Frontend development with react.js

**PROJECT DOCUMENTATION**

**1.Introduction:**

**Project Title :** Cook book your visual companion.

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**2.Project overview:**

**Purpose :**The purpose of the project is to provide an online recipe book where user can explore various cuisines such as Indian, Italian, Chinese, Japanese and continental dishes it also included displaying ingredients and it’s quantity for each recipes.

**Features:**

* Category-wise browsing of recipes
* Recipe details including ingredients, step
* Search functionality
* User-friendly interface with smooth navigation

**3.Architecture:**

**Component Structure:** The project users a modular react components structure major component included category list, recipe card, recipe details and footer.

**State Management:** State Management: The project uses Context API for global state management and React hooks for local states.

**Routing:** React Router DOM is used for navigation between categories and recipe details.

**4.Step Instructions:**

●Download Node.js LTS version from https://nodejs.org/en/download/

○Windows installer (.msi) if windows

●After downloading, install Node.js by opening the downloaded file

●After installing Node.js, open Windows PowerShell As

Administrator

●Type set-execution Policy unrestricted and press enter

●In the next step type Y and press enter Steps To Download And Execute Project:

●From your Smart Intern portal Go To Projects → Access Resources→ Guided Projects → Go To Workspace

●Inside Guided Project you can find Project Flow

●Now you can see two links one is the demo video and the other is the code drive link.

●Click on the code drive link or copy paste that link in your new chrome tab

●Download the code folder

●Now go to downloads and right click on the downloaded zip folder and click on extract all

●Now click on Extract

●Now open VS code and open the code folder from the extracted folder.

●Now open a new terminal.

●Type npm install in your terminal and press Enter and wait till all the dependencies gets download

●After all the downloads finishes, now type npm start and press Enter ●Now your application will be opened in your browser with url http://localhost:3000

**5. Folder Structure:**

**Client:**

* components/: Contains reusable React components
* pages/: Contains page-level components like Home, Categories, Recipe Details
* assets/: Contains images, icons, and styling files
* context/: Global state management using Context AP
* hooks/: Custom hooks for fetching and handling data

**Utilities:**

* Helper functions for calorie calculation and filtering recipes

1. **Running the Application:**

To start the frontend server locally, run the following command**: npm start**

1. **Component Documentation:**

**Key Components:**

* Category List: Displays all available food categories
* Recipe Card: Shows summary of a recipe
* Recipe Details: Displays full recipe details including ingredients and calories - Footer: Displays credits and navigation support

1. **State Management:**

**Global State:** Context API is used for managing selected category and user preferences. **Local State**: use State and use Effect hooks manage component-specific states such as recipe search inputs and filters.

1. **User Interface:**

The UI includes category tiles, recipe cards, and a detailed recipe page. The design is minimal, responsive, and mobile-friendly.

1. **Styling:**

CSS Frameworks/Libraries: Tailwind CSS is used for styling with utility-first classes. Theming: Light theme with custom colours for categories.

1. **Testing:**

Testing Strategy: Unit testing using Jest and React Testing Library.

Code Coverage: Ensured with Jest coverage reports.

1. **Demo output:**

demo link [https://drive.google.com/file/d/1qp25rdFk8VuQPSP3gOy\_HQkP0JmIWos/view?usp=drivesdk](https://drive.google.com/file/d/1qp25rdFk8VuQPSP3gOy_HQkP0JmIWo-s/view?usp=drivesdk)

1. **Known Issues:**

* Some recipes may not have complete nutritional details.
* Search speed depends on dataset size.

**14. Future Enhancements:**

* Add user login and favourite recipe saving
* Add video tutorials for each recipe
* Offline mode for saved recipes