

# INTERNET AND WEB SYSTEMS - 1

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## Project Report for Recipe Kavala Babu

### What I Have Done:

- **Frontend Development:**
- - **Fully Functional Web Interface:** The application's frontend was successfully constructed with React.js. It features a simple, user-friendly layout that allows users to browse, search, and view recipes.
    1. **Recipe Browsing:** Users can browse through various categories like vegetarian, non-vegetarian, and desserts.
    2. **Recipe Filters:** Filters for cooking time, ingredients, and dietary preferences are functional, allowing users to find recipes based on their preferences.
    3. **User Authentication Interface:** Created pages for **Sign Up**, **Login**, and user profile management (UI only; backend integration pending).
    4. **Premium Recipe Section:** Designed sections for premium recipes with a payment placeholder (Stripe/PayPal integration pending).
    5. **Favorites Feature:** Users can mark recipes as favorites for easy access (UI complete).
    6. **Responsive Design:** The site is fully responsive, providing a smooth user experience on both desktop and mobile devices.
    7. **Dark Mode:** Added a toggle for dark mode to enhance user experience.
    8. **Shopping List Feature (Frontend):** Users can generate a shopping list based on the ingredients of selected recipes.

### What Needs to Be Done:

1. **Backend Development (Not Started Yet):**
  - **User Authentication:** Implement user authentication logic using **Node.js** and **Express.js**.
  - **Database Setup (MongoDB):** Set up **MongoDB** to store user data (registration, login details), recipes, and transaction records for premium content.
  - **Recipe APIs:** Build RESTful APIs to fetch, add, update, and delete recipes from the database.

- **Payment Integration:** Implement payment processing using **Stripe** or **PayPal** to allow users to access premium recipes.
- **Favorites and Shopping List:** Integrate the favorite recipes and shopping list features with MongoDB to allow users to save their data persistently.

## 2. Additional Frontend Features:

- **Real-Time Search:** Add a smart search bar with real-time suggestions for quick access to recipes.
- **Recipe Reviews and Ratings:** Implement a section where users can rate and leave reviews for recipes.
- **User Dashboard:** Build a user dashboard where users can view their profile, saved recipes, and order history (for premium content).

## How I Will Complete the Remaining Tasks:

### 1. Backend Setup:

- I will first set up the **Node.js** backend with **Express.js** to handle API requests.
- Next, I will configure **MongoDB Atlas** to store user accounts, recipe details, and user interactions like saved recipes.
- **User Authentication:** Implement JWT-based authentication for user login and registration.
- **Recipe APIs:** Develop APIs for fetching recipes, submitting new recipes, and managing user favorites.

### 2. Payment Gateway Integration:

- I will integrate **Stripe** or **PayPal** for payment processing, enabling users to access premium content.

### 3. Feature Enhancements:

- Add **real-time search functionality** to enhance user experience.
- Implement **rating and reviews** for recipes to encourage community interaction.

### 4. Testing and Final Touches:

- Thorough testing of both frontend and backend components.
- Ensure the website runs smoothly with HTTPS after deployment on Netlify (frontend) and Heroku (backend).

## Expected Timeline:

- Backend development and API integration: 1 week.
- Final touches to the frontend and integration: 3-5 days.
- Project submission: Very soon, as backend work will be completed efficiently.