**Project Documentation**

CookBook: Your Virtual Kitchen Assistan

### **Project Title:** CookBook: Your Virtual Kitchen Assistan

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# 2. Project Overview

CookBook is a smart, user-friendly web and mobile application designed to simplify cooking and meal planning. Acting as a virtual kitchen assistant, it provides recipe suggestions, ingredient tracking, personalized meal recommendations, and smart cooking guidance for users of all skill levels.

 To help users discover and prepare meals quickly and easily.

 To provide a digital kitchen assistant that organizes recipes, shopping lists, and cooking instructions.

 To support dietary preferences and health goals.

 To reduce food waste by tracking available ingredients and suggesting meals accordingly.

# 3. Architecture

 **Client–Server Architecture**

 **3-Tier Model (Presentation, Application, Data layers)**

 With optional **AI Recommendation Engine** as a microservice.

# 4. Setup Instructions

* **Prerequisites:**
  + Node.js
  + MongoDB
  + Git
  + React.js
  + Express.js **–** Mongoose **–** Visual Studio Code
* **Installation Steps:**

# Clone the repository git clone

# Install client dependencies cd client npm install

# Install server dependencies cd

../server npm install

# 5. Folder Structure

SB-Works/

|-- client/ # React frontend

|\_\_components/ L\_\_ pages/

|\_\_ server/ # Node.js backend

|\_\_routes/

|\_\_ models/

|\_\_ controllers/

# 6. 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
* **Projects:**
  + /api/projects/create
  + /api/projects/:id • **Applications:** /api/apply
* **Chats:**
  + /api/chat/send **–** /api/chat/:userId

# 8. Authentication

* JWT-based authentication for secure login
* Middleware protects private routes

# 9. User Interface

* Landing Page
* Freelancer Dashboard
* Admin Panel
* Project Details Page

# 10. Testing

* Manual testing during milestones
* Tools: Postman, Chrome Dev Tools

1. **Screenshots or Demo**
2. **Known Issues**

# 13. Future Enhancements