

Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	31 January 2025
Team ID	LTVIP2025TMID56607
Project Name	ShopSmart: Your Digital Grocery Store
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	Registration through Form Registration through Gmail Registration through LinkedIn
FR-2	Product Discovery	Browse Products by Category Search for Products by Name Filter Products (by brand, price)
FR-3	Shopping Cart Discovery	Add/Remove Items from Cart Adjust Item Quantity in Cart View Cart and Subtotal
FR-4	Checkout & Payment	Enter and Save Delivery Address Select a Delivery Time Slot Securely Enter Credit/Debit Card Details Review Final Order Before Payment
FR-5	Order Management & Confirmation	Receive Order Confirmation via Email View Past Order History

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	The application must be intuitive and easy to use for customers with varying technical skills. The design should be clean, responsive, and provide a seamless experience on both desktop and mobile browsers.
NFR-2	Security	All user data, particularly passwords and payment information, must be encrypted in transit (using SSL/TLS) and at rest. The system must be protected against common web vulnerabilities (e.g., XSS, SQL Injection).
NFR-3	Reliability	The system must accurately process all transactions, including item pricing, tax calculations, and final totals. Order data must be stored correctly without corruption. The failure rate for transactions should be less than 0.1%.
NFR-4	Performance	Key user interactions, such as product search results and page loading, should complete within 3 seconds. The payment processing step should not exceed 5 seconds to prevent user drop-off.
NFR-5	Availability	The online store must be accessible to customers 24/7, with a target uptime of 99.8%. Any planned maintenance should be scheduled for low-traffic periods (e.g., 2-4 AM) and announced in advance.
NFR-6	Scalability	The application's architecture must support a growing number of concurrent users and an expanding product catalog. It should handle traffic spikes during sales, holidays, or promotional events without performance degradation.