Cookbook:

Your Virtual Kitchen Assistant



Student Name, Course Crojse / 2013



INTRODUCTION:

• Project Title : Cookbook: Your Virtual Kitchen Assistant.

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• Team Members:

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PROJECT OVERVIEW:

• Purpose:

Cookbook is an interactive platform designed to assist users in meal planning ,recipe discovery,ingredient management and step-by-step cooking guidance using virtual assistant features.

• Features:

- ✓ . Recipe search and recommendation.
- ✓ Meal planner and grocery list generator.
- ✓ Step-by-step cooking instructions.
- ✓ Ingredient substitution and dietary filtering.
- ✓ Interactive chat-based kitchen assistance.

* ARCHITECTURE:

- **Frontend:**React.js with Bootstrap and Material UI for intuitive user interface.
- **Backend:**Node.js and Express.js to manage server logic and API endpoints.
- **Database:**MongoDB to store user data,recipes,meal plans,shopping list and chat history.

SETUP INSTRUCTIONS:

• Prerequisites:

- ✓ Node.js
- ✓ MongoDB
- ✓ Git
- ✓ Basic JS
- ✓ Express.js
- ✓ Mongoose
- ✓ Visual Studio Code

• Installation Steps:

1.Clone the repository:

text

git clone<repo-url>

2.Install client dependencies:

text

cd client npm install

3.Install server dependencies:

text

cd server npm install

FOLDER STRUCTURE:

```
--- client/ # React frontend

--- components/
--- pages/
--- server/ # Node.js backend

--- models/
--- controllers/
--- routes/
```

Cookbook/

RUNNING THE APPLICATION:

• Frontened:

text
cd client
npm start

• Backend:

Text

cd server npm start

API DOCUMENTATION:

- User:
 - ✓ /api/user/register
 - ✓ /api/user/login
- Recipes:
 - ✓ /api/recipes/search
 - ✓ /api/recipes/favourite
- Meal Plans:
 - ✓ /api/mealplan/create
 - ✓ /api/mealplan/userid
- Chat Assistant:
 - ✓ /api/chat/send
 - ✓ /api/chat/history

AUTHENTICATION:

- ✓ **JWT-based authentication** for secure login.
- ✓ Middleware protects private routes.
- **✓** Role-Based Access Control (RBAC).
- ✓ Password Hashing & Encryption: User credentials are stored securely using hashing algorithms

***USER INTERFACE:**

- ✓ Landing Page(intro, feature highlights)
- ✓ Recipe Explorer
- ✓ Meal Planner
- ✓ Grocery list Page
- ✓ Virtual Assistant Chat
- ✓ Profile&Preferences

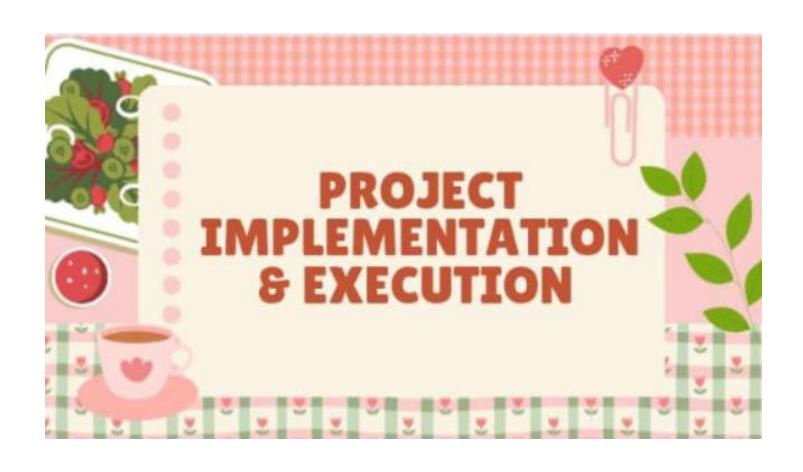
* TESTING:

- Manual testing during milestones
- ✓ Tools:Postman,Chrome Dev Tools

SCREENSHOTS:





















*** KNOWN ISSUES:**

✓ Document any bugs, feature limitations or performance bottlenecks

❖ FUTURE ENHANCEMENTS:

- ✓ Integration with smart Kitchen devices.
- ✓ Adavnced voice assistant features.
- ✓ Social recipe sharing.
- ✓ Personalized nutrition recommendation.

"Let medicine be thy food and food be thy medicine"