

Solution requirement :-

1. Functional Requirements

- **Product Catalog Management** – Add, update, and remove products with details like name, category, price, stock, and description.
- **User Authentication & Roles** – Separate logins for customers, admins, and delivery staff.
- **Shopping Cart & Checkout** – Customers can add products to the cart, update quantities, and proceed to secure payment.
- **Order Management** – Track order status (Pending, Packed, Out for Delivery, Delivered).
- **Payment Gateway Integration** – Support UPI, debit/credit cards, cash-on-delivery.
- **Search & Filter** – Customers can search products by name, category, or price range.
- **Inventory Management** – Real-time updates to stock after purchases.
- **Offers & Discounts** – Apply promotional codes or seasonal discounts.

2. Non-Functional Requirements

- **Scalability** – Handle growing customer base and product range.
- **Performance** – Fast product search and smooth checkout process.
- **Reliability** – Minimal downtime, safe transaction processing.
- **User-Friendly Interface** – Simple navigation for customers of all ages.
- **Security** – Secure payment processing and data protection.

3. Technical Requirements

- **Frontend** – HTML, CSS, JavaScript (React/Angular for advanced UI).
- **Backend** – PHP / Python with database support.

Solution requirement :-

- **Database** – MySQL / MongoDB for storing product, order, and user data.
 - **Payment Integration** – Razorpay, Paytm, or Google Pay API.
 - **Hosting** – Cloud-based (AWS, Azure, or shared hosting).
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4. User Requirements

- **Customers** – Easy browsing, secure checkout, order tracking.
 - **Admin** – Manage products, categories, stock, orders, and offers.
 - **Delivery Staff** – View assigned deliveries and update status.
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5. Design & Aesthetic Requirements

- **Theme** – Indian grocery shop feel with vibrant colors (green, orange, yellow).
 - **Product Images** – High-quality pictures for every product.
 - **Mobile-Friendly** – Responsive design for smartphones.
 - **Interactive Dashboard** – For admin to view sales, inventory, and orders visually.
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6. Constraints

- **Budget** – Limited funding for premium hosting or APIs.
- **Timeframe** – Project completion within academic deadline.
- **Compatibility** – Must work on mobile and desktop devices.