

Assignment No. 1 – Requirement Analysis

Project Title: Online Book Store

1. Refined User Requirements

After reviewing the project brief and considering typical user behavior, the following refined requirements were identified:

- Users should be able to easily register and log in to their accounts.
- The system must provide a well-organized catalog of books categorized by genre, author, and popularity.
- Users should have a fast and accurate search function with filters.
- A shopping cart should allow users to add, remove, and manage books before purchase.
- The checkout process must be secure and provide multiple payment options.
- Customers should be able to view their profile, including past orders and saved items.
- The platform should support user reviews and ratings for books.
- Discounts, deals, and promotional offers should be visible and easy to apply.
- Users should be able to track the status of their orders after payment.
- Administrators should have access to a dashboard to manage books, users, and orders.

2. Acceptance Criteria

These are specific conditions that must be met for each feature to be considered complete:

User Registration and Login

- A user can successfully register with a valid email and password.
- A user can log in and access their profile.
- Error messages are shown for invalid credentials.

Book Catalog

- All available books are displayed with essential details (title, author, price, cover).
- Books are grouped into relevant categories.

Search and Filter

- The search returns accurate results based on title, author, or keyword.
- Filters include genre, price range, and rating.

Shopping Cart

- Users can add, update, and remove books from their cart.
- Cart items remain saved during the session.

Checkout

- Secure payment options are available.
- A confirmation message and email are sent after a successful purchase.

Admin Panel

- Admin can log in and manage books, user reviews, and orders.
Admin can apply discounts and monitor sales.

3. Functional Requirements

These describe what the system should do:

User Authentication

- Users must be able to register, log in, and reset passwords.
- Admin authentication should be separate and secure.

Book Catalog Management

- Admin can add, update, or delete books from the system.
- Each book contains metadata such as title, author, price, genre, stock, and image.

Search Functionality

- Search bar for books by title, author, or genre.
- Filters for narrowing down search results.

Shopping Cart and Checkout

- Users can add books to cart and modify quantities.
- Carts should be viewable at all times.
- The checkout process includes address entry, payment selection, and order review.
- Payment gateway integration for secure transactions.

User Profiles

- Users can update personal details.
- View purchase history and saved books.

4. Non-Functional Requirements

These define how the system should perform:

- **Performance:** Pages should load within 3 seconds.
- **Security:** Use SSL for secure data transmission; passwords should be encrypted.
- **Scalability:** The system must support thousands of users at once.
- **Availability:** Ensure 99.9% uptime.
- **Usability:** Interface should be clean, intuitive, and mobile-responsive.
- **Compatibility:** Works on all modern browsers and devices.

- **Maintainability:** Code should follow best practices for easy updates and fixes.

5. User Stories

User stories describe how different users will interact with the system:

1. **As a visitor**, I want to register an account so I can browse and purchase books.
2. **As a user**, I want to search for books by title or author so I can find what I'm looking for easily.
3. **As a user**, I want to add books to my cart and review them before purchasing.
4. **As a user**, I want a secure and simple checkout process to complete my order safely.
5. **As a user**, I want to track my order so I know when it will arrive.
6. **As a user**, I want to leave reviews for books I've read to share my opinion
7. **As an admin**, I want to manage the book inventory and user data to keep the store running smoothly.
8. **As an admin**, I want to see reports of sales and user activity for business insights.