Project Design Phase

Proposed Solution

Date	1 November 2025
Team Id	NM2025TMID03427
Project Name	Medical Inventory Management
Maximum Marks	5 marks

S.No	Parameter	Description
1	**Problem Statement (Problem to be solved)**	Healthcare institutions and medical facilities frequently encounter inefficiencies in managing their inventories, such as tracking stock levels, monitoring product expirations, and coordinating with suppliers. Manual recordkeeping and disconnected systems lead to errors, stock shortages, product wastage, and the unintentional use of expired items. The absence of centralized visibility and automation further limits operational efficiency and compliance.
2	**Idea / Solution Description**	The proposed solution is a **Salesforce-based Medical Inventory Management System** that automates and streamlines the complete inventory lifecycle. It maintains comprehensive supplier information, simplifies purchase order management, tracks product quantities and expiry dates, and provides detailed analytical reports. With real-time alerts for low stock and upcoming expirations, the system ensures continuous, safe, and efficient healthcare operations.
3	**Novelty / Uniqueness**	Built on **Salesforce's cloud architecture**, the system delivers real-time insights, automation, and predictive analytics without requiring external software. Its unique integration of expiry tracking, supplier analytics, and **AI-powered demand forecasting** makes it a next-generation, adaptive solution for modern healthcare inventory management.
4	**Social Impact / Customer Satisfaction**	This solution enhances the quality of healthcare delivery by ensuring the timely availability of medicines and preventing losses from expired stock. It promotes patient safety, minimizes

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		operational expenses, and fosters trust through accurate and transparent inventory control. The system ultimately contributes to more reliable and sustainable healthcare services.
5	**Business Model (Revenue Model)**	The application can be deployed under a **Software-as-a-Service (SaaS)** model for hospitals, pharmacies, and clinics. Revenue can be generated through subscription tiers, integration services, and premium analytics modules. By improving supply chain performance and reducing wastage, clients achieve long-term cost savings and increased productivity.
6	**Scalability of the Solution**	The system is built for scalability and can be implemented across multiple hospital networks and pharmacy chains. It supports integration with **ERP systems, IoT-enabled storage units, and EHR/EMR healthcare systems** for end-to-end automation. Future versions can include compliance management modules and enhanced AI-driven forecasting capabilities for proactive inventory planning.

Solution Description

The **Medical Inventory Management System** offers an all-in-one Salesforce-powered platform for seamless healthcare inventory control. It automates procurement, supplier coordination, stock tracking, and expiry monitoring. The system maintains real-time visibility into product batches, quantities, and lifecycles, generating timely alerts to prevent shortages or expired stock usage.

By integrating **analytics and AI-based forecasting**, it enables organizations to anticipate demand, optimize purchasing strategies, and make informed operational decisions. This results in reduced costs, improved efficiency, and enhanced patient safety. The solution promotes a **digital-first approach**, replacing manual recordkeeping with smart automation, predictive insights, and centralized data access.

Conclusion

The **Medical Inventory Management System** provides a robust, intelligent, and scalable solution to the key challenges faced in healthcare inventory management. By automating core functions such as supplier handling, purchase order tracking, stock monitoring, and expiry alerts, the system ensures greater accuracy, transparency, and operational excellence. Through Salesforce's powerful automation and analytics capabilities, healthcare organizations can achieve improved efficiency, reduced wastage, and enhanced patient care outcomes.