

Book Store Management Application

Project Case Study

Objective:

The primary objective of this project is to develop a **Book Store Management Application** that simplifies the management of inventory, customer interactions, sales, and reporting for both physical and online bookshops. This application aims to digitize and automate the day-to-day operations of a bookstore.

Modules to be implemented:

1. Inventory Management Module
2. User Management Module
3. Sales and Order Processing Module
4. Reporting and Analytics Module
5. Search and Recommendation Module

1. Inventory Management Module

This module handles the core functionality of managing books in the store.

Key Functionalities:

- **Add / Edit / Delete Books:** Admins can add new books to the inventory with details such as title, author, genre, publisher, ISBN, price, and stock quantity.
- **Stock Update:** Automatically updates stock count after every sale or return.
- **Search & Filter:** Search books using ISBN, title, or author. Filter by genre, price range, or availability.
- **Low Stock Alerts:** System alerts admin when stock falls below a set threshold.
- **Import Books in Bulk:** Allow batch uploads using CSV/Excel files.

2. User Management Module

This module manages all user-related functions, including customers and administrators.

Key Functionalities:

- **User Registration & Login:** Secure authentication using email/password and roles (Admin/Customer).
- **User Roles & Permissions:** Admins have access to all functionalities, while customers have limited access (browsing, purchase history, etc.).
- **Profile Management:** Users can edit their personal information and reset passwords.
- **Admin Dashboard:** Allows admins to view user statistics, active sessions, and permissions.
- **Customer Feedback System:** Customers can leave reviews and rate books.

3. Sales and Order Processing Module

This module handles the purchase and transaction activities.

Key Functionalities:

- **Shopping Cart & Checkout:** Customers can add books to a cart and proceed to payment.
- **Order History:** Customers and admins can view past transactions and order statuses.
- **Invoice Generation:** Automatic PDF invoice generation upon successful purchase.
- **Payment Integration:** Integration with payment gateways (PayPal, Razorpay, Stripe, etc.).
- **Order Status Tracking:** Admins can update status (Pending, Shipped, Delivered, Returned).

4. Reporting and Analytics Module

This module is responsible for generating various reports to help in business analysis.

Key Functionalities:

- **Sales Report:** Daily, weekly, and monthly sales reports with visual charts.
- **Inventory Report:** Status of books in stock, bestsellers, and low-stock items.
- **Customer Insights:** Reports on customer behavior, most active users, and purchase trends.
- **Revenue Tracking:** Revenue breakdown per book/category/time period.
- **Export Reports:** Export data in PDF/Excel format for offline use or audit purposes.

5. Search and Recommendation Module

This module enhances user experience by making book discovery easy and personalized.

Key Functionalities:

- **Advanced Search:** Full-text search across title, author, ISBN, or category.
- **Sorting & Filtering:** Filter by price, publication year, author, rating, etc.
- **Personalized Recommendations:** Suggest books based on user purchase history or ratings.
- **Trending Books Section:** Showcase top-rated and most purchased books.
- **Review & Rating System:** Customers can rate books and write reviews to help others.

Technology Stack

Frontend	:	HTML, CSS, JavaScript / Angular
Backend	:	Spring Boot
Database	:	MySQL
Tools	:	Git, Postman