**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, and Delete Medicines |
|  |  | Track Stock Levels and Expiry Dates |
|  |  | Search and Filter Inventory |
| FR-4 | Order Management | Place Orders with Suppliers |
|  |  | Track Order Status |
|  |  | Generate and Download Invoices |
| FR-5 | Alerts & Notifications | Low Stock Alert |
|  |  | Expiry Date Notifications |
| FR-6 | Report Generation | Generate Reports on Usage, Stock, and Orders |
|  |  | Export Reports in PDF or Excel Format |

**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 have an intuitive and user-friendly interface. |
| NFR-2 | Security | Implement secure login, encrypted data transfer, and access control. |
| NFR-3 | Reliability | Ensure consistent operation with accurate data updates and backups. |
| NFR-4 | Performance | Handle multiple concurrent users with fast response times. |
| NFR-5 | Availability | Maintain 99.9% uptime with cloud hosting and backup services. |
| NFR-6 | Scalability | Easily add more users, suppliers, or locations as the system grows. |

**Example:**

* The diagram illustrates the interaction between users, system modules, and the database in the Medical Inventory Management application.
* Functional components such as **User Registration**, **Inventory Management**, **Order Handling**, and **Report Generation** are clearly shown, each linked to the relevant processes and user actions.
* The **non-functional aspects** like **security**, **performance**, and **availability** are considered in system deployment, with cloud services and secure login mechanisms represented in the diagram.
* Data flows from users to the database through logical modules, ensuring reliability, real-time updates, and automated alerts for low stock or expiry.
* This visual representation helps in understanding how different parts of the system work together to meet both functional and non-functional requirements.

