

SB Foods - Food Ordering App

1 Abstract

SB Foods is a web-based food ordering platform developed using the MERN stack (MongoDB, Express.js, React.js, and Node.js). The application enables users to view food items, customize orders by quantity and size, manage their cart, and place orders. It includes essential features such as user authentication, dynamic UI, and simulated payment confirmation. The project demonstrates integration of frontend and backend development to create a responsive and functional web application.

2. Technologies Used

- **Frontend:** React.js, Bootstrap, Material UI
- **Backend:** Node.js, Express.js
- **Database:** MongoDB (MongoDB Atlas)
- **Authentication:** JSON Web Token (JWT)
- **Image API:** Freepick

3. System Architecture

The system follows a client-server model:

- **Frontend (React.js):** Handles UI and user interaction.
- **Backend (Node.js + Express.js):** Processes API requests and business logic.
- **Database (MongoDB):** Stores user data, food items, and order history.
- **JWT Authentication:** Secures routes and manages sessions.

4. User Authentication Flow

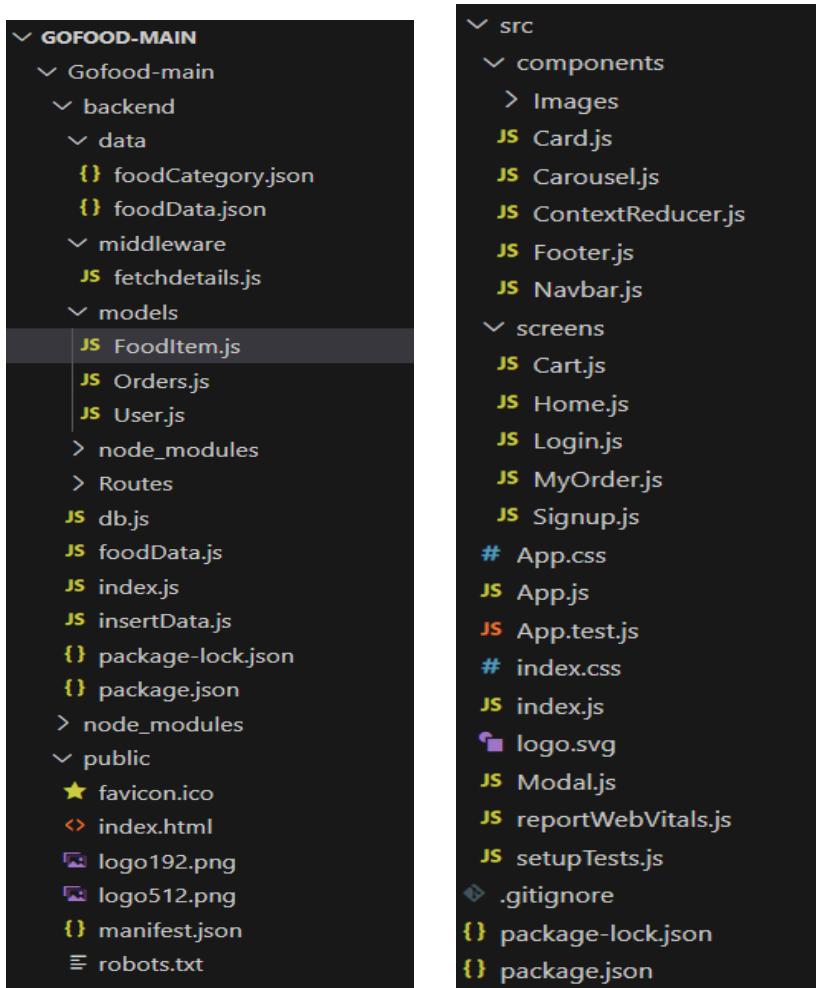
- **Sign Up:** New users register with name, email, and password.
- **Login:** Authenticated using JWT. Token is stored in localStorage.
- **Authorization:** JWT token is verified for accessing protected routes.
- **Logout:** Token is cleared and user is redirected to login page.

5. Features

- View categorized food items
- Add to cart functionality with quantity and size options

- Cart management (update, remove items)
- Checkout with order confirmation
- User authentication (login/signup)
- My Orders section to view order history
- Responsive design for multiple devices

6. Project Structure



The image shows two side-by-side file explorers. The left one displays the full project structure 'GOFOOD-MAIN' with various files and folders like 'backend', 'data', 'middleware', 'models', 'public', etc. The right one shows a detailed view of the 'src' directory, which contains 'components' (with 'Images' folder and several JS files) and 'screens' (with several JS files). Both views show file names in yellow for JS and CSS files.

```

    ▼ GOFOOD-MAIN
      ▼ Gofood-main
        ▼ backend
          ▼ data
            { foodCategory.json
            { foodData.json
          ▼ middleware
            JS fetchdetails.js
          ▼ models
            JS FoodItem.js
            JS Orders.js
            JS User.js
            > node_modules
            > Routes
            JS db.js
            JS foodData.js
            JS index.js
            JS insertData.js
            { package-lock.json
            { package.json
            > node_modules
            ▼ public
              ★ favicon.ico
              < index.html
              🖼 logo192.png
              🖼 logo512.png
              { manifest.json
              ≡ robots.txt

    ▼ src
      ▼ components
        > Images
        JS Card.js
        JS Carousel.js
        JS ContextReducer.js
        JS Footer.js
        JS Navbar.js
      ▼ screens
        JS Cart.js
        JS Home.js
        JS Login.js
        JS MyOrder.js
        JS Signup.js
        # App.css
        JS App.js
        JS App.test.js
        # index.css
        JS index.js
        🖼 logo.svg
        JS Modal.js
        JS reportWebVitals.js
        JS setupTests.js
      ◆ .gitignore
      { package-lock.json
      { package.json
  
```

7. Screenshots

Frontend

SB Foods Home My Orders

Cart Logout

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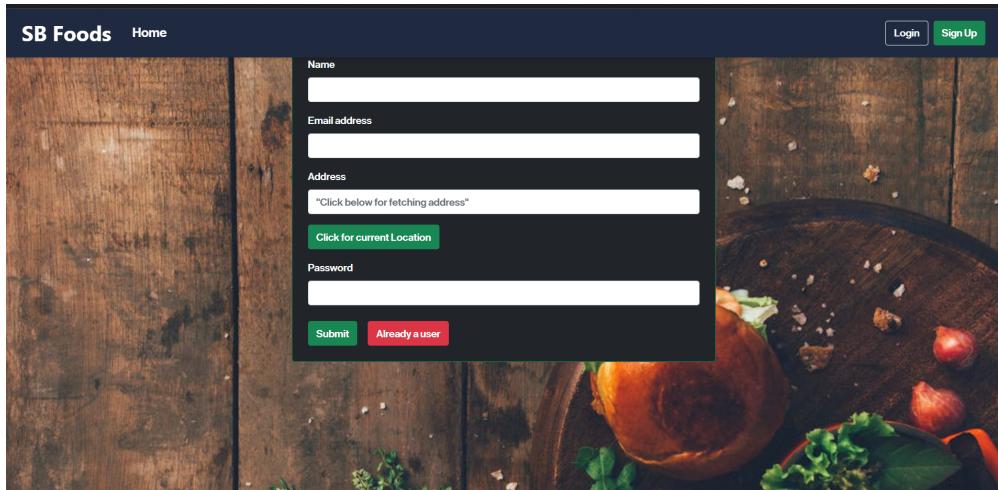
Backend

SB Foods Home My Orders

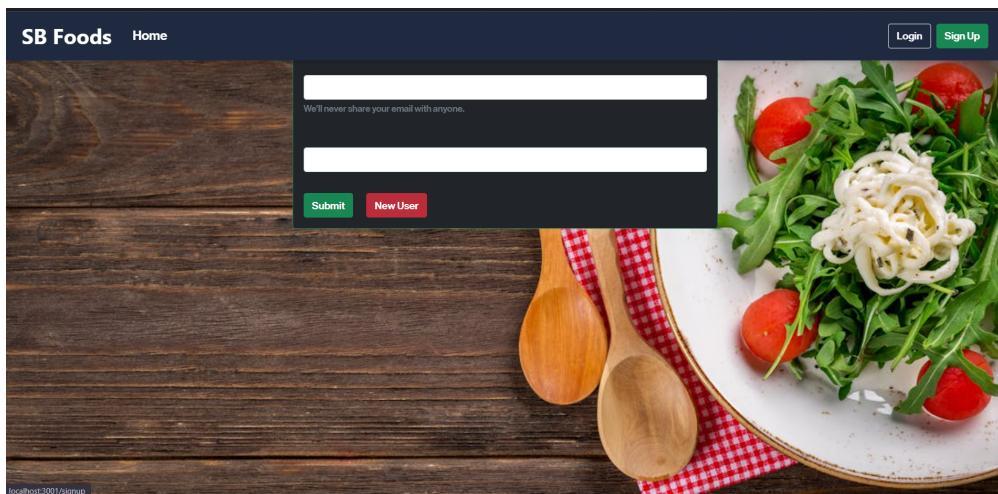
Cart Logout

 Paneer Butter Masala 1 Qty Add to Cart	 Veg Biryani 1 Qty Add to Cart	 chilly chicken 1 Qty Add to Cart	 chicken biryani 1 Qty Add to Cart
 fish curry 1 Qty Add to Cart	 butter chicken masala 1 Qty Add to Cart	 chicken noodles 1 Qty Add to Cart	 chicken fried rice 1 Qty Add to Cart

Signup Page



Login Page



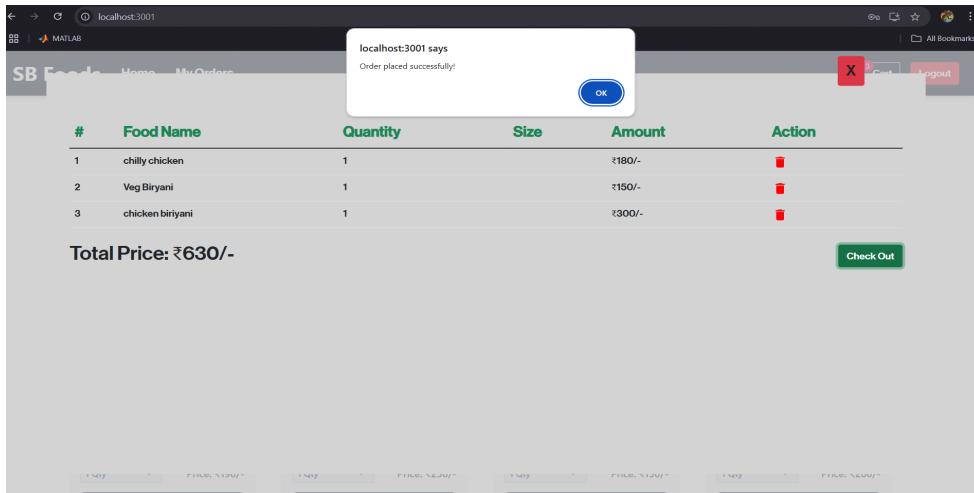
Cart

#	Food Name	Quantity	Size	Amount	Action
1	chilly chicken	1		₹180/-	
2	Veg Biryani	1		₹150/-	
3	chicken biriyani	1		₹300/-	

Total Price: ₹630/-

[Check Out](#)

Checkout Alert



8. Backend APIs

- **POST /api/createuser** – Register new user
- **POST /api/login** – Authenticate user
- **GET /api/foodData** – Get all food items
- **POST /api/orderData** – Place a new order
- **POST /api/myOrderData** – Fetch user's past orders

9. Cart & Order Flow

- Add item to cart with specific size and quantity
- Cart displays selected items and total amount
- Checkout confirms order and resets cart
- Order is stored in MongoDB with user email and date

10. MongoDB Collections

- **Users:** name, email, hashed password
- **FoodItems:** name, description, category, image URL, pricing options
- **Orders:** email, order_data, order_date

11. Project Timeline

- **Week 1:** Setup and authentication
- **Week 2:** Home page and food items
- **Week 3:** Cart and backend integration
- **Week 4:** Testing and documentation

12. Future Enhancements

- Integrate payment gateway
- Add admin panel for food item management
- OTP verification on signup
- Ratings and reviews for food items
- Push notifications for order status

13. References

- [React Docs](#)
- [Node.js](#)
- [MongoDB](#)
- [Bootstrap](#)

14. Conclusion

SB Foods is a demonstration of a complete full-stack web application using the MERN stack. It covers core aspects like UI development, API creation, database integration, and user authentication. The project can be scaled further to include advanced features and real-world payment solutions, making it a strong foundation for production-level applications.

