📋 Book Nest - Requirement Analysis Documentation

\*\*Project Title:\*\* Book Nest

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\*\*Category:\*\* Full Stack Development

# 1. Introduction

Book Nest is an online bookstore web application developed using the MERN stack. This document outlines the functional and non-functional requirements, use cases, and system expectations to ensure the successful implementation of the application.

# 2. Purpose

The purpose of this document is to gather, analyze, and define high-level needs and features for the Book Nest project. It serves as a guide for developers, designers, and stakeholders.

# 3. Scope

Book Nest enables users to browse, search, and purchase books online. Features include user authentication, book listings, filtering options, a cart system, order placement, and admin-level inventory management.

# 4. Functional Requirements

The functional requirements of Book Nest include:

* User Registration and Login (with JWT Authentication)
* View and Search Books by Title, Genre, or Author
* Filter Books Based on Genre and Ratings
* Add Books to Cart and Manage Quantities
* Place Orders with Order Summary and Confirmation
* Track Order History
* Admin Module to Add, Update, and Delete Books from Inventory

# 5. Non-Functional Requirements

The non-functional requirements include:

* Responsive UI across desktop, tablet, and mobile devices
* Scalable and maintainable backend using Node.js and Express.js
* Secure data transmission using HTTPS and JWT
* High availability and performance for user interactions
* Consistent and easy-to-navigate interface

# 6. Use Case Description

The system supports two main roles: User and Admin.

* User registers or logs in
* User browses and searches books
* User filters by genre or author
* User adds books to cart
* User checks out and places an order
* User views order history
* Admin logs in to manage book inventory

# 7. Assumptions and Constraints

* Users have access to a stable internet connection
* System will run on modern web browsers (Chrome, Firefox, Edge)
* Admin functionalities are restricted to authorized personnel only
* Payments and user reviews are not implemented in the MVP version

# 8. Conclusion

This document summarizes the core requirements and system functionality for the Book Nest application. It will serve as the foundation for development, testing, and future enhancement phases.