\*\*Software Requirements Specification (SRS) Document\*\*

\*\*1. Introduction\*\*

The purpose of this Software Requirements Specification (SRS) document is to provide a detailed description of the requirements for the development of an e-commerce platform. This platform aims to provide users with the ability to browse and purchase various products online. The document outlines the functional and non-functional requirements, user interfaces, and system constraints of the e-commerce platform.

\*\*1.1. Scope\*\*

The e-commerce platform will allow users to register, browse products, add products to the shopping cart, proceed to checkout, and make purchases. Administrators will have the ability to manage product listings, user accounts, orders, and other administrative tasks.

\*\*1.2. Objectives\*\*

- To provide users with a convenient and efficient way to shop for products online.

- To allow administrators to manage the e-commerce platform efficiently.

- To ensure the security and privacy of user data.

- To provide a responsive and user-friendly interface for both customers and administrators.

\*\*2. Functional Requirements\*\*

\*\*2.1. User Management\*\*

- Users should be able to register and create an account.

- Users should be able to log in and log out of their accounts.

- Users should be able to update their profile information.

\*\*2.2. Product Management\*\*

- Administrators should be able to add, edit, and delete products.

- Products should be categorized for easy navigation.

- Users should be able to view product details, including name, description, price, and images.

- Users should be able to search for products by name or category.

\*\*2.3. Shopping Cart\*\*

- Users should be able to add products to their shopping cart.

- Users should be able to view their shopping cart and update quantities or remove products.

- Users should be able to proceed to checkout from the shopping cart.

\*\*2.4. Checkout\*\*

- Users should be able to provide shipping and billing information during checkout.

- Users should be able to select a payment method (e.g., credit card, PayPal).

- Users should receive an order confirmation after completing the checkout process.

\*\*2.5. Order Management\*\*

- Administrators should be able to view and manage orders.

- Administrators should be able to mark orders as shipped and update order statuses.

\*\*3. Non-Functional Requirements\*\*

\*\*3.1. Performance\*\*

- The platform should load quickly and efficiently, even with a large number of products and users.

- Response times for actions such as adding products to the cart and completing checkout should be minimal.

\*\*3.2. Usability\*\*

- The user interface should be intuitive and easy to navigate.

- The platform should be accessible on a variety of devices, including desktops, tablets, and smartphones.

\*\*3.3. Security\*\*

- User authentication and authorization mechanisms should be implemented to ensure the security of user accounts.

- Payment transactions should be encrypted to protect sensitive information.

\*\*3.4. Reliability\*\*

- The platform should be available and accessible to users at all times, with minimal downtime for maintenance.

\*\*4. User Interfaces\*\*

The user interface should include the following screens:

- Homepage: Displays featured products and navigation links.

- Product Listing: Displays a list of products with filtering and sorting options.

- Product Detail: Displays detailed information about a specific product.

- Shopping Cart: Allows users to view and manage items in their cart.

- Checkout: Guides users through the checkout process, including providing shipping and payment information.

\*\*5. Constraints\*\*

- The e-commerce platform must be developed using React for the frontend and Node.js for the backend.

- The platform must be hosted on a secure server with SSL encryption for data transmission.

- Integration with a payment gateway (e.g., Stripe, PayPal) is required for processing payments.

\*\*6. Conclusion\*\*

This Software Requirements Specification document outlines the requirements for the development of an e-commerce platform. By adhering to these requirements, the development team can ensure the successful implementation of the platform, meeting the needs of both users and administrators.