Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	31st October 2025
Team ID	NM2025TMID06633
Project Name	Medical Inventory Management
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirements (Epic)	Sub Requirement (Story/Sub-Task)
FR-1	Salesforce Account Setup	• Create a Salesforce Developer Account via developer.salesforce.com. • Activate the account using the confirmation email • Log in and verify access to Salesforce Lightning Experience. • Familiarize with Setup, App Launcher, and Object Manager.
FR-2	Object Creation	• Create Product object. • Create Purchase Order object. • Create Order Item object. • Create Inventory Transaction object. • Create Supplier object. • Define object relationships (Master-Detail and Lookup). • Verify API names and enable Allow Reports and Track Field History where needed.

FR-3	Tabs	• Create a tab for Product object.
		• Create tabs for:
		• Purchase Order
		   o Order Item
		   o Inventory Transaction
		   o Supplier
		• Add icons and assign tabs to the app visibility for relevant profiles.

FR-4	Lightning App	• Create a new Lightning App named "Medical Inventory Management." • Add custom object tabs (Product, Purchase Order, Order Item, Inventory Transaction, Supplier). • Assign app access to System Administrator and other user profiles. • Customize the App Navigation Bar for logical flow.
FR-5	Fields Creation	• Create required custom fields as per the object design. • Assign correct data types (Text, Number, Currency, Date, Lookup, Formula, etc.). • Establish field relationships (Lookup & Master-Detail). • Verify field-level security and visibility in page layouts.
FR-6	Page Layouts	• Modify default page layout for each custom object. • Group related fields (e.g., Contact Info, Order Details). • Add related lists such as Order Items on Purchase Order layout. • Remove unnecessary standard fields.
FR-7	Compact Layouts	• Define compact layouts for each object. • Example for Product: Show Product Name, Unit Price, Current Stock Level, Expiry Date. • Assign compact layouts as the Primary Layout.
FR-8	Validation Rules	• Create validation rules such as: o $Current\_Stock\_Level >= 0$ o $Expiry\_Date > TODAY()$ o $Quantity\_Received <= Quantity\_Ordered$ • Provide user-friendly error messages. • Test validation rules for correct enforcement.
FR-9	Profiles	• Use System Administrator, Standard User, and Inventory Clerk profiles. • Restrict object-level and field-level access appropriately. • Assign profile-based permissions for Create, Read, Edit, Delete (CRED).

FR-10	Roles	• Create roles such as:
		  ○ Admin
		  ○ Inventory Manager
		  ○ Procurement Officer
		• Define hierarchy (Admin > Manager > Clerk).
		• Verify data sharing behavior using role-based visibility.

FR-11	Users	• Create users for each role (e.g., Admin, Manager, Clerk). • Assign profiles and roles. • Verify login access and permissions.
FR-12	Permission Sets	• Create permission sets for special access (e.g., report generation, field editing). • Assign permission sets to specific users. • Test access flexibility.
FR-13	Flows	• Create a Record-Triggered Flow to update stock levels automatically when an order item is received. • Create a Scheduled Flow to send alerts for near-expiry products. • Test and debug flow execution.
FR-14	Triggers	• Write an Apex Trigger to update Current Stock Level after purchase order completion. • Trigger notifications on low stock alerts. • Test triggers with sample data.
FR-15	Reports	• Create reports for monitoring key inventory metrics. • Low Stock Report • Expiring Products Report • Purchase Order Summary • Supplier Performance Report
Fr-16	Dashboards	• Build Medical Inventory Dashboard • Add charts for stock status, expiry, supplier performance, and costs

Non-Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NRF-1	Performance	System should load pages, reports, and dashboards within a few seconds.
NRF-2	Reliability	Ensure continuous operation with automatic data backup.
NRF-3	Usability	Provide a simple and user-friendly Lightning interface.
NRF-4	Scalability	Support future growth in data and additional modules.
NRF-5	Security	Enforce access control through roles, profiles, and permissions.
NRF-6	Maintainability	Allow easy updates and modifications without disruptions.
NRF-7	Availability	Ensure 24/7 cloud access with minimal downtime.
NRF-8	Data Integrity	Maintain accurate, consistent, and validated data.
NRF-9	Auditability	Track all record changes with user and timestamp logs
NRF-10	Portability	Accessible across devices via Salesforce desktop and mobile.