**Project Design Phase-II**

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

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| --- | --- |
| Date | 28-08-25 |
| Team ID | LTVIP2025TMID61057 |
| Project Name | shopsmart: your digital grocery store experience |
| Maximum Marks | 4 Marks |

**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 | Registration through Form  Registration through Gmail  Registration through LinkedIN |
| FR-2 | User Confirmation | Confirmation via Email  Confirmation via OTP |
| FR-3 |  |  |
| FR-4 |  |  |
|  |  |  |
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**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** | This requirement refers to how user-friendly and intuitive the solution is for its end-users. The system should be easy to use, with a clean and intuitive user interface (UI) and smooth user experience (UX). The goal is to ensure that users can efficiently interact with the system without extensive training. It also considers accessibility aspects like support for different devices, screen readers, and multiple languages if necessary. |
| NFR-2 | **Security** | Security addresses how the solution will protect data and prevent unauthorized access or cyber threats. This includes data encryption, authentication mechanisms, and secure communication channels. It also includes compliance with data protection regulations such as GDPR, HIPAA, or industry-specific standards. Security should be a fundamental part of the architecture to safeguard user privacy and system integrity |
| NFR-3 | **Reliability** | This requirement focuses on the consistency and dependability of the solution. It should perform as expected under normal conditions and recover quickly from failure. The system should be fault-tolerant, ensuring it doesn’t break down easily, and it should have mechanisms for automatic recovery, such as backups, error detection, and failover systems |
| NFR-4 | **Performance** | This non-functional requirement defines how well the system performs under various conditions. This includes response time (how quickly the system responds to a user action), throughput (how much data it can handle), and resource usage (e.g., CPU, memory). It specifies the expected benchmarks for the system, such as maximum latency for processing requests or load times for pages or operations. |
| NFR-5 | **Availability** | Availability refers to the system's ability to be operational and accessible when needed by users. It defines the expected uptime for the system and the provisions for ensuring that the system remains available in the event of hardware or software failures. A high availability (HA) system may involve redundant systems, failover mechanisms, and distributed infrastructure to ensure minimal downtime. |
| NFR-6 | **Scalability** | Scalability describes the system’s ability to grow and handle increasing loads or users over time. This includes both horizontal scalability (adding more servers to handle increased traffic) and vertical scalability (increasing the capacity of existing servers). The system should be able to support growth in terms of the number of users, data volume, or transactions without a significant performance degradation. |