Software Requirements Specification (SRS) for E-commerce Website

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1. Introduction

1.1 Purpose

The purpose of this document is to specify the requirements for the development of an E-commerce website. The intended audience includes all stakeholders involved in the creation and maintenance of the website, including business owners, developers, and designers. Developers should refer to this document as the authoritative source of project requirements.

### 1.2 Scope

The proposed software product is an E-commerce website that allows customers to browse, select, and purchase products online. It also provides administrative tools for managing product listings, orders, and customer information. The website will facilitate online transactions, order processing, and delivery. Requirements in this document cover both functional and non-functional aspects of the system.

### 1.3 Definitions, Acronyms, and Abbreviations

- E-commerce Website - The online platform for buying and selling products.

- User - Anyone accessing the website, including customers and administrators.

- Product - Items available for sale on the website.

- Cart - The virtual shopping cart where customers can add, remove, and manage selected products.

- CMS - Content Management System used for managing product listings.

- SSL - Secure Socket Layer, a protocol for secure data transmission.

- API - Application Programming Interface, for integrating third-party services.

- UI - User Interface.

### 1.4 References

No formal documents have been referenced in this document.

### 1.5 Overview

This Software Requirements Specification (SRS) document details the requirements for the development of the E-commerce website. It outlines functional and non-functional requirements, design constraints, and dependencies necessary for building a robust and user-friendly platform.

## 2. General Description

### 2.1 Product Perspective

The E-commerce website is a standalone system that connects customers with product listings and enables secure online transactions. It integrates with various external services for payment processing and shipping.

### 2.2 Product Functions

The website functions can be described as follows:

- User Registration: Customers can create accounts to browse and shop.

- Product Browsing: Users can browse product listings, search, and filter results.

- Product Details: Users can view detailed information for each product.

- Shopping Cart: Users can add, remove, and manage items in their shopping cart.

- Checkout: Customers can securely complete their purchases.

- Order Management: Administrators can view and manage customer orders.

- Product Management: Administrators can add, update, or remove product listings.

- Content Management: Administrators can edit website content using the CMS.

- User Management: Administrators can manage user accounts and permissions.

### 2.3 User Characteristics

The system will be used by both customers and administrators.

- Customers: May vary in computer literacy. Users should be able to easily navigate the website.

- Administrators: Responsible for website management, product updates, and user management.

### 2.4 General Constraints

- The website must be live by [Specify a Date].

- SSL encryption must be used for secure data transmission.

- The website must be responsive and mobile-friendly.

- The system must provide a user-friendly UI.

### 2.5 Assumptions and Dependencies

- Assumed that reliable hosting and server infrastructure will be in place.

- Assumed that payment gateway and shipping APIs will be integrated.

- Assumed that necessary data protection and privacy laws will be followed.

## 3. Specific Requirements

### 3.1 Functional Requirements

#### User Registration and Management

- REQ001: Customers can create accounts by providing necessary information.

- REQ002: User accounts must have unique usernames and valid email addresses.

- REQ003: Administrators can manage user accounts and roles.

#### Product Listing and Management

- REQ004: Administrators can add, update, or remove product listings.

- REQ005: Products must have details, including name, description, price, and images.

- REQ006: Products can be categorized and tagged for easy searching.

#### Shopping Cart and Checkout

- REQ007: Users can add, remove, and manage items in their shopping cart.

- REQ008: Users can securely complete their purchases.

- REQ009: Order confirmation emails are sent to customers.

#### Order Management

- REQ010: Administrators can view and manage customer orders.

- REQ011: Order status (e.g., processing, shipped) is updated and communicated to customers.

### 3.2 Design Constraints

- REQ012: The website will use a specific CMS for content management.

- REQ013: The development environment shall be [Specify the technology stack].

- REQ014: The website shall be responsive and mobile-friendly.

### 3.3 Non-Functional Requirements

#### Security

- REQ015: Data transmission must use SSL for encryption.

- REQ016: User authentication and authorization are required.

- REQ017: Sensitive user data must be securely stored.

#### Performance Requirements

- REQ018: The website must respond to user interactions within 2 seconds.

- REQ019: The website must support concurrent access by up to 1000 users.

- REQ020: The website must adhere to web performance best practices.

#### Maintainability

- REQ021: The system shall provide automated backups.

- REQ022: Logs of system errors and activities must be maintained.

#### Reliability

- REQ023: The website should be available 24/7 with minimal downtime.

## 4. Conclusion

This SRS document provides detailed information about the requirements for the development of the E-commerce website. These requirements cover various functional and non-functional aspects to ensure the successful implementation of the platform.