Project Design Phase

Problem –Solution Fit

Date	1 November2025
Team Id	NM2025TMID03427
Project Name	Medical Inventory Management
Maximum Marks	5 Marks

User Story

The **Medical Inventory Management System** is an advanced Salesforce-based solution built to simplify and automate the entire process of managing medical inventories. This system empowers healthcare organizations to efficiently oversee all inventory-related activities—from supplier management to product lifecycle tracking—within a unified digital environment.

Through this application, users can:

• Store and manage detailed supplier profiles, including contact information and performance records.
• Efficiently create, approve, and monitor purchase orders for smooth procurement and replenishment.
• Maintain accurate product data and transaction history for complete transparency.
• Track product expiry dates to eliminate the use of expired items and ensure patient safety.

By combining these core features, the system improves operational efficiency, strengthens data reliability, and enhances decision-making across healthcare inventory operations. It serves as a centralized, intelligent platform for end-to-end inventory management.

Project Overview

The **Medical Inventory Management System** is a Salesforce-driven application developed to optimize, automate, and centralize the workflow of medical inventory management. It provides healthcare facilities, pharmacies, and distributors with a single integrated platform to handle inventory, supplier coordination, and stock monitoring with accuracy and ease.

Key Objectives:

• **Supplier Management:** Maintain comprehensive supplier profiles with detailed contact information, performance metrics, and purchase order history.
• **Purchase Order Management:** Simplify and automate order creation, approval, and tracking to ensure timely stock availability.
• **Product Tracking:** Manage complete product details including descriptions, categories, stock quantity, and pricing information.
• **Expiry Monitoring:** Automatically monitor and alert users about upcoming expirations to ensure patient safety and regulatory compliance.
• **Reporting and Analytics:** Generate real-time reports to evaluate supplier performance, purchasing trends, and stock utilization patterns.

Expected Outcomes:

• Accurate and centralized data management across all inventory processes.
• Increased efficiency through automation and streamlined workflows.
• Reduced losses due to expired or misplaced items.
• Data-driven decision-making supported by powerful analytics and insights.

Problem – Solution Fit Overview

The **Problem–Solution Fit** identifies and addresses the core challenges faced by healthcare providers, pharmacies, and medical distributors in managing their inventories. By focusing on automation, transparency, and predictive insights, the system ensures smoother operations, minimal wastage, and uninterrupted availability of essential medicines and equipment.

Purpose

• Enhance inventory accuracy and visibility through real-time tracking and control.
• Avoid stock shortages or overstocking by using predictive analysis and automated alerts.
• Promote patient safety by ensuring the timely removal of expired or unsafe products.
• Reduce manual workload and human errors through automation.
• Maintain compliance with healthcare and pharmaceutical regulations and standards.

Problem Statement

Healthcare organizations often struggle with ineffective inventory management systems that result in drug shortages, product wastage, and expired stock. Manual or partially automated methods lead to inaccurate data, communication gaps between departments, and compliance issues. These challenges increase operational expenses, reduce efficiency, and negatively affect the overall quality of patient care.

References

1. **World Health Organization (WHO)**. *"Model guidance for the storage and transport of time- and temperature–sensitive pharmaceutical products."* WHO Technical Report Series, 2022.
2. **HealthIT.gov**. *"How Health IT Improves Inventory Management and Supply Chain Efficiency."* U.S. Department of Health and Human Services, 2023.
3. **International Journal of Healthcare Management**. *"A Study on Automation of Medical Inventory Systems in Hospitals."* Vol. 15, Issue 2, 2024.
4. **Journal of Pharmacy Practice and Research**. *"Optimizing Medicine Inventory Management Using Technology."* 2023.