Online Bookstore Management System

1. Executive Summary

Our project focuses on developing a comprehensive Database Management System (DBMS) for a B2C (Business-to-Consumer) online bookstore. This platform will offer a wide range of services, including the provision of ebooks and the delivery of hard copies to customers. Additionally, special services such as subscriptions will be provided to enhance the overall customer experience.

2. Project Objectives

1) To establish an efficient online bookstore using a database management system.
2) Establish a user-friendly online bookstore accessible to individual customers and provide a seamless experience for customers to browse, purchase, and subscribe to services.
3) The platform will also support vendors who want to sell their books online, either new or refurbished.
4) To offer diverse services, including ebook availability, efficient delivery of hard copies and collecting the books from vendors.
5) Implement subscription services to cater to customer preferences, enhancing their engagement with the platform.

3. Stakeholder Roles:

1. Customer:

Description: Customers are individuals who visit the online bookstore to browse, purchase books, and engage in various services offered by the platform.

Functionalities: Browse and search for books based on different criteria (e.g., genre, author, publication date). Add books to the shopping cart and proceed to checkout. Provide personal details for creating an account (name, phone, address, email, etc.). Choose subscription services, including free delivery, discounted prices, and access to the ebook library. View and manage their account details, order history, and accumulated points. Select delivery options and track the status of their orders.

2. Vendor:

Description: Vendors are individuals or businesses who want to sell their books through the online bookstore platform.

Functionalities: Register as a vendor and provide necessary business information. Upload details and inventory of books, including new or refurbished copies. Manage the availability status of books (in stock, out of stock) and update stock quantities. Receive notifications on customer orders and arrange book deliveries to the designated warehouse. Access tools to monitor sales, track inventory, and update book information.

3. Administrator:

Description: The administrator oversees and manages the overall functioning of the online bookstore system.

Functionalities: Monitor and manage user accounts, ensuring compliance with policies. Review and approve vendor registrations, ensuring the quality of books being sold. Manage the database, including book information, user details, and order history. Handle customer support queries and issues. Generate reports on sales, inventory, and customer engagement. Implement security measures and oversee the technical aspects of the platform. Configure and manage subscription services. Implement system updates and improvements.

4. Functional requirements

1. User registration:
    - **User Account Creation:** Users should be able to create a new account by providing essential information such as name, phone number, email address, and password. The system should enforce password complexity requirements to ensure account security.
    - **User Profile Management:** Users must have the ability to edit and update their profile information, including contact details and address.
    - **User Roles:** Differentiate between customer, vendor, and admin roles during the registration process. Admins should have the authority to manually approve vendor registrations.
    - **Membership Status:** The system should assign membership status to customers, allowing them to access subscription services and discounts.
2. **Product Listing:**
    - **Book Categories:** Books should be categorized based on types (ebooks, refurbished, hardcover, paperback, special edition, signed copies) and genres.
    - **Availability Information:** Display the availability status of each book (in stock, out of stock) and provide information on when out-of-stock items will be available again.
    - **Search and Filters:** Users should be able to search for books using keywords and apply filters such as genre, author, and publication date.
    - **Sorting Options:** Allow users to sort the book listings by date added, date written, author's name, part of a series, and publication.
3. **Shopping cart and checkout:**
    - **Add to Cart:** Users should be able to add books to their shopping cart from the product listing and product detail pages.
    - **Cart Management:** Users can view and edit the contents of their shopping cart. The system should update the cart in real-time as users add or remove items.
    - **Checkout Process:** Provide a secure and streamlined checkout process, including shipping address input and payment method selection.

- **Order Summary:** Display a summary of the order, including items, quantities, and total cost, before finalizing the purchase

4. **Order management:**
    - **Order Tracking:** Users should be able to track the status of their orders, including processing, shipping, and delivery information.
    - **Order History:** Maintain a record of user order history for reference and reordering.

5. **Delivery management:**
    - **Warehouse Details:** Store information about warehouse locations where books are stocked.
    - **Delivery Partners:** Integrate with delivery partners for efficient and timely order fulfillment.
    - **Vendor/Business Collaboration:** Facilitate communication between the system and vendors/businesses for efficient book delivery and stock replenishment.
    - **Sell your own refurbished book:** Implement a feature that allows individual sellers or authors to sell their own books through the platform, Also enable a simple and intuitive process for these sellers to register, upload book details, set prices, and manage their own inventory.

6. **Book Sale (Vendor side):**
    - **Vendor Registration:** Vendors should be able to register and provide necessary business information.
    - **Book Upload:** Vendors can upload details and inventory of books, including new or refurbished copies.
    - **Stock Management:** Vendors can manage the availability status of their books and update stock quantities.
7. **User Reviews and Ratings:**
    - **Review Submission:** Users should be able to submit reviews for books they have purchased.
    - **Rating System:** Implement a rating system allowing users to rate books on a scale (e.g., 1 to 5 stars).
    - **Review Display:** Display reviews and ratings on the product detail pages to aid other users in making informed decisions.

5. Non Functional Requirements

5.1 **Technology Stack**

- Database Management System (MySql)
- Backend development (Python/JavaScript)

- Frontend Development (HTML/CSS)
- Design (Figma/Miro)

5.2 **Usability**

- Intuitive user interface for easy navigation

6. Conclusion

In conclusion, the Online Bookstore Management System project is poised to deliver a seamless experience, providing diverse book options and efficient delivery. Utilizing MySQL, Python, HTML/CSS, and Figma ensures a user-friendly platform for book enthusiasts.

7. Project team and contributions

1. Vinay Kumar Dubey (2022573) -> Wrote Executive summary and Project Objectives.
2. Niket Agarwal (2022320) -> Identifying Functional Requirements and done briefing of all work.
3. Anvesha Jain (2022087) -> Identifying stakeholder roles and Non functional Requirements.
4. Divyansh Mogra (2022179) -> Wrote Conclusion and helped to identify Function Requirements (3 points).