**SRS for an E-Commerce Application**

**Introduction**

The E-Commerce Application SRS document provides a detailed description of the requirements for the development of an eCommerce platform. This document outlines the functional and non-functional requirements, user interfaces, system features, and other specifications necessary for the successful implementation of the application.

**Overall Description**

***Product Perspective***

The eCommerce application is a standalone system designed to facilitate online buying and selling of products. It interacts with users through web and mobile interfaces and integrates with external systems such as payment gateways and shipping carriers.

***Product Functions***

The application allows buyers to browse, search, and purchase products, while sellers can manage their inventory, view orders, and process transactions.

***User Classes and Characteristics***

**Buyers:** Individuals or organizations interested in purchasing products online.

**Sellers:** Individuals or businesses who offer products for sale on the platform.

***Operating Environment***

The application is web-based and accessible through modern web browsers on desktop and mobile devices. It requires an internet connection for full functionality.

***Design and Implementation Constraints***

The application must adhere to industry standards for security and privacy.

It should be compatible with popular web browsers and mobile devices.

It should support multiple languages and currencies for international users.

***User Documentation***

User documentation will include user manuals, FAQs, and online help resources to assist buyers and sellers in using the application effectively.

***Assumptions and Dependencies***

The application assumes users have basic knowledge of internet browsing and online shopping.

It depends on external services such as payment gateways and shipping carriers for payment processing and order fulfillment.

**Use Cases for Buyer:**

1. **Browse Products:**

Description: The buyer can browse through the available products in the eCommerce application.

Actors: Buyer

Basic Flow:

Buyer navigates to the product catalog.

Buyer views product listings.

Buyer filters products based on category, price, etc.

Buyer selects a product to view details.

1. **Search Products:**

Description: The buyer can search for specific products based on keywords.

Actors: Buyer

Basic Flow:

Buyer enters search keywords in the search bar.

System displays relevant search results.

Buyer selects a product from the search results.

1. **View Product Details:**

Description: The buyer can view detailed information about a specific product.

Actors: Buyer

Basic Flow:

Buyer selects a product from the product catalog or search results.

System displays product details such as description, price, availability, etc.

Buyer can view product images, ratings, and reviews.

1. **Add to Cart:**

Description: The buyer can add products to their shopping cart for purchase.

Actors: Buyer

Basic Flow:

Buyer selects the quantity of the product they want to purchase.

Buyer adds the product to their shopping cart.

System updates the shopping cart with the selected product and quantity.

1. **Checkout:**

Description: The buyer can proceed to checkout to complete the purchase.

Actors: Buyer

Basic Flow:

Buyer reviews the items in their shopping cart.

Buyer enters shipping and billing information.

Buyer selects a payment method.

Buyer confirms the order and completes the payment.

System processes the order and sends a confirmation to the buyer.

**Use Cases for Seller:**

1. **Manage Products:**

Description: The seller can add, edit, and delete products from their inventory.

Actors: Seller

Basic Flow:

Seller navigates to the product management interface.

Seller adds a new product with details such as name, description, price, etc.

Seller edits existing product information.

Seller deletes products that are no longer available.

1. **View Orders:**

Description: The seller can view and manage orders placed by buyers.

Actors: Seller

Basic Flow:

Seller navigates to the order management interface.

Seller views a list of orders with details such as order ID, buyer information, items ordered, etc.

Seller updates the status of orders (e.g., processing, shipped, delivered).

1. **Manage Inventory:**

Description: The seller can manage the inventory of their products.

Actors: Seller

Basic Flow:

Seller navigates to the inventory management interface.

Seller views a list of available products and their quantities.

Seller updates the quantity of products in stock.

Seller receives notifications for low stock levels and restocks products

**External Interface Requirements**

***User Interfaces***

The application will feature intuitive and user-friendly interfaces for buyers and sellers, including product listings, search functionality, shopping carts, and order management.

***Hardware Interfaces***

The application will run on standard web servers and client devices with internet connectivity. It will support various screen sizes and resolutions for desktop and mobile use.

***Software Interfaces***

The application will integrate with external systems such as payment gateways, shipping carriers, and inventory management software through APIs.

***Communication Interfaces***

Communication between the client and server will be handled over HTTP/HTTPS protocols. Real-time communication may be facilitated through WebSocket technology for features such as chat support.

**System Features**

***Feature 1: Browse Products***

Description: Buyers can browse through available products by category or keyword.

Preconditions: User is logged in or accessing the application as a guest.

Postconditions: User can view product listings and select individual products for more details.

***Feature 2: Search Products***

Description: Buyers can search for specific products using keywords.

Preconditions: User is logged in or accessing the application as a guest.

Postconditions: User receives search results matching the entered keywords.

(Continue listing features for both buyers and sellers)

**Non-functional Requirements**

***Performance Requirements***

The application should load within 3 seconds on standard internet connections.

It should support a minimum of 1000 concurrent users without significant performance degradation.

security, reliability, scalability, etc