**Project Design Phase-II**

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

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| --- | --- |
| Date | 11 April 2024 |
| Team ID | SWTID1743607402 |
| Project Name | ShopEZ: E-commerce Application |
| Maximum Marks | 4 Marks |

**Functional Requirements:**

| **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 | User Confirmation | Confirmation via Email |
|  |  | Confirmation via OTP |
| FR-3 | User Login | Login using Email and Password |
|  |  | Login via Gmail |
|  |  | Login via Facebook |
| FR-4 | Product Browsing | View all products on homepage |
|  |  | Filter and search products by category, price, etc. |
|  |  | View product details |
| FR-5 | Shopping Cart | Add products to cart |
|  |  | View cart |
|  |  | Update product quantity |
|  |  | Remove product from cart |
| FR-6 | Order Management | Place an order |
|  |  | View order history |
|  |  | Track order status |
| FR-7 | Payment Integration | Choose payment method (COD, UPI, Card) |
|  |  | Collect payment and generate invoice |
| FR-8 | Admin Product Management | Add/edit/delete products |
|  |  | Upload product images |
| FR-9 | Admin Order Management | View/manage all orders |
|  |  | Update order status |
| FR-10 | User Profile | View/edit profile details |
|  |  | Change password |
| FR-11 | Customer Support | Submit support tickets |
|  |  | Chat or email support |
| FR-12 | Notifications | Email notifications for order status, registration |
|  |  | In-app notifications for offers and updates |
| FR-13 | Wishlist | Add/remove items to wishlist |
|  |  | View wishlist |
| FR-14 | Analytics (Admin) | View dashboard stats (orders, revenue, users) |

**Non-functional Requirements:**

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | Usability | The application should provide a user-friendly interface that is intuitive and easy to navigate for both mobile and web users. |
| NFR-2 | Security | All sensitive data should be securely stored and transmitted using encryption (e.g., HTTPS, JWT). User roles and permissions should be enforced. |
| NFR-3 | Reliability | The system should operate consistently with minimal errors, providing accurate data and responses under expected loads. |
| NFR-4 | Performance | The application should load and respond within 2 seconds for 90% of user interactions under normal conditions. |
| NFR-5 | Availability | The system should be available at least 99.5% of the time per month, minimizing downtime for updates and maintenance. |
| NFR-6 | Scalability | The system architecture should support horizontal scaling to accommodate increased users, products, and traffic over time. |