# Phase 3: Project Design Phase

# Functional Design & Process Mapping

| Field | Details |
|---|---|
| Date | 9 November 2025 |
| Team ID | NM2025TMID02588 |
| Project Name | Medical Inventory Management |
| Maximum Marks | 4 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. |