Project Documentation

1. Introduction

Project Title: Cook Book – Your Virtual Kitchen

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2. Project Overview

Purpose:

Cook Book – Your Virtual Kitchen is an interactive web platform that allows users to explore, create, and share recipes. It helps food lovers discover new dishes, manage digital cookbooks, and even simulate a virtual kitchen environment.

Features:

Recipe posting and browsing

Smart search & category filters (Veg, Non-Veg, Vegan, Dessert, etc.)

Virtual Kitchen (step-by-step cooking mode)

User profile & personal cookbook management

Ratings, reviews, and comments on recipes

Admin dashboard for recipe moderation

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1. Architecture

Frontend: React.js with Tailwind CSS / Material UI

Backend: Node.js and Express.js for server logic & API handling

Database: MongoDB for user data, recipes, reviews, and categories

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1. Setup Instructions

Prerequisites:

Node.js

MongoDB

Git

React.js

Express.js

Mongoose

Visual Studio Code

Installation Steps:

# Clone the repository git clone <your-repo-link>

# Install client dependencies cd client npm install

# Install server dependencies cd ../server npm install

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1. Folder Structure

CookBook-VirtualKitchen/

|-- client/ # React frontend

| |-- components/

| |-- pages/

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|-- server/ # Node.js backend

| |-- routes/

| |-- models/

| |-- controllers/

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1. Running the Application

Frontend:

cd client npm start

Backend:

cd server npm start

Access: Visit http://localhost:3000 ---

7. API Documentation

User:

/api/user/register

/api/user/login

Recipes:

/api/recipes/create

/api/recipes/:id

/api/recipes/search

Reviews & Ratings:

/api/reviews/add

/api/reviews/:recipeId ---

1. Authentication

JWT-based authentication for secure login

Middleware to protect private routes (e.g., posting recipes, managing personal cookbook)

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1. User Interface

Landing Page – Explore trending recipes

Recipe Details Page – Ingredients, instructions, comments

Virtual Kitchen Mode – Step-by-step cooking guide with timers

User Dashboard – Saved recipes & personal cookbook

Admin Panel – Manage users and recipes

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1. Testing

Manual testing during development milestones

Tools: Postman (API testing), Chrome Dev Tools (UI testing)

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1. Screenshots or Demo

[DEMO VIDEO.mp4](https://drive.google.com/file/d/1U1GELhsn-HTkViombSINCELZwgGq35bd/view?usp=drive_link)

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1. Known Issues

Limited recipe recommendations in early phase

Virtual kitchen may need optimization for mobile

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1. Future Enhancements

AI-powered recipe suggestions based on ingredients at home

Voice-guided cooking assistant

Integration with grocery delivery APIs

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