

Frontend Development with React.js – Project Documentation

1. Introduction

Project Title: Cook Book – Your Virtual Kitchen Assistant

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2. Project Overview

Purpose: To provide users with a virtual kitchen assistant that suggests recipes, guides cooking steps, and helps manage ingredients.

Features:

- Recipe browsing and search
- Step-by-step cooking instructions
- Ingredient management and shopping list
- User-friendly and responsive UI

3. Architecture

Component Structure: Modular React components for recipes, search, and dashboards.

State Management: Context API for global state, local state handled within components.

Routing: React Router for navigation between pages.

4. Setup Instructions

Prerequisites: Node.js, npm, Git

Installation:

- Clone the repository: git clone
- Navigate to project folder: cd client
- Install dependencies: npm install
- Start development server: npm start

5. Folder Structure

Client folder includes:

- components/ – Reusable React components
- pages/ – Page-level components for routing
- assets/ – Images, icons, and styling resources
- utils/ – Custom hooks and helper functions

6. Running the Application

Navigate to client folder and run: **npm start**

7. Component Documentation

- RecipeCard – Displays recipe details (props: title, image, ingredients)
- SearchBar – Allows searching for recipes (props: onSearch)
- Dashboard – Displays user-specific recipe suggestions

8. State Management

Global state with Context API for user and recipe data. Local states handle UI interactions.

9. User Interface

Screens include: Landing Page, Recipe List, Recipe Details, and Dashboard.

10. Styling

Using CSS and Material UI for a responsive design. Theming is applied for consistency.

11. Testing

Unit testing with Jest and React Testing Library. Debugging via Chrome Dev Tools.

12. Screenshots or Demo

Screenshots or demo link will be included to showcase UI features.

13. Known Issues

Some features are under development and may not work as intended.

14. Future Enhancements

- Add voice assistant for hands-free cooking
- AI-powered recipe recommendations
- Multilingual support
- Offline access to saved recipes