Project Design Phase

Proposed solution

Date:	03.11.2025
Project Name:	Medical Inventory Management
Team Id:	E6B89203D9C618592C84F3385E57DB7C

Overview:

The Medical Inventory Management System (MIMS) is a Salesforce-based application designed to automate and optimize the storage, distribution, and tracking of medical supplies, drugs, and equipment. It replaces traditional manual processes with a real-time, intelligent, and error-free solution for hospitals, clinics, and pharmacies.

Objective:

To build a cloud-based inventory system that updates stock automatically, alerts users for low stock and near-expiry medicines, tracks suppliers, purchase orders, and transactions, and provides insightful reports and dashboards for better decision-making.

System Architecture:

Component	Purpose
Salesforce Objects	Define key entities such as Product, Purchase Order, Order Item, Inventory Transaction, and Supplier.
Tabs & Lightning App	Allow users to navigate easily between system modules.
Fields & Relationships	Link all entities together for seamless data flow.
Validation Rules	Maintain accurate data (e.g., restrict invalid dates or quantities).
Profiles & Roles	Control user permissions for different roles like Inventory Manager and Purchase Manager.
Permission Sets	Grant special privileges beyond the base profile.
Flows & Triggers	Automate business logic (e.g., auto-calculate order totals, update delivery dates).
Reports & Dashboards	Visualize performance, supplier efficiency, and inventory health.

Functional Modules:

1. Inventory Tracking – Monitors stock levels, batch numbers, and expiry dates.

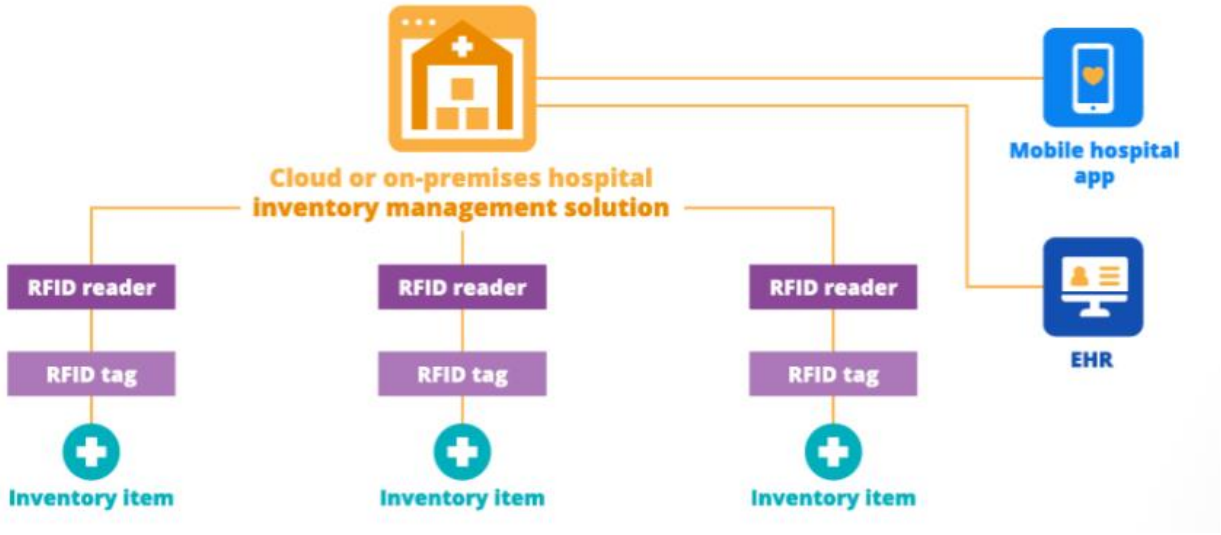
2. Supplier Management – Maintains vendor details and purchase history.

3. Purchase Orders – Automates order creation, delivery tracking, and cost calculation.

4. Alerts & Validation – Ensures accuracy and sends warnings for low or expired stock.

5. Reports & Analytics – Provides summary reports by supplier, cost, and trends.

6. User Access Control – Restricts actions based on user roles and permissions.



Expected Outcomes:

- Centralized digital management of medical inventory.
- Automated alerts to prevent stockouts and overstocking.
- Error-free data entry and tracking.
- Real-time visibility through reports and dashboards.
- Improved supplier transparency and operational efficiency.

Conclusion:

This Salesforce-based Medical Inventory Management System revolutionizes how healthcare institutions handle inventory. By leveraging declarative and programmatic Salesforce tools, it delivers automation, data accuracy, and decision intelligence—bridging the gap between manual management and smart digital operations.

Developed by:

Kaleeswari B, Gunavarsha M, Maunika M S, Nika J

Department of Computer Science and Engineering

P.S.R.R. College of Engineering, Sivakasi.