# Cook Book – Project Documentation

#### 1. Introduction

Project Title: Cook Book

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## 2. Project Overview

#### • Purpose:

Cook Book is a web-based application built using React.js to help users explore, manage, and share cooking recipes. The goal is to provide a simple, interactive, and visually appealing way to browse recipes by category, ingredients, and cuisine.

#### • Features:

- Recipe listing with images and categories
- Detailed recipe view with ingredients and cooking steps
- Search and filter functionality
- Add to favorites / bookmark recipes
- Responsive design for mobile and desktop

## 3. Architecture

#### • Component Structure:

- o App Root component
- o Header Navigation bar with search
- o RecipeList Displays all recipes
- o RecipeCard Single recipe preview
- o RecipeDetail Detailed recipe view
- o Favorites User's saved recipes

- o Footer Basic app footer
- State Management:
  - Using React Context API for managing global state (favorites, user preferences).
  - o Local component states used for form inputs, filters, and UI toggles.
- Routing:
  - o Implemented using **react-router-dom** for navigation:
    - / Home (all recipes)
    - /recipe/:id Recipe details
    - /favorites Saved recipes

## 4. Setup Instructions

- Prerequisites:
  - Node.js (v16 or higher)
  - o npm or yarn
- Installation:
- git clone https://github.com/yourusername/cook-book.git
- cd cook-book
- npm install

#### 5. Folder Structure

```
cook-book/

— public/ # Static assets

— src/

— assets/ # Images, icons
— components/ # Reusable components
— pages/ # Page-level components
— context/ # Context API setup
— hooks/ # Custom hooks
— App.js # Main app component
— index.js # Entry point
```

## 6. Running the Application

npm start

This will start the frontend server at http://localhost:3000.

## 7. Component Documentation

#### Key Components:

- o RecipeCard: Displays recipe image, title, and short description.
- o RecipeDetail: Shows cooking steps, ingredients, and preparation time.
- o SearchBar: Allows filtering recipes by keyword or category.

#### • Reusable Components:

o Button, Card, Modal - Custom reusable UI elements.

## 8. State Management

#### Global State:

Favorites stored using Context API across the application.

#### Local State:

 Search input, filter selections, and modal visibility handled with React useState.

#### 9. User Interface

- Clean UI with recipe images, categorized layouts, and easy navigation.
- Example Screens:
  - Home page with recipe list
  - Recipe detail page with cooking instructions
  - Favorites page with saved recipes

## 10. Styling

- CSS Frameworks/Libraries: Tailwind CSS for styling.
- Theming: Light/Dark mode toggle using CSS variables.

## 11. Testing

#### Testing Strategy:

- Unit testing using Jest & React Testing Library.
- Integration tests for navigation and API calls.

• Code Coverage: Jest coverage reports.

#### 12. Screenshots or Demo

- Screenshot examples (to be added after UI build).
- Live Demo: [Deployment link if hosted on Vercel/Netlify]

## 13. Known Issues

- Search filter not optimized for large datasets.
- Recipe API may return incomplete data.

#### 14. Future Enhancements

- User authentication and profile management.
- Ability to upload and share custom recipes.
- Offline mode with local storage support.
- Advanced filters (by calories, preparation time, etc.).
- Voice-guided cooking assistant.