

Frontend Development with Project Documentation format.

Cookbook: Your Virtual Kitchen Assistant

## 1. Introduction

Project Title: CookBook: Your Virtual Kitchen Assistant

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## 2. Project Overview

Purpose:

The CookBook application is designed to simplify meal preparation by offering a virtual kitchen assistant.

Users can browse, save, and manage their favorite recipes with detailed instructions and ingredient lists.

Features:

-Extensive Recipe Library with Search & Filter Options

Step-by-Step Cooking Instructions

Bookmark Feature for Favorite Recipes

Light/Dark Mode for Enhanced Visual Comfort

Responsive Design for Optimal Viewing on All Devices

Ingredient Checklist for Easy Shopping and Preparation

## 3. Architecture

Component Structure:

App.js Root component managing layout and routes.

Header.js Navigation bar with search functionality

RecipeList.js-Displays categorized recipe cards.

RecipeCard.js-Individual card displaying recipe details

RecipeDetails.js Detailed view of selected recipe

Footer.js Provides additional resources and links

State Management: Context API

Routing: React Router

#### 4.Setup Instructions

Prerequisites:

Node.js (v18 or higher)

Npm or yarn

Installation:

1.-Clone the Repository:-

[https://drive.google.com/drive/folders/1u8PnV\\_mE0mwKkH\\_CvuNpliZtRLJZMqrO](https://drive.google.com/drive/folders/1u8PnV_mE0mwKkH_CvuNpliZtRLJZMqrO)

2.Install Dependencies:

‘npm install’

3.Create .env file:

REACT\_APP\_RECIPE\_API\_KEY your api key here

4.Run the Application:

- ‘npm start’

## 5.Folder Structure /src

/components

Header.js

RecipeList.js

Recipe Card.js

RecipeDetails.js

Footer.js

/pages

Home.js

Categories.js

.Bookmarks.js

/assets

Images

Icons

Styles

/utils

Apijs

Helpers.js

Constants.js

App.js

Index.js

## 6.Running the Application

Frontend Server Command: npm start

## 7.Component Documentation

### Key Components:

Header: Provides navigation and search functionality

RecipeList: Displays available recipes categorized by type

RecipeCard: Displays individual recipe details

RecipeDetails: Offers step-by-step instructions

### Reusable Components:

Button Component: Used for actions like 'View Recipe' or 'Bookmark'

Modal Component: Displays detailed recipe information

## 8.State Management

Global State: Managed via Context API

Local State: Managed using React's 'useState()'

## 9.User Interface

- Clean and intuitive layout optimized for smooth navigation
- Mobile-first design for seamless browsing
- Elegant Light/Dark mode toggle for improved accessibility

## 10.Styling

CSS Frameworks/Libraries: Tailwind CSS

Theming: Integrated light/dark mode

## 11.Testing

Testing Strategy:

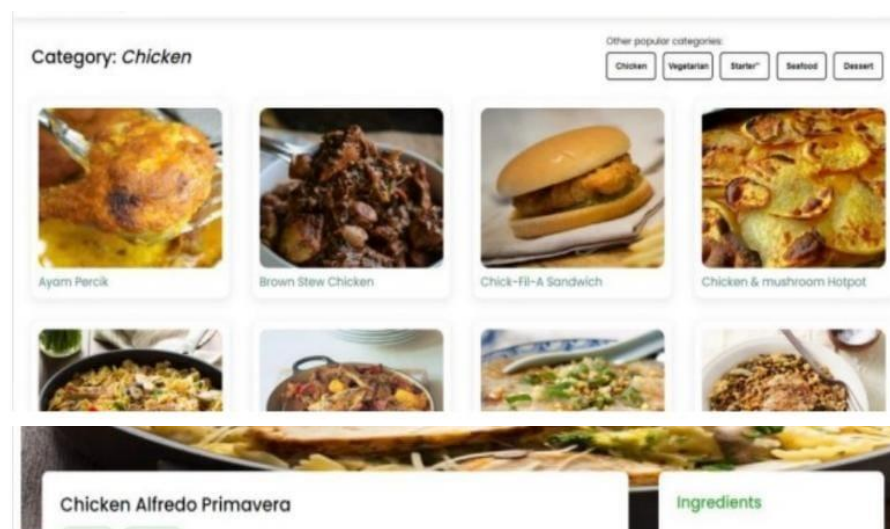
Jest for unit testing

React Testing Library for component testing

Code Coverage: Ensured high test coverage with Jest reports

## 12. Screenshots or Demo

[https://drive.google.com/file/d/1wV8\\_jZDRwoe3NZ7mOoDfg5gr1IW08qiR/view?usp=drivesdk](https://drive.google.com/file/d/1wV8_jZDRwoe3NZ7mOoDfg5gr1IW08qiR/view?usp=drivesdk)



## 13. Known Issues

-Certain API endpoints may experience delays during peak traffic

- Ingredient checklist feature may require further optimization

#### 14. Future Enhancements

- AI-Based Recipe Suggestions

- User Authentication for personalized recipe collections

- Integration with Grocery Shopping Platforms

- Offline Mode for accessing saved recipes