📁 Project File: BookNest – Where Stories Nestle

🎯 Project Overview

Project Name: BookNest – Where Stories Nestle

Category: Full Stack Web Development (MERN)

Duration: 2- Weeks

Tech Stack:

MongoDB

Express.js

React.js

Node.js

🧩 Project Description

BookNest is an online bookstore web application built using the MERN stack. The platform allows users to browse, search, review, and purchase books from various genres. It provides a seamless user experience with features for both users and admins.

🎨 Key Features

User Side:

User registration & login with JWT authentication

Browse book categories & genres

Book search by title, author, or category

View book details with rating and reviews

Add books to cart and checkout (simulated)

View purchase history

Responsive design for all devices

Admin Side:

Login as admin

Add/edit/delete book entries

Manage users and orders

View sales statistics

🛠️ Technology Stack

Layer Technology

Frontend React.js, TailwindCSS / Bootstrap

Backend Node.js, Express.js

Database MongoDB (Mongoose)

Auth JWT, bcrypt.js

APIs RESTful APIs

Deployment Vercel (frontend), Render/Heroku (backend)

📁 Folder Structure

BookNest/

├── client/ # React Frontend

│ ├── src/

│ │ ├── components/

│ │ ├── pages/

│ │ ├── App.js

│ │ ├── index.js

│ └── package.json

├── server/ # Node + Express Backend

│ ├── models/

│ ├── routes/

│ ├── controllers/

│ ├── middleware/

│ ├── server.js

│ └── config/

│ └── db.js

└── README.md

📊 Database Schema

User Schema

{

name: String,

email: String,

password: String (hashed),

isAdmin: Boolean

}

Book Schema

{

title: String,

author: String,

genre: String,

price: Number,

rating: Number,

reviews: [ { userId, comment, stars } ]

}

Order Schema

{

userId: ObjectId,

books: [ { bookId, quantity } ],

totalAmount: Number,

orderDate: Date

}

✅ Learning Outcomes

Mastered the integration of all four MERN components

Gained hands-on experience in JWT-based authentication

Practiced REST API design and state management in React

Learned CRUD operations with MongoDB

Improved skills in UI design and responsive development

Understood deployment of full stack apps

🚀 Future Enhancements

Add payment gateway integration (e.g., Razorpay or Stripe)

Enable user wishlists and recommendations

Implement search auto-suggestions

Add book upload via CSV (bulk import)

Add real-time chat support

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