Software Requirements Specification (SRS) Document

Purpose

The purpose of this document is to outline the requirements for creating a website that enables authors to sell their books and buyers to purchase them online. The website will support features for authors to upload their books and manage sales, while buyers will be able to search for, purchase, and review books. This platform aims to provide a seamless user experience for both authors and readers.

User Needs

- Authors: Authors need to sign up with email verification, upload books in PDF format, and view sales reports. They must undergo identity verification before selling.
- Buyers: Buyers need to sign up to purchase books. They should be able to search for books by title, author, or genre, add books to a cart, and purchase them. Additionally, buyers should have the option to sort books by alphabet and score, and provide ratings and reviews for purchased books.
- General Users: All users should have access to features such as search functionality, book recommendations based on genre, authors, and user scores, and secure registration and login processes.

Assumptions and Dependencies

- Integration with PayPal will be used for processing payments.
- Identity and book verification will be managed by a third-party service.
- The website will require secure user data protection and connections.
- The platform is dependent on third-party services for DOI verification of books.

Functional Requirements

1. Author Book Upload
   - Title: Author Book Upload
   - Input: Book in PDF format with metadata.

- Processing: The system verifies the book using DOI and the author's identity via a third-party service.

- Output: Confirmation of successful upload or error message.

- Error Handling: Display error messages for failed DOI verification or upload issues.

2. Search Functionality

- Title: Search Functionality

- Input: Search queries by book title, author, or genre.

- Processing: The system filters books based on the input criteria.

- Output: List of books matching the search criteria.

- Error Handling: Display a message if no books are found.

3. Book Recommendations

- Title: Book Recommendations

- Input: User preferences and past purchase history.

- Processing: Analyze user data to recommend books.

- Output: List of recommended books.

- Error Handling: Provide general recommendations if user data is insufficient.

4. User Registration and Login

- Title: User Registration and Login

- Input: User details including email and password.

- Processing: Securely store user data and authenticate during login.

- Output: Confirmation of successful registration or login.

- Error Handling: Show error messages for invalid credentials or existing email.

5. Shopping Cart

- Title: Shopping Cart
- Input: Books selected by the user.
- Processing: Add or remove books from the cart and calculate total price.
- Output: Updated cart summary with total cost.
- Error Handling: Display errors if items cannot be added or removed.

6. Sales Reporting for Authors
- Title: Sales Reporting for Authors
- Input: Author ID and date range.
- Processing: Retrieve and compile sales data.
- Output: Sales report with statistics.
- Error Handling: Notify authors if no sales data is available.

7. User Reviews and Ratings
- Title: User Reviews and Ratings
- Input: Review text and score for purchased books.
- Processing: Store and display user reviews.
- Output: Updated book ratings and review list.
- Error Handling: Show error messages if the review submission fails.

Non-Functional Requirements

- User Interface: The interface should be simple, user-friendly, and responsive.
- Performance: Page loading time should not exceed 3 seconds, with response time under 200ms during peak usage.
- Scalability: Support up to 1 million concurrent users.
- Security: Secure user data and connections, ensuring protection against unauthorized access.
- Design: The website will have a green-themed design.

- Maintainability: The system should allow easy maintenance and upgrades, with system downtime not exceeding 2 hours per month.