Frontend Development with React.js

Project Documentation

Introduction

Project Title: CookBook: Your Virtual Kitchen Assistant.

Team Members:

Team Leader : PRIYA DHARSHINI E

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Project Overview

Purpose:  
 Cook Book is a virtual kitchen and recipe management web application designed to help users track their recipes, monitor progress, and maintain a healthy lifestyle. The app provides personalized recipe routines, progress tracking, and a smooth user experience to keep users motivated on their cooking journey.

Features:  
 - User authentication (login/signup)  
 - Personalized recipe dashboard  
 - Recipe tracker with cooking logs  
 - Meal planning with charts and nutrition stats  
 - Smart grocery list and nutrition planner (future enhancement)  
 - Responsive and user-friendly UI

Architecture

Component Structure:  
 - App.js: Root component  
 - Navbar: Navigation bar for routing  
 - Dashboard: Personalized recipe dashboard  
 - WorkoutTracker: Tracks recipes and exercises  
 - MealChart: Displays nutrition and meal statistics  
 - Auth: Handles login and signup  
 - Footer: Common footer component

State Management:  
 - Context API for global state (user authentication, recipe logs)  
 - Local state with useState for component-specific interactions

Routing:  
 - Implemented using react-router-dom  
 - Routes: /, /login, /signup, /dashboard, /recipes, /progress

Setup Instructions

Prerequisites:  
 - Node.js (v16+)  
 - npm or yarn

Installation:  
 git clone [repository-url]  
 cd fit-flex  
 npm install

Running the Application:  
 npm start

Folder Structure

fit-flex/  
 │── src/  
 │ ├── assets/ # Images, icons, static files  
 │ ├── components/ # Reusable UI components  
 │ ├── pages/ # Page-level components (Dashboard, Workouts, etc.)  
 │ ├── context/ # Global state management (Context API)  
 │ ├── hooks/ # Custom hooks  
 │ ├── utils/ # Helper functions  
 │ ├── App.js  
 │ └── index.js

Component Documentation

Key Components:  
 - Dashboard: Displays user’s saved recipes and meal plans  
 - WorkoutTracker: Logs daily recipes and exercises  
 - ProgressChart: Uses chart libraries for fitness stats  
 - AuthForm: Handles login and signup

Reusable Components:  
 - Button, InputField, Card, Modal

User Interface

• Clean and minimal cooking-oriented design  
 • Responsive layouts for mobile and desktop  
 • Interactive charts for tracking progress

Styling

• CSS-in-JS with Styled Components (or Tailwind CSS)  
 • Custom theme with primary/secondary fitness colors

Testing

Testing Strategy:  
 - Unit tests with Jest & React Testing Library  
 - Integration tests for user authentication and recipe logging

Code Coverage:  
 - Coverage reports generated with Jest

Screenshots or Demo

• https://drive.google.com/file/d/1JWV2C9d2csWLcO-huk2Vx-G\_SQlcxMPG/view?usp=drivesdk

Known Issues

• Limited recipe categories (to be expanded)  
 • Meal planner in development

Future Enhancements

• AI-based personalized recipe recommendations  
 • Social features (share recipes, collaborate with friends)  
 • Smart kitchen device integration (IoT, Alexa, Google Home)  
 • Offline mode support