

# 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