

Phase 3: Project Design Phase

Functional Design & Process Mapping

Field	Details
Date	9 November 2025
Team ID	NM2025TMID02588
Project Name	Medical Inventory Management System
Maximum Marks	5 Marks

Functional Design & Process Mapping

This step defines *how* the solution will look and work from the user's perspective, ensuring it maps to approved business requirements.

- **Future State Process Mapping:** Documenting the **new, optimized workflows** for inventory management within Salesforce.
 - *Examples:* Inventory Receiving Process Flow (including barcode scanning and Lot/Expiration capture), Surgical Kit Allocation Process, Stock Transfer Request & Approval Flow, Disposal/Write-off Process for expired items.
- **User Interface (UX/UI) Design:** Creating mockups and wireframes for key screens to ensure a positive user experience (UX) and high adoption.
 - *Focus:* Designing mobile-friendly layouts (via the Salesforce Mobile App or Field Service Mobile) for field/warehouse users to easily record consumption and view stock.
- **Security & Data Visibility Design:** Defining **Sharing Rules, Profiles, and Permission Sets** to ensure strict adherence to HIPAA and internal compliance rules, preventing unauthorized access to sensitive inventory or patient data.

Project Scope

- **Product Master Data Management:** Creating and maintaining a single source of truth for all medical products (SKU, description, vendor, unit of measure, location, cost, and classification, e.g., "A, B, or C" item).

- **Multi-Location/Warehouse Tracking:** Enabling real-time visibility and stock levels across multiple locations (main warehouse, satellite clinics, surgical carts, etc.).
- **Receiving:** System functionality to record incoming shipments, automatically update inventory levels, and capture **Lot Number, Serial Number, and Expiration Date** upon receipt.
- **Inventory Consumption/Issuance:** Implementing a quick, mobile-friendly method (e.g., barcode scanning via the Salesforce Mobile App) to track when items are consumed during patient care or transferred between locations.
- **Purchase Request Automation:** Triggering automated Purchase Requisition or Purchase Order (PO) creation when stock levels hit pre-defined minimum safety stock thresholds.
- **Reporting & Analytics:** Creating custom reports and dashboards within Salesforce to track KPIs like usage trends, expired stock risk, and supplier performance.
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Project Objectives

Category	Example Objective	Key Metrics (KPIs)
Financial & Efficiency	Reduce inventory carrying costs by 15% within the first 12 months post-launch by optimizing reorder points and minimizing overstocking.	Inventory Carrying Cost Percentage, Inventory Turnover Rate.
Safety & Compliance	Achieve 100% real-time tracking of all Class II/III medical devices by lot/batch number and expiration date to ensure audit readiness.	Lot/Batch Traceability Rate, Expiration Waste Percentage.
Patient Care	Eliminate stockouts of all critical "Tier A" surgical and emergency supplies across all central distribution points.	Critical Stockout Rate, Order Time.
Process Improvement	Increase the accuracy of physical inventory counts to 98% by implementing barcode/RFID	Inventory Accuracy Percentage, Time

Category	Example Objective	Key Metrics (KPIs)
	scanning processes in the new Salesforce system.	Spent on Physical Counts.