

Project Design Phase

Solution Architecture

Date	10-06-2025
Team ID	LTVIP2025TMID52034
Project Name	GroceryWebApp
Maximum Marks	4 Marks

Solution Architecture:

The solution architecture for the Grocery Web App ensures a robust, user-friendly, and scalable platform that enables customers to browse, purchase, and track groceries online. The architecture emphasizes responsive design, secure payments, real-time updates, and efficient order management to ensure smooth operations and high user satisfaction.

Key Architectural Highlights:

- Seamless product browsing and search experience
- End-to-end order lifecycle management (cart → checkout → delivery)
- Scalable user authentication and role-based access (user/admin)
- Secure and trackable payment transactions
- Real-time order tracking and inventory updates
- Admin dashboard for inventory, orders, and user management

Overview:

- **Frontend (Angular):** Responsive UI for browsing, cart, and order tracking.
- **Backend (Node.js + Express):** APIs, authentication, order and payment handling.
- **Database (MongoDB):** Stores users, products, orders, cart, inventory.
- **Payment Gateway:** Secure online transactions (e.g., Razorpay).
- **Admin Dashboard:** Manage users, products, inventory, and orders.

Solution Architecture:



