Phase 3: Project Design Phase

Functional Design s Process Mapping

Field	Details
Date	9 November 2025
Team ID	NM2025TMID00719
Project Name	Medical Inventory Management System
Maximum Marks	5 Marks

Functional Design s 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.

    o *Examples:* Inventory Receiving Process Flow (including barcode scanning and Lot/Expiration capture), Surgical Kit Allocation Process, Stock Transfer Request C 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.

    o *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 s 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 s 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 s 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 s 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.