**Project Design Phase-II**

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

**Date:** 27 June 2025  
**Team ID:**   
**Project Name:** Medical Inventory Management  
**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 | User Confirmation | Confirmation via Email |
|  |  | Confirmation via OTP |
| FR-3 | Inventory Management | Add/Update/Delete Inventory Items |
|  |  | Search and Filter Medicines |
|  |  | View Stock Levels and Expiry |
| FR-4 | Order Management | Place Orders with Suppliers |
|  |  | View Order History and Status |
|  |  | Download Invoice |
| FR-5 | Alerts and Notifications | Low Stock Alerts |
|  |  | Expiry Reminders |
|  |  | Real-time Notifications for Admins |
| FR-6 | Reports and Analytics | Generate Usage Reports |
|  |  | Export Reports (PDF/Excel) |

**Non-functional Requirements:**

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

| **FR No.** | **Non-Functional Requirement** | **Description** |
| --- | --- | --- |
| NFR-1 | Usability | The system must be easy to use for medical staff with a simple web interface. |
| NFR-2 | Security | Role-based access control and data encryption must be implemented. |
| NFR-3 | Reliability | The system must reliably track stock changes without data loss. |
| NFR-4 | Performance | The system must handle at least 50 concurrent users with fast response times. |
| NFR-5 | Availability | The system should maintain 99.9% uptime with cloud-based deployment. |
| NFR-6 | Scalability | The application must support addition of new users, locations, and inventory as needed. |

**Example:**

* **User registration and login details are sent to the authentication system for verification and access control.**
* **Verified users perform inventory operations such as adding or updating items, which interact with the inventory database.**
* **When stock reaches a threshold, the system automatically triggers alerts and notifications to the admin.**
* **Order placement requests are processed, logged, and stock levels are updated accordingly in the database.**

