**Software Requirements Specification (SRS)**

**Project: Online Bookstore**

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to outline the software requirements for the development of an Online Bookstore. The system will enable users to browse, search, and purchase books online. The document will serve as a reference for the development team, ensuring that all necessary features are implemented according to the stakeholders' needs.

**1.2 Scope**

The Online Bookstore will be a web-based application allowing users to:

* Search for books by title, author, ISBN, or category.
* View detailed information about each book, including price, description, and reviews.
* Add books to a shopping cart and proceed to checkout.
* Create and manage user accounts, including order history and wishlists.
* Process payments securely through an integrated payment gateway.

**1.3 Definitions, Acronyms, and Abbreviations**

* **SRS:** Software Requirements Specification
* **UI:** User Interface
* **ISBN:** International Standard Book Number

**1.4 References**

* IEEE Standard 830-1998: IEEE Recommended Practice for Software Requirements Specifications
* Project Charter: Online Bookstore, Version 1.0

**2. Overall Description**

**2.1 Product Perspective**

The Online Bookstore is a new, standalone system designed to replace traditional in-store book purchasing with a convenient online platform. The system will be accessible through modern web browsers on both desktop and mobile devices.

**2.2 Product Functions**

* **User Registration and Login:** Users can create an account, log in, and manage their profiles.
* **Book Search and Browse:** Users can search for books by title, author, ISBN, or category.
* **Shopping Cart:** Users can add books to a cart, update quantities, and remove items.
* **Checkout and Payment:** Users can proceed to checkout, enter shipping details, and make payments securely.
* **Order History:** Users can view past orders, track shipping, and reorder books.

**2.3 User Characteristics**

* **General Users:** Individuals interested in purchasing books online.
* **Administrators:** Personnel responsible for managing the book catalog, processing orders, and handling customer inquiries.

**2.4 Constraints**

* The system must comply with PCI-DSS standards for secure payment processing.
* The website should support the latest versions of Chrome, Firefox, Safari, and Edge.
* The initial release must support English; additional languages will be considered in future releases.

**3. Specific Requirements**

**3.1 Functional Requirements**

**3.1.1 User Registration and Login**

* **FR-1:** The system shall allow users to register with a unique email address and password.
* **FR-2:** The system shall send a confirmation email to users upon successful registration.
* **FR-3:** The system shall allow users to log in using their email address and password.

**3.1.2 Book Search and Browse**

* **FR-4:** The system shall allow users to search for books by title, author, ISBN, or category.
* **FR-5:** The system shall display search results in a paginated format with 20 items per page.
* **FR-6:** The system shall allow users to sort search results by relevance, price, and rating.

**3.1.3 Shopping Cart**

* **FR-7:** The system shall allow users to add books to a shopping cart.
* **FR-8:** The system shall display the total price of items in the shopping cart.
* **FR-9:** The system shall allow users to update the quantity of items in the shopping cart.

**3.1.4 Checkout and Payment**

* **FR-10:** The system shall allow users to enter shipping and billing information during checkout.
* **FR-11:** The system shall integrate with a third-party payment gateway for processing payments.
* **FR-12:** The system shall send an order confirmation email to users after a successful transaction.

**3.2 Non-Functional Requirements**

**3.2.1 Performance Requirements**

* **NFR-1:** The system shall load the homepage within 2 seconds under normal conditions.
* **NFR-2:** The system shall support up to 10,000 concurrent users.

**3.2.2 Security Requirements**

* **NFR-3:** The system shall enforce HTTPS for all user interactions.
* **NFR-4:** The system shall encrypt all user passwords using a strong hashing algorithm.

**3.2.3 Usability Requirements**

* **NFR-5:** The system shall have a responsive design to support both desktop and mobile devices.
* **NFR-6:** The system shall provide an intuitive user interface with easy navigation.

**3.3 Interface Requirements**

**3.3.1 User Interface**

* **UI-1:** The homepage shall display featured books and categories.
* **UI-2:** The search results page shall include filters for category, price range, and rating.
* **UI-3:** The shopping cart page shall display a summary of selected items, including quantity and total price.

**3.3.2 Hardware Interfaces**

* **HW-1:** The system shall be compatible with standard web servers and databases.
* **HW-2:** The system shall support integration with barcode scanners for inventory management.

**3.3.3 Software Interfaces**

* **SW-1:** The system shall integrate with the PayPal API for payment processing.
* **SW-2:** The system shall use RESTful APIs for communication between the front-end and back-end services.

**4. Appendices**

**4.1 Assumptions and Dependencies**

* It is assumed that users have access to a modern web browser and a stable internet connection.
* The development of the Online Bookstore is dependent on the availability of the PayPal API for payment processing.

**4.2 Glossary**

* **SKU:** Stock Keeping Unit, a unique identifier for each product in the inventory.
* **API:** Application Programming Interface, a set of protocols for building and interacting with software applications.