Full Stack Development with MERN Project Documentation

Date	22 June 2024
Team ID	SWTID1720433526
Project Name	Project - Book-Store
Maximum Marks	2 Marks

1. Introduction

- Project Title: Book-Store
- Team Members: Matthew Jeannot Aranjani (Leader, Full Stack Developer)

2. Project Overview:

Purpose: To create a comprehensive book store platform that allows users to browse, search and purchase books online. Users can view order history and their wishlists.

Features:

- a. Book Listing with detailed information.
- b. Book Selection based on various criteria.
- c. Loading Spinner.
- d. Books shown in card format.

3. Architecture:

- a. Frontend: The frontend is built with React.js with Tailwind CSS for styling. The structure is organized into components and pages, providing a modular and maintainable codebase. It uses React Router for navigation and Axios for API requests.
- b. Backend: the backend is developed using Node.js

- and Express.js. It follows the REST API principle to handle CRUD operations for books and user data.
- c. Database: MongoDB is used as the database to store user and book information. The Mongoose library is used for schema definitions and interactions with the MongoDB database.

4. Setup Instructions:

a. Prerequisites: Node.js, MongoDB, Git
git clone https://github.com/your-repo/book-storeplatform.git
cd book-store-platform
cd frontend
npm install
cd ../backend
npm install

MONGO_URI='mongodb+srv://root:root@books-storemern.kc6yg4d.mongodb.net/bookscollection?retryWrites=true&w=majority&appName=Books-Store-MERN'

5. Folder Structure:

- a. Client:
 - i. src:
 - 1. assets: Static assets like images and icons.
 - 2. components: Reusable components such as Backbutton, Spinner.
 - 3. pages: Main application pages such as Home, EditBook, ShowBook.
 - 4. App.jsx: Main application component.
 - 5. index.css: Global CSS file.
 - 6. main.jsx: Entry point of the application.

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b. Server:
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- i. models: Mongoose schemas such as bookModel.js.
- ii. routes: Express routes sucha s booksRoute.js.
- iii. config.js: Configuration file for database connection.
- iv. index.js: Entry point of the server.
- 6. Running the Application:

Frontend:

cd frontend

npm start

Backend:

cd backend

npm start

7. API Documentation:

Endpoints:

a. Get all books:

GET /books - List of all books

b. Get a single book by ID:

GET /books/:id - Details of the book

c. Create a new book:

POST /books - { title, author, publishYear } - Created Book

d. Update a book by ID:

PUT /books/:id - { title, author, publishYear } - Updated Book

e. Delete a book by ID:

DELETE /books/:id - Deletion confirmation

8. Authentication:

Authentication not done.

9. User Interface:



10. Testing Strategy:

Testing manually all possible major functionalities.

11. Demo:

https://drive.google.com/file/d/14ntCoZrm9B8W37ucCsINDotlxe0iULRs/view

12. Known Issues:

Bugs related to Wishlist and Orders

13. Future Enhancements:

Admin, Seller integration.

Buying and Selling Books.

Authentication.