# **Project Documentation**

## COOKBOOK-YOUR VIRTUAL KITCHEN

## **ASSISTANT**

# 1. Introduction

Project Title: Cookbook

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### 2. Project Overview

### • Purpose:

Cookbook is a recipe management and discovery platform. It allows users to post, edit, and explore recipes, filter by ingredients/cuisine, and generate shopping lists.

- Features:
  - Recipe posting and editing
  - Recipe search & filtering by ingredients, cuisine, or category
  - Favorites collection
  - Shopping list generator
  - Comment and review system
  - Admin dashboard for moderation

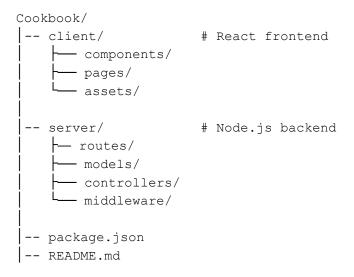
#### 3. Architecture

- Frontend: React.js with Bootstrap and Material UI
- Backend: Node.js with Express.js (API endpoints, authentication, recipe management)
- **Database:** MongoDB with Mongoose (for storing recipes, users, categories, favorites, comments)
- Optional Services: Cloud storage for recipe images (AWS S3/Cloudinary)

### 4. Setup Instructions

- Prerequisites:
  - o Git
  - React.js
  - o Express.js
  - o Mongoose
  - Visual Studio Code
  - Node.js & MongoDB
- Installation Steps:
  - 1. Clone the repository:
  - 2. git clone https://github.com/your-repo/cookbook.git
  - 3. cd cookbook
  - 4. Install client dependencies:
  - 5. cd client
  - 6. npm install
  - 7. Install server dependencies:
  - 8. cd server
  - 9. npm install

#### 5. Folder Structure



### 6. Running the Application

- Frontend:
- cd client
- npm start
- Backend:
- cd server
- npm start
- Access:

Visit <a href="http://localhost:3000">http://localhost:3000</a>

#### 7. API Documentation

- User:
  - o POST /api/user/register
  - o POST /api/user/login
- Recipes:
  - o POST /api/recipes/create
  - o GET /api/recipes/:id
  - o GET /api/recipes/search?ingredient=tomato
- Favorites:
  - o POST /api/favorites/add
  - o GET /api/favorites/:userId
- Comments:
  - o POST /api/comments/add
  - o GET /api/comments/:recipeId

#### 8. Authentication

- JWT-based authentication for secure login
- Middleware to protect private routes (recipe posting, favorites, reviews)

#### 9. User Interface

- Landing Page Recipe highlights & search
- Recipe Details Page Full recipe with ingredients, steps, and reviews
- User Dashboard Manage user's recipes, favorites, and shopping list
- Admin Panel Moderate recipes and manage users

# 10. Testing

- Manual testing at each development milestone
- Tools: Postman (API testing), Chrome DevTools (frontend testing)

#### 11. Screenshots or Demo

https://drive.google.com/file/d/1-xd0bYO998Ic4j99DmmgSOW2SqZCOcy3/view?usp=drivesdk

### 12. Known Issues

- Image upload may fail on low bandwidth
- Search speed decreases with very large dataset
- No offline support yet

### 13. Future Enhancements

- Al-powered recipe recommendations
- Nutrition calculator per recipe
- Voice-assisted cooking mode
- Mobile app (iOS/Android)