Bookstore App Project Proposal
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1. Description

This project proposes the development of a user-friendly bookstore application aimed at providing book enthusiasts and casual readers with a convenient and engaging platform to browse, discover, and purchase books. The app will cater to a diverse audience, including students, educators, and gift buyers, offering a comprehensive selection of genres and titles.

2. Functionality:

- Browse: Users can explore books by category, author, title, keyword, or new releases.
- Search: A robust search bar with filters and sorting options allows for precise book discovery.
- Book Details: Each book displays title, author, description, reviews, ratings, sample chapters (optional), and price.
- Wishlists and Reading Lists: Users can create and manage wishlists and reading lists for future reference and tracking.
- Shopping Cart: Users can add books to their cart, adjust quantities, and proceed to secure checkout.
- User Accounts: Registered users can manage their profiles, order history, and payment information.
- Reviews and Ratings: Users can contribute reviews and ratings to share their reading experiences (optional).
- Promotions and Discounts: Implement promotional offers and discounts to attract and incentivize users (optional).

3. Business Rules:

- Users must be 18+ to register and make purchases.
- Accurate book information (title, author, ISBN, price) is mandatory.
- Inventory levels must be tracked and updated to reflect availability.
- Secure payment processing gateways are required for online transactions.
- Clear return and exchange policies should be established.

- User data privacy and security must be prioritized.

4. Assumptions:
- Users have basic internet and mobile app usage experience.
- Users value convenience, a wide selection, and personalized recommendations.
- Users appreciate user-friendly interface and intuitive navigation.
- Users trust the app's security measures for online transactions.

5. Web Pages/Views:
- Homepage: Welcomes users, showcases featured books, and provides search and browsing options.
- Category Page: Lists all books within a specific category with filters and sorting options.
- Book Details Page: Displays detailed information about a specific book, including reviews and sample chapters (optional).
- Search Page: Enables users to search for specific books using various criteria.
- Search Results Page: Lists matching books based on the search query with refinement options.
- Shopping Cart Page: Shows chosen books, quantities, and total cost for checkout.
- Checkout Page: Guides users through the secure purchase process with payment information.
- Confirmation Page: Provides order confirmation and estimated delivery time.
- User Account Page (optional): Allows users to manage their profile, order history, and wishlists.

6. Validation:
- Validate user input for registration (email, password).
- Sanitize search queries to prevent security vulnerabilities.
- Validate billing and shipping addresses during checkout.
- Ensure sufficient book inventory before adding to cart.
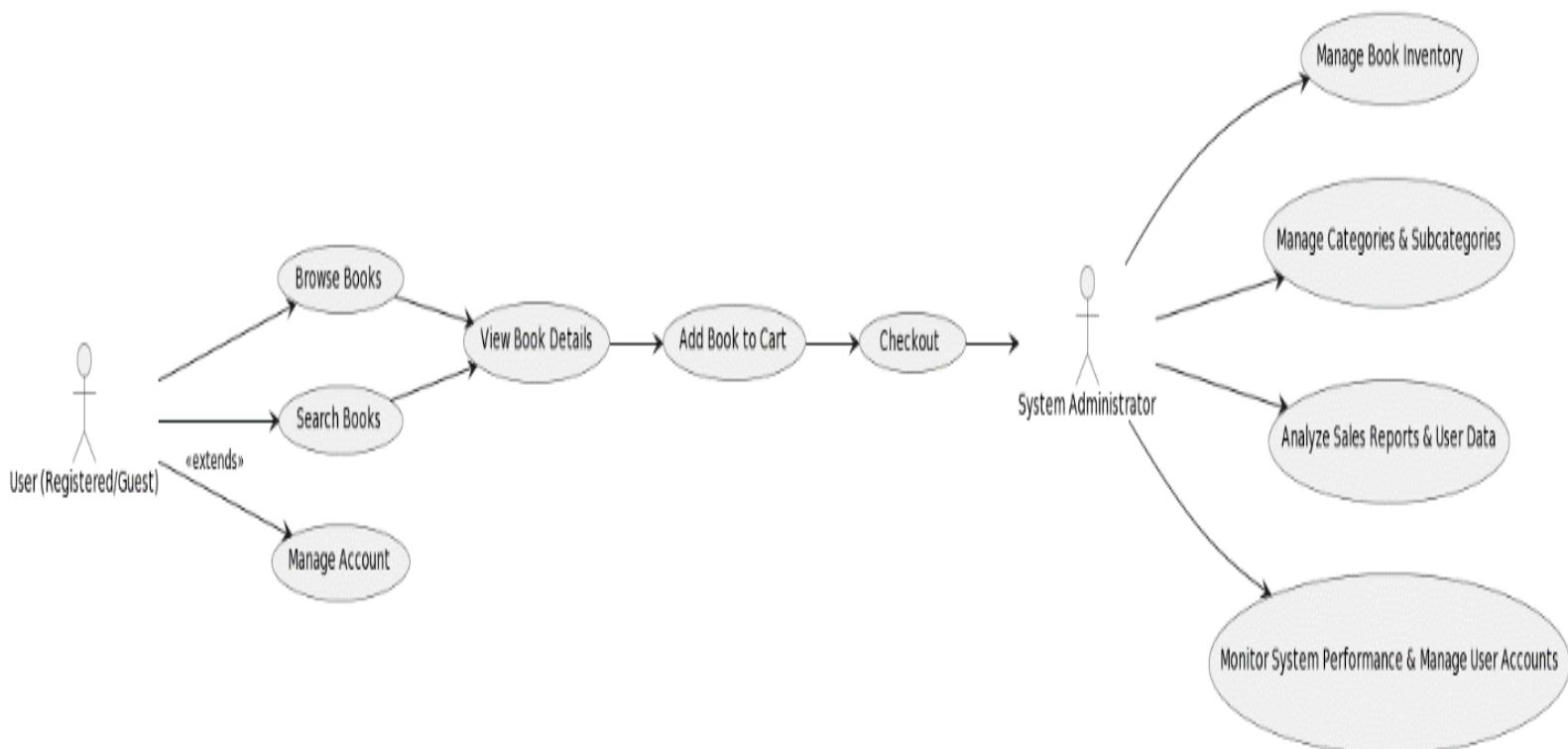- Validate payment information for secure transactions.

7. Database Schema:

- Books Table: Stores book information (title, author, ISBN, price, description, inventory).
- Categories Table: Defines book categories and subcategories.
- Users Table (optional): Stores user information (name, email, address, order history).
- Orders Table: Tracks order details (user, date, items, total amount, status).
- OrderItems Table: Links orders with specific books and quantities.
- Reviews Table (optional): Stores user reviews and ratings for books.
- Wishlists and ReadingLists Tables (optional): Manage user wishlists and reading progress.

8. Model Sites:
- Book Depository: Extensive selection, competitive prices, free shipping.
- Barnes & Noble: User-friendly interface, physical stores, large inventory.
- Goodreads: Active book community, user reviews and recommendations.
- Bookshop: Supports independent bookstores, curated recommendations.

9. Pseudo Use Case Diagram

10. ERD Diagram

Users
- UserID

Email
Password
Name
Address

places · *creates (optional)* · *creates (optional)*

Orders
- OrderID

UserID
OrderDate
ShippingAddress
BillingAddress
PaymentMethod
TotalAmount
OrderStatus

Wishlists
- WishlistID

UserID
BookID

ReadingLists
- ReadingListID

UserID
BookID
ReadingStatus

contains

OrderItems
- OrderItemID

OrderID
BookID
Quantity
Price

references

Books
- BookID

ISBN
Title
Author
Description
Price
PublicationDate
CategoryID
ImageURL
InventoryLevel

belongs to · *has (optional)*

Categories
- CategoryID

CategoryName
ParentCategoryID

Reviews
- ReviewID

BookID
UserID
Rating
ReviewText