Requirement Analysis

This document describes the functional and non-functional requirements of the BookNest Online Book Store System. It defines what the system should do and how it should perform.

Functional Requirements

• User Registration & Login

1. The system must allow users, sellers, and admins to register and login with role selection.

2. The system must implement secure authentication using JWT and password hashing.

• Book Browsing

1. Users must be able to view all available books with details like title, author, and price.

2. Users must be able to view individual book details before purchasing.

• Add to Cart

1. Users must be able to add books to their cart.

2. Users must be able to remove books from the cart before placing an order.

• Order Placement

1. Users must be able to place orders for books in their cart.

2. Sellers and admins must be able to view and update order status.

• Wishlist Management

1. Users must be able to add or remove books from their wishlist.

2. Users must be able to view all saved wishlist items.

Non-Functional Requirements

• Performance

    1. The system should respond quickly to user requests and API calls.

    2. The application should handle multiple users without performance degradation.

• Security

    1. The system must use JWT authentication for protected routes.

    2. User passwords must be securely stored using hashing techniques.

• Usability

    1. The interface should be simple, clean, and easy to navigate.

    2. The system should provide clear feedback messages for user actions.

• Scalability

    1. The system should support increasing number of users and books.

    2. The architecture should allow future feature enhancements easily.