Book Nest – Where Stories Nestle

## 1. Introduction

**Project Title:** Book Nest – Where Stories Nestle

**Team Member:**

- S.Poojitha

## 2. Project Overview

**Purpose:**

Book Nest – Where Stories Nestle is a full-stack book store web application designed to provide a seamless experience for book lovers to browse, explore, and purchase books online. The project aims to bridge the gap between readers and their favorite stories in a convenient, digital format.

**Features:**

- User registration and login with secure authentication

- Book browsing with categories and search functionality

- Admin dashboard for managing books and users (CRUD operations)

- Add to cart and checkout system

- User reviews and rating system

- Responsive design for all devices

## 3. Architecture

**Frontend:** React.js, React Router, Axios, styled-components

**Backend:** Node.js and Express.js

**Database:** MongoDB with Mongoose ODM

## 4. Setup Instructions

**Prerequisites:** Node.js, MongoDB, Git, VS Code

**Installation:**

cd Book-Nest-

Backend: cd server → npm install → npm start

Frontend: cd client → npm install → npm start

## 5. Folder Structure

**Client:** /src/components, /src/pages, /src/context, /src/App.js

**Server:** /routes, /models, /controllers, /server.js

## 6. Running the Application

**Frontend:** npm start

**Backend:** npm start

Ensure MongoDB is running locally or configure MongoDB Atlas.

## 7. API Documentation

**User Routes:** POST /api/register, POST /api/login

**Book Routes:** GET/POST/PUT /api/books

**Order Routes:** POST /api/orders

Sample Response: {"success": true, "data": {"title": "New Book Added"}}

## 8. Authentication

JWT-based secure login and session management.

Protected endpoints, token validation, role-based access.

## 9. User Interface

Responsive UI using CSS modules and React hooks.

Key Screens: Home, Login, Book Detail, Cart, Admin Dashboard

## 10. Testing

Manual and Postman API testing. Optional Jest unit tests.

## 11. Known Issues

- Load time issues on low bandwidth.

- No real payment gateway yet.

- Admin dashboard UX improvements needed.

## 12. Future Enhancements

- Payment gateway integration

- Wishlist functionality

- Email/SMS notifications

- AI-based book recommendations