

Frontend Development with React.js

Project Documentation format.

CookBook: Your Virtual Kitchen Assistant

1. Introduction

Project Title: Cookbook: Your Virtual Kitchen Assistant

Team ID: NM2025TMID28761

Team Leader: DHARSHINI. P & dharshinipakkiri14@gmail.com

Team member: JOSEYA AROCKIYA MARY. U & joseyaarockiyamary06@gmail.com

Team member: SANTHIYA. V & iswaryaveeraragavan2005@gmail.com

Team member: DHARSHINI. A & dharshiniashok4006@gmail.com

2. Project Overview

Purpose:

The Cookbook application is designed to simplify meal preparation by offering a virtual kitchen assistant.

Users can browse, save, and manage their favourite recipes with detailed instructions and ingredient lists.

Features:

- Extensive Recipe Library with Search & Filter Options
- Step-by-Step Cooking Instructions
- Bookmark Feature for Favourite Recipes
- Light/Dark Mode for Enhanced Visual Comfort
- Responsive Design for Optimal Viewing on All Devices

- Ingredient Checklist for Easy Shopping and Preparation

3. Architecture

Component Structure:

App.js — Root component managing layout and routes

Header.js — Navigation bar with search functionality

RecipeList.js — Displays categorized recipe cards

RecipeCard.js — Individual card displaying recipe details

RecipeDetails.js — Detailed view of selected recipe

Footer.js — Provides additional resources and links

State Management: Context API

Routing: React Router

4. Setup Instructions

Prerequisites:

- Node.js (v18 or higher)
- npm or yarn

Installation:

1. Clone the Repository:
`https://github.com/sugapriya120/cook-book.git`
2. Install Dependencies: ``npm install``
3. Create .env file:
``REACT_APP_RECIPE_API_KEY=your_api_key_here``
4. Run the Application: ``npm start``

5. Folder Structure

/src

└─ /components

```
|   ├── Header.js
|   ├── RecipeList.js
|   ├── RecipeCard.js
|   ├── RecipeDetails.js
|   └── Footer.js
|
|   ├── /pages
|   |   ├── Home.js
|   |   ├── Categories.js
|   |   └── Bookmarks.js
|   |
|   |   ├── /assets
|   |   |   ├── images
|   |   |   ├── icons
|   |   |   └── styles
|   |
|   |   ├── /utils
|   |   |   ├── api.js
|   |   |   ├── helpers.js
|   |   |   └── constants.js
|   |
|   |   ├── App.js
|   |
|   |   └── index.js
```

6. Running the Application

Frontend Server Command: `npm start`

7. Component Documentation

Key Components:

Header: Provides navigation and search functionality

RecipeList: Displays available recipes categorized by type

RecipeCard: Displays individual recipe details

RecipeDetails: Offers step-by-step instructions

Reusable Components:

Button Component: Used for actions like 'View Recipe' or 'Bookmark'

Modal Component: Displays detailed recipe information

8. State Management

Global State: Managed via Context API

Local State: Managed using React's `useState()`

9. User Interface

- Clean and intuitive layout optimized for smooth navigation
- Mobile-first design for seamless browsing
- Elegant Light/Dark mode toggle for improved accessibility

10. Styling

CSS Frameworks/Libraries: Tailwind CSS

Theming: Integrated light/dark mode

11. Testing

Testing Strategy:

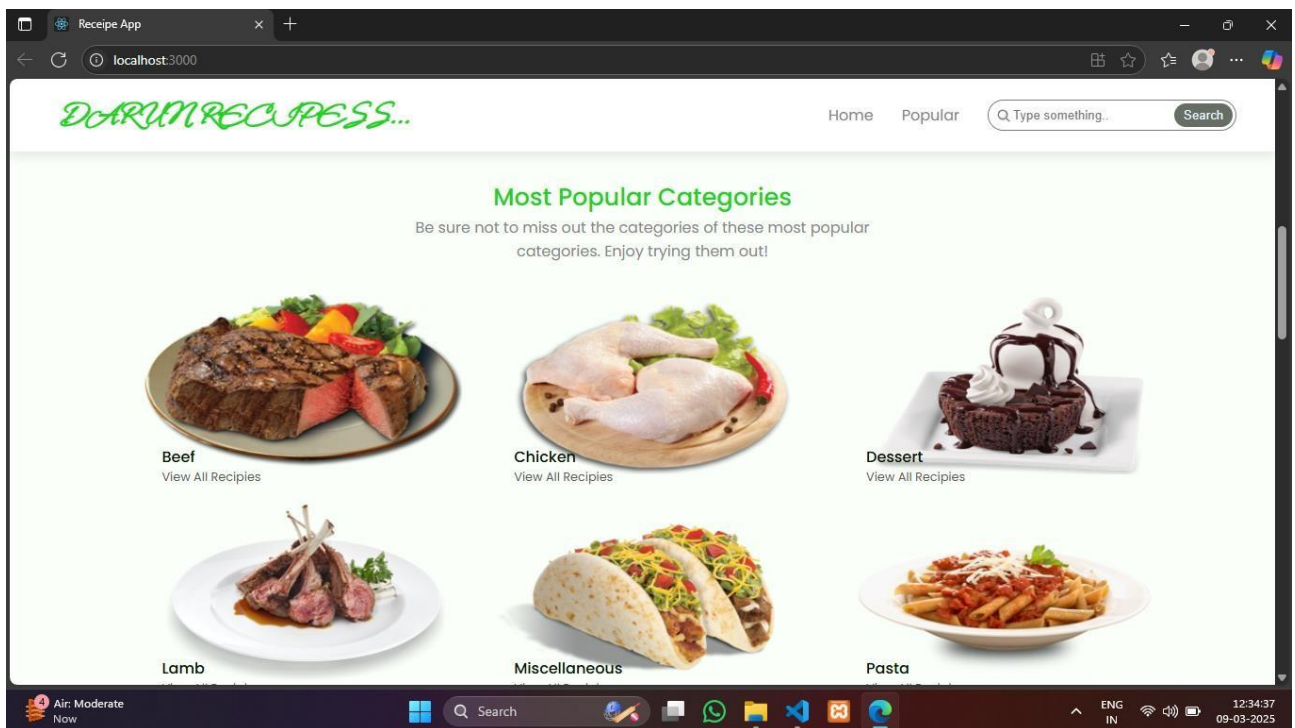
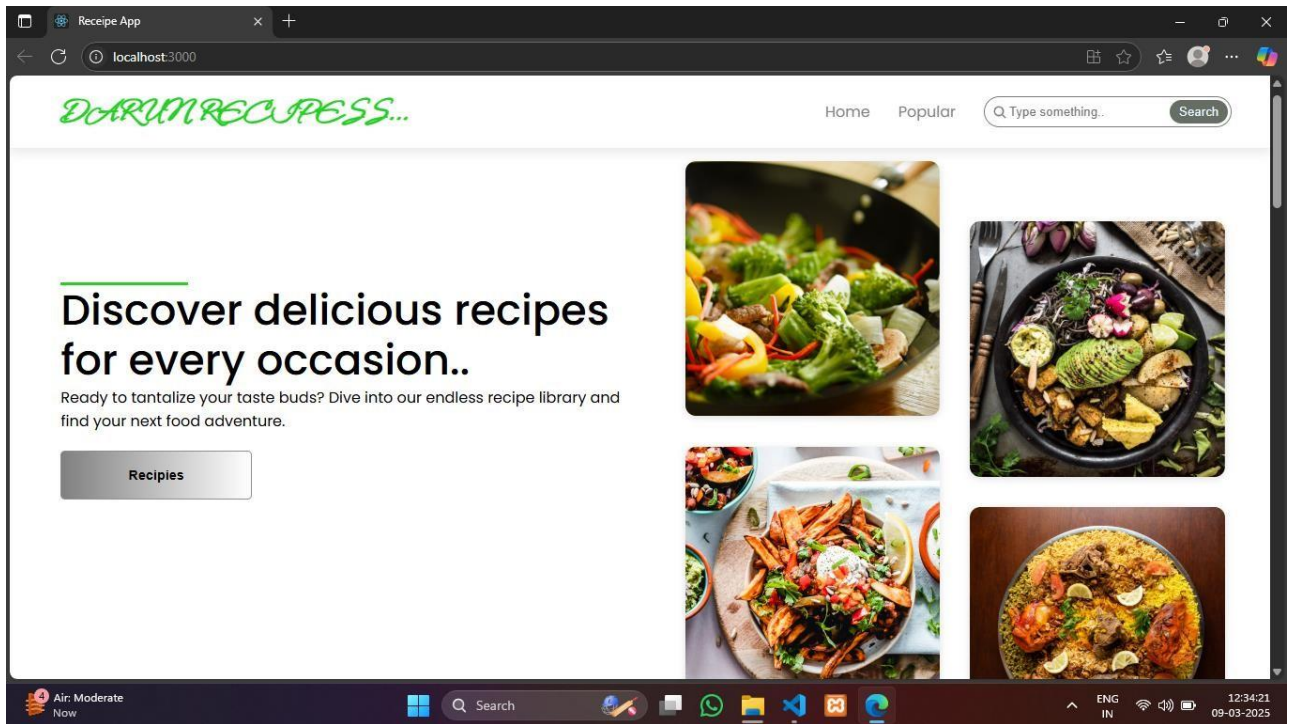
Jest for unit testing

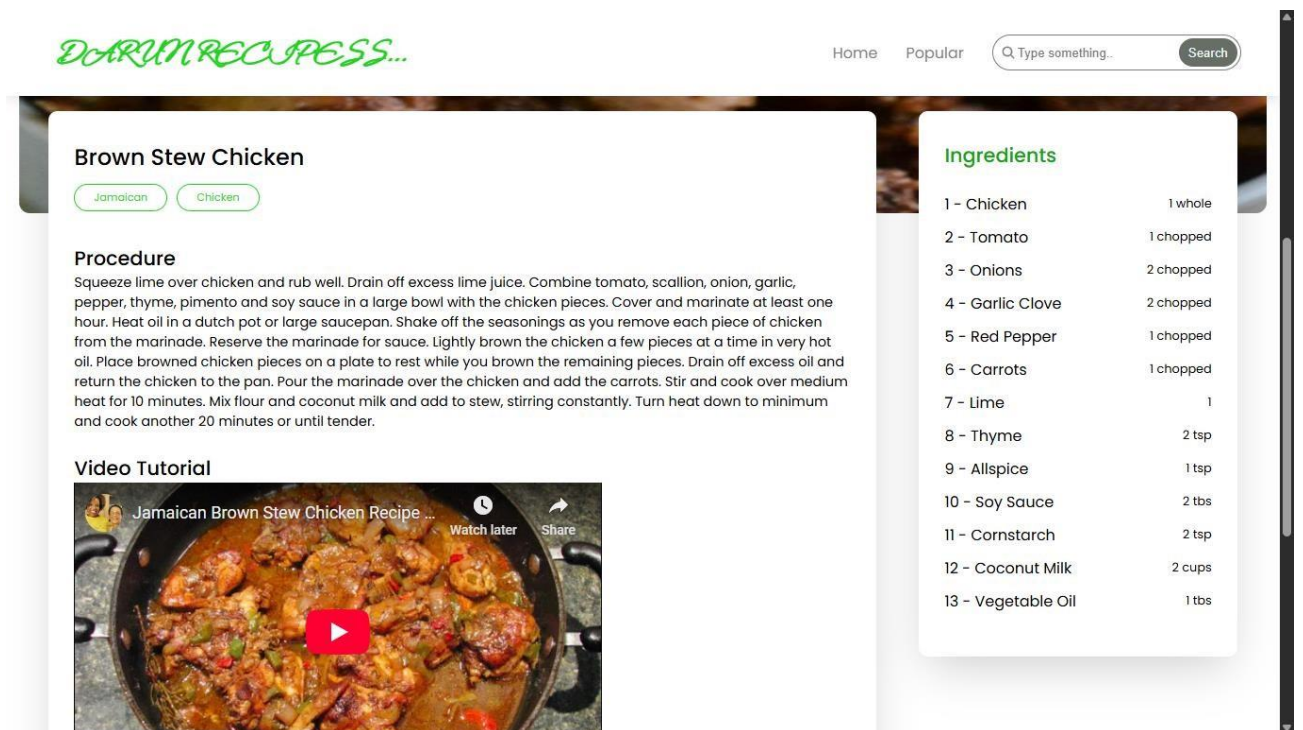
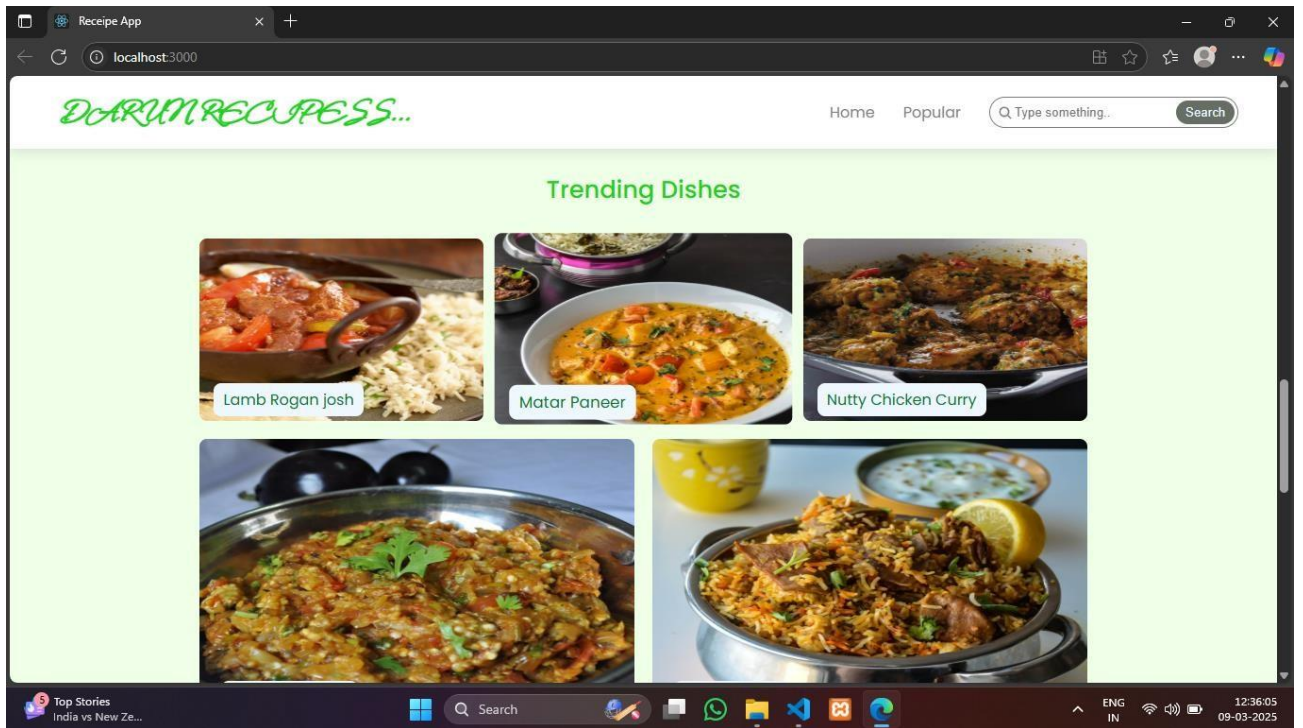
React Testing Library for component testing

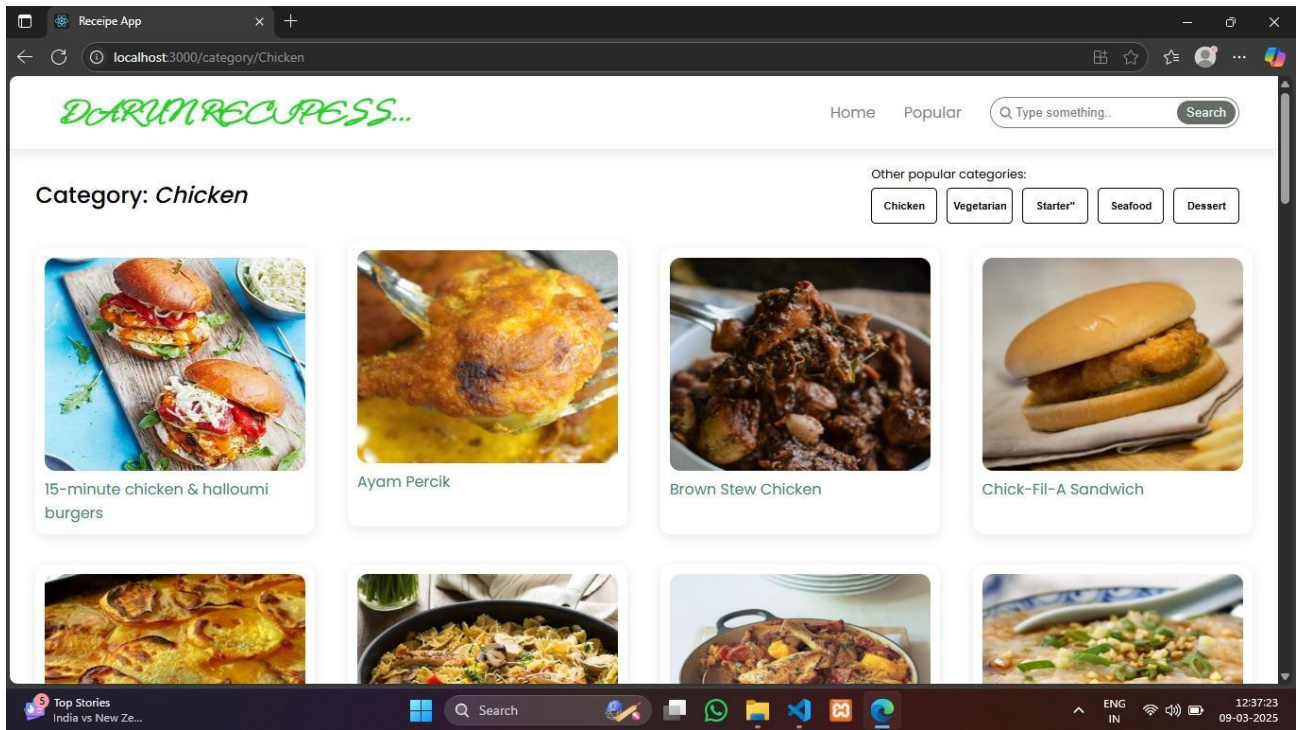
Code Coverage: Ensured high test coverage with Jest reports

12. Screenshots or Demo

Screenshots:







Live Demo Link:

13. Known Issues

- Certain API endpoints may experience delays during peak traffic
- Ingredient checklist feature may require further optimization

14. Future Enhancements

- AI-Based Recipe Suggestions
- User Authentication for personalized recipe collections
- Integration with Grocery Shopping Platforms
- Offline Mode for accessing saved recipes