**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

|  |  |
| --- | --- |
| Date | 28 June 2025 |
| Team ID | LTVIP2025TMID54300 |
| Project Name | **ShopSmart** |
| 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 | User registration & login using secure JWT authentication Registration via Gmail or social logins (Google/Facebook) |
| FR-2 | |  | | --- | |  |  |  | | --- | | Product Search | | |  | | --- | | Search products using keywords  Auto-suggestions as user types in the search bar |  |  |  |  | | --- | --- | --- | |  |  |  | |
| FR-3 | Product Filtering & Sorting | Filter by category, price, and rating  Sort products by price (low-to-high/high-to-low), popularity, and newest |
| FR-4 | Shopping Cart | Add/remove products from cart  Update product quantities in cart |
| FR-5 | Checkout & Payment | Confirm delivery details and place order  Generate order summary and confirmation |
| FR-6 | Order Management | Display order history  Track live order status (static in MVP) Cancel/return items |
| FR-7 | Feedback & Reviews | Submit feedback or reviews for purchased items |
| FR-8 | Admin Dashboard | Add, edit, or delete products and categories  View total orders, feedback, and users in an analytics dashboard |

**Non-functional Requirements:**

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

|  |  |  |
| --- | --- | --- |
| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | Interface must be intuitive, user-friendly, and responsive across desktop and mobile devices. |
| NFR-2 | **Security** | Data encryption using HTTPS  Secure login and payment authentication |
| NFR-3 | **Performance** | Product search and loading time should be < 2 seconds for optimal experience |
| NFR-4 | **Reliability** | Ensure accurate cart updates, consistent order placement, and error handling |
| NFR-5 | **Availability** | The platform should maintain 99.9% uptime with minimal disruption during peak hours |
| NFR-6 | **Scalability** | Must handle growing number of users, products, and orders without slowing down |
| NFR-7 | **Compatibility** | Should work smoothly across major browsers (Chrome, Edge, Firefox, Safari) |