**Requirement Gathering and Analysis Phase**

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

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| --- | --- |
| Date | 04-07-24 |
| Team ID | SWTID1719938064 |
| Project Name | ShopEZ: E-Commerce Application |
| Maximum Marks | 2 |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | User Registration | 1)Registration through Form  2)Registration through Gmail  3)Registration through Phone Number |
| FR-2 | User Confirmation | 1)Confirmation via Email  2)Confirmation via OTP |
| FR-3 | Product Management | 1. Admins can add new products to the catalog. 2. Existing product details can be modified 3. Products can be removed from the system by administrators |
| FR-4 | Search Functionality | 1. Users can search for products by entering keywords.   2) Advanced search options allow filtering by categories, price |
| FR-5 | Shopping Cart | 1. Items can be added to the shopping cart.   2) Users can change the quantity of items in their cart.  3) Items can be removed from the shopping cart. |
| FR-6 | Order Management | 1. Users can place orders for items in their cart. 2. Order history is available for users to view past purchases.   3)Real-time order tracking is available for users. |
| FR-7 | Payment Processing | 1. The system integrates with payment gateways like PayPal and credit/debit cards. 2. Secure transaction processing is ensured. |
| FR-8 | User Reviews and Ratings | 1. Customers can leave reviews for products they have purchased.   2) Products can be rated based on customer satisfaction. |
| FR-9 | Customer Support | 1. A contact form is available for users to reach out with inquiries. 2. Live chat support is provided for instant assistance. |
| FR-10 | Notifications | 1. Users receive email notifications for order confirmations, shipping updates, and promotional offers. 2. SMS notifications keep users updated on their order status. |

**Non-functional Requirements:**

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

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| **FR No.** | **Non-Functional Requirement** | **Description** |
| NFR-1 | **Usability** | 1. The platform features an intuitive interface. 2. Navigation is designed to be user-friendly. |
| NFR-2 | **Security** | 1. Secure authentication and authorization mechanisms are implemented. 2. Sensitive data is encrypted. 3. The system is protected against common security threats such as SQL injection and XSS. |
| NFR-3 | **Reliability** | 1. The system performs consistently under various conditions. 2. Proper error handling and recovery mechanisms are in place. |
| NFR-4 | **Performance** | 1. Webpages load quickly. 2. Database queries are optimized for efficiency. |
| NFR-5 | **Availability** | 1. The platform is designed for high availability with minimal downtime. 2. Backup and disaster recovery processes are established. |
| NFR-6 | **Scalability** | 1. The system can handle a growing number of users and transactions. 2. The architecture supports scalability to meet future demand. |