

# eCommerce Platform

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## 1. Purpose of the Software

The **eCommerce Platform** is a web-based application designed to facilitate the online buying and selling of products or services. Its primary purpose is to provide a complete digital storefront for businesses, enabling them to showcase their products, manage inventory, process payments, and fulfill orders. For customers, the platform offers a user-friendly interface to browse products, add items to a shopping cart, and complete secure online purchases. The system aims to provide a robust, scalable, and secure environment for all aspects of online retail.

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## 2. Users and Usage Scenarios

The eCommerce platform will be used by both business administrators and end-user customers. The main user roles and their typical usage scenarios are as follows:

- **Customer/End-User:** This is the primary user. They will use the platform to browse product catalogs, search for specific items, view product details (including images, descriptions, and reviews), add items to a shopping cart, and proceed to checkout. They will create an account to track their orders, view past purchases, and manage their shipping and billing information.
- **Store Administrator:** This user manages the day-to-day operations of the online store. They will use a dedicated backend dashboard to manage product listings, update inventory levels, process customer orders, and manage customer accounts. They also have access to sales reports and analytics to monitor business performance.
- **Content Manager:** This user is responsible for the look and feel of the website. They will use the content management system (CMS) features to

update website content, create new landing pages, manage blog posts, and run promotional banners.

- **Fulfillment/Warehouse Staff:** This user role uses the platform's order management features to view new orders, generate packing slips, and update the order status to "shipped" once an item has been dispatched. They rely on the system to know which products to pick and pack for each order.
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### 3. Main Functionalities

The eCommerce platform will include the following essential features:

- **Product Catalog Management:** This module allows administrators to add, edit, and categorize products. Each product listing will include a name, description, price, stock quantity, images, and other attributes (e.g., size, color). The system will also support product reviews and ratings.
- **Shopping Cart & Checkout:** The platform will provide a persistent shopping cart where customers can store items they wish to purchase. The checkout process will be a secure, multi-step flow that collects shipping information, calculates taxes and shipping costs, and processes payments.
- **Payment Gateway Integration:** The system will securely integrate with major payment gateways (e.g., Stripe, PayPal, etc.) to handle credit card and other electronic payments. It must comply with Payment Card Industry Data Security Standard (PCI DSS) to protect customer data.
- **User Account Management:** Customers can create an account to save their information for future purchases. The account dashboard will allow users to manage their profile, view order history, track shipments, and store multiple shipping addresses.
- **Order Management System (OMS):** The OMS provides a centralized view of all customer orders for administrators. They can view order details, update order status (e.g., "pending," "processing," "shipped," "delivered"), and handle returns or refunds.

- **Inventory Management:** This feature automatically tracks and updates product stock levels in real-time. When an item is sold, the system will reduce the available quantity. It can also send low-stock alerts to administrators to prevent overselling.
- **Marketing & Promotions:** The platform will include features to support marketing campaigns, such as creating discount codes, running sales, and managing promotional banners on the website.
- **Reporting & Analytics:** The system will generate reports on key business metrics such as sales revenue, best-selling products, customer demographics, and website traffic. This data helps administrators make informed business decisions.