TESTING REQUIREMENTS FOR SMART RECIPE RECOMMENDER

Unit Testing

Component Testing:

- All React components (recipe cards, filter buttons, search bar, popups) were tested manually to ensure they render and behave correctly.
- Button functionalities like filtering by tag, sorting recipes, saving favorites, and deleting recipes were verified across different states.

APIs:

- Login and Signup APIs were tested with valid and invalid inputs.
- Recipe-related APIs (add recipe, update recipe, delete recipe, fetch recipes) were thoroughly tested.
- API calls returned correct responses, authentication tokens, and proper error messages on failures.

Business Logic:

- Recipe filtering and sorting functions (e.g., by cuisine type, prep time, popularity) work as expected.
- Saved recipes and favorites update correctly in both the UI and the database.

Integration Testing

- Basic integration testing between frontend components and backend APIs was conducted manually.
- After login/signup, user-specific recipes and preferences are fetched and displayed properly without full page reloads.
- Navigation between Home, Inventory, Chatbot, Recipes, and About sections works seamlessly.

Test Report

What Was Tested:

- All major frontend components and user flows.
- Authentication flows (Login, Signup).
- Recipe management operations (Create, Update, Delete, Fetch).
- Filtering, sorting, and saving functionality.
- Responsiveness on different devices (Mobile, Tablet, Desktop).

Tools Used:

- Postman for API Testing.
- Manual Testing for UI and user experience validation.

Summary of Results:

- All tested components, APIs, and flows worked correctly for valid use cases.
- Proper error handling was observed for invalid API requests.
- No critical bugs found during manual testing.
- Responsive design and consistent UI rendering confirmed across devices.
- Smooth login/signup authentication and reliable recipe management experience.

Screenshots:

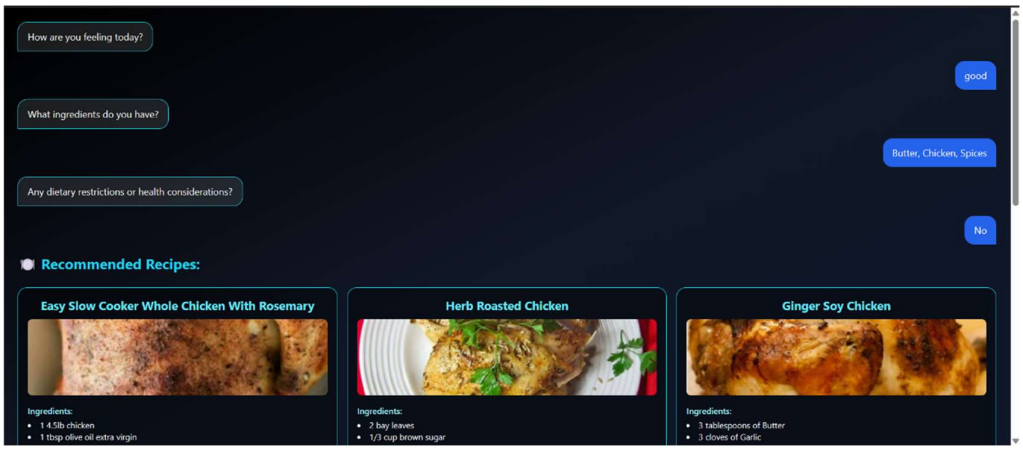

Fig no 1

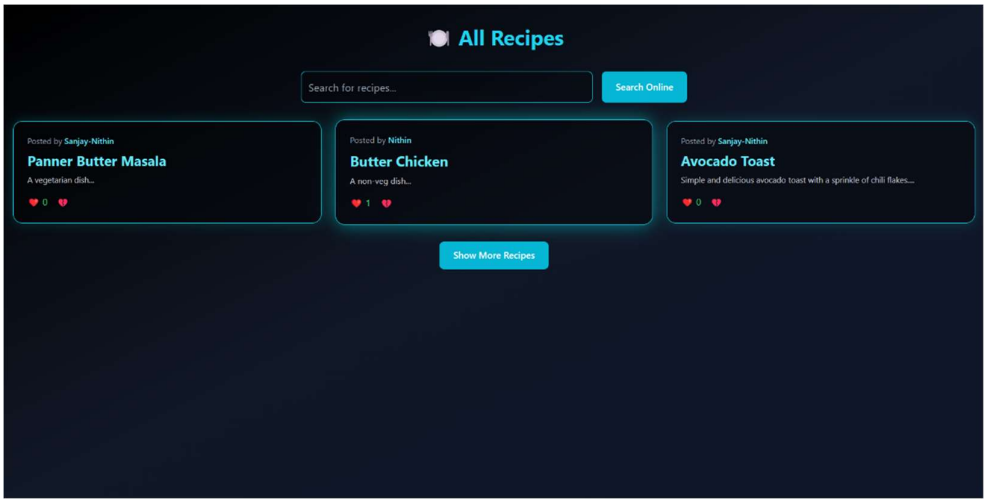

Fig no 2

Test phase:

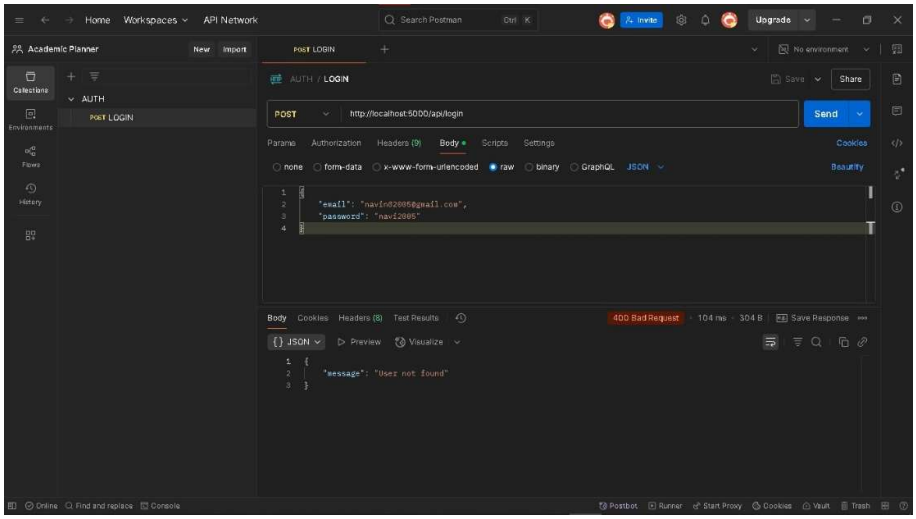

Fig no 3

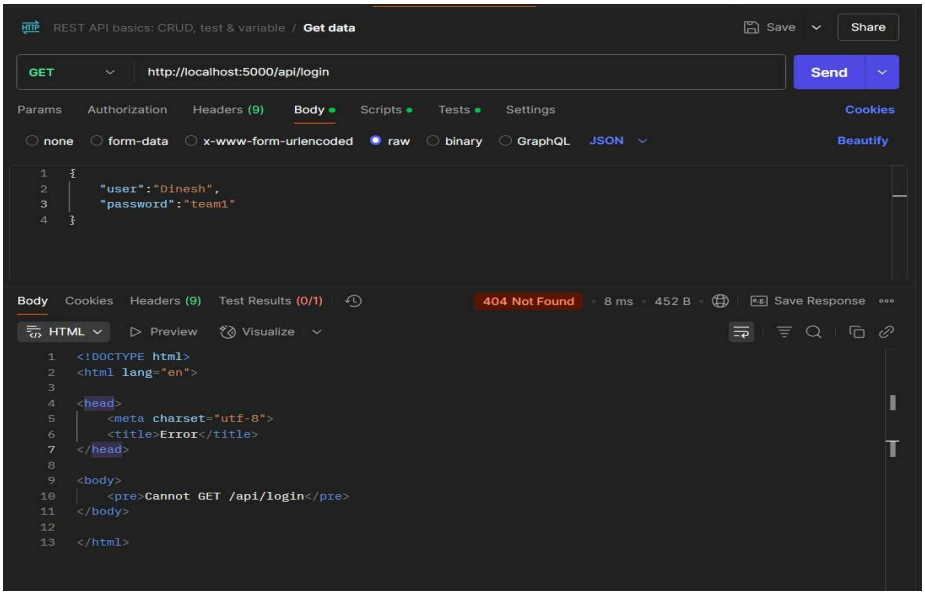

Fig no 4