CSE360

Software Engineering Lab

Requirements Analysis

Report On

Book Store System

SUBMITTED BY

Group Members ID-

20CSE038

20CSE020

20CSE029

SUBMITTED TO

Dr. Syful Islam

Associate Professor

Department of Computer Science and Engineering , BSMRSTU, Gopalganj-8100

Part-1

Chapter 1: Introduction

1.1 System Purpose

The purpose of the Bookstore Web Page is to provide a platform for users to browse, buy, and manage books online while offering an administrative panel for the bookstore owners to manage books, orders, and users. The system is developed using the MERN stack (MongoDB, Express.js, React, Node.js) to deliver a seamless user experience, modern design, and efficient backend operations.

1.2 System Scope

This system encompasses both user-facing features and an admin panel:

- **User Features**: Modern Landing Page, Browse Books, Book Details Page, User Authentication, Order Management, Wishlist, and Responsive Design.

- **Admin Panel Features**: Dashboard Analytics, Book Management, Order Management, User Management, and Theme Control.

The system includes the following components:

- **Frontend Development**: Built using React.js to offer a responsive user interface.

- **Backend Development**: Node.js with Express.js to handle API requests and server-side logic.

- **Database Management**: MongoDB for managing user data, book information, and orders.

- **Real-Time Features**: Notification system for updates on orders and availability.

- **Deployment**: Deploying the application on cloud platforms like AWS or Heroku for scalability and availability.

1.3 Goals of Team

- **Develop a user-friendly interface** for browsing books and managing orders.

- **Implement a robust and scalable backend** to manage data and handle user and admin requests.

- **Provide real-time notifications** to improve user experience.

- **Ensure the platform is responsive** across different devices.

- **Create a secure authentication system** for user login and order management.

- **Develop an efficient admin panel** for managing books, users, and orders.

1.4 Process Model

The system follows the **Agile Development** process model, which includes:

- **Iterative Development**: Continuous improvements through sprint cycles.

- **Collaboration**: Regular communication between frontend and backend teams.

- **Testing**: Regular testing of individual components and the overall system.

- **Feedback**: Feedback from users and admins for enhancements

1.5 Team Organization

- **Frontend Team**: Responsible for UI/UX development using React.js and ensuring the responsiveness of the application.

- **Backend Team**: Responsible for developing the server-side logic with Node.js, Express.js, and managing the database with MongoDB.

- **Database Team**: Handles database schema design, optimization, and management.

- **Testing and QA Team**: Responsible for testing the functionality and usability of the system.

- **Project Manager**: Oversees the project, ensuring timely delivery and coordination between teams.

Chapter 2: Research

2.1 Market Research

The online bookstore market has seen significant growth, driven by the increasing demand for digital shopping experiences and easy access to a wide range of books. Competition includes established e-commerce platforms such as Amazon, Barnes & Noble, and smaller specialized online bookstores. Key features demanded by users include a user-friendly interface, easy navigation, detailed product descriptions, secure payment options, and responsive design for mobile devices.

2.2 Literature Survey

Existing online bookstore systems emphasize features such as:

- **Book Browsing**: Advanced search functionality, category filters, and personalized recommendations.

- **Order Management**: Secure checkout process, order tracking, and payment integrations.

- **Admin Panels**: Comprehensive dashboards for managing inventory, orders, and user data.

- **Responsive Design**: Adaptive interfaces for both mobile and desktop users.

- Several open-source projects and frameworks (such as MERN stack) have been widely adopted for building scalable, maintainable systems, demonstrating the benefits of using these technologies for modern web applications.

Chapter 3: Description

This system enables customers to browse, order, and manage books online. Users can view detailed information about books, add them to their Wishlist, and track their orders. The admin panel enables bookstore staff to manage inventory, orders, and user accounts efficiently. The system also incorporates a responsive design, ensuring that users have a seamless experience across all devices.