Project Documentation

Cook book: your virtual kitchen Assistant

1.Introduction

- **Project title:** your virtual kitchen assistant
- **Team ID:**

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2.Project Overview

- **Purpose :**Helps in Cooking Guidance – Provides step-by-step recipes, ingredient substitutes, portion measurements, and cooking tips to make meal preparation easier.
- **Features:**
  - ❖ Recipe Recommendations – Suggests dishes based on ingredients you have.Meal Planning – Helps plan daily or weekly meals.
  - ❖ Voice Assistance – Allows hands-free cooking guidance using voice commands.Shopping List Creation – Generates a grocery list from selected recipes.

3. Architecture

- **Frontend:** User Interface (UI): A web or mobile application interface that allows users to interact with the assistant through voice, text, or touch (e.g., recipe suggestions, meal planning, grocery lists).
- **Backend:**NPL Engine- processes user voice/text commands.
- **Database:**A database is an organized collection of data that can be easily accessed, managed, and updated.

4.Setup Instruction

- **Prerequisites:**A prerequisite is a   requirement that must be fulfilled beforehand.
- **Steps:**
- ❖ Unpacking and Checking Components – Ensure all parts, accessories, and manuals are available before st

- ❖ Installation Steps – Follow the step-by-step guide to connect or assemble the system/device properlyConfiguration Settings – Adjust default settings (e.g., language, time, network) according to requirements.

5.Folder Structure

- ❖ **Client/** React fronted (pages ,components)
- ❖ **Server/** Node .js backend (routes,models,controllers)

6.Running the Application

- **Fronted:** 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/search, /api/recipes/:id
- **Ingredients:**/api/ingredients/add,/api/ Ingredients/list
- **Chat/Assistant:**/api/assistant/

8. Authentication

- JWT-based authentication for secure login.
- Middleware to protect private user routes.

9. User Interface

- **Landing page** – Introduction to the cookbook assistant .
- **Recipe Dashboard**-user searches and select recipes.
- **Cooking Assistant Page**-Step -by-step cooking guide
- **Admin panel** – Manage recipes and users

10. Testing

- **Manual testing**–Checked all main flows (recipe Search, login, cooking steps).

- **Tools used:**Postman (API), Chrome Dev Tools (UI testing).

11.Screenshots / Demo

- Screenshots of landing page,recipe,search,cooking Assistant .