NAAN MUDHALVAN PROJECT

Cook Book-Your Virtual Kitchen Assistant

1 Introduction

Project Title: Cook Book

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2. Project Overview

Purpose:
SmartCook is a React.js-based online cookbook application that allows users to browse, save, and share recipes. It aims to make cooking easier by providing detailed recipes, step-by-step instructions, and personalized recommendations.

Features:
- Browse recipes by category, cuisine, or ingredients
- Save favorite recipes to personal profile
- Add and edit user-submitted recipes
- Responsive UI for mobile and desktop

3. Architecture

Component Structure:
- Header (navigation bar)
- RecipeList (list of recipes)
- RecipeDetail (individual recipe page)
- Favorites (user's saved recipes)
- AddRecipeForm (form to add new recipes)
- Footer

State Management:
Using React Context API to manage global state for recipes and user favorites.

Routing:
React Router v6 handles navigation between Home, Recipe Detail, Favorites, and Add Recipe pages.

4. Setup Instructions

Prerequisites:

– Node.js

– MongoDB

– Git

– React.js

– Express.js – Mongoose – Visual Studio Code

Installation Steps

1.Clone the Repository

5. Folder Structure

Client:
/src
 /components
  Header.js
  RecipeList.js
  RecipeDetail.js
  AddRecipeForm.js

```
/pages
  Home.js
  Favorites.js
/context
  RecipesContext.js
/assets
  images/
```

Utilities:
- api.js for fetching recipes from API
- helpers.js for common formatting functions

6. Running the Application

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

Access:http://localhost:3000

7. Component Documentation

Key Components:
- RecipeList: Displays recipe cards fetched from API. Props: recipes[].
- RecipeDetail: Shows full recipe details. Props: recipeId.

Reusable Components:
- RecipeCard – used in RecipeList and Favorites.
- Button – styled button component used throughout the app.

8. State Management

Global State:
Managed by RecipesContext for recipes, favorites, and user login status.

Local State:
Form input states managed inside AddRecipeForm.

9. User Interface

Include screenshots or GIFs of:
- Home page showing recipes
- Recipe detail page
- Adding a recipe

10. Styling

CSS Frameworks/Libraries:
Tailwind CSS for styling; Styled Components for scoped styles.

Theming:
Dark and light mode toggle implemented via context.

11. Testing

Testing Strategy:
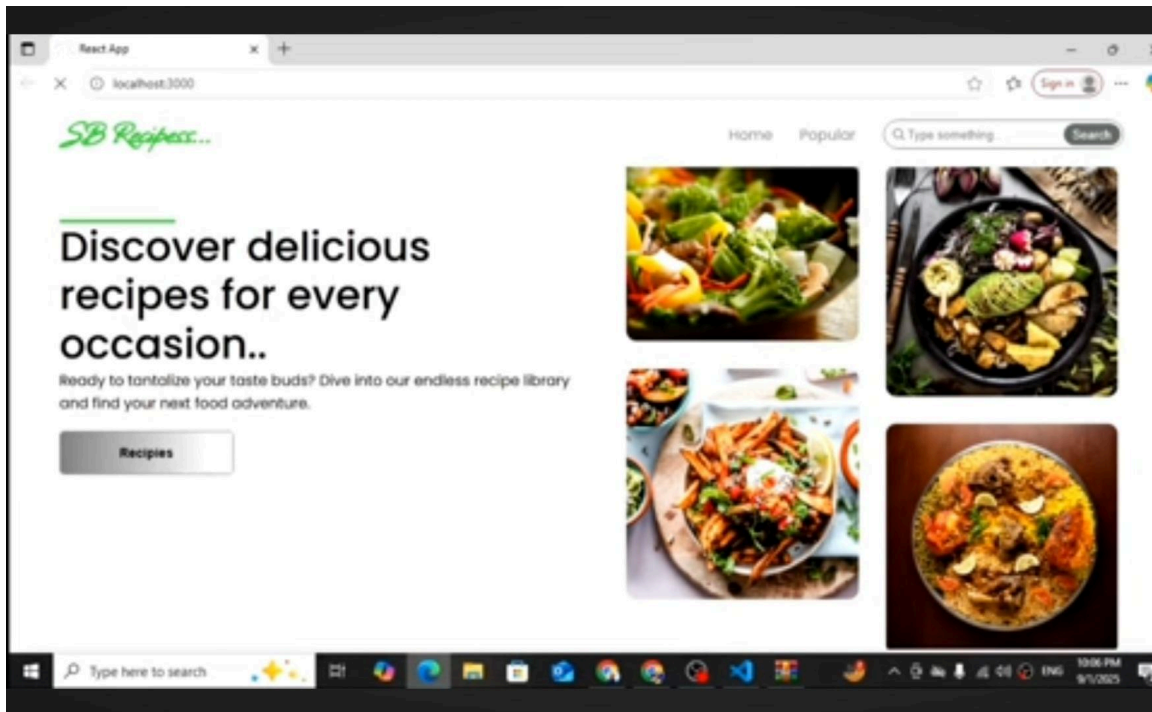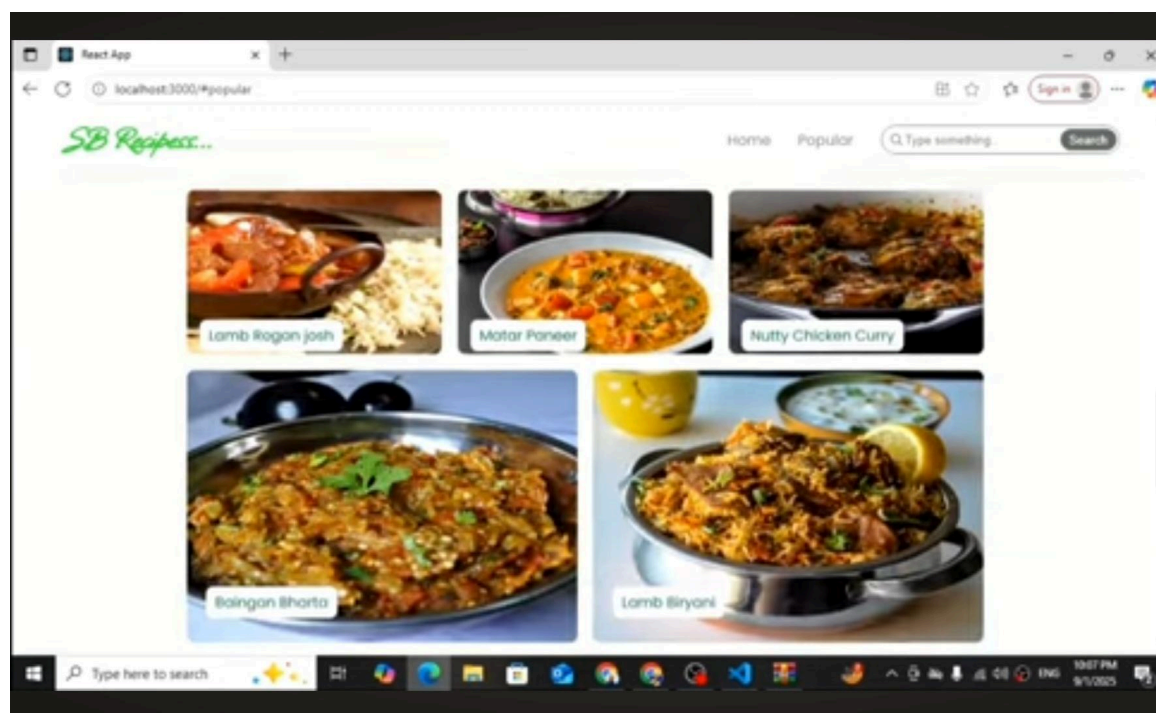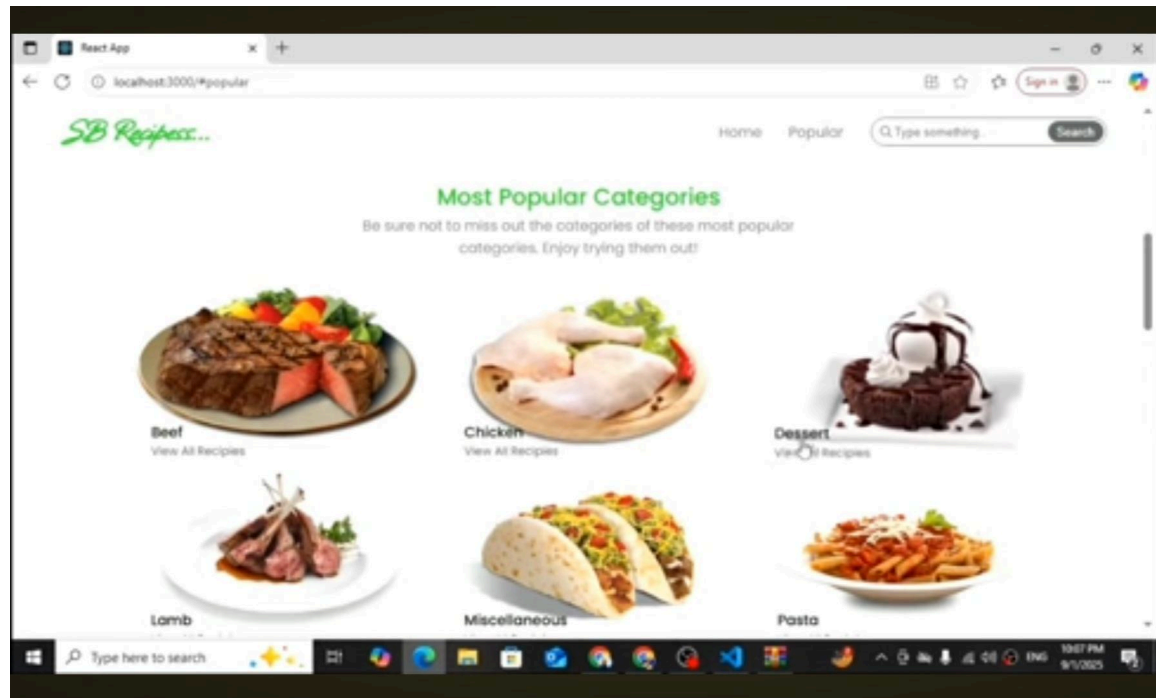Jest + React Testing Library for unit and integration tests.

Code Coverage:
Using jest --coverage to ensure 80%+ coverage.

12. Screenshots or Demo

Add actual screenshots or a demo link:
- Demo Link: https://smartcook-demo.netlify.app

13. Known Issues
Search filtering may be slow with very large recipe lists.
Image upload sometimes fails on slow networks.

14. Future Enhancements

Add shopping list generation from recipe ingredients
Introduce push notifications for new recipes
Offline mode for saved recipes