

Project Design Phase

Proposed Solution

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Team ID: NM2025TMID04221

Project Name: Medical Inventory Management

Proposed Solution Template

S.No	Parameter	Description
1.	Problem Statement (Problem to be solved)	Hospitals and medical facilities often face challenges in managing inventory efficiently, such as tracking stock levels, monitoring expiry dates, and handling supplier coordination. Manual methods lead to errors, shortages, expired stock usage, and wastage. There is a lack of centralized visibility and automation in inventory management systems.
2.	Idea / Solution Description	The proposed solution is a Salesforce-based Medical Inventory Management System that automates and centralizes the tracking and management of medical supplies. It maintains supplier information, manages purchase orders, tracks stock levels and expiry dates, and generates analytical reports. The system issues automatic alerts for low stock and upcoming expirations, ensuring seamless and safe medical operations.
3.	Novelty / Uniqueness	The system leverages Salesforce's cloud architecture to deliver real-time visibility, automation, and data-driven insights without the need for additional software. Its unique combination of expiry tracking, supplier analytics, and AI-powered forecasting makes it a smart and adaptive solution for healthcare inventory management.
4.	Social Impact / Customer Satisfaction	The solution improves healthcare service delivery by ensuring timely availability of medicines and reducing waste from expired

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		products. It enhances patient safety, lowers operational costs, and builds trust through accurate and transparent inventory management.
5.	Business Model (Revenue Model)	The solution can be offered as a Software-as-a-Service (SaaS) model to hospitals, pharmacies, and clinics. Revenue can be generated through subscription plans, custom integrations, and data analytics add-ons . By optimizing supply chain operations, clients save costs and enhance efficiency.
6.	Scalability of the Solution	The system is designed to scale across multiple hospitals and pharmacy branches. It can integrate with ERP systems, IoT-enabled storage units, and healthcare record systems (EHR/EMR) for advanced automation and tracking. Modules for pharmaceutical compliance and AI-based demand forecasting can also be added in future versions.

Solution Description

The **Medical Inventory Management System** provides a unified Salesforce-based platform to efficiently manage all aspects of healthcare inventory. It automates procurement, supplier management, and stock monitoring processes. The system continuously tracks product quantities, batch details, and expiry dates, issuing alerts before stockouts or expirations occur. By integrating analytics and AI forecasting, the system helps predict demand patterns and optimize purchasing decisions. This not only ensures **operational efficiency and cost reduction**, but also **improves patient safety and regulatory compliance**.

The solution promotes a digital-first approach to healthcare management, replacing manual recordkeeping with smart automation and actionable insights.

The **Medical Inventory Management System** presents a comprehensive and scalable solution to the pressing challenges of inventory management in healthcare institutions. By automating supplier management, purchase tracking, stock monitoring, and expiry alerts, the system ensures **accuracy, transparency, and efficiency** in all inventory operations.

