Project Design Phase-II
Solution Requirements

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Project Name:	Medical Inventory Management
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1. Introduction:

The Medical Inventory Management System (MIMS) is designed to digitize and automate the handling of medical stock, suppliers, and purchase orders within healthcare institutions. It ensures real-time visibility, accurate tracking, and intelligent automation of inventory-related tasks using Salesforce as the core platform. This section outlines the solution requirements — both functional and non-functional — that define how the system should behave and perform.

2. Purpose of the System:

The main objective of the MIMS is to replace manual inventory management with an automated cloud-based system, maintain accurate stock and supplier data, prevent medicine shortages and expiry wastage, and improve decision-making through real-time reporting and Dashboards.

3. Functional Requirements:

ID	Requirement Description	Module / Feature
FR-1	System must allow users to add, edit, and delete product records.	Product Management
FR-2	System should maintain supplier details with contact information.	Supplier Management
FR-3	Users should be able to create, view, and manage purchase orders.	Purchase Order
FR-4	System should automatically update inventory levels after each transaction.	Inventory Tracking
FR-5	Alerts must be generated for low stock and soon-to-expire medicines.	Notification System
FR-6	Validation rules must ensure expected delivery dates do not exceed 7 days.	Validation Rules
FR-7	System should allow users to generate reports and dashboards.	Reporting & Analytics
FR-8	Role-based access must restrict unauthorized data modification.	Access Control
FR-9	Users should view real-time supplier performance metrics.	Dashboard Module
FR-10	System should automate total order cost calculation using triggers.	Automation Logic

4. Non-Functional Requirements:

NFR-1 Ensure data security through role-based authentication. Security

NFR-2 Provide 99% uptime availability. Reliability

NFR-3 Simple interface accessible for non-technical staff. Usability

NFR-4 Support scalability for multiple hospital branches. Scalability

NFR-5 System responses should not exceed 3 seconds for queries. Performance

NFR-6 Maintain audit trails for all user activities. Accountability

NFR-7 Automatic cloud backups managed by Salesforce. Maintenance

NFR-8 Comply with healthcare data and privacy standards. Compliance

5. System Inputs and Outputs:

Type Description Source / Destination Input Product information, supplier details, and purchase orders. Admin / Purchase Manager Input Delivery data and invoices. Supplier Output Inventory stock updates and alerts. Salesforce App Output Reports and dashboards summarizing purchase and supplier activity. System UI / Admin

6. User Roles and Access Levels:

User Role Access Description Admin Full access to all system modules, settings, and configurations. Inventory Manager Can manage stock levels, update product details, and monitor expiry dates. Purchase Manager Handles purchase orders, suppliers, and delivery tracking. Supplier (External) Limited access to update delivery information only. Viewer / Analyst Read-only access to reports and dashboards.

7. System Constraints:

• The system is dependent on Salesforce platform availability and stable internet connectivity.

• Data storage must comply with Salesforce object schema limits.

• Custom triggers and flows must stay within Salesforce governor limits.

8. Assumptions:

• All users have valid Salesforce credentials.

• Required licenses and permissions are available.

• Users are trained in Salesforce basics.

• The organization follows Salesforce’s security model.

9. Success Metrics:

• 100% accuracy in stock and expiry monitoring.

• Zero manual errors in purchase order calculation.

• Real-time reporting within 3 seconds.

• No data duplication or expired medicine usage.

10. Conclusion:

The Solution Requirements define what the MIMS must achieve to ensure automation, accuracy, and reliability in healthcare inventory operations. By aligning functional and non-functional needs, the system guarantees efficient, secure, and intelligent management of medical resources.

“A well-defined requirement is the first prescription for project success.”