Tax Classes

1. On the Admin menu, select Sales > Tax > Product Tax Classes.

2. Click the Add New button and create three new classes:
   - VAT Standard
   - VAT Reduced
   - VAT Zero
3. Click the **Save Class** button for each new class that you add.

**Step 3: Set Up Tax Zones and Rates**

1. On the Admin menu, select **Sales > Tax > Manage Tax Zones & Rates**.
   
   For this example you can remove the U.S. tax rates, or leave them as they are.

2. Click the **Add New Tax Rate** button. Add new rates as follows:

<table>
<thead>
<tr>
<th>NEW TAX RATE</th>
<th>SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT Standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tax Identifier: VAT Standard</td>
</tr>
<tr>
<td></td>
<td>Country and State: United Kingdom</td>
</tr>
<tr>
<td></td>
<td>Rate Percent: 20.00</td>
</tr>
<tr>
<td>VAT Reduced</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tax Identifier: VAT Reduced</td>
</tr>
<tr>
<td></td>
<td>Country and State: United Kingdom</td>
</tr>
<tr>
<td></td>
<td>Rate Percent: 5.00</td>
</tr>
</tbody>
</table>

3. Click the **Save Rate** button for each rate.

**Step 4: Set Up Tax Rules**

A tax rule is a combination of a customer tax class, a product tax class, and a tax rate.

1. On the Admin menu, select **Sales > Tax > Manage Tax Rules**.

2. Add new tax rules as follows:

<table>
<thead>
<tr>
<th>NEW TAX RULE</th>
<th>SETTINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>VAT Standard</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name: VAT Standard</td>
</tr>
<tr>
<td></td>
<td>Customer Tax Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Product Tax Class: VAT Standard</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: VAT Standard Rate</td>
</tr>
<tr>
<td>VAT Reduced</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Name: VAT Reduced</td>
</tr>
<tr>
<td></td>
<td>Customer Tax Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Product Tax Class: VAT Reduced</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: VAT Reduced Rate</td>
</tr>
</tbody>
</table>
3. Click the **Save Rule** button for each rate.

**Step 5: Apply Tax Classes to Products**

1. On the Admin menu, select **Catalog > Manage Products**.
2. Open a product from your catalog in edit mode.
3. On the General page, find the **Tax Class** field. Then, select the **VAT Class** that applies to the product.
4. When complete, click the **Save** button.
VAT ID Validation

VAT ID Validation automatically calculates the required tax for B2B transactions that take place within the European Union (EU), based on the merchant and customer locale. Magento performs VAT ID validation using the web services of the European Commission server.

VAT-related tax rules do not influence other tax rules, and do not prevent the application of other tax rules. Only one tax rule can be applied at a given time.

- VAT is charged if the merchant and customer are located in the same EU country.
- VAT is not charged if the merchant and customer are located in different EU countries, and both parties are EU-registered business entities.

The store administrator creates more than one default customer group that can be automatically assigned to the customer during account creation, address creation or update, and checkout. The result is that different tax rules are used for intra-country (domestic) and intra-EU sales.

Important: If you sell virtual or downloadable products, which by their nature do not require shipping, the VAT rate of a customer’s location country should be used for both intra-union and domestic sales. You must create additional individual tax rules for product tax classes that correspond to the virtual products.

Customer Registration Workflow

If VAT ID Validation is enabled, after registration each customer is proposed to enter the VAT ID number. However only those who are registered VAT customers are expected to fill this field.

After a customer specifies the VAT number and other address fields, and chooses to save, the system saves the address and sends the VAT ID validation request to the European Commission server. According to the results of the validation, one of the default groups is assigned to a customer. This group can be changed if a customer or an administrator changes the VAT ID of the default address or changes the whole default address. The group can be temporarily changed (group change will be emulated) in some cases during one-page checkout.

If enabled, you can override VAT ID Validation for individual customers by selecting the checkbox on the Customer Information page.
Checkout Workflow

If a customer’s VAT validation is performed during checkout, the VAT request identifier and VAT request date are saved in the Comments History section of the order.

The system behavior concerned with the VAT ID validation and the customer group change during the checkout depends on how the Validate on Each Transaction and the Disable Automatic Group Change settings are configured. This section describes the implementation of the VAT ID Validation functionality for the checkout on the frontend.

In case a customer uses Google Express Checkout, PayPal Express Checkout or another external checkout method, when the checkout is performed completely on the side of the external payment gateway, the Validate on Each Transaction setting cannot be applied. Thus the customer group cannot change during checkout.
Customer initiates one-page checkout

Enter new address (includes guest checkout, registration during checkout, or no address)

New Address

Yes

Existing

Use previously saved and validated address

Validate on each transaction?

No

Yes

Validate and Assign

VAT ID is validated, and customer group assignment is emulated

Use Previous Results

Previous validation results are used, if available

Address available before checkout?

Yes (all other situations)

Address

No

Automatic group change?

Change

No

Use Previous Group

Customer group assigned before checkout is used.

Yes

Group Assigned

An emulated customer group is permanently assigned to customer.

Customer completes checkout
Configuring VAT ID Validation

To configure VAT ID validation, you must first set up the customer groups that are needed, and create the related tax classes, rates, and rules. Then, enable VAT ID validation for the store, and complete the configuration.

The following examples show how tax classes and rates are used for VAT ID Validation. Take a look at the examples, and then follow the instructions to set up the tax classes and rules that are needed for your store.

Example: Minimal Tax Rules Required for VAT ID Validation

<table>
<thead>
<tr>
<th>TAX RULE #1</th>
</tr>
</thead>
</table>
| Customer Tax Class | Customer tax classes must include:  
| | A class for domestic customers  
| | A class for customers with invalid VAT ID  
| | A class for customers, for whom VAT ID validation failed  
| Product Tax Class | Product tax classes must include a class for products of all types, except bundle and virtual.  
| Tax Rate | The tax rate must include the VAT rate of the merchant’s country.  

<table>
<thead>
<tr>
<th>TAX RULE #2</th>
</tr>
</thead>
</table>
| Customer Tax Class | A class for intra-union customers.  
| Product Tax Class | A class for products of all types, except virtual.  
| Tax Rate | VAT rates for all EU countries, except merchant’s country. Currently this rate is 0%.  

<table>
<thead>
<tr>
<th>TAX RULE #3 (REQUIRED FOR VIRTUAL AND DOWNLOADABLE PRODUCTS)</th>
</tr>
</thead>
</table>
| Customer Tax Class | Customer tax classes must include:  
| | A class for domestic customers  
| | A class for customers with invalid VAT ID  
| | A class for customers, for whom VAT ID validation failed  
| Product Tax Class | A class for virtual products.  
| Tax Rate | VAT rate of the merchant’s country.  

<table>
<thead>
<tr>
<th>TAX RULE #4 (REQUIRED FOR VIRTUAL AND DOWNLOADABLE PRODUCTS)</th>
</tr>
</thead>
</table>
| Customer Tax Class | A class for intra-union customers.  

TAX RULE #4 (REQUIRED FOR VIRTUAL AND DOWNLOADABLE PRODUCTS)

<table>
<thead>
<tr>
<th>Product Tax Class</th>
<th>A class for virtual products.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Rate</td>
<td>VAT rates for all EU countries, except merchant’s country. Currently this rate is 0%.</td>
</tr>
</tbody>
</table>

Process Overview:
Step 1: Create VAT-Related Customer Groups
Step 2: Create VAT-Related Classes, Rates and Rules
Step 3: Enable and Configure VAT ID Validation
Step 4: Set your VAT ID and Location Country
Step 5: Verify the List of EU Member Countries

Step 1: Create VAT-Related Customer Groups

VAT ID Validation automatically assigns one of the four default customer groups to customers according to VAT ID validation results:

- Domestic
- Intra-EU
- Invalid VAT ID
- Validation error

You can create new customer groups for VAT ID Validation or use existing groups, if they comply with your business logic. When configuring VAT ID Validation, you must assign each of the created customer groups as a default for customers with appropriate VAT ID validation results.

Step 2: Create VAT-Related Classes, Rates, and Rules

Each tax rule is defined by three entities:

- Customer Tax Classes
- Product Tax Classes
- Tax Rates

Create the tax rules that you need to use VAT ID Validation effectively.

- Tax rules include tax rates and tax classes.
- Tax classes are assigned to customer groups.
Step 3: Enable and Configure VAT ID Validation

2. If necessary, set the Store View for the configuration.
3. In the panel on the left under Customers, choose Customer Configuration.
4. Expand the Create New Account Options section.

5. Set Enable Automatic Assignment to Customer Group to “Yes.” Then complete the following fields as needed.
Step 4: Set Your VAT ID and Location Country


2. If needed, set Store View to the applicable store view.

3. In the panel on the left under General, choose General.

4. Expand the Store Information section. Then, do the following:

   a. Select your Country.
   b. Enter your VAT Number. Then, tap Validate VAT Number. The result appears immediately.

5. When complete, tap Save Config.
Step 5: Verify the List of EU Member Countries

1. Continuing in the General configuration section, expand the **Countries Options** section.

2. In the list of **European Union Countries**, verify that each member country of the EU is selected.

3. When complete, tap **Save Config**.
Tax Quick Reference

Some tax settings have a choice of options that determines the way the tax is calculated and presented to the customer. To learn more, see: International Tax Guidelines.

Tax Calculation Methods

Tax calculation method options include Unit Price, Row Total, and Total. The following table explains how rounding (to two digits) is handled for different settings.

Tax Configuration Options

<table>
<thead>
<tr>
<th>SETTING</th>
<th>CALCULATION AND DISPLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Price</td>
<td>Magento calculates the tax for each item and displays prices tax-inclusive. To calculate the tax total, Magento rounds the tax for each item, and then adds them together.</td>
</tr>
<tr>
<td>Row Total</td>
<td>Magento calculates the tax for each line. To calculate the tax total, Magento rounds the tax for each line item and then adds them together.</td>
</tr>
<tr>
<td>Total</td>
<td>Magento calculates the tax for each item and adds those tax values to calculate the total unrounded tax amount for the order. Magento then applies the specified rounding mode to the total tax to determine the total tax for the order.</td>
</tr>
</tbody>
</table>
Catalog Prices With or Without Tax

The possible display fields vary depending on the calculation method and whether the catalog prices include or exclude taxes. Display fields have two-decimal precision in normal computations. Some combinations of price settings display prices that both include and exclude tax. When both appear on the same line item, it can be confusing to customers, and triggers a warning.

**Tax Configuration Options**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>CALCULATION AND DISPLAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluding Tax</td>
<td>Using this setting, the base item price is used as it is entered and the tax calculation methods are applied.</td>
</tr>
<tr>
<td>Including Tax</td>
<td>Using this setting, the base item price excluding tax is calculated first. This value is used as the base price, and the tax calculation methods are applied.</td>
</tr>
</tbody>
</table>

**Important!** Changes have been made from earlier versions for EU merchants or other VAT merchants who display prices including tax and operate in several countries with multiple store views. If you load prices with more than two digits of precision, Magento automatically rounds all prices to two digits to ensure that a consistent price is presented to buyers.

Shipping Prices With or Without Tax

**Tax Configuration Options**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>DISPLAY</th>
<th>CALCULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluding Tax</td>
<td>Appears without tax.</td>
<td>Normal calculation. Shipping is added to cart total, typically displayed as a separate item.</td>
</tr>
<tr>
<td>Including Tax</td>
<td>Can be tax inclusive, or tax can be displayed separately.</td>
<td>Shipping is treated as another item in cart with taxes, using the same calculations.</td>
</tr>
</tbody>
</table>

**Tax Amounts as Line Items**

To display two different tax amounts as separate line items, such as GST and PST for Canadian stores, you must set different priorities for the related tax rules. However, in previous tax calculations, taxes with different priorities would automatically be compounded. To correctly display separate tax amounts without an incorrect compounding of the tax amounts, you can set different priorities, and also select the Calculate off subtotal only checkbox. This produces correctly calculated tax amounts that appear as separate line items.
# International Tax Guidelines

## U.S. Tax Configuration

<table>
<thead>
<tr>
<th>TAX OPTION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load catalog prices</td>
<td>Excluding tax</td>
</tr>
<tr>
<td>FPT</td>
<td>No, because FPT is not taxed.</td>
</tr>
<tr>
<td>Tax based on</td>
<td>Shipping origin</td>
</tr>
<tr>
<td>Tax Calculation</td>
<td>On total</td>
</tr>
<tr>
<td>Tax shipping?</td>
<td>No</td>
</tr>
<tr>
<td>Apply Discount</td>
<td>Before tax</td>
</tr>
<tr>
<td>Comment</td>
<td>All tax zones are the same priority; ideally, a zone for state and one or more zones for zip code lookup.</td>
</tr>
</tbody>
</table>

## UK B2C Tax Configuration

<table>
<thead>
<tr>
<th>TAX OPTION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load catalog prices</td>
<td>Excluding tax</td>
</tr>
<tr>
<td>FPT</td>
<td>Yes, including FPT and description</td>
</tr>
<tr>
<td>Tax based on</td>
<td>Shipping address</td>
</tr>
<tr>
<td>Tax Calculation</td>
<td>On total</td>
</tr>
<tr>
<td>Tax shipping?</td>
<td>Yes</td>
</tr>
<tr>
<td>Apply Discount</td>
<td>Before tax, discount on prices, including tax.</td>
</tr>
<tr>
<td>Comment</td>
<td>For merchants marking up supplier invoices (including VAT).</td>
</tr>
</tbody>
</table>

## U.K. B2B Tax Configuration

<table>
<thead>
<tr>
<th>TAX OPTION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load catalog prices</td>
<td>Excluding tax</td>
</tr>
<tr>
<td>FPT</td>
<td>Yes, including FPT and description</td>
</tr>
<tr>
<td>Tax based on</td>
<td>Shipping address</td>
</tr>
<tr>
<td>Tax Calculation</td>
<td>On item</td>
</tr>
</tbody>
</table>
U.K. B2B Tax Configuration (cont.)

<table>
<thead>
<tr>
<th>TAX OPTION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax shipping?</td>
<td>Yes</td>
</tr>
<tr>
<td>Apply Discount</td>
<td>Before tax, discount on prices, including tax.</td>
</tr>
<tr>
<td>Comment</td>
<td>For B2B merchants to provide simpler VAT supply chain considerations. Tax calculation on row is also valid; however, check with your taxing jurisdiction. Setup assumes a merchant is in the supply chain and that goods sold are used by other vendors for VAT rebates and so on. This makes it easy to discern tax by item for faster rebate generation. Note that some jurisdictions require different rounding strategies not currently supported by Magento, and that not all jurisdictions allow item or row level tax.</td>
</tr>
</tbody>
</table>

Canada Tax Configuration

<table>
<thead>
<tr>
<th>TAX OPTION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load catalog prices</td>
<td>Excluding tax</td>
</tr>
<tr>
<td>FPT</td>
<td>Yes, including FPT, description, and apply tax to FPT.</td>
</tr>
<tr>
<td>Tax based on</td>
<td>Shipping origin</td>
</tr>
<tr>
<td>Tax Calculation</td>
<td>On total</td>
</tr>
<tr>
<td>Tax shipping?</td>
<td>Yes</td>
</tr>
<tr>
<td>Apply Discount</td>
<td>Before tax</td>
</tr>
<tr>
<td>Comment</td>
<td>Merchants located in a GST/PST province (Montreal) should create one tax rule and show a combined tax amount. Be sure to consult a qualified tax authority if you have any questions. For information about the tax requirements of specific provinces, see the following: Revenu Québec Government of Saskatchewan Manitoba Information for Vendors</td>
</tr>
</tbody>
</table>
U.S. Tax Guidelines

These recommended settings can be used for most tax configurations for stores within the United States.

**Tax Classes**

<table>
<thead>
<tr>
<th>TAX CLASS</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Class for Shipping</td>
<td>None</td>
</tr>
</tbody>
</table>

**Calculation Settings**

<table>
<thead>
<tr>
<th>CALCULATION</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Calculation Method Based On Total</td>
<td></td>
</tr>
<tr>
<td>Tax Calculation Based On Shipping Origin</td>
<td></td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Shipping Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Apply Customer Tax</td>
<td>After Discount</td>
</tr>
<tr>
<td>Apply Discount on Prices</td>
<td>Excluding Tax</td>
</tr>
</tbody>
</table>

**Default Tax Destination Calculation**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Country</td>
<td>United States</td>
</tr>
<tr>
<td>Default State</td>
<td>State where business is located.</td>
</tr>
<tr>
<td>Default Post Code</td>
<td>The postal code that is used in your tax zones.</td>
</tr>
</tbody>
</table>

**Price Display Settings**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Product Prices in Catalog</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Shipping Prices</td>
<td>Excluding Tax</td>
</tr>
</tbody>
</table>

**Shopping Cart Display Settings**

<table>
<thead>
<tr>
<th>SETTING</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Subtotal</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>SETTING</td>
<td>RECOMMENDED SETTING</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Display Shipping Amount</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Gift Wrapping Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Printed Card Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Include Tax in Grand Total</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Full Tax Summary</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Zero Tax Subtotal</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Orders, Invoices, Credit Memos, Display Settings

<table>
<thead>
<tr>
<th>SETTING</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Subtotal</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Display Shipping Amount</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Include Tax in Grand Total</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Full Tax Summary</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Zero Tax Subtotal</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Fixed Product Taxes

<table>
<thead>
<tr>
<th>SETTING</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable FPT</td>
<td>No, except in California.</td>
</tr>
</tbody>
</table>
Canadian Tax Guidelines

The following example shows how to set up GST tax rates for Canada and PST tax rates for Saskatchewan, with tax rules that calculate and display the two tax rates. Because this is an example configuration, be sure to verify the correct tax rates and rules for your tax jurisdictions. When setting up taxes, set the store scope to apply the configuration to all applicable stores and websites.

- Fixed product tax is included for relevant goods as a product attribute.
- In Quebec, PST is referred to as TVQ. If you need to set up a rate for Quebec, make sure to use TVQ as the identifier.

**Process Overview:**

Step 1: Complete the Tax Calculation Settings
Step 2: Set Up Canadian Goods & Services Tax (GST)
Step 3: Set Up Canadian Provincial Sales Tax (PST)
Step 4: Create a GST Tax Rule
Step 5: Create a PST Tax Rule for Saskatchewan
Step 6: Save and Test the Results

**Step 1: Complete Tax Calculation Settings**

1. On the Admin menu, select System > Configuration. Then in the panel on the left, under Sales, select Tax.
2. Click to expand each section, and complete the following settings:

**Tax Calculation Settings**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Calculation Method Based On</td>
<td>Total</td>
</tr>
<tr>
<td>Tax Calculation Based On</td>
<td>Shipping Address</td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Shipping Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Apply Customer Tax</td>
<td>After Discount</td>
</tr>
<tr>
<td>Apply Discount on Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Apply Tax On</td>
<td>Custom Price (if available)</td>
</tr>
</tbody>
</table>
### Tax Classes

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Class for Shipping</td>
<td>Shipping (shipping is taxed)</td>
</tr>
</tbody>
</table>

### Default Tax Destination Calculation

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Country</td>
<td>Canada</td>
</tr>
<tr>
<td>Default State</td>
<td>(as appropriate)</td>
</tr>
<tr>
<td>Default Postal Code</td>
<td>* (asterisk)</td>
</tr>
</tbody>
</table>

### Shopping Cart Display Settings

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include Tax in Grand Total</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Full Tax Summary</td>
<td>Yes</td>
</tr>
<tr>
<td>Display Zero in Tax Subtotal</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Fixed Product Taxes

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable FPT</td>
<td>Yes</td>
</tr>
<tr>
<td>All FPT Display Settings</td>
<td>Including FPT and FPT description</td>
</tr>
<tr>
<td>Apply Discounts to FPT</td>
<td>No</td>
</tr>
<tr>
<td>Apply Tax to FPT</td>
<td>Yes</td>
</tr>
<tr>
<td>Include FPT in Subtotal</td>
<td>No</td>
</tr>
</tbody>
</table>
Step 2: Set Up Canadian Goods & Services Tax (GST)

To print the GST number on invoices and other sales documents, include it in the name of the applicable tax rates. The GST will appear as part of the GST amount on any order summary.

Manage Tax Zones & Rates

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Identifier</td>
<td>Canada-GST</td>
</tr>
<tr>
<td>Country</td>
<td>Canada</td>
</tr>
<tr>
<td>State</td>
<td>* (asterisk)</td>
</tr>
<tr>
<td>Zip/Post is Range</td>
<td>No</td>
</tr>
<tr>
<td>Zip/Post Code</td>
<td>* (asterisk)</td>
</tr>
<tr>
<td>Rate Percent</td>
<td>5.0000</td>
</tr>
</tbody>
</table>

Step 3: Set Up Canadian Provincial Sales Tax (PST)

Set up another tax rate for the applicable province.

Tax Rate Information

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Identifier</td>
<td>Canada-SK-PST</td>
</tr>
<tr>
<td>Country</td>
<td>Canada</td>
</tr>
<tr>
<td>State</td>
<td>Saskatchewan</td>
</tr>
<tr>
<td>Zip/Post is Range</td>
<td>No</td>
</tr>
<tr>
<td>Zip/Post Code</td>
<td>* (asterisk)</td>
</tr>
<tr>
<td>Rate Percent</td>
<td>5.0000</td>
</tr>
</tbody>
</table>
Step 4: Create a GST Tax Rule

To avoid compounding the tax and to correctly display the calculated tax as separate line items for GST and PST, you must set different priorities for each rule, and select the “Calculate off subtotal only” checkbox. Each tax appears as a separate line item, but the tax amounts are not compounded.

Tax Rule Information

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Retail-Canada-GST</td>
</tr>
<tr>
<td>Customer Tax Class</td>
<td>Retail Customer</td>
</tr>
<tr>
<td>Product Tax Class</td>
<td>Taxable Goods, Shipping</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>Canada-GST</td>
</tr>
<tr>
<td>Priority</td>
<td>0</td>
</tr>
<tr>
<td>Calculate off subtotal only</td>
<td>Select this checkbox.</td>
</tr>
<tr>
<td>Sort Order</td>
<td>0</td>
</tr>
</tbody>
</table>
Step 5: Create a PST Tax Rule for Saskatchewan

For this tax rule, make sure to set the priority to 0 and select the "Calculate off subtotal only" checkbox. Each tax appears as a separate line item, but the tax amounts are not compounded.

**Tax Rule Information**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Retail-Canada-PST</td>
</tr>
<tr>
<td>Customer Tax Class</td>
<td>Retail Customer</td>
</tr>
<tr>
<td>Product Tax Class</td>
<td>Taxable Goods</td>
</tr>
<tr>
<td></td>
<td>Shipping</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>Canada-SK-PT</td>
</tr>
<tr>
<td>Priority</td>
<td>1</td>
</tr>
<tr>
<td>Calculate off subtotal only</td>
<td>Select this checkbox.</td>
</tr>
<tr>
<td>Sort Order</td>
<td>0</td>
</tr>
</tbody>
</table>

Step 6: Save and Test the Results

1. When complete, click the **Save Config** button.

2. Return to your storefront, and create a sample order to test the results.
EU Tax Guidelines

The following example depicts a store based in France that sells > 100k Euros in France and > 100k Euros in Germany.

- Tax calculations are managed at the website level.
- Currency conversion and tax display options are controlled individually at the store view level, (Click the Use Website checkbox to override the default).
- By setting the default tax country you can dynamically show the correct tax for the jurisdiction.
- Fixed product tax is included for relevant goods as a product attribute.
- It might be necessary to edit the catalog to ensure that it shows up in the correct category/website/store view.

Process Overview:
Step 1: Create Three Product Tax Classes
Step 2: Create Tax Rates for France and Germany
Step 3: Set Up the Tax Rules
Step 4: Set Up a Store View for Germany
Step 5: Configure Tax Settings for France
Step 6: Configure Tax Settings for Germany

Step 1: Create Three Product Tax Classes

For this example, it is assumed that multiple VAT-Reduced product tax classes are not needed.

1. Create a VAT-Standard product tax class.
2. Create a VAT-Reduced product tax class.
3. Create a VAT-Free product tax class.
## Step 2: Create Tax Rates for France and Germany

Create the following tax rates:

<table>
<thead>
<tr>
<th>TAX RATE</th>
<th>SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>France-StandardVAT</strong></td>
<td>Country: France</td>
</tr>
<tr>
<td></td>
<td>State/Region: *</td>
</tr>
<tr>
<td></td>
<td>ZIP/Postal Code: *</td>
</tr>
<tr>
<td></td>
<td>Rate: 20%</td>
</tr>
<tr>
<td><strong>France-ReducedVAT</strong></td>
<td>Country: France</td>
</tr>
<tr>
<td></td>
<td>State/Region: *</td>
</tr>
<tr>
<td></td>
<td>ZIP/Postal Code: *</td>
</tr>
<tr>
<td></td>
<td>Rate: 5%</td>
</tr>
<tr>
<td><strong>Germany-StandardVAT</strong></td>
<td>Country: Germany</td>
</tr>
<tr>
<td></td>
<td>State/Region: *</td>
</tr>
<tr>
<td></td>
<td>ZIP/Postal Code: *</td>
</tr>
<tr>
<td></td>
<td>Rate: 19%</td>
</tr>
<tr>
<td><strong>Germany-ReducedVAT</strong></td>
<td>Country: Germany</td>
</tr>
<tr>
<td></td>
<td>State/Region: *</td>
</tr>
<tr>
<td></td>
<td>ZIP/Postal Code: *</td>
</tr>
<tr>
<td></td>
<td>Rate: 7%</td>
</tr>
</tbody>
</table>
Step 3: **Set Up the Tax Rules**

Create the following tax rules:

<table>
<thead>
<tr>
<th>TAX RULE</th>
<th>SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Retail-France-StandardVAT</strong></td>
<td>Customer Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Tax Class: VAT-Standard</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: France-StandardVAT</td>
</tr>
<tr>
<td></td>
<td>Priority: 0</td>
</tr>
<tr>
<td></td>
<td>Sort Order: 0</td>
</tr>
<tr>
<td><strong>Retail-France-ReducedVAT</strong></td>
<td>Customer Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Tax Class: VAT-Reduced</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: France-ReducedVAT</td>
</tr>
<tr>
<td></td>
<td>Priority: 0</td>
</tr>
<tr>
<td></td>
<td>Sort Order: 0</td>
</tr>
<tr>
<td><strong>Retail-Germany-StandardVAT</strong></td>
<td>Customer Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Tax Class: VAT-Standard</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: Germany-StandardVAT</td>
</tr>
<tr>
<td></td>
<td>Priority: 0</td>
</tr>
<tr>
<td></td>
<td>Sort Order: 0</td>
</tr>
<tr>
<td><strong>Retail-Germany-ReducedVAT</strong></td>
<td>Customer Class: Retail Customer</td>
</tr>
<tr>
<td></td>
<td>Tax Class: VAT-Reduced</td>
</tr>
<tr>
<td></td>
<td>Tax Rate: Germany-ReducedVAT</td>
</tr>
<tr>
<td></td>
<td>Priority: 0</td>
</tr>
<tr>
<td></td>
<td>Sort Order: 0</td>
</tr>
</tbody>
</table>
Step 4: Set Up a Store View for Germany

1. On the Admin sidebar, tap Stores. Then under Settings, choose All Stores.

2. Under the default website, create a store view for Germany. Then, do the following:
   a. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
   a. In the upper-left corner, set Default Config to the French store.
   b. On the General page, expand the Countries Options section, and set the default country to “France.”
   c. Complete the locale options as needed.

3. In the upper-left corner, choose the German Store View. Then, do the following:
   a. On the General page, expand Countries Options, and set the default country to “Germany.”
   b. Complete the locale options as needed.

Step 5: Configure Tax Settings for France

Complete the following General tax settings:

General Settings

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAX CLASSES</td>
<td></td>
</tr>
<tr>
<td>Tax Class for Shipping</td>
<td>Shipping (shipping is taxed)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CALCULATION SETTINGS</td>
<td></td>
</tr>
<tr>
<td>Tax Calculation Method Based On</td>
<td>Total</td>
</tr>
<tr>
<td>Tax Calculation Based On</td>
<td>Shipping Address</td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Including Tax</td>
</tr>
<tr>
<td>Shipping Prices</td>
<td>Including Tax</td>
</tr>
<tr>
<td>Apply Customer Tax</td>
<td>After Discount</td>
</tr>
<tr>
<td>Apply Discount on Prices</td>
<td>Including Tax</td>
</tr>
</tbody>
</table>
General Settings (cont.)

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply Tax On</td>
<td>Custom Price (if available)</td>
</tr>
</tbody>
</table>

**DEFAULT TAX DESTINATION CALCULATION**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Country</td>
<td>France</td>
</tr>
<tr>
<td>Default State</td>
<td></td>
</tr>
<tr>
<td>Default Postal Code</td>
<td>* (asterisk)</td>
</tr>
</tbody>
</table>

**SHOPPING CART DISPLAY SETTINGS**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include Tax in Grand Total</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**FIXED PRODUCT TAXES**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enable FPT</td>
<td>Yes</td>
</tr>
<tr>
<td>All FPT Display Settings</td>
<td>Including FPT and FPT description</td>
</tr>
<tr>
<td>Apply Discounts to FPT</td>
<td>No</td>
</tr>
<tr>
<td>Apply Tax to FPT</td>
<td>Yes</td>
</tr>
<tr>
<td>Include FPT in Subtotal</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Step 6: Configure Tax Settings for Germany

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the upper-right corner, set Store View to the view to the German store. When prompted to confirm, tap OK.

3. In the panel on the left, under Sales, choose Tax.

4. In the Default Tax Destination Calculation section, do the following:
   a. Clear the Use Website checkbox after each field,
   b. Update the following values to match your site’s Shipping Settings point of origin.
      - Default Country
      - Default State
      - Default Post Code

   This setting ensures that tax is calculated correctly when product prices include tax.

![Default Tax Destination Calculation]

5. When complete, tap Save Config.
Warning Messages

Some combinations of tax-related options might be confusing to customers and trigger a warning. These conditions might occur when the tax calculation method is set to “Row” or “Total,” and the customer is presented with prices that both exclude and include tax, or a tax on an item basis in the cart. Because the tax calculation is rounded, the amount that appears in the cart might differ from the amount that a customer expects to pay.

If your tax calculation is based on a problematic configuration, the following warnings appear:

⚠️ Warning. Tax discount configuration might result in different discounts than a customer might expect for store(s); Europe Website (French), Europe Website (German). Please see source for more details.

⚠️ Warning. Tax configuration can result in rounding errors for store(s): Europe Websites (French), Europe Websites (German).

Calculation Settings

Use the following tables for reference when configuring tax calculation settings:

**Tax Calculation Method Based On: Excluding Tax**

**Tax Excluded**

<table>
<thead>
<tr>
<th>PRICE DISPLAY</th>
<th>UNIT PRICE</th>
<th>ROW TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Class for Shipping</td>
<td>Shipping (is taxed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Excluding tax</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>Including tax</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>Including and Excluding tax</td>
<td>OK</td>
<td>OK</td>
<td><strong>Warning</strong></td>
</tr>
</tbody>
</table>

**Catalog Prices: Including Tax**

**Tax Included**

<table>
<thead>
<tr>
<th>PRICE DISPLAY</th>
<th>UNIT PRICE</th>
<th>ROW TOTAL</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excluding tax</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>Including tax</td>
<td>OK</td>
<td>OK</td>
<td>OK</td>
</tr>
<tr>
<td>Including and Excluding tax</td>
<td>OK</td>
<td><strong>Warning</strong></td>
<td><strong>Warning</strong></td>
</tr>
</tbody>
</table>
## Calculation Settings

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tax Calculation Method Based On</td>
<td>Total</td>
</tr>
<tr>
<td>Tax Calculation Based On</td>
<td>Shipping Address</td>
</tr>
<tr>
<td>Catalog Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>This sets whether catalog prices entered from Magento Admin include tax.</td>
<td></td>
</tr>
<tr>
<td>Shipping Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>This sets whether shipping amounts entered from Magento Admin or obtained from gateways include tax.</td>
<td></td>
</tr>
<tr>
<td>Apply Customer Tax</td>
<td>After Discount</td>
</tr>
<tr>
<td>Apply Discount On Prices</td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>Apply discount on price including tax is calculated based on store tax if “Apply Tax After Discount” is selected.</td>
<td></td>
</tr>
<tr>
<td>Apply Tax On</td>
<td>Custom price if available</td>
</tr>
<tr>
<td>Enable Cross Border Trade</td>
<td>No</td>
</tr>
<tr>
<td>When catalog price includes tax, enable this setting to fix the price no matter what the customer's tax rate.</td>
<td></td>
</tr>
</tbody>
</table>

## Discount Settings

We strongly recommend that you use the following settings to avoid issues when configuring taxes in relation to discounts.

### Recommended Settings

<table>
<thead>
<tr>
<th>FIELD</th>
<th>RECOMMENDED SETTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply Customer Tax</td>
<td>After Discount</td>
</tr>
<tr>
<td>Apply Discount On Prices</td>
<td>US and Canada</td>
</tr>
<tr>
<td></td>
<td>Excluding Tax</td>
</tr>
<tr>
<td>EU</td>
<td>Including Tax</td>
</tr>
</tbody>
</table>
CHAPTER 73:

Currency

Magento Commerce gives you the ability to accept currencies from more than two hundred countries around the world. If the store supports multiple currencies, a Currency Chooser appears in the header after currency rates are updated.

If you accept payment in multiple currencies, make sure to monitor the currency rate settings, because any fluctuation can impact your profit margin.

Currency symbols appear in product prices and sales documents such as orders and invoices. You can customize the currency symbols as needed, and also set the display of the price separately for each store or view.
Currency Configuration

Before setting up individual currency rates, you must first set the scope of the base currency. By default, it is set to global, which applies the base currency setting to the entire store hierarchy. If you have a multisite installation of Magento, you can manage multiple base currencies by setting the scope to the website level.

Then, specify which currencies you accept, and the currency that you want to use for the display of prices in your store. In the following illustration, the scope of the base currency is set at the website level, so each website can have a different base currency.

Scope of Base Currency

Process Overview:
Step 1: Choose the Accepted Currencies
Step 2: Configure the Import Connection
Step 3: Configure the Scheduled Import Settings
Step 4: Update the Currency Rates
Step 1: Choose the Accepted Currencies

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose Currency Setup.

3. Expand the Currency Options section, and do the following:
   
a. Set Base Currency to the primary currency that you use for online transactions.

b. Set Default Display Currency to the currency that you use to display pricing in your store.

c. In the Allowed Currencies list, select all currencies that you accept as payment in your store. Make sure to also select your primary currency. (For multiple currencies, hold down the Ctrl key and select each option.)

4. When prompted to refresh the cache, tap the Close box in the upper-right corner of the system message. We'll refresh the cache later.

5. To define the scope of the base currency, do the following:
   
a. In the panel on the left under Catalog, choose Catalog. Then, scroll down and expand the Price section.

b. Set Catalog Price Scope to either “Global” or “Website.”
Step 2: Configure the Import Connection

1. Scroll back up to the top of the page. In the panel on the left under General, choose Currency Setup.
2. Expand the WebserviceX section.
3. In the Connection Timeout in Seconds field, enter the number of seconds of inactivity to allow before the connection times out.

Step 3: Configure the Scheduled Import Settings

1. Continuing with Currency Setup, expand the Scheduled Import Settings section.
2. To automatically update currency rates, set Enabled to "Yes." Then, do the following:
   a. Set Service to the rate provider. The default value is “Webservicex.”
   b. Set Start Time to the hour, minute, and second that the rates will be updated according to the schedule.
   c. To determine how often the rates are updated, set Frequency to one of the following:
      * Daily
      * Weekly
      * Monthly
   d. In the Error Email Recipient field, enter the email address of the person who is to receive email notification if an error occurs during the import process. To enter multiple email addresses, separate each with a comma.
   e. Set Error Email Sender to the store contact that appears as the sender of the error notification.
   f. Set Error Email Template to the email template used for the error notification.
3. When complete, tap Save Config.
4. When prompted to update the cache, tap the Cache Management link. Then, refresh the invalid cache.
Step 4: **Update the Currency Rates**

The currency rates must be updated with the current values before they go into effect. Follow the instructions to update the rates manually or to import the rates automatically.
Currency Symbols

Manage Currency Symbols gives you the ability to customize the symbol associated with each currency that is accepted as payment in your store.

To customize currency symbols:

1. On the Admin sidebar, tap Stores. Then under Currency, choose Currency Symbols.
   Each currency that is currently enabled for your store appears in the Currency list.

2. Enter a custom symbol for each currency you want to use, or mark the Use Standard checkbox to the right of each currency.

3. To override the default symbol, clear the Use Standard checkbox. Then, enter the symbol that you want to use.

   It is not possible to change the alignment of the currency symbol from left to right.

4. When complete, tap Save Currency Symbols.

5. When prompted to update the cache, tap the Cache Management link. Then, refresh any invalid cache.

Refresh Cache
Updating Currency Rates

Currency rates can be set manually, or imported into the store. To ensure that your store has the most current rates, you can configure the currency rates to be updated automatically on schedule.

Before importing currency rates, complete the Currency Rate Setup to specify the currencies that you accept, and to establish the import connection and schedule.

To manually update a currency rate:

1. On the Admin sidebar, click Stores. Then under Currency, choose Currency Rates.
2. Tap the rate you want to change, and enter the new value for each currency supported.
3. When complete, tap Save Currency Rates.

To import currency rates:

1. On the Admin sidebar, tap Stores. Then under Currency, choose Currency Rates.
2. Set Import Service to the currency rate provider. WebserviceX is the default provider.
3. Tap Import.

The updated rates appear in the Currency Rates list. If the rates have changed since the last update, the old rate appears below for reference.
4. When complete, tap Save Currency Rates.
5. When prompted to update the cache, tap the Cache Management link. Then, refresh all invalid caches.
To import currency rates on schedule:

1. Make sure that Cron is enabled for your store.

2. Complete the Currency Rate Setup to specify the currencies that you accept, and to establish the import connection and schedule.

3. To verify that the rates are imported on schedule, check the Currency Rates list. Then, wait for the duration of the frequency setting established for the schedule, and check the rates again.
CHAPTER 74: Attributes

Magento uses attributes to manage the information associated with products, customers, and product ratings. Attributes are pieces of information that might appear as fields in forms, reports, product reviews, layered navigation, and email messages. Some attributes are built into the system, and others can be created to address specific needs.

You can find more information about attributes in the Products and Data Transfer sections of this guide. To learn more, see:

- Using Product Attributes
- Product Attribute Reference
- Customer Attribute Reference
Product Attributes

Product attribute properties determine how an attribute can be used in the catalog, its appearance and behavior in the store, and in data transfer operations. The properties and labels associated with each attribute determine how it can be used, and its presentation in the store.

### Properties

The Properties section includes both basic and advanced attribute properties.

### Labels

The label identifies an attribute in the Admin and also in the storefront of each store view. If your store is available in multiple languages, you can enter a different translated label for each language.

### Storefront Properties

The Storefront Properties determine how an attribute can be used in your store, its appearance, and behavior. You can specify if attributes are available for search, layered navigation, product comparisons, price rules, and sorting. For text attributes, you can enable the WYSIWYG editor, and determine if HTML tags can be used to format the values.

To learn how to use attributes while creating a product, see: Using Product Attributes.
## Properties

### Property Descriptions

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default Label</td>
<td>The label that identifies the attribute during data entry.</td>
</tr>
<tr>
<td>Catalog Input Type for Store Owner</td>
<td>Determines the data type and input control that is used to manage the product from the store Admin. Options include:</td>
</tr>
<tr>
<td>Text Field</td>
<td>A single line input field for text.</td>
</tr>
<tr>
<td>Text Area</td>
<td>A multiple-line input field that can display paragraphs of text formatted with HTML.</td>
</tr>
<tr>
<td>Date</td>
<td>An input field for date values. The date can be typed directly into the field, or selected from a list or calendar.</td>
</tr>
<tr>
<td>Yes/No</td>
<td>A drop-down list with predefined options of “Yes” and “No.”</td>
</tr>
<tr>
<td>Multiple Select</td>
<td>A drop-down list of options that allows multiple selections. To select more than one option, hold down the Ctrl key and click each item.</td>
</tr>
<tr>
<td>Dropdown</td>
<td>A drop-down list of options that allows only one selection.</td>
</tr>
<tr>
<td>Price</td>
<td>An input type that can be used to create price fields in addition to the predefined attributes: Price, Special Price, Tier Price and Cost.</td>
</tr>
<tr>
<td>Media Image</td>
<td>An additional image that can be included in the attribute set of a product.</td>
</tr>
<tr>
<td>Visual Swatch</td>
<td>Displays a swatch that depicts the color, texture, or pattern of a configurable product. A visual swatch can be filled with a hexadecimal color value, or display an uploaded image that represents the color, material, texture, or pattern of the option.</td>
</tr>
</tbody>
</table>
## Property Descriptions (cont.)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text Swatch</td>
<td>A text-based representation of a configurable product option that is frequently used for size. Text swatches can also include hexadecimal color values.</td>
</tr>
<tr>
<td>Fixed Product Tax</td>
<td>An input type that gives you the ability to define FPT rates based on the requirements of your locale.</td>
</tr>
<tr>
<td>Values Required</td>
<td>To require that a value to be entered in this field before the record can be saved, set Values Required to “Yes.” Options include: Yes / No</td>
</tr>
</tbody>
</table>

## ADVANCED ATTRIBUTE PROPERTIES

<table>
<thead>
<tr>
<th>ATTRIBUTE PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attribute Code</td>
<td>(Required) A unique identifier for internal use. The Attribute Code must begin with a letter, but can include a combination of lowercase letters (a-z) and numbers (0-9). The code must be less than thirty characters in length and cannot include any special characters or spaces, although an underscore (_) can be used to indicate a space.</td>
</tr>
<tr>
<td>Scope</td>
<td>Limits the use of an attribute to a specific store view or website. Options include: Store View, Website, Global</td>
</tr>
<tr>
<td>Default Value</td>
<td>Assigns a starting value to the attribute to help during data entry. To assign a default value for Multiple Select or Dropdown input types, see: Creating Product Attributes. A default value cannot be set for Multiple Select, Dropdown, or Fixed Product Tax input types.</td>
</tr>
<tr>
<td>Unique Value</td>
<td>Requires the attribute value to be different from all other values entered in the same attribute, within the context of the scope setting. Unique value should be enabled for any attribute that is used as an ID number. For example, because SKU is used to identify products throughout the hierarchy, it has a unique value with a global scope. Options: Yes / No</td>
</tr>
<tr>
<td>Input Validation for Store Owner</td>
<td>Performs a validation check of the data entered in the field, based on the following options:</td>
</tr>
</tbody>
</table>
**Property Descriptions (cont.)**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Decimal Number</td>
<td></td>
</tr>
<tr>
<td>Integer Number</td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
</tr>
<tr>
<td>URL</td>
<td></td>
</tr>
<tr>
<td>Letters</td>
<td></td>
</tr>
<tr>
<td>Letters (a-z, A-Z) or Numbers (0-9)</td>
<td></td>
</tr>
</tbody>
</table>

**Add to Column Options** Determines if the column appears in the product grid. Options: Yes / No

**Use in Filter Options** Determines if the attribute is used as a filter control at the top of columns in the grid. Options: Yes / No

**Storefront Properties**

**Property Descriptions**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use in Search</td>
<td>Select “Yes” if you want people to be able to search the catalog based on the value of this attribute. Options include: Yes / No The following attributes appear when Search is enabled:</td>
</tr>
<tr>
<td>Search Weight</td>
<td></td>
</tr>
<tr>
<td>Visible in Advanced Search</td>
<td></td>
</tr>
</tbody>
</table>

To weight the search results, set Search Weight to a number from 1 to 10.

Gives shoppers the ability to enter search criteria through a form. Options include: Yes / No

Using too many attributes can slow down search.

**Comparable on Storefront** Select “Yes” to include this attribute as a row in the Compare Products report. Options include: Yes / No

**Use In Layered Navigation** (Dropdown, Multiple Select and Price input types only) Includes the attribute as a filter in the “Shop By” section of layered navigation. Options include:
### Property Descriptions (cont.)

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>The attribute is not available to be used as a filter in layered navigation.</td>
</tr>
<tr>
<td>Filterable (with results)</td>
<td>Layered navigation includes only those filters for which matching products can be found. Any attribute value that already applies to all products shown in the list does not appear as an available filter. Attribute values with a count of zero (0) product matches are also omitted from the list of available filters. The filtered list of products includes only those that match the filter. The products list is updated only if the selected filter(s) change what is currently shown.</td>
</tr>
<tr>
<td>Filterable (no results)</td>
<td>Layered navigation includes filters for all available attribute values and their product counts, including those with zero (0) product matches. If the attribute value is a swatch, the value appears as a filter, but is crossed out.</td>
</tr>
</tbody>
</table>

| Use In Search Results Layered Navigation | To include the attribute in the layered navigation for search results, select "Yes." Options include: Yes / No |
| Position | Determines the position of the attribute in layered navigation in relation to other filterable attributes. |
| Use for Promo Rule Conditions | To make the attribute available for use in price rules, select "Yes." Options include: Yes / No |
| Allow HTML Tags on Storefront | (Text Field and Text Area input types only) To be able to format the attribute value with HTML tags, select "Yes." Options include: Yes / No |
| Visible on Catalog Pages on Storefront | (Simple and virtual products only) To include the attribute on the Additional Information tab of the product page, select "Yes." Options include: Yes / No |
| Used in Product Listing | Depends on the theme. To include the attribute in product summaries that appear in catalog listings, select "Yes." |
| Used for Sorting in Product Listing | Depending on theme, includes the attribute as a "Sort By" option for catalog listings. Options: Yes / No |
Creating Product Attributes

Attributes can be created while working on a product, or from the Product Attributes page. The following example shows how to create attributes from the Stores menu. To learn how to add attributes while working on a product, see: Using Product Attributes.

Any attribute that is used as a drop-down list of values for a configurable product must have the following properties:

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Input Type for Store Owner</td>
<td>Dropdown</td>
</tr>
<tr>
<td>Scope</td>
<td>Global</td>
</tr>
</tbody>
</table>

New Attribute Properties

Process Overview:
Step 1: Describe the Basic Properties
Step 2: Describe the Advanced Properties
Step 3: Enter the Field Label
Step 4: Describe the Storefront Properties
Step 1: Describe the Basic Properties

1. On the Admin sidebar, tap **Stores**. Then under Attributes, choose **Product**.

2. Tap **Add New Attribute**.

3. Under Attribute Properties, enter a **Default Label** to identify the attribute.

4. Set **Catalog Input Type for Store Owner** to the type in input control to be used for data entry.

5. For Dropdown and Multiple Select input types, do the following:
   a. Under **Manage Options**, tap **Add Option**.
   b. Enter the first value that you want to appear in the list. You can enter one value for the Admin, and a translation of the value for each store view. If you have only one store view, you can enter only the Admin value and it will be used for the storefront as well.
   c. Tap **Add Option** and repeat the previous step for each option that you want to include in the list.
   d. Select **Is Default** to use the option as the default value.

6. If you want to require the customer to choose an option before the product can be purchased, set **Values Required** to “Yes.”
Step 2: **Describe the Advanced Properties** (if needed)

1. Enter a unique **Attribute Code** in lowercase characters, and without spaces.

2. Set **Scope** to indicate where in your store hierarchy the attribute can be used.

3. If you want to prevent duplicate values from being entered, set **Unique Value** to “Yes.”

4. To run a validity test of any data entered into a text field, set **Input Validation for Store Owner** to the type of data that the field should contain. This field is not available for input types with values that are selected. The test can validate any of the following:
   - Decimal Number
   - Integer Number
   - Email
   - URL
   - Letters
   - Letters (a-z, A-Z) or Numbers (0-9)

5. To add this attribute to the product grid, set the following options to "Yes."
Add to Column Options  Includes the attribute as a column in the Products grid.
Use in Filter Options  Adds a filter control to the column header in the Products grid.

**Step 3: Enter the Field Label**

1. Expand the **Manage titles** section.
2. Enter a **Title** to be used as a label for the field. If your store is available in different languages, you can enter a translated title for each view.

![Manage Titles](image)

**Step 4: Describe the Storefront Properties**

1. In the panel on the left, choose **Storefront Properties**.
2. If the attribute is to be available for search, set **Use in Search** to “Yes.”
3. To include the attribute in Product Compare, set **Comparable on Storefront** to “Yes.”
4. For dropdown, multiple select and price fields, do the following:
   a. To use the attribute as a filter in layered navigation, set **Use in Layered Navigation** to “Yes.”
   b. To use the attribute in layered navigation on search results pages, set **Use in Search Results Layered Navigation** to “Yes.”
   c. In the **Position** field, enter a number to indicate the relative position of the attribute in the layered navigation block.
5. To use the attribute in price rules, set **Use for Promo Rule Conditions** to “Yes.”
6. To allow the text to be formatted with HTML, set **Allow HTML Tags on Frontend** to “Yes.”
   This setting makes the WYSIWYG editor available for the field.
   To include the attribute in catalog page listings, set **Visible on Catalog Pages on Storefront** to “Yes.”
7. Complete the following settings if supported by your theme:
a. To include the attribute on the product detail page, set **Visible on Catalog Pages on Storefront** to “Yes.”

b. To include the attribute in product listings, set **Used in Product Listing** to “Yes.”

c. To use attribute as a sort parameter for product listings, set **Used for Sorting in Product Listing** to “Yes.”

8. When complete, tap **Save Attribute**.

![Storefront Properties](Image)
Attribute Sets

One of the first steps when creating a product is to choose the attribute set that is used as a template for the product record. The attribute set determines the fields that are available during data entry, and the values that appear to the customer.

The attributes are organized into groups that determine where they appear in the product record. Your store comes with an initial attribute set called “default” which includes a set of commonly-used attributes. If you would like to add only a small number of attributes, you can add them to the default attribute set. However, if you sell products that require specific types of information, such as cameras, it might be better to create a dedicated attribute set that includes the specific attributes that are needed to describe the product.

To create an attribute set:

1. On the Admin sidebar, tap Stores. Then under Attributes, choose Attribute Set.
2. Tap Add New Set. Then, do the following:
a. Enter a **Name** for the attribute set.

b. Set **Based On** to an existing attribute set to be used as a template.

c. Tap **Save**. The next page displays the following:

   - The left column shows the name of the attribute set. The name is for internal reference, and can be changed as needed.
   - The center of the page lists the current selection of attribute groups.
   - The right column lists the selection of attributes that are currently not assigned to the attribute set.

d. To add a new attribute to the set, drag the attribute from the **Unassigned Attributes** list to the appropriate folder in the **Groups** column.

   **System attributes are marked with a dot and cannot be removed from the Groups list. They can however, be dragged to another Group in the attribute set.**

3. When complete, tap **Save**.
To create a new attribute group:

1. In the Groups column the attribute set, tap **Add**.
2. Enter a **Name** for the new group, and tap **OK**.
3. Do either of the following:
   - Drag **Unassigned Attributes** to the new group.
   - Drag attributes from any other group to the new group.

The new group becomes a section of attributes in any product that is based on the attribute set.
System
Contents

In this section of the guide, you’ll learn how to import and export data, manage security and permissions, install extensions and integrations, and use the many tools that are available to maintain your store at peak performance.

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CHAPTER 75: System Menu

The System Menu includes tools to import and export data, install extensions, manage system caches and indexes, manage permissions, backups, system notifications, and custom variables.

To display the System menu:
On the Admin sidebar, tap System.
Menu Options

Data Transfer

The Import and Export tools give you the ability to manage multiple records in a single operation. You can import new items, and also update, replace, and delete existing products and tax rates.

Extensions

Manage integrations and extensions for your store.

Tools

Manage your system resources, including cache and index management, backups, and installation settings.

Support

The Support Tools can be used as a resource during the development and optimization processes, and as a diagnostic tool to help our Support team identify and resolve issues with your system.

Permissions

Magento uses roles and permissions to create different levels of access for Admin users, which gives you the ability to grant permission on a “need to know” basis to people who work on your site.
CHAPTER 75: System Menu

Action Log

The Action Log tracks the activities of administrators who work in your store. For most events, the available information includes the action, the name of the user who performed it, whether it was a success or failure, and the ID of the object that was the target of the action.

Other Settings

Manage the notifications in your inbox, create custom variables, and generate a new encryption key.
CHAPTER 76: Data Transfer

The Import and Export tools give you the ability to manage multiple records in a single operation. You can not only import new items, but also update, replace, and delete existing sets of products. For example, you can add new products to your inventory, update product data and advanced price data, and replace a set of existing products with new products. If you have a large catalog of products, it’s much easier to export the data, edit the data in a spreadsheet, and import it back into your store.

- Working with CSV Files
- Import
- Export
- Product Attribute Reference
- Customer Attribute Reference
Working with CSV Files

The comma-separated-value (CSV) file format is used as the basis of data transfer operations, and is supported by all spreadsheet and database applications. The following file types are supported for import and export:

- **Import**
  - CSV and ZIP (a compressed CSV file.)

- **Export**
  - CSV

**Important!** We recommend that you use a program that supports UTF-8 encoding, such as Notepad++ or OpenOffice Calc, to edit CSV files. Microsoft Excel inserts additional characters into the column header of the CSV file, which can prevent the data from being imported back into Magento. If you work on the Mac, you can save your data in the CSV (Windows) format.

CSV files have a specific structure that must match the database. Each column heading corresponds to the Attribute Code of the field that is represented by the column. To ensure that the column headings can be read by Magento, first export the data from your store as a CSV file. You can then edit the data and re-import it into Magento.

If you open an exported CSV file in a text editor, you will see that values are separated by commas, and multiple values are enclosed in double-quotes. During import, you can specify a custom separator character, although a comma is the default.

**Product CSV Structure**

A full export of the product database contains information about each product in the catalog, and the relationships between them. Each record has fixed selection of columns that corresponds to the attributes in the catalog, although the order of the attributes is ignored during the import process.
The first row of the table contains the names of each attribute, which are used as column headers. The remaining rows describe the individual product records. Any row that begins with a value in the SKU column is the beginning of a new product record. A single product might include several rows that contain information about multiple images or product options. The next row that has a value in the SKU column begins a new product.

The category column contains a path for each category to which the product is assigned. The path includes the root category, followed by a forward slash (/) between each level. By default, the pipe “|” character is used to separate different category paths. For example:

Default Category/Gear|Default Category/Gear/Bags.

To import data, you need to include only the SKU and any columns with changes. Any blank columns are ignored during the import process. It is not possible to add attributes during the import process. You can include only existing attributes.

For a detailed description of each product attribute, see: Product Attribute Reference.

---

### CSV Product Structure

<table>
<thead>
<tr>
<th>COLUMN NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>&lt;name&gt;</em></td>
<td>Column headers that begin with an underscore contain service entity properties or complex data. Service columns are not product attributes.</td>
</tr>
<tr>
<td>&lt;attribute name&gt;</td>
<td>Column headers with an attribute code or field name identify the column of data. A column might represent a system attribute, or one that was created by the store administrator.</td>
</tr>
</tbody>
</table>

---

### Customer CSV Structure

The customers CSV file contains customer information from the database, and has the
Following structure:

![Exported Customer CSV in OpenOffice Calc]

The first row of the table contains the names of the attribute columns (which are the same as attribute codes). There are two types of column names, as shown in the following table. Other rows contain attribute values, service data, and complex data. Each row with non-empty values in the “email” and “_website” columns starts the description of the subsequent customer. Each row can represent customer data with or without address data, or the address data only. In case a row contains only the address data, values in the columns, related to the customer profile, will be ignored and may be empty.

To add or replace more than one address for a customer, in the import file add a row for each new address with empty customer data and the new or updated address data below the customer data row.

For a detailed description of each customer attribute, see: Customer Attribute Reference.

![Exported Customer CSV in Notepad++]

**CSV Customer Structure**

<table>
<thead>
<tr>
<th>COLUMN NAME</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>&lt;name&gt;</code></td>
<td>Column headers that begin with an underscore contain service entity properties or complex data. Service columns are not customer attributes.</td>
</tr>
<tr>
<td><code>&lt;attribute name&gt;</code></td>
<td>The names of the columns with values of both system-created attributes, and attributes created by the store administrator.</td>
</tr>
</tbody>
</table>
Data Validation

All data must pass validation before it can be imported into the store, to ensure that the values are consistent with the system database. Validation begins when you tap the Check Data button. During the process, all entities in the import file are verified for the following:

Attributes
Column header names are verified to ensure that they match the corresponding attributes in the system database. The value of each attribute is checked to ensure that it meets the requirements of the data type (decimal, integer, varchar, text, and datetime).

Complex Data
Values that originate from a defined set, such as a drop-down or multiple select input type, are verified to ensure that the values exist in the defined set.

Service Data
The values in service data columns are verified to ensure that the properties or complex data values are consistent with what is already defined in the system database.

Required Values
For new entities, the presence of required attribute values in the file is checked. For existing entities, there is no need to re-check the existence of required attribute values.

Separators
Although the separators aren’t visible when viewed in a spreadsheet, data values in a CSV file are separated by comma, and text values are enclosed in double-quotes. During the validation process, the separators are verified, and each set of quotes that enclose character strings is verified to be formatted correctly.

The results of the validation appear in the Validation Results section, and include the following information:

- The number of entities checked
- The number of invalid rows
- The number of errors found

If the data is valid, an “Import Success” message appears.

File is Valid!
If validation fails, read the description of each error, and correct the problem in the CSV file. For example, if a row contains an invalid SKU, the import process stops, and that row, and all subsequent rows are not imported. After correctly the problem, import the data again. If many errors are encountered, it might take several attempts to pass validation.

**Data Validation Messages**

**MESSAGES**

**DATA VALIDATION**

- Product with specified SKU not found in rows: 1
- URL key for specified store already exists
- ‘7z’ file extension is not supported
- ‘txt’ file extension is not supported

**ERRORS**

- Wrong field type. Type in the imported file %decimal%, expected type is %text%.
- Value is not allowed. Attribute value does not exist in the system.
- Field %column name% is required.
- Wrong value separator is used.
- Wrong encoding used. Supported character encoding is UTF-8 and Windows-1252.
- Imported file does not contain SKU field.
- SKU does not exist in the system.
- Column name %column name% is invalid. Should start with a letter. Alphanumeric.
- Imported file does not contain a header.
- %website name% website does not exist in the system.
- %storeview name% storeview does not exist in the system.
- Imported attribute %attribute name% does not exist in the system.
- Imported resource (image) could not be downloaded from external resource due to timeout or access permissions.
- Imported resource (image) does not exist in the local media storage.
- Product creation error displayed to the user equal to the one seen during manual product save.
- Advanced Price creation error displayed to the user equal to the one seen during the manual product save.
- Customer creation error displayed to the user equal to the one seen during the manual customer save.
Import

Data for all product types can be imported into the store. In addition, you can import customer data, customer address data, and product images. Import supports the following operations:

- Add/Update
- Replace Existing Complex Data
- Delete Entities

The size of the import file is determined by the settings in the php.ini file on the server. The system message on the Import page indicates the current size limit.

Process Overview:
Step 1: Prepare the Data
Step 2: Choose the Import Behavior
Step 3: Identify the Import File
Step 4: Check the Import Data
Step 1: Prepare the Data

1. On the Admin sidebar, tap System. Then under Data Transfer, choose Import.

2. Under Import Settings, set Entity Type to one of the following:
   - Advanced Pricing
   - Products
   - Customers and Addresses
   - Customers Main File
   - Customer Addresses

3. Tap Download Sample File. Then on the download menu in the lower-left corner of your browser window, choose Open.

Download Sample File

The sample file includes column headings with placeholder data for example product types.

Downloaded Sample File
4. Examine the structure of the sample file. As you prepare your CSV import file, make sure that the column headings are spelled correctly.

5. Verify that the size of your import file does not exceed the limit shown in the message.

6. If the import data includes paths to product images, make sure that the image files have been uploaded to the appropriate location. The default location on the Magento server is: pub/media/import.

   If the images reside on an external server, make sure that you have the full URL to the directory that contains the images.

**Step 2: Choose the Import Behavior**

1. Set **Import Behavior** to one of the following:
   - Add/Update
   - Replace Existing Complex Data
   - Delete Entities

2. Do the following:
   
a. Accept the default value of a comma (,) for the **Field separator**.
   
b. Accept the default value of a comma (,) for the **Multiple value separator**.

   In a CSV file, a comma is the default separator. To use a different character, make sure that the data in the CSV file matches the character that you specify.

**Step 3: Identify the Import File**

1. Tap **Choose File** to select the file to import.

2. Find the CSV file that you prepared to import, and tap **Open**.
3. In the **Images File Directory** field, enter the relative path to the location on the Magento server where uploaded images are stored. For example: `var/import`.

To learn more about importing product images, see: Importing Product Images.

![File to Import](image)

### Step 4: Check the Import Data

1. In the upper-right corner, tap **Check Data**.

2. Then, wait a few moments for the validation process to complete. If the import data is valid, the following message appears:

![File is Valid!](image)

3. If the file is valid, tap **Import**. Otherwise, correct each problem with the data that is listed in the message, and try to import the file again.

4. The import process continues to the end of the data, unless an error is encountered.

   If an error message appears in the Validation Results, correct the problem in the data, and import the file again.

![Validation Results](image)

### URL Key Already Exists

A message appears when the import is complete.

**Import Behavior**

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add/Update</td>
<td>New product data is added to the existing product data for the existing entries in the database. All fields except <code>sku</code> can be updated.</td>
</tr>
</tbody>
</table>
## Import Behavior (cont.)

<table>
<thead>
<tr>
<th>OPERATION</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>New tax classes that are specified in the import data are created automatically.</td>
</tr>
<tr>
<td></td>
<td>New product categories that are specified in the import file are created automatically.</td>
</tr>
<tr>
<td></td>
<td>New SKUs that are specified in the import file are created automatically.</td>
</tr>
<tr>
<td>Replace Existing Complex Data</td>
<td>The existing product data is replaced with new data.</td>
</tr>
<tr>
<td></td>
<td>Exercise caution when replacing data because the existing product data will be completely cleared and all references in the system will be lost.</td>
</tr>
<tr>
<td></td>
<td>If a SKU in the import data matches the SKU of an existing entity, all fields, including the SKU are deleted, and a new record is created using the CSV data.</td>
</tr>
<tr>
<td></td>
<td>An error occurs if the CSV file references a SKU that does not exist in the database. You can Check Data to display error.</td>
</tr>
<tr>
<td>Delete Entities</td>
<td>Any entities in the import data that already exist in the database are deleted from the database.</td>
</tr>
<tr>
<td></td>
<td>Delete ignores all columns in the import data, except for SKU. You can disregard all other attributes in the data.</td>
</tr>
<tr>
<td></td>
<td>An error occurs if the CSV file references a SKU that does not exist in the database. You can Check Data to display error.</td>
</tr>
</tbody>
</table>
Import History

Maintains a record of data that has been imported into your store, including the start date and time, user, execution time, and a link to the imported file.

**To view the import history:**

1. On the Admin sidebar, tap **System**.

2. Under **Data Transfer**, choose **Import History**.

![Import History](image-url)
Importing Product Images

Multiple product images of each type can be imported into Magento, and associated with a specific product. The path and file name of each product image is entered in the CSV file, and the image files to be imported are uploaded to the corresponding path on the Magento server or external server.

Magento creates its own directory structure for product images that is organized alphabetically. When you export product data with existing images to a CSV file, you can see the alphabetized path before the file name of each image. However, when you import new images, you don’t need to specify a path, because Magento manages the directory structure automatically. Just make sure to enter the relative path to the import directory before the file name of each image to be imported.

To upload images, you must have login credentials and correct permissions to access to the Magento folder on the server. With the correct credentials, you can use any SFTP utility to upload the files from your desktop computer to the server.

Before you try to import a large amount of images, review the steps in the import method that you want to use, and run through the process with a few products. After you understand how it works, you’ll feel confident importing large quantities of images.

**Important!** We recommend that you use a program that supports UTF-8 encoding to edit CSV files, such as Notepad++ or OpenOffice Calc. Microsoft Excel inserts additional characters into the column header of the CSV file, which can prevent the data from being imported back into Magento.

**Method 1: Import Images from the Local Server**

1. On the Magento server, upload the image files to the `pub/media/import` folder. This is the default folder for importing product images.

   ```
   [magento installation folder]/pub/media/import
   ```

   You can use a different folder on the Magento server, as long as the path to the folder is specified during the import process.

2. In the CSV data, enter the name of each image file to be imported on the correct row, by `sku`, and in the correct column according to image type (`base_image`, `small_image`, `thumbnail_image`, or `additional_images`).

   For images in the default import folder(`/pub/media/import`), do not include the path before the filename in the CSV data.

   The CSV file must include only the `sku` column and the related image columns.
3. Follow the instructions to import the data.

After selecting the file to import, enter the relative path following **Images File Directory:**

/\pub/\media/\import

**Images File Directory**

If importing multiple images for a single sku, insert a blank row below the sku, and enter the additional image file names in the appropriate columns. The additional rows are understood to belong to the parent sku.

**Method 2: Import Images from External Server**

1. Upload the images to be imported to the designated folder on the external server.

2. In the CSV data, enter the full URL for each image file in the correct column by image type (base_image, small_image, thumbnail_image, or additional_images).

   http://example.com/images/image.jpg

3. Follow the instructions to import the data.
Import Guidelines

New Entities

Entities are added with the attribute values specified in the CSV file.

If there is no value, or there is a non-valid value, for a required attribute with no default value set, then the entity (the corresponding row or rows) cannot be imported.

If there is no value, or there is a non-valid value, for a required attribute with the default value set, then the entity (the corresponding row or rows) is imported, and the default value is set for the attribute.

If the complex data is not valid, then the entity (the corresponding row or rows) cannot be imported.

Existing Entities

For attributes that are not complex data, the values from the import file, including the empty values for the non-required attributes, replace the existing values.

If there is no value, or there is a non-valid value, for a required attribute, then the existing value is not replaced.

If the complex data for the entity is invalid, the entity (the corresponding row or rows) cannot be imported, except the case, when Delete Entities was selected in the Import Behavior drop-down menu.
Complex Data

If an attribute that is specified in the import file already exists, and its value is derived from a defined set of values, the following applies:

☑️ If the value is not already included in the defined set of values, the row can be imported and a default value, if defined, is set for the attribute.

☑️ If the value is already included in the defined set, the corresponding row cannot be imported.

If an attribute name is specified in the import file but is not yet defined in the system, it is not created, and its values are not imported.

Invalid Files

☑️ A file cannot be imported if all rows are invalid.

☑️ A non-existing service data or complex data name is specified in the import file, such as a column with a `<non-existing name>` heading.
Export

The best way to become familiar with the structure of your database is to export the data and open it in a spreadsheet. Once you become familiar with the process, you’ll find that it is an efficient way to manage large amounts of information.

To export data:

1. On the Admin sidebar, tap System. Then under Data Transfer, choose Export.

2. In the Export Settings section, specify the following:
   
a. Set Entity Type to one of the following:
      
      - Products
      - Customers Main File
      - Customer Addresses

   b. Accept the default Export File Format of “CSV.”

3. The Entity Attributes section lists all the available attributes in alphabetical order. You can use the standard list controls to search for specific attributes, and to sort the list. The Search and Reset Filter controls control the display of the list, but have no effect on the selection of attributes to be included in the export file.
4. To filter the exported data based on attribute value, do the following:

- To export only records with specific attribute values, enter the required value in the Filter column. The following example exports only a specific SKU.

![Export Product Based on SKU](image)

**Export Product Based on SKU**

- To omit an attribute from the export, mark the Exclude checkbox at the beginning of the row. For example, to export only the sku and image columns, select the checkbox of every other attribute. The column appears in the export file, but without any values.

![Exclude Attributes](image)

**Exclude Attributes**

5. Scroll down and tap Continue in the lower-right corner of the page.

Look for the download prompt in the lower-right corner of your browser. The exported CSV file can be saved or opened in a spreadsheet. You can edit the data and import it back into your store.
Export Criteria

Export filters are used to specify the data that you want to include in the export file, based on attribute value. In addition, you can specify which attribute data you want to include or exclude from the export.
Export Filters

You can use filters to determine which SKUs are included in the export file. For example, if you enter a value in the Country of Manufacture filter, the exported CSV file will include only products manufactured in that country.

The type of filter corresponds to the data type. For date fields, you can choose the date from the Calendar 🗓. To learn more, see: Attribute Input Types. The format of the date is determined by the locale.

To include only records with a specific value, such as a sku, type the value into the Filter field. Some fields such as Price, Weight, and Set Product as New have a from/to range of values.

Exclude Attributes

The checkbox in the first column is used to exclude attributes from the export file. If an attribute is excluded, the associated column in the export data is included, but empty.

Export Criteria

<table>
<thead>
<tr>
<th>EXCLUDE</th>
<th>FILTER</th>
<th>RESULT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>The exported file contains each attribute for all existing records.</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>The export file contains each attribute with only the records allowed by the filter.</td>
</tr>
<tr>
<td>✓</td>
<td>No</td>
<td>The export file does not include the column for the excluded attribute, but does include all existing records.</td>
</tr>
<tr>
<td>✓</td>
<td>Yes</td>
<td>The export file does not include the column for the excluded attribute, and contains only the records allowed by the filter.</td>
</tr>
</tbody>
</table>
Product Attribute Reference

The following table lists the attributes from a typical product export, in the default order in which they appear. Each attribute is represented in the CSV file as a column, and product records are represented by rows. Columns that begin with an underscore contain service data such as properties or option values for complex data.

The installation used to export this data has the sample data installed, and has two websites and several store views. Although this list includes all columns that are typically exported, the `sku` is the only required value. To import data, you can include only the columns with changes. The `sku` should be the first column, but the order of the rest of the attributes doesn’t matter.

### Simple Product CSV File Structure

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>sku</strong></td>
<td>(Required) The Stock-Keeping Unit is a unique, alphanumeric identifier that is used to track inventory. A SKU can be up to 64 characters in length. For example: sku123</td>
</tr>
<tr>
<td></td>
<td>A SKU longer than 64 characters will cause import to fail.</td>
</tr>
<tr>
<td><strong>store_view_code</strong></td>
<td>Identifies the specific store view(s) where the product is available. If blank, the product is available at the default store view. For example: storeview1,english,spanish</td>
</tr>
<tr>
<td><strong>attribute_set_code</strong></td>
<td>Assigns the product to a specific attribute set or product template, according to product type. Once the product is created, the attribute set cannot be changed. For example: default</td>
</tr>
<tr>
<td><strong>product_type</strong></td>
<td>Indicates the type of product. Values:</td>
</tr>
<tr>
<td></td>
<td>simple</td>
</tr>
<tr>
<td></td>
<td>grouped</td>
</tr>
<tr>
<td>ATTRIBUTE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>configurable</td>
<td>A product with multiple options that the customer must select before making a purchase. Inventory can be managed for each set of variations because they represent a separate product with a distinct SKU. For example, a combination of color and size for a configurable product is associated with a specific SKU in the catalog.</td>
</tr>
<tr>
<td>virtual</td>
<td>A non-tangible product that does not require shipping and is not kept in inventory. Examples include services, memberships, and subscriptions.</td>
</tr>
<tr>
<td>bundle</td>
<td>A customizable product set of simple products that are sold together.</td>
</tr>
<tr>
<td>categories</td>
<td>Indicates each category that is assigned to the product. Separate categories and subcategories with a forward slash. To indicate multiple category paths, separate each path with a pipe “</td>
</tr>
<tr>
<td>product_websites</td>
<td>The website code of each website where the product is available. A single product can be assigned to multiple websites, or limited to one. If specifying multiple websites, separate each with a comma and without a space. For example: base,website2</td>
</tr>
<tr>
<td>name</td>
<td>The product name appears in all product listings, and is the name that customers use to identify the product.</td>
</tr>
<tr>
<td>description</td>
<td>The product description provides detailed information about the product, and might include simple HTML tags.</td>
</tr>
</tbody>
</table>
Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>short_description</td>
<td>The use of the short product description depends on the theme. It might appear in product listings and is sometimes used in RSS feed listings sent to shopping sites.</td>
</tr>
<tr>
<td>weight</td>
<td>The weight of the individual product. The actual product weight is determined by the carrier at the time of shipment.</td>
</tr>
<tr>
<td>product_online</td>
<td>Determines if the product is available for sale in the store. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The product is enabled, and available for sale.</td>
</tr>
<tr>
<td></td>
<td>2 (No) The product is disabled, and is not available for sale.</td>
</tr>
<tr>
<td>tax_class_name</td>
<td>The name of the tax class that is associated with this product.</td>
</tr>
<tr>
<td>visibility</td>
<td>Determines if the product is visible in the catalog, and made available for search. Values:</td>
</tr>
<tr>
<td></td>
<td>Individually Not Visible The product is not included in product listings, although it might be available as a variation of another product.</td>
</tr>
<tr>
<td></td>
<td>Catalog The product appears in all catalog listings.</td>
</tr>
<tr>
<td></td>
<td>Search The product is available for search operations.</td>
</tr>
<tr>
<td></td>
<td>Catalog, Search The product is included in catalog listings and is also available for search.</td>
</tr>
<tr>
<td>price</td>
<td>The price that the product is offered for sale in your store.</td>
</tr>
<tr>
<td>special_price</td>
<td>The discounted price of the product during the specified date range.</td>
</tr>
<tr>
<td>special_price_from_date</td>
<td>The beginning date of the time period when the special price is in effect.</td>
</tr>
<tr>
<td>ATTRIBUTE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>----------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>special_price_to_date</td>
<td>The last date of the time period when the special price is in effect.</td>
</tr>
<tr>
<td>url_key</td>
<td>The part of the URL that identifies the product. The default value is based on the product name. For example: product-name</td>
</tr>
<tr>
<td>meta_title</td>
<td>The meta title appears in the title bar and tab of the browser and search results lists. The meta title should be unique to the product, incorporate high-value keywords, and be less than 70 characters in length.</td>
</tr>
<tr>
<td>meta_keywords</td>
<td>Meta keywords are visible only to search engines, and are ignored by some search engines. Choose high-value keywords, separated by a comma. For example: keyword1,keyword2,keyword3.</td>
</tr>
<tr>
<td>meta_description</td>
<td>Meta descriptions provide a brief overview of the product for search results listings. Ideally, a meta description should be between 150-160 characters in length, although the field accepts up to 255 characters.</td>
</tr>
<tr>
<td>base_image</td>
<td>The relative path for the main image on the product page. Magento stores files internally in an alphabetical folder structure. You can see the exact location of each image in the exported data. For example: /sample_data/m/b/mb01-blue-0.jpg To upload a new image or write over an existing image, enter the file name, preceded by a forward slash. For example: /image.jpg</td>
</tr>
<tr>
<td>base_image_label</td>
<td>The label that is associated with the base image.</td>
</tr>
<tr>
<td>small_image</td>
<td>The file name of the small image that is used on catalog pages, preceded by a forward slash. For example: /image.jpg</td>
</tr>
<tr>
<td>small_image_label</td>
<td>The label associated with the small image. For example: Small Image 1, Small Image 2</td>
</tr>
<tr>
<td>thumbnail_image</td>
<td>The file names of any thumbnail image to appear in the gallery on the product page, preceded by a forward slash. For example: /image.jpg</td>
</tr>
</tbody>
</table>
### Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>thumbnail_image_label</td>
<td>The label associated with any thumbnail images. For example: Thumbnail 1, Thumbnail 2</td>
</tr>
<tr>
<td>created_at</td>
<td>Indicates the date when the product was created. The date is automatically generated when the product is created, but can be edited later.</td>
</tr>
<tr>
<td>updated_at</td>
<td>Indicates the date when the product was last updated.</td>
</tr>
<tr>
<td>new_from_date</td>
<td>Specifies the “from” date for new product listings, and determines if the product is featured as a new product.</td>
</tr>
<tr>
<td>new_to_date</td>
<td>Specifies the “to” date for new product listings, and determines if the product is featured as a new product.</td>
</tr>
<tr>
<td>display_product_options_in</td>
<td>If the product has multiple options, determines where they appear on the product page. Values: Product Info Column Block after Info Column</td>
</tr>
<tr>
<td>map_price</td>
<td>The minimum advertised price of the product. (Appears only if MAP is enabled.)</td>
</tr>
<tr>
<td>msrp_price</td>
<td>The manufacturer’s suggested retail price for the product. (Appears only if MAP is enabled.)</td>
</tr>
<tr>
<td>map_enabled</td>
<td>Determines if Minimum Advertised Price is enabled in the configuration. Values: 1 (Yes) MAP is enabled. 0 (or blank) (No) MAP is not enabled.</td>
</tr>
<tr>
<td>gift_message_available</td>
<td>Determines if a gift message can be included with the product purchase. Values: 1 (Yes) The option to include a gift message is presented to the customer. 0 (or blank) (No) The option to include a gift message is not presented to the customer.</td>
</tr>
<tr>
<td>custom_design</td>
<td>Lists the available themes that can be applied to the product page.</td>
</tr>
</tbody>
</table>
## Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>custom_design_from</td>
<td>Specifies the beginning date when the selected theme is applied to the product page.</td>
</tr>
<tr>
<td>custom_design_to</td>
<td>Specifies the end date when the selected theme is applied to the product page.</td>
</tr>
<tr>
<td>custom_layout_update</td>
<td>Additional XML code that is applied as a layout update to the product page.</td>
</tr>
<tr>
<td>page_layout</td>
<td>Determines the page layout of the product page. Values:</td>
</tr>
<tr>
<td></td>
<td>No layout updates</td>
</tr>
<tr>
<td></td>
<td>1 column</td>
</tr>
<tr>
<td></td>
<td>2 columns with left bar</td>
</tr>
<tr>
<td></td>
<td>2 columns with right bar</td>
</tr>
<tr>
<td></td>
<td>3 columns</td>
</tr>
<tr>
<td></td>
<td>empty</td>
</tr>
<tr>
<td>product_options_container</td>
<td>If the product has multiple options, determines where they appear on the product page. Values:</td>
</tr>
<tr>
<td></td>
<td>Product Info Column</td>
</tr>
<tr>
<td></td>
<td>Block after Info Column</td>
</tr>
<tr>
<td>msrp_display_actual_price_type</td>
<td>Determines where the actual price of a product is visible to the customer. Values:</td>
</tr>
<tr>
<td>ATTRIBUTE</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>In Cart</td>
<td>Displays the actual product price in the shopping cart.</td>
</tr>
<tr>
<td>Before Order Confirmation</td>
<td>Displays the actual product price at the end of the checkout process, just before the order is confirmed.</td>
</tr>
<tr>
<td>On Gesture</td>
<td>Displays the actual product price in a popup when the customer clicks the “Click for price” or “What’s this?” link.</td>
</tr>
<tr>
<td>country_of_manufacture</td>
<td>Identifies the country where the product was manufactured.</td>
</tr>
<tr>
<td>additional_attributes</td>
<td>Additional attributes created for the product. For example:</td>
</tr>
<tr>
<td></td>
<td>has_options=0, required_options=0</td>
</tr>
<tr>
<td></td>
<td>color=Black, has_options=0, required_options=0, size_general=XS</td>
</tr>
<tr>
<td>qty</td>
<td>The quantity of the product that is currently in stock.</td>
</tr>
<tr>
<td>out_of_stock_qty</td>
<td>The stock level that determines the product to be out of stock.</td>
</tr>
<tr>
<td>use_config_min_qty</td>
<td>Determines if the default value from the configuration is used, and corresponds to the Use Config Settings checkbox. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>is_qty_decimal</td>
<td>Determines if the qty attribute has a decimal value.</td>
</tr>
<tr>
<td></td>
<td>Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The value of the qty attribute is a decimal value.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The value of the qty attribute is a whole number (integer).</td>
</tr>
</tbody>
</table>
### Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>allow_backorders</td>
<td>Determines if your store allows backorders, and how they are managed.</td>
</tr>
<tr>
<td>use_config_backorders</td>
<td>Determines if the default configuration setting for backorders is used, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>min_cart_qty</td>
<td>Specifies the minimum quantity of the item that can be purchased in a single order.</td>
</tr>
<tr>
<td>use_config_min_sale_qty</td>
<td>Determines if the default configuration setting for minimum quantity is used, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>max_cart_qty</td>
<td>Specifies the maximum quantity of the product that can be purchased in a single order.</td>
</tr>
<tr>
<td>use_config_max_sale_qty</td>
<td>Determines if the default configuration setting for maximum quantity is used, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>is_in_stock</td>
<td>Indicates if the product is in stock.</td>
</tr>
<tr>
<td>notify_on_stock_below</td>
<td>Specifies the stock level that triggers an “out of stock” notification.</td>
</tr>
<tr>
<td>use_config_notify_stock_qty</td>
<td>Determines if the default configuration setting is used to trigger stock level notification, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
</tbody>
</table>
## Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>manage_stock</td>
<td>Determines if inventory control is used to manage the product. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) Activates full inventory control to manage stock levels of the product.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The system does not keep track of the number of items that are currently in stock.</td>
</tr>
<tr>
<td>use_config_manage_stock</td>
<td>Determines if the default configuration setting for managing stock is used, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>use_config_qty_increments</td>
<td>Determines if the default configuration setting for quantity increments is used, and corresponds to the state of the Use Config Settings checkbox.. Values:</td>
</tr>
<tr>
<td></td>
<td>1 (Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td></td>
<td>0 (or blank) (No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>qty_increments</td>
<td>Determines if the product is sold in quantity increments. Options: Yes / No</td>
</tr>
<tr>
<td>use_config_enable_qty_inc</td>
<td>Determines if the default configuration setting to enable quantity increments is used, and corresponds to the state of the Use Config Settings checkbox. Values:</td>
</tr>
</tbody>
</table>
### Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Yes)</td>
<td>(Yes) The default configuration setting is used for the value of this attribute.</td>
</tr>
<tr>
<td>0 (or blank)</td>
<td>(No) The default configuration can be overridden for the value of this attribute.</td>
</tr>
<tr>
<td>enable_qty_increments</td>
<td>Determines if quantity increments are enabled for the product.</td>
</tr>
<tr>
<td>is_decimal_divided</td>
<td>Determines if parts of the product can be shipped separately. Options: Yes / No</td>
</tr>
<tr>
<td>website_id</td>
<td>For installations with multiple websites, identifies a specific website where the product is available. If blank, the product is available in all websites.</td>
</tr>
<tr>
<td>related_skus</td>
<td>Lists theSKU of each product that has been identified as a Related Product. For example: 24-WG080, 24-UG03, 24-UG01, 24-UG02</td>
</tr>
<tr>
<td>crosssell_skus</td>
<td>Lists theSKU of each product that has been identified as a Cross-sell.</td>
</tr>
<tr>
<td>upsell_skus</td>
<td>Lists theSKU of each product that has been identified as an Upsell.</td>
</tr>
<tr>
<td>additional_images</td>
<td>The file names of any additional image to be associated with the product, preceded by a forward slash. For example: /image.jpg</td>
</tr>
<tr>
<td>additional_image_labels</td>
<td>The labels associated with any additional images. For example: Label 1, Label 2</td>
</tr>
<tr>
<td>custom_options</td>
<td>Specifies the properties and values assigned to each custom option. For example: name=Color, type=drop_down, required=1, price=price_type=fixed, sku=, option_title=Black</td>
</tr>
</tbody>
</table>

**SERVICE DATA FOR PRODUCT VARIATIONS**
### Simple Product CSV File Structure (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>_super_products_sku</td>
<td>The generated SKU for a configurable product variation. For example: WB03-XS-Green</td>
</tr>
<tr>
<td></td>
<td>Applies to: Configurable Products</td>
</tr>
<tr>
<td>_super_attribute_code</td>
<td>The attribute code of a configurable product variation. For example: color</td>
</tr>
<tr>
<td></td>
<td>Applies to: Configurable Products</td>
</tr>
<tr>
<td>_super_attribute_option</td>
<td>The value of a configurable product variation. For example: green</td>
</tr>
<tr>
<td></td>
<td>Applies to: Configurable Products</td>
</tr>
<tr>
<td>_super_attribute_price_corr</td>
<td>A price adjustment that is associated with a configurable product variation.</td>
</tr>
<tr>
<td></td>
<td>Applies to: Configurable Products</td>
</tr>
<tr>
<td>_associated_sku</td>
<td>The SKU of a product that is associated with a grouped product.</td>
</tr>
<tr>
<td></td>
<td>Applies to: Grouped Products Bundle Products</td>
</tr>
<tr>
<td>_associated_default_qty</td>
<td>Determines the quantity of the associated product that is included. Applies to: Configurable Products Grouped Products Bundle Products</td>
</tr>
<tr>
<td>_associated_position</td>
<td>Determines the position of the associated product when listed with other associated products. Applies to: Configurable Products Grouped Products Bundle Products</td>
</tr>
</tbody>
</table>
Complex Data

The term complex data\(^1\) refers to the data that is associated with multiple product options. The following product types use data that originates from separate products to create product variations and multiple options.

- Configurable
- Grouped
- Bundle

If you were to export a configurable product, you would find the standard attributes that make up a simple product, plus the additional attributes that are needed to manage complex data.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>configurablenonnullfields</td>
<td>Labels that identify product variations. For example:</td>
</tr>
<tr>
<td>configurablenonnullfields</td>
<td>Choose Color:</td>
</tr>
<tr>
<td></td>
<td>Choose Size:</td>
</tr>
<tr>
<td>configurablenonnullfields</td>
<td>Describes the values associated with a product variation. For example:</td>
</tr>
<tr>
<td></td>
<td>sku=sku-red, xs, color=red, size=xs, price=10.99, display=1, image=/pub/media/import/image1.png</td>
</tr>
<tr>
<td></td>
<td>g</td>
</tr>
<tr>
<td></td>
<td>m, color=red, size=m, price=20.88, display=1, image=/pub/media/import/image2.png</td>
</tr>
</tbody>
</table>

\(^1\)Data that is associated with multiple product options.
### Complex Data Attributes (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUPED PRODUCTS</td>
<td></td>
</tr>
<tr>
<td>associated_skus</td>
<td>Identifies the SKUs of the individual products that make up the group.</td>
</tr>
<tr>
<td>BUNDLE PRODUCTS</td>
<td></td>
</tr>
<tr>
<td>bundle_price_type</td>
<td>Determines if the price of a bundle item is fixed or dynamic.</td>
</tr>
<tr>
<td>bundle_sku_type</td>
<td>Determines if each item is assigned a variable, dynamic SKU, or if a fixed SKU is used for the bundle. Options include: Fixed / Dynamic.</td>
</tr>
<tr>
<td>bundle_weight_type</td>
<td>Determines if the weight of a bundle item is variable or fixed.</td>
</tr>
<tr>
<td>bundle_values</td>
<td>Describes each value associated with a bundle option. For example:</td>
</tr>
</tbody>
</table>

name=Bundle Option One,type=dropdown; required=1, sku=sku-option2, price=10, price_type=fixed
Advanced Pricing

Advanced Price Import/Export allows you to quickly update pricing information for product groups and tier prices. The process to import and export advanced price data is the same as any other entity type. The sample CSV file contains tier and group prices for each product type that supports advanced pricing. Making changes to advanced pricing does not affect the rest of the product record.

Advanced Pricing Attributes

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>sku</td>
<td>(Required) The Stock-Keeping Unit is a unique, alphanumeric identifier that is used to track inventory. A SKU can be up to 64 characters in length. For example: sku123</td>
</tr>
<tr>
<td></td>
<td>A SKU longer than 64 characters will cause import to fail.</td>
</tr>
<tr>
<td>tier_price_website</td>
<td>The website code identifies each website where tier pricing is available. For example: website1, All Websites [USD]</td>
</tr>
<tr>
<td>tier_price_customer_group</td>
<td>Identifies the customers groups where tier pricing is available. For example: ALL GROUPS, NOT LOGGED IN, General, Wholesale, Retailer</td>
</tr>
<tr>
<td>tier_price_qty</td>
<td>The quantity of the product that must be ordered to receive the tier price discount.</td>
</tr>
<tr>
<td>tier_price</td>
<td>The discounted tier price of the product. For bundle products, tier price is calculated as a percentage.</td>
</tr>
<tr>
<td>group_price_website</td>
<td>The website code of each website where group pricing is available. If specifying multiple websites, separate each with a comma and without a space. For example: website1</td>
</tr>
</tbody>
</table>
### Advanced Pricing Attributes (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Websites [USD]</td>
<td></td>
</tr>
<tr>
<td>group_price_customer_group</td>
<td>Identifies the customers groups where group pricing is available. For example: NOT LOGGED IN General Wholesale Retailer</td>
</tr>
<tr>
<td>group_price</td>
<td>The discounted group price of the product. For bundle products, group price is calculated as a percentage.</td>
</tr>
</tbody>
</table>
Customer Attribute Reference

The following tables list the attributes from a typical export of the Customers Main File and Customer Addresses. The installation that was used to export this data has two websites and several store views, with the sample data installed.

Each attribute, or field, is represented in the CSV file as a column, and customer records are represented by rows. Columns that begin with an underscore are service entities that contain properties or complex data.

### Customers Main File

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>email</td>
<td></td>
</tr>
<tr>
<td>_website</td>
<td></td>
</tr>
<tr>
<td>_store</td>
<td></td>
</tr>
<tr>
<td>confirmation</td>
<td></td>
</tr>
<tr>
<td>created_at</td>
<td></td>
</tr>
<tr>
<td>created_in</td>
<td></td>
</tr>
<tr>
<td>disable_auto_group_change</td>
<td></td>
</tr>
<tr>
<td>dob</td>
<td></td>
</tr>
<tr>
<td>firstname</td>
<td></td>
</tr>
<tr>
<td>gender</td>
<td></td>
</tr>
<tr>
<td>group_id</td>
<td></td>
</tr>
<tr>
<td>lastname</td>
<td></td>
</tr>
<tr>
<td>middlename</td>
<td></td>
</tr>
<tr>
<td>password_hash</td>
<td></td>
</tr>
<tr>
<td>prefix</td>
<td></td>
</tr>
<tr>
<td>rp_token</td>
<td></td>
</tr>
<tr>
<td>rp_token_created_at</td>
<td></td>
</tr>
<tr>
<td>store_id</td>
<td></td>
</tr>
<tr>
<td>suffix</td>
<td></td>
</tr>
</tbody>
</table>
## Customers Main File (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>taxvat</td>
<td></td>
</tr>
<tr>
<td>website_id</td>
<td></td>
</tr>
<tr>
<td>password</td>
<td></td>
</tr>
</tbody>
</table>

## Customer Addresses

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>_website</td>
<td></td>
</tr>
<tr>
<td>_email</td>
<td></td>
</tr>
<tr>
<td>_entity_id</td>
<td></td>
</tr>
<tr>
<td>city</td>
<td></td>
</tr>
<tr>
<td>company</td>
<td></td>
</tr>
<tr>
<td>country_id</td>
<td></td>
</tr>
<tr>
<td>fax</td>
<td></td>
</tr>
<tr>
<td>firstname</td>
<td></td>
</tr>
<tr>
<td>lastname</td>
<td></td>
</tr>
<tr>
<td>middlename</td>
<td></td>
</tr>
<tr>
<td>postcode</td>
<td></td>
</tr>
<tr>
<td>prefix</td>
<td></td>
</tr>
<tr>
<td>region</td>
<td></td>
</tr>
<tr>
<td>region_id</td>
<td></td>
</tr>
<tr>
<td>street</td>
<td></td>
</tr>
<tr>
<td>suffix</td>
<td></td>
</tr>
<tr>
<td>telephone</td>
<td></td>
</tr>
<tr>
<td>vat_id</td>
<td></td>
</tr>
<tr>
<td>vat_is_valid</td>
<td></td>
</tr>
<tr>
<td>vat_request_date</td>
<td></td>
</tr>
<tr>
<td>vat_request_id</td>
<td></td>
</tr>
</tbody>
</table>
## Customer Addresses (cont.)

<table>
<thead>
<tr>
<th>ATTRIBUTE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>vat_request_success</td>
<td>Identifies the default billing address. A value of 1 indicates that the address is the default billing address of the customer. Values: 1 / 0</td>
</tr>
<tr>
<td><strong>address_default</strong> billing</td>
<td></td>
</tr>
<tr>
<td><strong>address_default</strong> shipping</td>
<td>Identifies the default shipping address. A value of 1 indicates that the address is the default shipping address of the customer. Values: 1 / 0</td>
</tr>
</tbody>
</table>
CHAPTER 77:

**Integrations**

Establishes the location of OAuth credentials and redirect URL for third-party integrations, and identifies the available API resources that are needed for the integration.
Onboarding Workflow

1. **Authorize the integration.** Go to the system/integration screen, find the relevant integration, and authorize.

2. **Verify and establish login.** When prompted, accept the access requested. If redirected to a third-party, log in to the system, or create a new account. After a successful login, you return to the integration page.

3. **Receive confirmation of authorized integration.** The system sends notification that the integration has been authorized successfully. After setting up an integration and receiving the credentials, it is no longer necessary to make calls to access or request tokens.
To add a new integration:

1. On the Admin sidebar, tap System. Then under Extensions, choose Integrations.

2. Enter the following Integration Info:
   
a. Enter the Name of the integration, and the contact Email address.

b. Enter the Callback URL where OAuth credentials can be sent when using OAuth for token exchange. We strongly recommend using https://.

c. Enter the Identity Link URL to redirect the users to a third-party account with these Magento integration credentials.

3. In the panel on the left, choose API. Then, do the following:
   
a. Set Resource Access to one of the following:
      
      - All
      - Custom

b. For custom access, mark the checkbox of each resource that is needed:
4. When complete, tap **Save**.
To change the API guest access security setting:

By default, the system does not permit anonymous guest access to CMS, catalog, and other store resources. If you need to change the setting, do the following:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Services, choose Magento Web API.

3. Expand the Web API Security Setting section.


5. When complete, tap Save Config.

To learn more, see: “Restricting access to anonymous web APIs” in the Magento developer documentation.
Magento Marketplace

Magento Marketplace is our next generation application store that offers merchants a curated selection of solutions, and provides qualified developers the tools, platform, and prime location to build a thriving business. To learn more, see the Magento Marketplace User Guide. For extension installation instructions, see Component Manager in this guide, or the Marketplace Quick Tour.
Magento Connect

Magento Connect is Magento’s original marketplace for Magento extensions. There are hundreds of extensions and themes available from all over the world. Magento out-of-the-box supports a few of the most popular ones. However, community members are developing and publishing new extensions in order to extend Magento with various new features.
CHAPTER 78: Permissions

Magento uses roles and permissions to create different levels of access to the Admin. When your store is first set up, you receive a set of login credentials for the Administrator role that has full permissions. However, you can restrict the level of permissions on a “need to know” basis for other people who work on your site. For example, a designer can be given access to only the Design tools, but not to areas with customer and order information.

In addition, you can further restrict Admin access to only a specific site, or set of sites and their associated data. If you have multiple brands or business units with separate stores on the same Magento installation, you can provide Admin access to each of your business units but hide and protect their data from other Admin users.

If an Admin user’s access is restricted to specific websites and/or stores, the websites and stores for which they are not authorized will either not be visible to them, or grayed-out as inactive. Only the sales and other data for permitted websites and stores is shown.
Adding Users

When your store is first installed, your login credentials give you full administrative access. As a best practice, one of the first things you should do is to create another user account with full Administrator permissions. That way, you can use one account for your everyday Administrative activities, and reserve the other as a “Super Admin” account in case you forget your regular credentials or they somehow become unusable.

If there are others on your team, or service providers who need access, you can create a separate user account for each, and assign restricted access. To limit the websites or stores that admin users can access when they log in, you must first create a role with limited scope and access to resources. Then, you can assign the role to a specific user account. Admin users who are assigned to a restricted role can see and change data only for websites or stores that are associated with the role. They cannot make changes to any global settings or data.

Step 1: Create a New User

1. On the Admin sidebar tap System. Then under Permissions, choose All Users.
2. In the upper-right corner, tap Add New User.
3. In the Account Information section, do the following:

New User Account Information
a. Enter the **User Name** for account.
   
   The User Name should be easy to remember. It is not case-sensitive. For example, if your user name is “John,” you can also log in as “john.”

b. Complete the following information:
   
   - First Name
   - Last Name
   - Email address
   
   This email address must be different from the one that is associated with your original Admin account.

c. Assign a **Password** to the account.

   An Admin password must be seven or more characters long, and include both letters and numbers.

d. In the **Password Confirmation** box, repeat the password to make sure it was entered correctly.

e. If your store has multiple languages, set **Interface Locale** to the language to be used for the Admin interface.

4. Set **This Account is** to “Active.”

5. Under Current User Identity Verification, enter **Your Password**.
Step 2: Define the Role

1. In the panel on the left, choose **User Role**. The grid lists all the existing roles. For a new store, Administrators is the only role available.

2. In the Assigned column, select the **Administrators** option.

3. Tap **Save User**.

You now have two accounts with Administrator access.

Step 3: Define Authenticator

If you have installed and enabled Magento Two-Step Authentication, you can select a required authenticator per account.

With one or more authenticators enabled for the Magento Admin, you can require one or more authenticators per Admin user account. For this option, keep the Use system value checkbox checked for Force providers and enable/configure supported authenticator providers.

We recommend only enabling one authenticator per account. Users must authenticate using every authenticator you select for their account. For example, if you select Google and U2F, the user must access with a Google Authenticator code and connect a U2F device.

1. In the panel on the left, choose **2FA**.

2. For **Providers selected**, select one or more authenticators.

3. Tap **Save User**.
Select authenticator for user

If you have issues with authenticators, see Magento Two-Step Authentication for troubleshooting and additional management tools.

**Admin Password Requirements**

<table>
<thead>
<tr>
<th>FIELD</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Password</td>
<td>An Admin password must be seven or more characters long, and include both letters and numbers. For additional password options, see: Configuring Admin Security.</td>
</tr>
</tbody>
</table>
Locked Users

For the security of your business, user accounts are locked by default after six failed attempts to log in to the Admin. Any user account that is currently locked appears in the Locked Users grid. An account can be unlocked by any other user with full Administrator permissions.

Additional password security measures can be implemented in the Advanced Admin configuration. To learn more, see: Configuring Admin Security.

To unlock an admin account:

1. On the Admin sidebar, tap System. Then under Permissions, choose Locked Users.
2. In the grid, mark the checkbox of the locked account.
3. In the upper-left corner, set the Actions control to “Unlock.”
4. Tap Submit to unlock the account.
User Roles

To give someone restricted access to the Admin, the first step is to create a role that has the appropriate level of permissions. After the role is saved, you can add new users and assign the restricted role to grant them limited access to the Admin.
Step 1: Define the Role

1. On the Admin sidebar, tap System. Then under Permissions, choose User Roles.
2. In the upper-right corner, tap Add New Role.
3. Under Role Information, enter a descriptive Role Name. Then under Current User Identity Verification, enter Your Password.

Step 2: Assign Resources

Important! When assigning resources, be sure to disable access to the Permissions tool if you are limiting access for a given role. Otherwise, users will be able to modify their own permissions.

1. Set Role Scopes to one of the following:
   - All
   - Custom

   If set to “Custom” for a multisite installation, mark the checkbox of the website and store where the role is to be used.

3. In the tree, mark the checkbox of each Admin Resource that the role can access.
To create an Admin role with access to tax settings, choose both the Sales/Tax and System/Tax resources. If setting up a website for a region that differs from your default shipping point of origin, you must also allow access to the System/Shipping resources for the role. The shipping settings determine the store tax rate that is used for catalog prices.

4. When complete, tap **Save Role**.

The role now appears in the grid, and can be assigned to new user accounts.

**To edit a role:**

1. In the Roles grid, and tap the row to open the record in edit mode.
2. Under Current User Identity Verification, enter **Your Password**.

3. In the panel on the left, choose **Role Users**.

The Role Users option appears only after a new role is saved.
4. To search for a specific user record, do the following:
   a. Enter the value in the search filter at the top of a column. Then, press Enter.
   b. When you are ready to return to the full list, click Reset Filter.
5. Mark the checkbox of any user(s) to be assigned to the role.
6. Tap Save Role.
CHAPTER 79: Alternate Media Storage

Magento Commerce gives you the option to store media files in a database on a database server, or on a Content Delivery Network (CDN), as opposed to storing them on the file system of the web server. The advantage of using alternate storage is that it minimizes the effort required to synchronize media when multiple instances of the system that are deployed on different servers that need access to the same images, CSS files, and other media files.

- Database
- Content Delivery Network (CDN)
Using a Database

By default, all images, compiled CSS files, and compiled JavaScript files of the Magento instance are stored in the file system on the web server. You can choose to store these files in a database on a database server. One advantage of this approach is the option of automatic synchronization and reverse synchronization between the web server file system and the database. You can use the default database to store media or create a new one. To be able to use a newly created database as media storage, you must add information about it and its access credentials to the local.xml file.

Database Workflow

1. **Browser requests media.** A page from the store opens in the customer’s browser, and the browser requests the media that is specified in the HTML.

2. **System looks for media in file system.** The system searches for the media in the file system and if found, passes it to the browser.

3. **System locates media in database.** If the media is not found in the file system, a request for the media is sent to the database that is specified in the configuration.

4. **System locates media in database.** A PHP script transfers the files from the database to the file system, and sent to the customer’s browser. The browser request for media triggers the script to run as follows:
   - If web server rewrites are enabled for Magento and supported by the server, the PHP script runs only when the requested media is not found in the file system.
   - If web server rewrites are disabled for Magento, or not supported by the server, the PHP script runs anyway, even if the required media is available in the file system.
To use a database for media storage:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Advanced, choose System.
3. In the upper-left corner set Store View to “Default Config,” to apply the configuration at the global level.
4. Expand the Storage Configuration for Media section. Then, do the following:
   
   ![Storage Configuration for Media (Database)](image)
   
   **Storage Configuration for Media (Database)**
   
   a. Set Media Storage to “Database.”
   b. Set Select Media Database to the database you want to use.
   c. Tap Synchronize to transfer the existing media to the newly selected database.
   d. Enter the Environment Update Time in seconds.
5. When complete, tap Save Config.
Using a Content Delivery Network

Storing media files in a CDN is another alternative supported in Magento. There is no full integration with a specific CDN, and you are responsible for choosing and configuring a CDN on your own.

After configuring the CDN, you must complete the configuration from the Admin. The changes can be made at either the global or website level. When a CDN is used for media storage, all paths to media on store pages are changed to the CDN paths that are specified in the configuration.

CDN Workflow

1. **Browser requests media.** A page from the store opens in the customer’s browser, and the browser requests the media that is specified in the HTML.

2. **Request sent to CDN; images found and served.** The request is sent first to the CDN. If the CDN has the images in storage, it serves the media files to the customer’s browser.

3. **Media not found, request sent to Magento web server.** If the CDN doesn’t have the media files, the request is sent to the Magento web server. If the media files are found in the file system, the web server sends them to the customer’s browser.

**Important!** For security, when a CDN is used as media storage, JavaScript may not function properly if the CDN is located outside of your subdomain.
To configure a content delivery network:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under General, choose Web.
3. In the upper-left corner, set Store View as needed.
4. Expand the Base URLs section. Then, do the following:

   a. Update the Base URL for Static View Files with the URL of the location on the CDN where static view files are stored.
   b. Update the Base URL for User Media Files with the URL of the JavaScript files on the CDN.

Both these fields can be left blank, or can start with the placeholder: {{unsecure_base_url}}

5. Expand the Base URLs (Secure) section.
a. Update the Secure Base URL for Static View Files with the URL of the location on the CDN where static view files are stored.

b. Update the Secure Base URL for User Media Files with the URL of the JavaScript files on the CDN.

   Both these fields can be left blank, or can start with the placeholder: {{unsecure_base_url}}

6. When complete, tap Save Config.
CHAPTER 80: Security

In this section of the guide, you will learn security best practices, how to manage Admin sessions and credentials, implement CAPTCHA, and manage website restrictions.

- Security Best Practices
- Configuring Admin Security
- CAPTCHA
- reCAPTCHA
- Two-Factor Authentication
- Encryption Key
- Browser Capabilities Detection
- Action Log

Stop by the Security Center and sign up for the Security Alert Registry to receive the latest information on potential vulnerabilities and best practices.
Security Scan

Magento Security Scan allows you to monitor each of your Magento sites for known security risks, and to receive patch updates and security notifications.

- Gain insight into the real-time security status of your store.
- Schedule security scan to run weekly, daily, or on demand.
- Receive reports with the results of over thirty security tests and the recommended corrective actions for each failed test.
- Maintain a history of security reports in your Magento account.

The Security Scan tool is available for free from the dashboard of your Magento account.

To run Security Scan:

1. Go to the Magento home page, and sign in to your Magento account. Then, do the following:
   a. In the panel on the left, choose Security Scan. Then, tap Go to Security Scan.
   b. Read the Terms and Conditions. Then, tap Agree to continue.

2. On the Monitored Websites page, tap Add Site.

If you have multiple sites with different domains, you must configure a separate scan for each domain.
3. To verify your ownership of the site domain, do the following:
   a. Enter the Site URL, and tap **Generate Confirmation Code**.
   b. Tap **Copy** to copy your confirmation code to the clipboard.

4. Log in to the Admin of your store as a user with full Administrator privileges. Then, do the following:
   a. In the Admin sidebar, choose **Content**. Then under **Design**, choose **Configuration**.
   b. Find your site in the list, and click **Edit**.
   c. Expand the **HTML Head** section.
   d. Scroll down to **Scripts and Style Sheets**. Then, click in the text box at the end of any existing code, and press **Ctrl-V** to paste your confirmation code into the text box.
e. When complete, tap **Save Configuration**.

5. Return to the **Security Scan** page in your Magento account. Then, tap **Verify Confirmation Code** to establish your ownership of the domain.

6. After a successful confirmation, **Set Automatic Security Scan** to one of the following:

**Scan Weekly (recommended)**

Choose the **Week Day**, **Time**, and **Time Zone** that the scan is to take place each week.

By default, the scan is scheduled to begin each week at midnight Saturday, UTC, and continue to early Sunday.

**Scan Daily**

Choose the **Time**, and **Time Zone** that the scan is to take place each day.

By default, the scan is scheduled to begin each day at midnight, UTC.

7. Enter the **Email Address** where you want to receive notifications of completed scans and security updates.
8. When complete, tap Submit.

After the ownership of the domain is verified, the site appears in the Monitored Websites list of your Magento account.

9. If you have multiple websites with different domains, repeat this process to set up a security scan for each.
Security Best Practices

All eCommerce sites are attractive targets to hackers because of the personal and payment information that is required to complete a sale. Even if the system does not directly process credit card transactions, a compromised site might reroute customers to a false page, or alter an order before it is transmitted to the payment processor.

A compromised site can have long-term consequences for both customers and merchants. Customers might suffer financial loss and identify theft, while merchants can face damage to their reputations, loss of merchandise, higher processing fees, revoked privileges with financial institutions, and the threat of lawsuits.

This guide outlines a multifaceted approach to improve the security of your Magento installation. Although there is no single way to eliminate all security risks, there are many things that you can do to make your site a less attractive target. It is crucial for hosting providers, system integrators, and merchants to work together to establish and maintain a secure environment, implement methods for early detection, and determine a plan of action in the event of a breach.

Start Right

Work with reliable hosting providers and solution integrators. When evaluating their qualifications, ask about their approach to security. Verify that they have a secure software development life cycle in accord with industry standards such as The Open Web Application Security Project (OWASP), and that they test their code for security issues.

If you are starting a new site, consider launching the entire site over HTTPs. Taking the lead on this issue, Google now uses HTTPs as a ranking factor.

For an existing installation, plan to upgrade the entire site to run over to a securely encrypted, HTTPs channel. Although you will need to create redirects from HTTP to HTTPs, the effort will future-proof your site. We recommend that you plan to make this change sooner, rather than later.
Protect the Environment

Protecting the environment is the most critical aspect of ensuring the security of your store. Keep all software on the server up to date, and apply security patches as recommended. This applies not only to Magento, but to any other software that is installed on the server, including database software and other websites that use the same server. Any system is only as secure as the weakest link.

Server Environment

- Make sure that the server operating system is secure. Work with your hosting provider to ensure that there is no unnecessary software running on the server.
- Use only secure communications protocol (SSH/SFTP/HTTPS) to manage files, and disable FTP.
- Magento includes .htaccess files to protect system files when using the Apache web server. If you use a different web server such as Nginx, make sure that all system files and directories are protected. For a sample Nginx configuration, see: magento-nginx.conf on GitHub.
- Use strong and unique passwords, and change them periodically.
- Keep the system up to date, and immediately install patches when new security issues are discovered.
- Closely monitor any issues that are reported for software components used by your Magento installation, including the operating system, MySQL database, PHP, Redis (if used), Apache or Nginx, Memcached, Solr, and any other components in your specific configuration.
- Limit access to cron.php file to only required users. For example, restrict access by IP address. If possible, block access completely and execute the command using the system cron scheduler.

Advanced Techniques

- Automate the deployment process, if possible, and use private keys for data transfer.
- Limit access to the Magento Admin by updating the whitelist with the IP address of each computer that is authorized to use the Admin and Magento Connect downloader. For examples of how to whitelist IP addresses, see: Secure Your Magento Admin.
- Do not install extensions directly on a production server.
  To disable the Magento Connect downloader on the production site, either remove or block access to the /downloader directory. You can also use the same whitelisting methods.
Advanced Techniques (cont.)

- Use two-factor authorization for Admin logins. There are several extensions available that provide additional security by requiring an additional passcode that is generated on your phone, or a token from a special device.

- Review your server for "development leftovers." Make sure there are no accessible log files, publicly visible .git directories, tunnels to execute SQL, database dumps, phpinfo files, or any other unprotected files that are not required, and that might be used in an attack.

- Limit outgoing connections to only those that are required, such as for a payment integration.

- Use a Web Application Firewall to analyze traffic and discover suspicious patterns, such as credit card information being sent to an attacker.

Server Applications

- Make sure that all applications running on the server are secure.

- Avoid running other software on the same server as Magento, especially if it is accessible from the Internet. Vulnerabilities in blog applications such as Wordpress can expose private information from Magento. Install such software on a separate server or virtual machine.

- Keep all software up to date, and apply patches as recommended.

Admin Desktop Environment

- Make sure that the computer that is used to access the Magento Admin is secure.

- Keep your antivirus software up to date, and use a malware scanner. Do not install any unknown programs, or click suspicious links.

- Use a strong password to log in to the computer, and change it periodically. Use a password manager such as LastPass, 1Password, or Dashlane to create and manage secure, unique passwords.

- Do not save FTP passwords in FTP programs, because they are often harvested by malware and used to infect servers. We recommend using SFTP over FTP for file transfers.
Protect Magento

Your effort to protect your Magento installation starts with the initial setup, and continues with the security-related configuration settings, password management, and ongoing maintenance.

Your Magento Installation

☑ Use the latest version of Magento to ensure that your installation includes the most recent security enhancements.

☐ If for any reason you cannot upgrade to the latest version, make sure to install all security patches as recommended by Magento. Although Magento issues security patches to fix major issues, new product releases include additional improvements to help secure the site.

☐ Use a unique, custom Admin URL instead of the default “admin” or the often-used “backend”. Although it will not directly protect your site from a determined attacker, it can reduce exposure to scripts that try to break into every Magento site. (Never leave your valuables in plain sight.)

☐ Check with your hosting provider before implementing a custom Admin URL. Some hosting providers require a standard URL to meet firewall protection rules.

☐ Block access to any development, staging, or testing systems. Use IP whitelisting and .htaccess password protection. When compromised, such systems can produce a data leak or be used to attack the production system.

☐ Use the correct file permissions. Core Magento and directory files should be set to ready only, including app/etc/local.xml files.

☑ Use a strong password for the Magento Admin. To learn more, see: Creating a strong password.

☑ Take advantage of Magento’s security-related configuration settings for Admin Security, Password Options, Two-Factor Authentication for Admin access, CAPTCHA, and Google reCAPTCHA.

☑ Take advantage of Magento’s free Magento Security Scan Tool! Monitor your sites for security risks, update malware patches, and detect unauthorized access with this tool.

Don’t be Taken for a Ride

☑ Install extensions only from trusted sources. Never use paid extensions that are published on Torrent or other sites. If possible, review extensions for security issues before installing them.

☑ Do not click suspicious links, or open suspicious emails.
Do not disclose the password to your server or to the Magento Admin, unless you are required to do so.

Be Prepared!

Develop a disaster recovery/business continuity plan. Even a basic plan will help you get back on track in the event of a problem.

Ensure that your server and database are automatically backed up to external location. A typical setup requires daily incremental backups, with a full backup on a weekly basis. Make sure to test the backup regularly to verify that it can be restored.

For a large site, simple text file dumps of the database take an unacceptable amount of time to restore. Work with your hosting provider to deploy a professional database backup solution.

Monitor for Signs of Attack

If your system is not immediately patched after a major security breach, there is a high probability that your site is already compromised. Complete a security review periodically to check for signs of attack, and also when contacted by customers with security-related concerns.

Security Review

Check periodically for unauthorized Admin users.

Check the Admin Actions Log for suspicious activity.

Use automated log review tools such as Apache Scalp.

Work with your hosting provider to review server logs for suspicious activity, and to implement an Intrusion Detection System (IDS) on your network.

Use a file and data integrity checking tool such as TripWire to receive notification of any potential malware installation.

Monitor all system logins (FTP, SSH) for unexpected activity, uploads, or commands.
Follow Your Disaster Recovery Plan

In the event of a compromise, work with your internal IT security team if available, or hosting provider, and system integrator to determine the scope of the attack. Taking into consideration the type of compromise and the size of the store. Then, adjust the following recommendations to your business needs.

1. Block access to the site, so the attacker cannot remove evidence or steal more information.

2. Backup the current site, which will include evidence of the installed malware or compromised files.

3. Try to determine the scope of the attack. Was credit card information accessed? What information was stolen? How much time has elapsed since the compromise? Was the information encrypted? Typically you can expect the following types of attack:

   - **Defacing of Site**: Site access is compromised, but often the payments information is not. User accounts might be compromised.
   - **Botnetting**: Your site becomes part of a botnet that sends spam email. Although data is probably not compromised, your server is blacklisted by spam filters which prevents email that you send to customers from being delivered.
   - **Direct Attack on Server**: Data is compromised, backdoors and malware are installed, and the site no longer works. Payment information—provided that it is not stored on the server—is probably safe.
   - **Silent Card Capture**: In this most disastrous attack, intruders install hidden malware or card capture software, or possibly modify the checkout process to collect and send out credit card data. Such attacks can go unnoticed for extended periods of time, and result in major compromise of customer accounts and financial information.

4. Try to find the attack vector to determine how the site was compromised, and when. Review server log files and file changes. Note that sometimes there are multiple different attacks on the same system.

5. If possible, wipe and reinstall everything. In case of virtual hosting, create a new instance. Malware might be hidden in an unsuspected location, just waiting to restore itself. Remove all unnecessary files. Then, reinstall all required files from a known, clean source such as files from your own version control system, or the original distribution files from magento.com.

6. Apply all the latest security patches necessary.

7. Reset all credentials, including the database, file access, payment and shipping integrations, web services, and Admin login.

8. If payment information was compromised, it might be necessary to inform your payment processor.
9. Inform your customers about the attack and the type of information affected. If payment information was compromised, they should look for unauthorized transactions. If personal information, including email addresses was compromised, they might be targeted with phishing attacks or spam.

**Additional Resources**

For additional technical best practices and developer-centric information, see the following information.

- The Magento Security blog investigates and provides insights to security issues, best practices, and solutions for all of your security questions.

- Try out the free Magento Security Scan Tool! Monitor your sites for security risks, update malware patches, and detect unauthorized access with this tool from Magento Commerce.

- Check all available Developer Tools through the Admin. These features can help test, verify, and prepare your site and Admin for workloads and traffic.

- The Magento Community has limitless best practices, recommendations, and tutorials to help get you started with Magento, maintaining your catalogs, and much more. Check out the best Community Resources.

**Acknowledgments**

Parts of this article were inspired by real-world solutions that were shared by community members. The resulting article incorporates content from the community, with input from our team.

- Bryan (BJ) Hoffpauir for sharing his insight on the Magento forum, and for contributing recommendations in the Attack Response Plan section of this article. See the original post by beejhuff for more information.

- Anna Völkl (@rescueann), Magento developer at LimeSoda.

- Robert Mangiafico (@robfico) CTO at LexiConn.

- Dracony (@dracony_gimp) for his security presentation, Being Hacked is Not Fun.

- Willem de Groot for providing a sample Nginx configuration.

**Security Action Plan**

If you suspect that your site is compromised, follow this action plan without delay.
**DIAGNOSE.** Run a scan to establish the security status of your Magento store. 
MageReport.com is a highly regarded service that is available at no charge to members of the Magento community.

**CLEAN.** Hire a qualified consultant or online service to clean your site of all malicious code. Some Magento community members recommend Sucuri Website Malware Removal.
- Check the /media folder for leftover executable code.
- Remove all unknown Admin users and reset all Admin passwords.

**PROTECT.** Keep your Magento installation up-to-date with the most current release. If using an older version, apply all security patches as they become available.
- Subscribe to Magento Security Alerts.

**REPORT.** If you think that you have found a specific vulnerability in Magento, send a description of the problem with technical details to security@magento.com.

**UPGRADE.** For additional peace of mind that comes from 24/7 support, plan your upgrade now to Magento Enterprise Cloud Edition.
Configuring Admin Security

Magento recommends that you take a multifaceted approach to protect the security of your store. You can begin by using a custom Admin URL that is not easy to ascertain, rather than the obvious “Admin” or “Backend.” As a best practice, use only strong Admin passwords that include a combination of letters, numbers, and symbols. For increased security, consider implementing two-factor authentication that generates a token on a separate device. To learn more, see the selection of security-related extensions on Magento Marketplace.

The Admin security configuration gives you the ability to add a secret key to URLs, require passwords to be case sensitive, and to limit the length of Admin sessions, the lifetime of passwords, and the number of login attempts that can be made before the Admin user account is locked. For increased security, you can configure the length of keyboard inactivity before the current session expires, and require the user name and password to be case-sensitive. For additional security, the Admin login can be configured to require a CAPTCHA.
To configure Admin security:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under Advanced, choose Admin.

3. Expand the Security section. Then, do the following:

a. To prevent Admin users from logging in from the same account on different devices, set Admin Account Sharing to "No."

b. To determine the method that is used to manage password reset requests, set Password Reset Protection Type to one of the following:

   - By IP and Email: The password can be reset online after a response is received from the notification is sent to the email address associated with the Admin account.
   - By IP: The password can be reset online without additional confirmation.
   - By Email: The password can be reset only by responding by email to the notification that is sent to the email address associated with the Admin account.
   - None: The password can be reset only by the store administrator.

c. In the Recovery Link Expiration Period (hours) field, enter the number of hours a password recovery link remains valid.

d. To determine the maximum number of password requests that can be submitted per hour, enter the Max Number of Password Reset Requests.

e. In the Min Time Between Password Reset Requests field, enter the minimum number of minutes that must pass between password reset requests.

f. To append a secret key to the Admin URL as a precaution against exploits, set Add Secret Key to URLs to “Yes.” This setting is enabled by default.

g. To require that the use of upper- and lowercase characters in any login credentials entered match what is stored in the system, set Login is Case Sensitive to “Yes.”

h. To determine the length of an Admin session before it times out, enter the duration of the session in seconds, in the Admin Session Lifetime (seconds) field. The value must be 60 seconds or greater.

i. In the Maximum Login Failures to Lockout Account field, enter the number of times a user can try to log in to the Admin before the account is locked. By default, six attempts are allowed. Leave the field empty for unlimited login attempts.

j. In the Lockout Time (minutes) field, enter the number of minutes that an Admin account is locked when the maximum number of attempts is met.
k. To limit the lifetime of Admin passwords, enter the number of days a password is valid in the **Password Lifetime (days)** field. For an unlimited lifetime, leave the field blank.

l. Set **Password Change** to one of the following:

- **Forced**: Requires that Admin users change their passwords after the account is set up.
- **Recommended**: Recommends that Admin users change their passwords after account is set up.

4. When complete, tap **Save Config**.
CAPTCHA

A CAPTCHA is a visual device that ensures that a human being, rather than a computer, is interacting with the site. CAPTCHA is an acronym for “Completely Automated Public Turing test to tell Computers and Humans Apart,” and can be used for both Admin and customer account logins.

You can reload the CAPTCHA as many times as is necessary by clicking the Reload icon in the upper-right corner of the image. The CAPTCHA is fully configurable and can be set to appear every time, or only after a number of failed login attempts.

Admin CAPTCHA

For an extra level of security, you can add a CAPTCHA to the Admin Sign In and Forgot Password page. Administrator users can reload the displayed CAPTCHA by clicking the Reload icon in the upper-right corner of the image. The number of reloads is unlimited.
To configure an Admin CAPTCHA:

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left, under **Advanced**, choose **Admin**.
3. In the upper-right corner, set **Store View** to “Default.”
4. Expand the **CAPTCHA** section, and do the following:
Admin CAPTCHA Configuration

a. Set Enable CAPTCHA in Admin to “Yes.”

b. Enter the name of the Font to be used for the CAPTCHA symbols. Default font: LinLibertine
To add your own font, the font file must reside in the same directory as your Magento instance, and be declared in the config.xml file of the Captcha module at: app/code/Magento/Captcha/etc

c. Select the Forms where the CAPTCHA is to be used:
   - Admin Login
   - Admin Forgot Password

d. Set Displaying Mode to one of the following:

<table>
<thead>
<tr>
<th>Displaying Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always</td>
<td>CAPTCHA is always required to log in the Admin.</td>
</tr>
<tr>
<td>After number of attempts to login</td>
<td>When selected displays the Number of Unsuccessful Attempts to Login field. Enter the number of login attempts allowed. A value of 0 (zero) is similar to setting Displaying Mode to Always. This option does not cover the Forgot Password form. If CAPTCHA is enabled and set to appear on this form, then it is always included on the form.</td>
</tr>
</tbody>
</table>
e. Enter the **Number of Unsuccessful Attempts to Login** before the CAPTCHA appears. If set to zero, the CAPTCHA is always used.

f. In the **CAPTCHA Timeout (minutes)** field, enter the number of minutes before the CAPTCHA expires. When the CAPTCHA expires, the user must reload the page.

g. Enter the **Number of Symbols** used in the CAPTCHA, up to eight. For a variable number of symbols that changes with each CAPTCHA, enter a range, such as 5-8.

h. In the **Symbols Used in CAPTCHA** field, specify the symbols that can be used in the CAPTCHA. Only letters (a-z and A-Z) and numbers (0-9) are allowed. The default set of characters does not include similar symbols such as I or 1. For best results, use symbols that users can readily identify.

i. To require that users enter the characters exactly as shown set **Case Sensitive** to “Yes.”

5. When complete, tap **Save Config...**
Customer CAPTCHA

Customers can be required to enter a CAPTCHA each time they log in to their accounts, or after several unsuccessful attempts to log in. CAPTCHA can be used for the following forms in the storefront:

- Create User
- Login
- Forgot Password
- Checkout as Guest
- Register During Checkout
- Contact Us
- Payflow Pro (Requires installing a patch according to KB PayPal Payflow Pro active carding activity.)

![Customer CAPTCHA Configuration](image-url)
To configure a Storefront CAPTCHA:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left, under Customers, choose Customer Configuration.
3. Expand the CAPTCHA section, and do the following:
   a. Set Enable CAPTCHA on Frontend to “Yes.”
   b. Enter the name of the Font to be used for the CAPTCHA symbols.
      To add your own font, the font file must reside in the same directory as your Magento instance, and be declared in the config.xml file of the CAPTCHA module.
   c. Choose one of the following Forms where CAPTCHA is to be used.
      - Create User
      - Login
      - Forgot Password
      - Checkout as Guest
      - Register during Checkout
      - Payflow Pro (Requires installing a patch according to KB PayPal Payflow Pro active carding activity.)
   d. Set Displaying Mode to one of the following:
      - Always: CAPTCHA is always required to access the selected form(s).
      - After number of attempts to login: Enter the number of login attempts before the CAPTCHA appears. A value of 0 (zero) is similar to “Always.” When selected, the number of unsuccessful login attempts appears. This option does not apply to the Forgot Password form, which always display the CAPTCHA, if enabled.
   e. Enter the Number of Unsuccessful Attempts to Login before the CAPTCHA appears. If set to zero, the CAPTCHA is always used.
   f. In the CAPTCHA Timeout (minutes) field, enter the number of minutes before the CAPTCHA expires. When the CAPTCHA expires, the user must reload the page to generate a new CAPTCHA.
   g. Enter the Number of Symbols in the CAPTCHA, up to eight. For a variable number of symbols that change with each CAPTCHA, enter a range such as 5-8.
   h. In the Symbols Used in CAPTCHA field, specify the symbols that can be used in the CAPTCHA. Only letters (a-z and A-Z) and numbers (0-9) are allowed. The default set of characters does not include similar symbols such as I or 1. For best results, use symbols that users can readily identify.
i. To require that the user enter the upper-and lowercase characters exactly as shown set **Case Sensitive** to “Yes.”

4. When complete, tap **Save Config**.

### Google reCAPTCHA

The Google reCAPTCHA extension ensures that a human being, rather than a computer, is interacting with the site. It provides enhanced security over Magento CAPTCHA, performs checks without potential user error when entering a series of letters and numbers, and encourages cart conversion without additional hurdles to complete a purchase.

![Customer Login with reCAPTCHA v2](image)

**Customer Login with reCAPTCHA v2**

Google reCAPTCHA verifies users with increased security and reduced clicks for each of completion, and can be implemented in two ways:

- reCAPTCHA v2 verifies users and customers using an on-click feature proving "I am not a robot."

- Invisible reCAPTCHA (**recommended**) performs background verification without user interaction. Users and customers are automatically verified without clicking anything.

You can use Google reCAPTCHA on the **Admin Sign In** page, and on various customer pages in the storefront. The styling options include your choice of a light or dark theme, and either a compact or normal size.

If you have the standard Magento CAPTCHA enabled, reCAPTCHA will override it. You can have both enabled on your Magento instance without issues.
Step 1: Install Google reCAPTCHA

Google reCAPTCHA is installed with Magento Open Source and Commerce v2.1.18. Continue to Step 2.

For Magento Open Source and Commerce v 2.1.17 and earlier, follow the instructions in Magento DevDocs to install and troubleshoot the extension. At this time, Google reCAPTCHA must be installed from the command line and may require developer assistance.

To add the PayPal PayFlow Pro checkout option, see the Magento KB PayPal Payflow Pro active carding activity.

Step 2: Generate Google reCAPTCHA keys

Google reCAPTCHA requires a pair of API keys to enable. You can get these keys free of charge through the reCAPTCHA site. Before generating the keys, consider the type of reCAPTCHA you want to use.

1. Visit the Google reCAPTCHA page, and log in to your account. Then, do the following:
   
a. Enter a Label for the keys. For example, enter Magento. You only need one set of keys for your entire Magento instance.

b. Choose the type of reCAPTCHA that you want to use:

   reCAPTCHA V2       Verifies with a button click.
   Invisible reCaptcha Verifies in the background without interaction.

c. In the Domains text box, enter a list of domains without the HTTP or HTTPS prefix, one per line. Google verifies the addresses entered.

   - Add your Magento instance domain and any subdomains.
   - You can add localhost, other local VM domains, and staging domains as needed for testing.

d. Mark the checkbox to Accept the reCAPTCHA Terms of Service.
(Optional) Mark the **Send alerts to owners** checkbox to send notification if Google detects issues or suspicious traffic.

---

**Google reCAPTCHA Site Registration**

2. Tap **Register** and do the following:
   - When the domain(s) you added appear at the top of the page, choose the Magento domain to get your keys.
   - Scroll down to the **Adding reCAPTCHA to your site** section and expand **Keys**. You will need these keys when enabling Google reCAPTCHA.

---

### Site Key and Secret Key

**Step 3: Configure Google reCAPTCHA in Magento**

1. Sign in to the Admin of your Magento store. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.

2. In the upper-right corner, set **Store View** to “Default Config.”

3. In the panel on the left under **Security**, choose **Google reCAPTCHA**. Then, expand the **General** section, and enter the following generated keys:
• Google API website key
• Google API secret key

4. Expand ( unfold ) the Backend section, and do the following:
   a. Set Enable to “Yes.”
   b. To change the Theme, clear the Use system value checkbox. Then, choose one of the following:
      • Light
      • Dark
   c. To change the Size, clear the Use system value checkbox. Then, choose one of the following:
      • Normal
      • Compact
5. Expand (✅) the **Frontend** section. Then, do the following to add reCAPTCHA to customer accounts:

![Google reCAPTCHA Frontend](image)

**Google reCAPTCHA Frontend**

a. Set **Enable** to “Yes”.

b. Choose the **reCAPTCHA type** you want used in Admin forms. You must have added the correct API keys for the type.
   - reCAPTCHA v2 validates with the “I’m not a robot” checkbox.
   - Invisible reCAPTCHA (**recommended**) validates in the background without requiring user interactions.

c. To change the **Theme**, uncheck **Use system value** checkbox and select a Light or Dark Theme from the drop-down menu.

d. To change the **Size**, uncheck **Use system value** checkbox and select a theme from the drop-down menu: Normal or Compact.

e. Select when to use reCAPTCHA for customer accounts. By default, reCAPTCHA is enabled for these pages:
   - Use in login
   - Use in Forgot password
   - Use in Contact
   - Use in Create user
   - Use in PayPal PayflowPro payment form (Requires installing a patch according to KB **PayPal Payflow Pro active carding activity**.)

6. When complete, tap **Save Config**.
Two-Factor Authentication

The Magento Admin provides all access to your store, orders, and customer data. To further increase security to your Magento instance, Magento Two-Factor Authentication (2FA) adds support for two-step authentication for multiple providers. When enabled, users attempting to access the Admin must complete a second step to verify their account. All features and requirements are restricted to Admin user accounts, not extended to customer accounts.

Step 1: Install Two-Factor Authentication

To install the Two-Factor Authentication extension, you may require developer assistance. Follow the instructions in Magento DevDocs to install and troubleshoot the extension.

At this time, Two-Factor Authentication can be installed only from the command line.

Step 2: Enable 2FA and Supported Providers

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Security, choose 2FA.
3. Expand ( ☑️ ) the General section, if necessary. Then, set Enable Two Factor Auth to “Yes.”
4. Enable and configure each authentication provider that you support: Each enabled authenticator becomes a supported option for user accounts.

Google Authenticator

1. Set Enable this provider to “Yes.”
2. (Optional) Set Enable “trust this device” option to one of the following:
Yes  The user does not have to enter their authenticator code for every login per device.
No  Forces authentication for every login.

### Google Authenticator

1. Set **Enable this provider** to “Yes.”
2. (Optional) Set **Enable “trust this device” option** to one of the following:
   - Yes  The user does not have to enter their authenticator code for every login per device.
   - No  Forces authentication for every login.

### U2F Devices (Yukikey and others)

1. Set **Enable this provider** to “Yes.”
2. (Optional) Set **Enable “trust this device” option** to one of the following:
   - Yes  The user does not have to enter their authenticator code for every login per device.
   - No  Forces authentication for every login.
3. Enter the following keys for your account:
   - Integration key
   - Secret key
4. Enter the **API hostname**.

### Duo Security

1. Set **Enable this provider** to “Yes.”
2. (Optional) Set **Enable “trust this device” option** to one of the following:
   - Yes  The user does not have to enter their authenticator code for every login per device.
   - No  Forces authentication for every login.
3. Enter the following keys for your account:
   - Integration key
   - Secret key
4. Enter the **API hostname**.
Authy

1. Set **Enable this provider** to “Yes.”
2. Enter the **API key** for your Authy account.
3. (Optional) Set **Enable “trust this device” option** to one of the following:
   - Yes: The user does not have to enter their authenticator code for every login per device.
   - No: Forces authentication for every login.
4. (Optional) To change the **OneTouch Message**, clear the **Use system value** checkbox. Then, enter the message that you want to use.

5. When complete, tap **Save Config**.

**Step 3: Configure Required Authenticator Provider**

You must choose at least one authenticator supported per user account, or force an authenticator globally for all accounts. We recommend setting or forcing only one authenticator for the Magento Admin. If you select multiple authenticators, the user must input tokens for all selections.
Set required authenticators per user account: Supports multiple types of authenticators and allows you to set an authenticator per account depending on user or office needs.

Force global authenticator for all accounts: Strictly requires all Magento Admin users to access using the selected authenticator(s).

**Set required authenticators per user account:**

With one or more authenticators enabled for the Magento Admin, you can require one or more authenticators per Admin user account. For this option, keep **Use system value** checked for **Force providers** and enable/configure supported authenticator providers.

We recommend only enabling one authenticator per account. If you require multiple authenticators, the user must authenticate with each one. For example, if you select Google and U2F, the user must access with a Google Authenticator code and connect a U2F device.

1. On the Admin sidebar, tap **System**. Then under **Settings**, choose **All Users**.

2. Do one of the following:
   - Select and edit a user from the list.
   - Add a new user account.

3. In the sidebar under **2FA** section,

4. Mark the checkbox of the authenticator that you want to require for the user account. The list includes all enabled and configured authenticator providers.

5. When complete, tap **Save User**.

---

Enable 2FA for User
**Force global authenticator for all accounts:**

This option requires all Admin users to configure and use all forced authenticators to access the Magento Admin. We recommend that you assign one authenticator to be forced.

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Security**, choose **2FA**. Then, do the following:
   a. In the **General** section, clear the **Use system value** checkbox for Force providers.
   b. Select one or more authenticators.
3. When complete, tap **Save Config**.

**Using Two-Factor-Authentication**

Follow the instructions for the method of authentication that you want to use.

**U2F Key**

With the U2F device configured, the user attaches the device to their system when logging into the Admin. For more information, check your U2F vendor documentation, such as [YubiKey](https://www.yubico.com) by Yubico.
1. Enter Magento Admin account credentials and sign in to your account.

2. Press the button on the key. Authentication immediately triggers and opens the Admin.

3. Insert the U2F key into a USB port on your computer.

Google Authenticator

Step 1: Configure Google Authenticator

1. Enter Magento Admin account credentials and log in. A new authenticator screen appears with a QR code.

2. Open the Google Authenticator app on your mobile device.

3. Tap the plus sign (+) to add a new entry. Then, do the following:
   a. Line up the red box with the QR code to scan with the camera on the mobile device.
   b. When it recognizes the QR code and adds an entry, enter that 6-digit code in the Admin Authenticator code field.

4. When complete, tap Confirm.
Step 2: Sign In with Google Authenticator

1. Enter your Magento Admin account credentials and sign in.

2. Open Google Authenticator on your mobile device.

3. When prompted, enter the 6-digit Authentication code.

4. To save the authentication for future logins, mark the **Trust this device, do not ask again** checkbox.

5. When complete, tap **Confirm**.

**Authy**

The Authy authenticator includes multiple types of apps available from this page, including:
Mobile App, Desktop App, and Chrome App. For details on setup, see Authy documentation.

**Step 1: Configure Authy**

1. Enter Your Magento Admin account credentials and sign in.

2. When prompted to register yourself with Authy, do the following:
   a. Select your **Country**.
   b. Enter your **Phone number**.
   c. Select one of the following **Verification methods**:
      - SMS
      - Call Me
   d. Tap **Continue**.

   A message is sent to your phone through SMS text or a call.

3. Enter the **Verification code** that you receive, and tap **Verify**. Then when prompted, tap **Confirm**.

   ![Authy registration](image)
   ![Authy verification code](image)
Step 2: Sign In with Authy

1. Enter Magento Admin account credentials and sign in.

   ![Authy access](image)

2. Choose one of the following methods to authenticate:

   - **Use one touch**: Sends an alert to your Authy app. In the app, accept the access.
   - **Use authy token**: Prompts to enter a code from your Authy app.

3. The app includes additional emergency methods if you have trouble signing in. Choose the method you want to use to receive the code. Then, enter the code that you receive to access the Admin.

   - **Send me a code via SMS**: A text SMS message is sent to the configured mobile device.
   - **Send me a code via phone call**: The user receives a phone call with a code.

   Your account is verified and opens.

Duo

The Duo Mobile app is available through [Google Play](https://play.google.com) or [iOS App Store](https://appstore.google.com). To use, it must be activated and linked to an account. For details, your security staff should obtain a Duo account and complete setup.

Step 1: Configure Duo

1. Enter Magento Admin account credentials and sign in to your account.

2. When the Duo Setup page appears, tap **Start setup**. Then, do the following:
Duo Setup

a. Select your device.

Device Type

b. When prompted, enter your **phone number**, and tap **Continue**.

This example requests your phone number, because we're using a mobile device.
c. When prompted to install Duo Mobile for your phone type, tap I have Duo Mobile.

3. Open Duo Mobile, and scan the QR code to sync the authenticator with Magento. A checkmark appears when the activation is complete.
4. To configure your settings for the device, choose the action that you want to take place when you sign in.

- **Ask me to choose an authenticator method**: Allows the user to select when logging in and authenticating in the Magento Admin.
- **Automatically send this device a Duo Push**: Sends a message to your device to accept or deny for access.
- **Automatically call this device**: Calls and provides a passcode for entering

**Step 2: Sign In with Duo**

The following example displays the options when selecting Ask me to choose an authenticator method:
1. When prompted, enter Enter Magento Admin credentials to log in.

2. Choose the method that you want to use to authenticate:
   - Send Me a Push: Tap to receive a push notice to Duo Mobile. Accept to authenticate.
   - Call Me: Tap this option, receive a call with a code, and enter the passcode.
   - Enter a Passcode: Tap this option to receive and enter a passcode.

3. Complete the push or code to fully sign in to the Admin.

**Managing Two-Factor Authentication**

If a user has issues accessing the Magento Admin with their authenticator, they can attempt to sync or troubleshoot their authenticator. You can also reset the authenticator associated with the account. When reset, the user must reconnect and add the authenticator again when they next access the Admin.

If you have issues accessing the Magento Admin with the authenticators, consider the following:

- Some mobile apps include options to sync. This option reconnects the app and server, updating in case time settings changed on the device or server.
- Revoking a device or resetting an authenticator can help users connect.
- Clearing web cache and cookies for the Magento instance can also help. Authenticators, like Google, use generated cookies to save access and duration. Clear your cookies for your specific browser and Magento instance domain.
- If you have blocked cookies for your browser, this will block some authenticators, like Google, from completing verification and access. Add a rule to allow cookies for your Magento instance.
**To reset authenticators per account:**
Resetting an authenticator also revokes all trusted devices tracked by the Admin.

1. On the Admin sidebar, tap **System**. Then under Permissions, choose **All Users**.
2. Select and edit a user from the list or add a new user account.
3. Tap **2FA**.
4. Click the **Reset...** option for one or more listed authenticators.

**To revoke a trusted device:**
Some users may have authenticator access issues after syncing or no longer have access to a device with previous access to the Magento Admin. If you have the option enabled to track trusted devices for an authenticator, every device that accesses the Admin has a saved entry.

These entries detect the device and allow log in access without requiring authentication. The entries include the last IP address, the data and time of access, and a description including the type of system (Mac, PC, tablet, etc) and browser with version.

After revoking a listed device, the user must authenticate again if accessing the Admin from it.

1. On the Admin sidebar, tap **System**. Then under **Permissions**, choose **All Users**.
2. Do one of the followign:
   - Select and edit a user from the list.
   - Add a new user account.
3. Tap **2FA**.
4. In the **Trusted devices** grid, locate a device to remove from the account. Then, tap **Revoke**.

If the user accesses the Admin from this device again, they must authenticate regardless of any cookies with active duration.
Emergency CLI Commands

Use the following commands if you lose access to the Admin.

To disable 2FA:
If you have issues with 2FA, you can disable it from command-line. This will disable 2FA globally.

Disable Module

```
php bin/magento msp:security:tfa:disable
```

To reset authenticator per account:
If you need to manually reset a single user configuration, enter the following from the command-line. The command restarts configuration and 2FA subscription for the user account.

Reset Authenticator per Account

```
php bin/magento msp:security:tfa:reset <username> <provider>
```

Examples

Reset Google Authenticator

```
php bin/magento msp:security:tfa:reset admin google
```

Reset U2F Device

```
php bin/magento msp:security:tfa:reset admin u2fkey
```

Reset Authy

```
php bin/magento msp:security:tfa:reset admin authy
```
Advanced Emergency Steps

Do not attempt modifying any database information without full understanding of modifications and database management. This is an advanced procedure.

In your database, you can modify the following tables and values to affect and override 2FA. We advise caution when making any changes directly to your database.

Table: `core_config_data`

- `msp/twofactorauth/enabled` Set to zero to disable 2FA globally.

- `msp/twofactorauth/force_providers` Delete this entry to remove forced providers option.

Table: `msp_tfa_user_config`

Delete one user row to reset the user’s 2FA preference and configuration.
Encryption Key

Magento uses an encryption key to protect passwords and other sensitive data. An industry-standard Advanced Encryption Standard (AES-256) algorithm is used to encrypt all data that requires decryption. This includes credit card data and integration (payment and shipping module) passwords. In addition, a strong Secure Hash Algorithm (SHA-256) is used to hash all data that does not require decryption.

During the initial installation, you are prompted either let Magento generate an encryption key, or enter one of your own. The Encryption Key tool allows you to change the key as needed. The encryption key should be changed on a regular basis to improve security, as well as at any time the original key might be compromised. Whenever the key is changed, all legacy data is re-encoded using the new key.

![Encryption Key](image)

Step 1: Make the FileWritable

To change the encryption key, make sure that the following file is writable:

```
[your store]/app/etc/env.php
```

Step 2: Change the Encryption Key

1. On the Admin sidebar, tap System. Then under Other Settings, choose Manage Encryption Key.

2. Do one of the following:
   - To generate a new key, set Auto-generate Key to “Yes”.
   - To use a different key, set Auto-generate Key to “No”. Then in the New Key field, enter or paste the key that you want to use.
3. Tap **Change Encryption Key**.
Session Validation

Magento Commerce allows you to validate session variables as a protective measure against possible session fixation attacks, or attempts to poison or hijack user sessions. The Session Validation Settings determine how session variables are validated during each store visit, and if the session ID is included in the URL of the store.

The validation checks to see that visitors are who they say they are by comparing the value in the validation variables against the session data that is already stored in $_SESSION data for the user. Validation fails if the information is not transmitted as expected, and the corresponding variable is empty. Depending on the session validation settings, if a session variable fails the validation process, the client session immediately terminates.

Enabling all of the validation variables can help prevent attacks, but might also impact the performance of the server. By default, all session variable validation is disabled. We recommend that you experiment with the settings to find the best combination for your Magento installation. Activating all of the validation variables might prove to be unduly restrictive, and prevent access to customers who have Internet connections that pass through a proxy server, or that originate from behind a firewall. To learn more about session variables and their use, see the system administration documentation for your Linux system.
To configure the Session Validation Settings:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. In the panel on the left under General, choose Web.

3. Expand the Session Validation Settings section. Then, do the following:
   
a. To verify that the IP address of a request matches what is stored in the $_SESSION variable, set Validate REMOTE_ADDR to “Yes.”

b. To verify that the proxy address of an incoming request matches what is stored in the $_SESSION variable, set Validate HTTP_VIA to “Yes.”

c. To verify that the forwarded-for address of a request matches what is stored in the $_SESSION variable, set Validate HTTP_X_FORWARDED_FOR to “Yes.”

d. To verify that the browser or device that is used to access the store during a session matches what is stored in the $_SESSION variable, set Validate HTTP_USER_AGENT to “Yes.”

e. If you want a user to stay logged in while switching between stores, set Use SID on Frontend to “Yes.”

   If including SID with analytics, you must configure your analytics software to filter the SID from URLs, so the page visit counts are correct.

4. When complete, tap Save Config.
Browser Capabilities Detection

As is true of most websites and applications on the Internet, Magento requires that the visitor's browser allow both cookies and JavaScript for full operations. However, occasionally a user's browser is set to the highest privacy setting that prevents both cookies and JavaScript. Your store can be configured to test the capabilities of each visitor's browser, and to display a notice if the settings need to be changed.

- If the browser's privacy settings disallow cookies, you can configure the system to automatically redirect them to the Enable Cookies page, which explains how to make the recommended settings with most browsers.
- If the browser's privacy settings disallow JavaScript, you can configure the system to display the following message above the header of every page:

**To configure browser capabilities detection:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **General**, choose **Web**.
3. Expand the **Browser Capabilities Detection** section, and do the following:
   
   a. To display instructions that explain how to configure the browser to allow cookies, set **Redirect to CMS-page if Cookies are Disabled** to “Yes.”
   
   b. To display a banner above the header when JavaScript is disabled in the user's browser, set **Show Notice if JavaScript is Disabled** to “Yes.”

4. When complete, tap **Save Config**.
**Action Log**

The Action Log tracks the activities of administrators who work in your store. For most events, the available information includes the action, the name of the user who performed it, whether it was a success or failure, and the ID of the object on which the action was performed. Additionally, the IP and date are always logged.

![Admin Actions Logging](image)

*Admin Actions Logging*

**To configure the Action Log:**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Advanced**, choose **Admin**.
3. Expand the **Admin Actions Logging** section, and do the following:
   - To enable admin logging, mark the checkbox.
   - To disable admin logging, clear the checkbox.
4. When complete, tap **Save Config**.
CHAPTER 81:

Tools

In this section of the guide, you will learn how to perform routine index and cache management operations, back up the system, and use tools that help our Support team troubleshoot and resolve issues.

- Cache Management
- Index Management
- Backups
- Cron (Scheduled Backups)
- Developer Tools
- Alternate Media Storage
- Web Setup Wizard
Cache Management

Magento’s cache management system is an easy way to improve the performance of your site. Whenever a cache needs to be refreshed, a notice appears at the top of the workspace to guide you through the process. Follow the link to Cache Management, and refresh the invalid caches.

Update Cache Message

The Cache Management page shows the status of each primary cache and its associated tag. The large buttons in the upper-right corner can be used to flush the Magento Cache, or the all-inclusive Cache Storage. At the bottom of the page there are additional buttons to flush the catalog product images cache and JavaScript/CSS cache.

After clearing a cache, always refresh your browser to make sure that you can see the most recent files. Clearing the Magento cache does not clear your web browser cache. You may need to clear the browser cache to see updated content.

Access to specific cache maintenance actions can be assigned to users by role, including options to view, toggle, and flush caches. Magento recommends only enabling flush actions to administrator level users. Providing access to all Cache Management features can impact your storefront’s performance.

Cache Management Role Resources

For technical information, see Magento cache overview in the developer documentation.
### Cache Management

#### Cache Type | Description | Tags | Status
---|---|---|---
Configuration | Various files, configurations that were collected across sessions and merged. | CONFIG | Logo
Files | Layout building instructions | LAYOUT_GENERAL, LAYOUT_TAG | Logo
Block HTML output | Page blocks HTML | BLOCK_HTML | Logo
Collection Data | Collection data files | COLLECTION_DATA | Logo
Database SQL operations | Results of SQL queries, such as describing tables or indexes | DB_SQL, DB_INDEX | Logo
XML files and all rules | XML types and associated rules | XML | Logo
Page Cache | Page caching | PAGE | Logo
Integration Configuration | Integration configuration files | AUTOMATION | Logo
Integration XML Configuration | Integration configuration files | AUTOMATION, XML_CONF, XML | Logo
Target Rule | Target rule index | TARGET_INDEX | Logo
Translators | Translation files | TRANSLATE | Logo
Web Services Configuration | REST and SOAP configurations, generated XML files | INTEGRATION | Logo
**Best practices for caching**

Reindexing and caching have different purposes in Magento. **Indexes** track database information for increased search performance, faster data retrieval for storefronts, and more. Caches save loaded data, images, formats, and the like for increased performance loading and accessing the storefront.

- Always flush the cache after installing extensions/modules. You can install one or more extensions, then flush the cache.
- Flush the cache after installing Magento Commerce. For fresh installs, you should also reindex.
- Flush the cache after upgrading from one version of Open Source or Commerce to another.
- When flushing caches, consider the type of cache and scheduling the flushing during non-peak times. For example, pick a time when few customers may access the site such as late night or early morning. Clearing some cache types during peak times cause result in a high load on the Admin and may result in a down site until completed.
- When **reindexing**, you do not need to also perform a flush cache.

**To refresh specific caches:**

1. Do one of the following:
   - Click the **Cache Management** link in the message above the workspace.
   - On the Admin sidebar, tap **System**. Then under Tools, choose **Cache Management**.
2. For each cache to be refreshed, mark the checkbox at the beginning of the row.
3. Set **Actions** to “Refresh,” and tap **Submit**.

**To perform mass actions:**

1. To select a group of caches, set **Mass Actions** to one of the following:
   - Select All
   - Select Visible
2. Mark the checkbox of each cache to be targeted by the action.
3. Set **Actions** to “Refresh,” and tap **Submit**.
To flush the product image cache:

1. From the Cache Storage Management page, under Additional Cache Management, click **Flush Catalog Images Cache** to clear pre-generated product image files.

   The message, “Image cache was cleaned” appears at the top of the workspace.

2. Make sure to also clear the cache of your browser.

To flush the JavaScript/CSS cache:

1. From the Cache Storage Management page, under Additional Cache Management, click **Flush JavaScript/CSS Cache** to clear any JavaScript and CSS files that have been merged into a single file.

   The message, “The JavaScript/CSS cache has been cleaned” appears at the top of the workspace.

2. Make sure to also clear the cache of your browser.

To flush using the Command Line:

Magento provides additional flush cache options using the command line. These options may require developer support to complete. For complete details and command options, see **Magento cache overview** and **Manage the cache**.
Control Descriptions

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mass Actions</td>
<td>Marks the checkbox of multiple caches. Options include:</td>
</tr>
<tr>
<td>Select All</td>
<td>Marks the checkbox of all caches.</td>
</tr>
<tr>
<td>Unselect All</td>
<td>Clears the checkbox of all caches.</td>
</tr>
<tr>
<td>Select Visible</td>
<td>Marks the checkbox of all visible caches.</td>
</tr>
<tr>
<td>Unselect Visible</td>
<td>Clears the checkbox of all visible caches.</td>
</tr>
<tr>
<td>Actions</td>
<td>Determines the action to be applied to all selected caches. Options include:</td>
</tr>
<tr>
<td>Enable</td>
<td>Enables all selected caches.</td>
</tr>
<tr>
<td>Disable</td>
<td>Disables all selected caches.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes all selected caches.</td>
</tr>
</tbody>
</table>

Submit

Applies the action to all selected caches.

Button Descriptions

<table>
<thead>
<tr>
<th>BUTTON</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flush Magento Cache</td>
<td>Removes all items in the default Magento cache (var/cache), according to their associated Magento tags.</td>
</tr>
<tr>
<td>Flush Cache Storage</td>
<td>Removes all items from the cache, regardless of Magento tag. If your system uses an alternate cache location, any cached files used by other applications are removed in the process.</td>
</tr>
<tr>
<td>Flush Catalog Images</td>
<td>Removes all automatically resized and watermarked catalog images that are stored at: media/catalog/product/cache. If recently uploaded images aren't reflected in the catalog, try flushing the catalog and refreshing your browser.</td>
</tr>
<tr>
<td>Cache</td>
<td></td>
</tr>
<tr>
<td>Flush JavaScript/CSS</td>
<td>Removes the merged copy of JavaScript and CSS files from the cache. If recent changes to the stylesheet or JavaScript aren't reflected in the store, try flushing the JavaScript/CSS cache and refreshing your browser.</td>
</tr>
<tr>
<td>Cache</td>
<td></td>
</tr>
<tr>
<td>Flush Static Files</td>
<td>Removes preprocessed view files and static files.</td>
</tr>
<tr>
<td>Cache</td>
<td></td>
</tr>
</tbody>
</table>
### Cache Descriptions

<table>
<thead>
<tr>
<th>CACHE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuration</td>
<td>Various XML configurations that were collected across modules and merged. Associated Tag: CONFIG</td>
</tr>
<tr>
<td>System</td>
<td>config.xml</td>
</tr>
<tr>
<td></td>
<td>local.xml</td>
</tr>
<tr>
<td>Module</td>
<td>config.xml</td>
</tr>
<tr>
<td>Layouts</td>
<td>Layout building instructions. Associated Tag: LAYOUT_GENERAL_CACHE_TAG</td>
</tr>
<tr>
<td>Blocks HTML output</td>
<td>Page blocks HTML. Associated Tag: BLOCK_HTML</td>
</tr>
<tr>
<td>Collections Data</td>
<td>Collection data files. Associated Tag: COLLECTION_DATA</td>
</tr>
<tr>
<td>Reflection Data</td>
<td>Clears API interface reflection data, that is typically generated during runtime.</td>
</tr>
<tr>
<td>Database DDL operations</td>
<td>Results of DDL queries, such as describing tables or indexes. Associated Tag: DB_DDL</td>
</tr>
<tr>
<td>Compiled Config</td>
<td>Results of code compilation. Associated Tag: COMPILED_CONFIG</td>
</tr>
<tr>
<td>EAV types and attributes</td>
<td>Entity types declaration cache. Associated Tag: EAV</td>
</tr>
<tr>
<td>Customer Notification</td>
<td>Temporary notifications that appear in the user interface.</td>
</tr>
<tr>
<td>Integrations Configuration</td>
<td>Integration configuration file. Associated Tag: INTEGRATION</td>
</tr>
<tr>
<td>Integrations API Configuration</td>
<td>Integrations API configuration file. Associated Tag: INTEGRATION_API_CONFIG</td>
</tr>
<tr>
<td>Page Cache</td>
<td>Full page caching. Associated Tag: FPC</td>
</tr>
<tr>
<td>Translations</td>
<td>Translation files. Associated Tag: TRANSLATE</td>
</tr>
<tr>
<td>Web Services Configuration</td>
<td>REST and SOAP configurations, generated WSDL file. Associated Tag: WEBSERVICE</td>
</tr>
</tbody>
</table>

### Cache Management Role Resources

<table>
<thead>
<tr>
<th>RESOURCE</th>
<th>CLEAN CACHE ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cache Management</td>
<td>Clean Cache Actions</td>
</tr>
<tr>
<td></td>
<td>Flush Cache Storage</td>
</tr>
</tbody>
</table>
Cache Management Role Resources (cont.)

<table>
<thead>
<tr>
<th>RESOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluch Magento Cache</td>
</tr>
<tr>
<td>Cache Type Management</td>
</tr>
<tr>
<td>Toggle Cache Type</td>
</tr>
<tr>
<td>Refresh Cache Type</td>
</tr>
<tr>
<td>Additional Cache Management</td>
</tr>
<tr>
<td>Catalog Images Cache</td>
</tr>
<tr>
<td>Flush Js/Css</td>
</tr>
<tr>
<td>Flush Static Files</td>
</tr>
</tbody>
</table>
Full-Page Cache

Magento Commerce uses full-page caching on the server to quickly display category, product, and CMS pages. Full-page caching improves response time and reduces the load on the server. Without caching, each page might need to run blocks of code and retrieve information from the database. However, with full-page caching enabled, a fully-generated page can be read directly from the cache. For more technical information, see: Configure and Use Varnish

We recommend Varnish to be used only in a production environment.

Cached content can be used to process the requests from similar types of visits. As a result, pages shown to a casual visitor might differ from those shown to a customer. For the purposes of caching, each visit is one of three types:

- Non-sessioned: During a non-sessioned visit, a shopper views pages, but does not interact with the store. The system caches the content of each page viewed, and serves them to other non-sessioned shoppers.

- Sessioned: During a sessioned visit, shoppers who interact with the store—through activities such as comparing products or adding products to the shopping cart—are assigned a session ID. Cached pages that are generated during the session are used only by that shopper during the session.

- Customer: Customer sessions are created for those who have registered for an account with your store and shop while logged in to their accounts. During the session, customers can be presented with special offers, promotions, and prices that are based on the customer group to which they are assigned.

To configure the full-page cache:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose System.
3. Expand the Full Page Cache section.
4. Set **Caching Application** to one of the following:
   - Built-in Application
   - Varnish Caching

5. To set the time-out for the page cache, enter the **TTL for public content**. (The default value is 86400)

6. If using Varnish, complete the **Varnish Configuration** section as follows:
   a. In the **Access list** field, enter the IP addresses that can purge the Varnish configuration to generate a config file. Separate multiple entries with a comma. The default value is “localhost.”
   b. In the **Backend host** field, enter the IP address of the backend host that generates config files. The default value is “localhost.”
   c. In the **Backend port** field, identify the backend port that is used to generate config files. The default value is: “8080.”
   d. To export the configuration as a `varnish.vcl` file, tap the button for the version of Varnish that you use.
      - Export VCL for Varnish 3
      - Export VCL for Varnish 4

![Varnish Configuration](image)

7. When complete, tap **Save Config**.
Index Management

Magento reindexes automatically whenever one or more items change. Actions that trigger reindexing include price changes, creating catalog or shopping cart price rules, adding new categories, and so on. To optimize performance, Magento accumulates data into special tables using indexers. As the data changes, the indexed tables must be updated—or reindexed. Magento reindexes as a background process, and your store remains accessible during the processes.

Reindexing data speeds up processing, and reduces the time the customer has to wait. For example, if you change the price of an item from $4.99 to $3.99, Magento reindexes the data to show the price change in the store. Without indexing, Magento would have to calculate the price of every product on the fly—taking into account shopping cart price rules, bundle pricing, discounts, tier pricing, and so on. Loading the price for a product might take longer than the customer is willing to wait.

The indexers can be set to either update on save or on schedule. All indexes can use either option, except Customer Grid which only supports on save. When indexing on save, Magento starts a reindex on save actions. The Index Management page will update and flush the reindex message within a minute or two. When reindexing on a schedule, a reindex runs according to a schedule as a cron job. A system message appears if a cron job is not available to update any indexers that become invalid. Your store remains accessible during reindex processes.

When you need to reindex, a notification appears at the top of the page. The index and message clears based on the reindex mode and potential actions you take.

For technical information, see Indexing overview in DevDocs developer documentation.
Index Management has a slightly different presentation for flat product catalogs.

To avoid problems when multiple Admin users update objects that trigger automatic reindexing, we recommend that you set all indexers to run on schedule as cron jobs. Otherwise, every time an object is saved, any objects with interdependencies might cause a deadlock. Symptoms of a deadlock include high CPU usage and MySQL errors. As a best practice, we recommend that you use scheduled indexing.
Best practices for reindexing

Reindexing and caching have different purposes Magento. Indexes track database information for increased search performance, faster data retrieval for storefronts, and more. Caches save loaded data, images, formats, and the like for increased performance loading and accessing the storefront.

- Typically, you want to reindex when updating data in Magento.
- If you have a large store or multiple stores, you may want to set indexers like category and products to scheduled cron jobs due to potential reindex looping. You may want to set the reindex on a schedule during non-peak hours.
- When reindexing, you do not need to also perform a flush cache.
- For fresh Magento installations, you need to flush the cache and reindex.
- Flushing caches and reindexing does not flush your computer's web browser cache. We recommend also flushing the browser cache after completing updates to your storefront.

To change the index mode:

1. On the Admin sidebar, tap System. Then under Tools, choose Index Management.
2. Mark the checkbox of each indexer that you want to change.
3. Set Actions to one of the following:
   - Update on Save
   - Update by Schedule

   Important: Customer Grid can only be reindexed using "Update on Save". This index does not support "Update by Schedule".

4. Tap Submit to apply the change to each selected indexer.

Column Descriptions

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indexer</td>
<td>The name of the indexer.</td>
</tr>
<tr>
<td>Description</td>
<td>A description of the indexer.</td>
</tr>
<tr>
<td>Mode</td>
<td>Indicates the current update mode for each indexer. Options:</td>
</tr>
</tbody>
</table>
### Column Descriptions (cont.)

<table>
<thead>
<tr>
<th>COLUMN</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update on Save</td>
<td>The index is set to update whenever an entity change is saved. These entities include products, categories, and customers. When the save action completes, a series of steps begin catching the changes and updating the index. The Index Management page will update and flush the reindex message within a minute or two.</td>
</tr>
<tr>
<td>Update on Schedule</td>
<td>The index is set to update on schedule according to cron jobs. The cron job includes the schedule interval for reindexing, writing updates to the index when run.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
<th>Displays one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ready</td>
<td>The index is up-to-date.</td>
</tr>
<tr>
<td>Scheduled</td>
<td>Reindexing is scheduled to take place.</td>
</tr>
<tr>
<td>Running</td>
<td>Reindexing is currently running.</td>
</tr>
<tr>
<td>Reindex Required</td>
<td>A change has been made that requires reindexing, but the indexers cannot be updated automatically. Check to see if cron is available and configured correctly.</td>
</tr>
</tbody>
</table>

| Updated               | Indicates the date and time an index was last updated.                                                                                     |

**To reindex using the Command Line:**

Magento provides additional reindex options using the command line. These options may require developer support to complete. For complete details and command options, see Reindex in Manage the indexers. The DevDocs PHP Developer Guide also includes an Indexing section.
## Index Trigger Events

### Reindexing Triggers

<table>
<thead>
<tr>
<th>INDEX TYPE</th>
<th>REINDEXING EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Prices</td>
<td>Add customer group</td>
</tr>
<tr>
<td></td>
<td>Change configuration settings</td>
</tr>
<tr>
<td>Flat catalog(^1) product data</td>
<td>Add store</td>
</tr>
<tr>
<td></td>
<td>Add store group</td>
</tr>
<tr>
<td></td>
<td>Add, edit, or delete attribute (for searching and filtering)</td>
</tr>
<tr>
<td>Flat catalog category data</td>
<td>Add store</td>
</tr>
<tr>
<td></td>
<td>Add store group</td>
</tr>
<tr>
<td></td>
<td>Add, edit, or delete attribute (for searching and filtering)</td>
</tr>
<tr>
<td>Catalog category/product index</td>
<td>Add, edit, or delete products (single, mass, and import)</td>
</tr>
<tr>
<td></td>
<td>Change product-to-category relations</td>
</tr>
<tr>
<td></td>
<td>Add, edit, or delete categories</td>
</tr>
<tr>
<td></td>
<td>Add or delete stores</td>
</tr>
<tr>
<td></td>
<td>Delete store groups</td>
</tr>
<tr>
<td></td>
<td>Delete websites</td>
</tr>
<tr>
<td>Catalog search index</td>
<td>Add, edit, or delete products (single, mass, and import)</td>
</tr>
<tr>
<td></td>
<td>Add or delete stores</td>
</tr>
<tr>
<td></td>
<td>Delete store groups</td>
</tr>
<tr>
<td></td>
<td>Delete websites</td>
</tr>
<tr>
<td>Stock status index</td>
<td>Change inventory configuration settings.</td>
</tr>
<tr>
<td>Category permissions index</td>
<td>Add store, add store group, add or delete or update attribute (for searching and filtering)</td>
</tr>
</tbody>
</table>

\(^1\) The flat product and category indexers also influence how catalog and shopping cart price rules are indexed. If you have a large number of SKUs (about 500,000 or more), you will notice a dramatic improvement in indexing time for price rules. To take advantage of this improvement, you must enable Use Flat Catalog Product.
Index Actions and Controls

Index Actions

<table>
<thead>
<tr>
<th>ACTION</th>
<th>RESULT</th>
<th>TO CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating a new store, new customer group, or any action listed in “Actions that Cause a Full Reindex.”</td>
<td>Full reindex</td>
<td>Full reindexing is performed on the schedule determined by your Magento cron job.</td>
</tr>
</tbody>
</table>

Bulk loading of items in the following ways:
- Magento import/export
- Direct SQL query
- Any other method that directly adds, changes, or deletes data.

Partial reindex (only changed items are reindexed)
At the frequency determined by your Magento cron job.

Changing scope (for example, from global to website)
Partial reindex (only changed items are reindexed)
At the frequency determined by your Magento cron job.

Events that Trigger Full Reindexing

Full Reindex Triggers

<table>
<thead>
<tr>
<th>INDEXER</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog Category Flat Indexer</td>
<td>Create a new web store</td>
</tr>
<tr>
<td></td>
<td>Create a new web store view</td>
</tr>
<tr>
<td></td>
<td>Create, or delete an attribute that is any of the following:</td>
</tr>
<tr>
<td></td>
<td>• Searchable or visible in advanced search</td>
</tr>
<tr>
<td></td>
<td>• Filterable</td>
</tr>
<tr>
<td></td>
<td>• Filterable in search</td>
</tr>
<tr>
<td></td>
<td>• Used for sorting</td>
</tr>
<tr>
<td></td>
<td>Change an existing attribute to be any of the preceding.</td>
</tr>
<tr>
<td></td>
<td>Enable flat category storefront options</td>
</tr>
<tr>
<td>Catalog Product Flat Indexer</td>
<td>Create a new web store</td>
</tr>
<tr>
<td></td>
<td>Create a new web store view</td>
</tr>
<tr>
<td></td>
<td>Create, or delete an attribute that is any of the following:</td>
</tr>
</tbody>
</table>
Full Reindex Triggers (cont.)

<table>
<thead>
<tr>
<th>INDEXER</th>
<th>EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Searchable or visible in advanced search</td>
</tr>
<tr>
<td></td>
<td>- Filterable</td>
</tr>
<tr>
<td></td>
<td>- Filterable in search</td>
</tr>
<tr>
<td></td>
<td>- Used for sorting</td>
</tr>
</tbody>
</table>

Change an existing attribute to be any of the preceding.
Enable flat category storefront options

<table>
<thead>
<tr>
<th>Stock status indexer</th>
<th>When the following Catalog Inventory options change in the system configuration:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stock Options</td>
</tr>
<tr>
<td></td>
<td>Product Stock Options</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price Indexer</th>
<th>Adding a new customer group. When any of the following Catalog Inventory options change in the system configuration:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stock Options</td>
</tr>
<tr>
<td></td>
<td>Product Stock Options</td>
</tr>
<tr>
<td></td>
<td>Price</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category or Product Indexer</th>
<th>Create or delete a store view</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delete a store</td>
</tr>
<tr>
<td></td>
<td>Delete a website</td>
</tr>
</tbody>
</table>
Backups

Magento Commerce gives you the ability to backup different parts of the system—such as the file system, database, and media files—and to roll back automatically. A record for each backup appears in the grid on the Backups page. Deleting a record from the list deletes the archived file as well. Database backup files are compressed using the .GZ format. For the system backups and database and media backups, the .TGZ format is used. As a best practice, you should restrict access to backup tools, and backup before installing extensions and updates.

- **Restrict access to backup tools.** Access to the Backups and roll back management tool can be restricted by configuring user permissions for backup and roll back resources. To restrict access, leave the corresponding checkbox unselected. If you need to grant access to roll back resources, you must grant access to backup resources as well.

- **backup before installing extensions and updates.** Always perform a backup before you install an extension or update. **Component Manager** includes a backup option that you can use before installing an extension or upgrading to a new release.

**Disabled feature:** Magento backup is disabled by default. To enable may require developer assistance. See Magento DevDocs for the command to enable backups: **Back up and roll back the file system, media, and database.**

**Deprecation Notice!** Magento backup features are deprecated as of v2.1.16. We recommend that all merchants investigate additional backup technologies and binary backup tools (such as Percona XtraBackup).

![Backups screenshot](image-url)
To create a backup:

1. On the Admin sidebar, tap System. Then under Tools, choose Backups.
2. In the upper-right corner, tap the button for the type of backup you want to create:
   - System Backup: Creates a complete backup of the database and the file system. During the process, you can choose to include the media folder in the backup.
   - Database and Media Backup: Creates a backup of the database and the media folder.
   - Database Backup: Creates a backup of the database.
3. To put the store into maintenance mode during the backup, mark the checkbox. When the backup is complete, maintenance mode is turned off automatically.
4. For a system backup, mark the Include Media folder to System Backup checkbox if you want to include the media folder. Then when prompted, confirm the action.

To schedule backups

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose System.
3. Expand the Scheduled Backup Settings section, and do the following:
4. When complete, tap Save Config.
Cron (Scheduled Tasks)

Magento performs some operations on schedule by periodically running a script. You can control the execution and scheduling of Magento cron jobs from the Admin. Store operations that run according to a cron schedule include:

- Email
- Catalog Price Rules
- Newsletters
- XML Sitemap Generation
- Currency Rate Updates

In addition, you can configure the following to run according to a cron schedule:

- Order System Grid Updates and Reindexing
- Pending Payment Lifetime

Make sure that the base URLs for the store are set correctly, so the URLs that are generated during cron operations are correct. To learn more, see: Setting Up Cron Jobs.

To configure cron:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose System.
3. Expand the Cron section.

=Cron (Scheduled Tasks) =

=Cron (Scheduled Tasks) - all the times are in minutes =

For correct URLs generated during cron runs please make sure that Web > Secure and Unsecure Base URLs are explicitly set.

=Cron configuration options for group: index =

=Cron configuration options for group: default =
4. Then, complete the following settings for the **Index** and **Default** groups. The settings are the same in each section.

- Generate Schedules Every
- Schedule Ahead for
- Missed if not Run Within
- History Cleanup Every
- Success History Lifetime
- Failure History Lifetime
- Use Separate Process

![Cron configuration options for group: Index]

5. When complete, tap **Save Config.**
Developer Tools

Use the Advanced Developer tools to determine the compilation mode during frontend development, create a whitelist of IP addresses, display template path hints, and make spot changes to text in the interface of the storefront and Admin.

- Frontend Development Workflow
- Using Static File Signatures
- File Optimization
- Developer Client Restrictions
- Template Path Hints
- Translate Inline
Frontend Development Workflow

The Frontend Development Workflow type determines if Less compilation takes place on the client- or server side during development. Less is an extension of CSS that has additional features and conventions, and that produces streamlined code. Client-side Less compilation is recommended for theme development. Server-side compilation is the default mode. The development workflow options are not available for stores in production mode. To learn more, see Client-side LESS compilation vs. server-side in the developer documentation.

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the Front-end Development Workflow section.
4. Set Workflow Type to one of the following:
   - Client side less compilation
     - Compilation takes place in the browser using the native less.js library.
   - Server side less compilation
     - Compilation takes place on the server using the Less PHP library. This is the default mode for production.
5. When complete, tap Save Config.
Using Static File Signatures

Adding a digital signature to the URL of static files makes it possible for browsers to detect when a newer version of the file is available. Static files that can be tracked with digital signatures include JavaScript, CSS, images, and fonts. The signature is appended to the path directly after the base URL. If a file’s signature differs from what is currently stored in the browser’s cache, then the newer version of the file is used. To learn more, see Static File Processing in the developer documentation.

To enable signed static files:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the Static Files Settings section.
4. Set Sign Static Files to “Yes.”
5. When complete, tap Save Config.
Optimizing Resource Files

The time it takes to load resource files can be reduced by merging and bundling files, and by minimizing code.

- Merging combines separate files of the same type into a single file.
- Bundling is a technique that groups separate files in order to reduce the number of HTTP requests that are required to load a page.
- Minification removes spaces, line breaks, and comments, but does not affect the functionality of the code. Because minimized files cannot be edited, the process should be applied only when you are ready to go into production.

By default, Magento does not merge, bundle, or minimize files, and the project developer should determine which file optimization methods should be used. The following operations are supported for each file type:

<table>
<thead>
<tr>
<th>FILE TYPE</th>
<th>SUPPORTED OPERATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSS Files</td>
<td>• Merge</td>
</tr>
<tr>
<td></td>
<td>• Minify</td>
</tr>
<tr>
<td>JavaScript Files</td>
<td>• Merge</td>
</tr>
<tr>
<td></td>
<td>• Bundle</td>
</tr>
<tr>
<td></td>
<td>• Minify</td>
</tr>
<tr>
<td>Template Files</td>
<td>• Minify</td>
</tr>
</tbody>
</table>

To optimize resource files:

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. To optimize CSS files, do the following:
   a. Expand the CSS Settings section. Then, do the following:
   b. Set Merge CSS Files to “Yes.”
   c. Set Minify CSS Files to “Yes.”
4. To optimize JavaScript files, do the following:
   a. Expand the JavaScript Settings section. Then, do the following:
   b. Set Merge JavaScript Files to “Yes.”
   c. Set Minify JavaScript Files to “Yes.”

5. To minify PHTML template files, do the following:
   a. Expand the Template Settings section.
   b. Set Minify Html to “Yes.”

6. When complete, tap Save Config.
Developer Client Restrictions

Before using a tool such as Template Path Hints, make sure to add your IP address to the Developer Client Restrictions whitelist to avoid disrupting the shopping experience of customers in the store. If you don’t know your IP address, you can search for it online.

**Add Your IP Address to the Whitelist**

1. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
2. In the panel on the left under **Advanced**, choose **Developer**.
3. Expand the **Developer Client Restrictions** section.

4. In the **Allow IPs** field, enter your IP address. If access is needed from multiple IP addresses, separate each with a comma.
5. When complete, tap **Save Config**.
6. When prompted, refresh any invalid caches.
Template Path Hints

Template Path Hints are a diagnostic tool that adds notation with the path to each template that is used on the page. Template path hints can be enabled for either the storefront or the Admin.

**Step 1: Whitelist Your IP Address**

Before using template path hints, add your IP address to the whitelist, so you won’t interfere with customers who are shopping in the store. When you are finished, make sure to clear the Magento cache to remove all hints from the store.

**Developer Client Restrictions**

![Developer Client Restrictions](image-url)
Step 2: Enable Template Path Hints

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.
2. In the panel on the left under Advanced, choose Developer.
3. Expand the Debug section. Then, do the following:

   a. To activate template path hints for the store, set Enabled Template Path Hints for Storefront to “Yes.”
   b. To activate template path hints for the Admin, set Enabled Template Path Hints for Admin to “Yes.”
   c. To include the names of blocks, set Add Block Names to Hints to “Yes.”
4. When complete, tap Save Config.
5. When you are finished, return to the Admin to disable the hints and clear the cache.

Step 3: Clear the Cache

1. On the Admin sidebar, tap System. Then under Tools, choose Cache Management.
2. In the upper-right corner, tap Flush Magento Cache.
Translate Inline

You can use the Translate Inline tool to touch up the interface text to reflect your voice and brand. When the Translate Inline mode is activated, any text on the page that can be edited is outlined in red. It's easy to edit field labels, messages, and other text that appears throughout the storefront and Admin. For example, many themes use terminology such as “My Account,” “My Wishlist,” and “My Dashboard,” to help customers find their way around. However, you might prefer to simply use the words “Account,” “Wishlist,” and “Dashboard.”

Translatable Text

If your store is available in multiple languages, you can make fine adjustments to the translated text for the locale. On the server, interface text is maintained in a separate CSV file for each output block, and is organized by locale. As an alternate approach, rather than use the Translate Inline tool, you can also edit the CSV files directly on the server.

To use the Translate Inline tool, your browser must allow pop-ups.

Step 1: Disable Output Caches

1. On the Admin sidebar, tap System. Then under Tools, choose Cache Management.

2. Mark the following checkboxes:
   - Blocks HTML output
   - Page Cache
   - Translations

3. Set the Actions control to “Disable.” Then, tap Submit.
Step 2: Enable the Translate Inline Tool

1. On the Admin sidebar, tap Stores. Then under Settings, choose Configuration.

2. To work with a specific store view, set the Store View that is to be updated.

3. In the panel on the left under Advanced, choose Developer.

4. Expand the Translate Inline section. Then if necessary, clear the Use Website checkbox. The Enabled for Admin option is not available when editing a specific store view.

5. Set Enabled for Storefront to “Yes.”

6. When complete, tap Save Config.

7. When prompted, refresh the invalid caches, but leave the disabled caches as they are for now.
Step 3: Update the Text

1. Open your storefront in a browser, and go to the page that you want to edit. If necessary, use the language chooser to change the store view.

   Each string of text that can be translated is outlined in red. When you hover over any text box, a book icon (📖) appears.

2. Tap the book icon (📖) to open the Translate window. Then, do the following:
   a. If the change is for the specific store view, mark the Store View Specific checkbox.
   b. Enter the new Custom text.
   c. When complete, tap Submit.

3. To see your changes in the store, press the F5 key to refresh the browser.

4. Repeat this process for any elements in the store to be changed.

Step 4: Restore Original Settings

1. Return to the Admin of your store. On the Admin sidebar, tap Store. Then under Settings, choose Configuration.
   a. Set Store View to the specific view that was edited.
   b. In the panel on the left under Advanced, choose Developer.
   c. Expand the Translate Inline section.
a. Set **Enabled for Frontend** to “No.”

b. When complete, tap **Save Config**.

2. On the Admin sidebar, tap **System**. Then under **Tools**, choose **Cache Management**.

   a. Mark the checkbox of the following output caches that were previously disabled:
      - Blocks HTML output
      - Page Cache
      - Translations

   b. Set the **Actions** control to “Enable.” Then, tap **Submit**.

   c. When prompted, refresh any invalid caches.

**Step 5: Verify the Changes in Your Store**

Go to your storefront and examine each page that was updated to make sure the changes are correct. In this example, “Customer Login” was changed to “Customer Sign In.” If changes were made to a specific view, use the Language Chooser to switch to the correct view.
Setup Wizard

The Setup Wizard can be used to easily install and uninstall components, modules, and extensions, manage modules, upgrade your installation, and make changes to the Web setup of your installation.

**Important:** Always flush the cache after installing or upgrading Magento, or any extensions and modules.
Setup Tools

Component Manager
Component Manager lists each component that is currently installed, and can be used to synchronize any extensions you have purchased from Magento Marketplace with your system.

System Upgrade
The System Upgrade tool can be used to upgrade your installation of Magento. During the process, it checks your system for readiness, creates a backup, and then upgrades your system.

System Config
The System Config tool uses the public and private keys from your Marketplace account to synchronize web setup operations.
Component Manager

Installing an extension is a three-step process that should take place during off-peak hours. Before the extension is installed, your store is put into maintenance mode, checked for readiness, and backed up. After the extension is installed, it must be configured for your store according to the developer's instructions. To learn more, see Marketplace User Guide.

Before you begin, make sure that your system meets Component Manager prerequisites. To learn more, see Component Manager and System Upgrade Guide in the developer documentation.

Important: Always flush the cache after installing or upgrading Magento, or any extensions and modules.

To install an extension:

1. Log in to the Admin of your Magento store as a user with full administrator rights.
2. On the Admin sidebar, tap System. Then under Tools, choose Web Setup Wizard.
3. Tap Component Manager. Then, click the Sign In link in the upper-right corner.
4. When prompted, paste the Public Access Key and Private Access Key from your Marketplace account. Then, tap Sign In. To learn more, see Magento 2 Access Keys in the Marketplace User Guide.

5. To synchronize Component Manager with your Marketplace purchases, tap Sync. It might take a few minutes. When the process is complete, the number of new purchases appears with the date and time the store was last synchronized.

6. In the Marketplace Purchases section under New Purchases, click Install.

7. In the Extensions Grid, mark the checkbox of the extension you want to install. Then in the Action column, click the Install link for the item.

8. We’re almost done! Follow these steps to complete the installation:
Step 1: Readiness Check

1. Before the installation begins, your store environment must be checked for compatibility. When ready to begin, tap **Start Readiness Check**. The progress indicator shows where you are in the process.

   ![Readiness Check](image)

   **Readiness Check**

2. When the Readiness Check completes successfully, tap **Next**.

   ![Readiness Check Complete](image)

Step 2: Create Backup

1. Your store will be put in maintenance mode while the backup is created. When you are ready to begin, tap **Create Backup**. Then, wait a few minutes for the backup to complete.

   ![Backup Complete](image)
2. You can see the path to the backup file at the bottom of the report. When the backup is complete, tap **Next**.

**Step 3: Component Install**

1. When you are ready to begin, tap **Install**. Then, wait a few moments for the installation to complete.

   ![Installation Complete]

2. When complete, tap **Back to Setup Tool**. Then, tap the **System Configuration** tile.

   ![Setup Wizard]

3. In the upper-right corner of Component Manager, click the **Reset** link to log out.

   ![Logged Out]

**Step 4: Configure the Extension for Your Store**

1. Log in to the Admin of your store.

2. On the Admin sidebar, tap **Stores**. Then under **Settings**, choose **Configuration**.
3. In the panel on the left, find the new tab for the extension you installed. Then, follow the instructions from the extension developer to complete the configuration.

4. Flush the cache after installing and enabling the extension.

System Upgrade

Your Magento installation can be upgraded from the Admin of your store, using the Web Setup Wizard. However, developers who work from the command line usually prefer to upgrade Magento using Composer. We also recommend reviewing the DevDocs Software Upgrade Guide.

Upgrade Guidelines

- We strongly recommend reviewing the latest release notes and system requirements.
- The access keys that are required to download code from the repository must be generated from the Magento account of the primary Admin user.

Caching and Reindexing

Always flush the cache when upgrading from one version of Open Source or Commerce to another. Two upgrade examples include: upgrading from Magento Open Source 2.0.X to 2.1.X and upgrading from Magento Open Source 2.1.X to Magento Commerce 2.1.X.

Important: Always flush the cache after installing or upgrading Magento, or any extensions and modules.

Step 1: Generate the Access Keys

1. Log in to your Magento account.
2. Click the Marketplace tab. Then under My Products, click My Access Keys.
3. On the Magento 2 tab, click Create a New Access Key.
4. Assign a name for the key, and tap Generate New.
5. At the top of the My Access Keys page, click My Account to return to your Magento account.

Step 2: Request Authorization from Support

1. From your Magento account, click the Magento tab.
2. In the panel on the left, choose Support. Then, do the following:
   a. In the Support Ticket section, click Open New Ticket.
   b. Complete the form, and Submit.
Step 3: Upgrade Magento

When you receive notification that the upgrade is authorized, do the following:

1. Log in to the Admin of your Store as the primary Admin user.

   To ensure the fastest upgrade, verify that Cron is configured to run every minute.

2. On the Admin sidebar, tap System. Then under Tools, choose Web Setup Wizard.

3. Tap System Upgrade.

4. If available, your Public Access Key appears in the form. Follow the instructions to paste the matching Private Access Key from the Marketplace tab of your Magento account.

5. Tap Submit and do the following:

   a. During Step 1 of the system upgrade, your current installation is analyzed. If your installation includes extensions and Other Components, select the “Yes” option.

      If a more recent version is available, you will continue to the next step.
**Step 1: Select Version**

b. During the Readiness Check, the environment is verified for the required PHP version, settings, and extensions, and file permissions.

If your system passes the Readiness check, click **Next** to continue.

c. Continue to follow the prompts to create a backup of your system, and to upgrade your Magento installation.

6. Flush the **cache** and **reindex** when complete.
Web Setup

Web Setup is the second part of the Magento installation that checks system readiness, establishes the database connection, and creates the initial Admin account. The following steps give an overview of the process that takes place at the end of the installation.

Step 1: Readiness Check

1. To verify that your system meets the system requirements, tap Start Readiness Check.
2. When the results appear, tap Details for more information. Then, do one of the following:
   - If your system fails the readiness check, correct the issue and tap Try Again.
   - If your system meets the requirements, tap Next.

For technical information, see Installation quick reference (tutorial) in the developer documentation.

Step 2: Add a Database

1. To change the MySQL database or update the credentials, do the following:
   a. Enter the Database Server Host. If the database resides on the same server as the Magento code, enter “localhost.”
   b. Enter the Database Server Username.
   c. Enter the Database Server Password.
   d. Enter the Database Name.
   e. If applicable, enter the Table prefix.
2. When complete, tap Next. Your credentials must be correct to continue to the next step.

![Add a Database](image)  

**Step 3: Web Configuration**

1. Under Web Configuration, do the following:
   
a. In the **Your Store Address** field, enter the full URL of your Magento store.
   
b. In the **Magento Admin Address** field, enter the full URL of the Magento Admin.

2. Expand the **Advanced Options**, and do the following:
   
a. Mark the checkbox of the **HTTPS Options** that apply to your system:
      
      - Use HTTPS for Magento Storefront
      - Use HTTPS for Magento Admin
   
b. To enable your server to use **Apache Rewrites**, mark the checkbox.
   
c. Mark the checkbox of the **Encryption Key** setting that applies to your system:
      
      - I want to use a Magento generated key.
      - I want to use my own encryption key.
Step 4: Customize Your Store

1. To install or reinstall the Sample Data, do the following:
   a. To create a sample store with sample products, mark the Use Sample Data checkbox.
   b. If you are reinstalling the sample data, also mark the Clean up automatically checkbox.

2. Set Store Default Time Zone to the correct time zone for your locale.

3. Set Store Default Currency to the default currency that you accept as payment.

4. Set Store Default Language to the primary language of your store.
5. (Optional) Expand the Advanced Modules Configuration, and do the following:
   
a. To install only specific modules, clear the Select All checkbox.
   
b. In the list, select the checkbox of each module you want to install.

   ![Advanced Modules Configuration]

   Advanced Modules Configuration

6. When complete, tap Next.

Step 5: Create Admin Account

1. Enter a New Username for the Admin account.

2. Enter a New E-Mail for the Admin account.

3. Enter a New Password for the Admin account. Then in the Confirm Password field, enter your new password again.

4. When complete, tap Next.
Create Admin Account

Step 6: Install

1. When you are ready to complete the setup, tap **Install Now**.

   ![Magento Installation](image)

   **Install**

2. When the installation completes, a page appears with your Magento Admin and database credentials, but without the passwords. You can print the page and keep it for your records. Then, do of the following:

   - Launch Magento Storefront
   - Launch Magento Admin

3. If the installation fails to complete, view the **Console Log** to learn more. Then, correct the problem and try again.

4. **Flush the cache** and **reindex** after installing Magento.
A little Housekeeping

After Setup is complete, do the following to set the recommended permissions for all files and folders in your Magento 2 installation. These instructions require using the command line which may need developer assistance.

To learn more, see File systems access permissions.

1. Change to the Web user who has full permissions to the Magento2 folder. (For example, apache or root.)

   su – apache

2. Change directories to the Magento2 folder, and set the following permissions. You can copy the code, and paste it as a single command.

   find . -type d -exec chmod 700 {} \; && find . -type f -exec chmod 600 {} \;
   && chmod +x bin/magento
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Release Notes

Release notes provide a detailed description of each product release, with links to additional technical information, installation instructions, and support resources. For details about the most current and past releases, see Release Information.

As a best practice, we recommend that you keep your Magento 2.x installation up to date, so you can benefit from the latest features and advancements.
APPENDIX B:

Change Log

Our documentation is continually updated with new topics, clarifications, and corrections to existing content. The Change Log in the online user guide lists the major updates, organized by month. If you can’t see the most recent changes, refresh your browser or clear the cache. Check back every now and then to see what’s new!
APPENDIX C:

Glossary

above the fold
The web page content that is immediately visible in the browser window; section of a page that is displayed without the need to scroll.

Admin
The password-protected back office of your store where orders, catalog, content, and configurations are managed.

alt text
The text that is displayed in place of an image when the user is unable to view the image.

anchor text
The visible text that is anchored to another page or page section; the literal text of a hyperlink.

API
Application Program Interface: A software interface that lets third-party applications read and write to a system using programming language constructs or statements.

aspect ratio
The proportional relationship between the width and height of an image.

attribute
A characteristic or property of a product; anything that describes a product. Examples of product attributes include color, size, weight, and price.

authorization
To give a service permission to perform certain actions or to access resources.

average inventory cost
Product price, less coupons or discounts, plus freight and applicable taxes. The average is determined by adding the beginning cost of inventory each month, plus the ending cost of inventory for the last month of the period.
### B

**B2B**
Business to Business: A type of business transaction between two business entities that are not the final consumers of the goods or services.

**B2C**
Business to Consumer: Business transactions between a business entity and a consumer.

**banner**
Promotional graphics displayed either horizontally on the top of a webpage or vertically on the left or right margins. Website advertisements are often displayed as banners.

**base currency**
The primary form of currency used in store transactions.

**base currency rate**
The base currency rate is the default for your store.

**batch processing**
To perform a task or make a change to multiple items all at once, without manual repetition.

**bounce rate**
The percentage of visitors to your site that leave without viewing any other pages.

**brand**
A unique identity that defines a particular product or group of products.

**breadcrumb**
A navigation aid that helps the user to keep track of their location within your store.

**brick and mortar**
A retail business with a permanent physical location, as opposed to being entirely virtual.

**broken link**
A hyperlink that fails to send the user to its intended web page.

### C

**callout**
A term that is sometimes used to describe a block that is defined as a layout update using XML code.

**canonical URL**
The canonical meta tag redirects search engines to the correct URL, when seemingly duplicate content is encountered on the server.
capture
   The process of converting the authorized amount into a billable transaction. Transactions cannot be captured until authorized, and authorizations cannot be captured until the goods or services have been shipped.

cardholder
   A person who opens a credit card account and is authorized to make purchases.

cascading style sheet
   The markup standard used to apply styles to HTML elements on the page.

category
   A set of products that share particular characteristics or attributes.

CCV
   Credit Card Verification code. (See CVV)

checkout process
   The process of gathering the payment and shipping information that is necessary to complete the purchase of items in the shopping cart. In the final step, the customer reviews and places the order.

CMS
   Content Management System: A software system that is used to create, edit, and maintain content on a website.

complex data
   Data that is associated with multiple product options.

complex product
   A product that requires the customer to choose from a selection of options.

composite product
   Any product type that offers customers a choice of options.

Content Delivery Network
   A large distributed network of servers that specializes in the high performance delivery of multimedia content.

content marketing
   The art of promoting products or services by providing valuable information at no charge.

conversion
   A marketing term that indicates a goal has been reached. If the goal is to sell a product, conversion is reached when a visitor to your site becomes a buyer.

conversion rate
   The percentage of visitors who are converted into buyers.
credit memo
A document issued by the merchant to a customer to write off an outstanding balance because of overcharge, rebate, or return of goods.

CSS
Cascading Style Sheets: A style sheet language that controls the appearance of HTML documents; a way to control the appearance of text, graphics, lists, links, and all other elements on a web page.

CSV
Comma Separated Values: A type of file used to store data values which are separated from each other by commas.

CVM
Card Verification Method: A way to verify the identity of the customer by confirming a 3-digit or 4-digit credit card security code with the payment processor.

CVV
The Card Verification Value, also known as the Card Security Code, provides an additional level of security for online transactions.

D
domain
The address of a website on the web; what the customer types in their browser address bar to access the store.

double opt-in
The process for subscribing email recipients by requiring them to take a secondary step to confirm that they want to receive emails.

dynamic content
A web page that displays different content depending on the user request.

Dynamic Media URL
A link to an image that contains a relative reference to the file location in media storage.

E

EAV
Entity Attribute Value

evergreen content
Content that has a long shelf life.
FAQ
Frequently Asked Questions.

favicon
Short for favorites icon; a 16x16 or 32x32 pixel icon associated with a website; is displayed in the browser address bar and next to the site name in a bookmark list.

feed reader
Software that is used to read syndicated content from RSS feeds.

FOB
Freight On Board: A shipping term indicating who is responsible for paying transportation charges.

frontend properties
Properties that determine the presentation and behavior of an attribute from the standpoint of the customer in your store.

fulfillment
The process of managing customer shipments.

gateway
A transaction bridge between a customer and a payment processing service that is used to transfer money between the customer and the merchant.

gross margin
The difference between the cost and price of a product.

handle
In programming, a name used to reference an object.

home page
The first home page a visitor sees when they access your website URL. Considered the most important page on your website according to search engine indexing.

HTML
HyperText Markup Language: A standard for tagging and structuring text, images, videos, and other media on a web page.
I

invoice
A document that provides a detailed description of a purchase, including products purchased, quantity, price, shipping cost, sales tax, and total.

J

JavaScript
A scripting language used with HTML to produce dynamic effects and interactions on web pages.

jQuery
A popular JavaScript library that is often used to create dynamic and responsive effects.

K

keyword
A term or phrase used in a search to filter for content that is of significant importance to that term or phrase.

L

landing page
A page on your site where a visitor arrives after clicking a link or advertisement.

layout
The visual and structural composition of a page.

layout update
A specific set of XML instructions that determines how the page is constructed.

link juice
The value and authority transferred from one webpage to another via hyperlinks (or links). Link juice affects a website’s page rank, a factor used to rank a search engine results page.

liquid layout
A flexible approach to web design that specifies the size and position of elements as percentages rather than as exact measurements in pixels.

load sequence
The order in which scripts are loaded into memory. To work correctly, some scripts must be loaded before others.

locale
A set of configurations that defines the user’s language, country, tax rate, and other settings.

login
The process of signing into an online account.
markdown
The amount subtracted from the original price of a product.

markup tag
A snippet of code that can be used to add functionality or content to a page.

media storage
A dedicated space on the content delivery network for your store’s assets.

merchant account
An account with a bank or financial institution that makes it possible to accept credit card transactions.

meta tags
Information in a web page that is not displayed on the page itself, but is used by search engines to determine the page title, description, and page keywords.

navigation
The primary group of web page links that a customer uses to navigate around the website; the navigation links to the most important categories or pages on an online store.

opt-in
The process by which a user consents to receiving emails from an online store.

packing slip
A document that is usually included in a shipped package that describes the contents. Packing slips do not include financial or account information.

path to purchase
The path a prospect follows that leads to a sale.

payment bridge
An application that helps merchants meet PCI-DSS requirements.

payment gateway
A service that charges your customers’ credit cards and sends the funds to your merchant account, for deposit into your business bank account.

Payment Gateway
A third-party service that processes transactions for external payment methods.
Payment Method
A way for the customer to pay for the merchandise in your store. Payment methods can be internal or external. The Payment Methods section of the System Configuration includes all basic payment methods and gateways.

PCI
Payment Card Industry: Refers to debit and credit cards and their associated businesses.

price markup
A percentage added to the cost of an item to determine the retail price.

privacy policy
A document that explains the merchant’s policies for handling customer information.

purchase order (PO)
A written sales contract between a buyer and seller that describes the merchandise or service to be purchased from a vendor.

redirect
A method used to alert browsers and search engines that a page has been moved. 301 Redirect: Permanent change 302 Redirect: Temporary change

relative link
A hyperlink that includes only the address of the linked page that is relative to the linking page, rather than the full URL.

return policy
A document that explains the merchant’s rules regarding the return of products by customers.

robots.txt
A file placed on a website that tells search engine crawlers which pages not to index.

RSS feed
Really Simple Syndication: A technology that creates web content syndication and allows web users to subscribe to product feeds, websites, and blogs.

SaaS
Software as a Service: A software delivery model where the vendor provides the software and hosting environment, and customers pay for the service by subscription or per use.

Sass/Compass
A CSS pre-compiler that provides organizable, reusable CSS.

security certificate
Information that is used by the SSL protocol to establish a secure connection.
SEO
Search Engine Optimization: The process of improving a website’s search engine rankings in order to increase valued visitors.

SERP
Search Engine Results Page

settlement
Settlement occurs when the acquiring bank and the issuer exchange funds and the proceeds are deposited into the merchant account.

shipping carrier
A company that transports packages. Common carriers include UPS, FedEx, DHL, and USPS.

shopping cart
A grouping of products that the customer wishes to purchase at the end of their shopping session.

sidebar
The right or left column of a two-column page layout.

sitemap
A page that provides search engines with an efficient, alternate route through your site.

SKU
Stock Keeping Unit: A number or code assigned to a product to identify the product, options, price, and manufacturer.

splash page
A promotional page with a product or advertisement; normally displayed before the home page.

SSL certificate
A validation and security mechanism that identifies the merchant and encrypts credit card and other sensitive information.

static block
A fixed content block that can be displayed on various content pages in a store.

static content
Content that does not change frequently. See also dynamic content.

static files
The collection of assets, such as CSS, fonts, images, and JavaScript that is used by a theme.

theme
A package that contains graphics and appearance information, and customizes the look and feel of the store.
transactional email
   A notification email sent to the customer when a transaction is processed.

transactional emails
   An automated email message that is sent in response to a specific event or transaction.

U

URL
   Uniform Resource Locator: The unique address of a page on the internet.

usability
   Refers to the degree to which a product or service is easy to use by its customers.

W

widget
   A prepared snippet of code that adds functionality and/or dynamic effects to your store.

WYSIWYG
   What You See Is What You Get: An editor that displays formatted text as it will appear in its final published form.

X

XML
   Extensible Markup Language: A markup format derived from SGML that is used to format information for publication and distribution.
APPENDIX D:

Configuration Reference

This reference has field descriptions for every configuration setting in Magento Commerce. To learn how to apply configuration settings to specific store views, see: Scope.

From the HTML version of the guide, you can drill down through any section of the reference, and follow the links to corresponding topics in the user guide. From step-by-step instructions, click any linked caption below a screenshot to jump to the field descriptions.

Follow these links for the corresponding section in the online reference:

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