

PROPOSED SOLUTION

Date	23 October 2025
Team ID	NM2025TMID08036
Project Name	Medical Inventory Management
Maximum Marks	2 Marks

Proposed Solution:

S.No	Statement	Parameters Description
1	Problem Statement	In traditional healthcare inventory management, medicines, equipment, and supplier records are often handled manually using registers or spreadsheets. This leads to errors, data loss, expired stock, and inefficient procurement processes. There is no centralized system to track stock levels, expiry dates, or supplier performance in real-time, leading to delays and resource wastage
2	Solution Description	The Medical Inventory Management Project is a cloud-based solution designed to automate and streamline inventory operations in hospitals, clinics, and pharmacies. It manages item records, stock levels, supplier details, billing, and expiry alerts through automated workflows, ensuring data accuracy, compliance, and efficient stock utilization
3	Uniqueness	The solution leverages low-code cloud tools and automation workflows to monitor and manage medical inventory in real-time. Unlike traditional systems, it provides predictive insights, automated reordering, and expiry alerts—offering a scalable, digital-first approach for healthcare facilities.

4	Customer Satisfaction	The system improves operational transparency by offering accurate stock reports, timely expiry alerts, and smooth procurement tracking. It reduces wastage, ensures uninterrupted availability of critical supplies, and enhances coordination among hospital staff—resulting in improved service quality and patient satisfaction
5	Business Model	While academic in nature, the project provides real-world business value by reducing inventory costs, eliminating manual errors, and improving supply chain efficiency. It can be implemented in hospitals, clinics, or pharmaceutical firms to optimize stock control and enhance profitability
6	Scalability of the Solution	The solution can be expanded with modules such as demand forecasting, supplier analytics, multi-location inventory integration, and IoT-based stock monitoring. It can easily scale for large healthcare networks and integrate with ERP or external billing system

Solution Description:

The Medical Inventory Management Project is an automated system designed to manage the complete lifecycle of medical supplies. It centralizes data for medicines, equipment, and suppliers through a secure cloud platform. Using automation tools, the system enables real-time stock tracking, auto-alerts for low inventory and expiry dates, and easy supplier communication. It simplifies billing and procurement workflows while reducing manual intervention and errors. The system ensures better data visibility, efficient coordination between departments, and cost-effective inventory management. By transforming traditional manual operations into

an automated, data-driven workflow, the project helps healthcare institutions enhance resource utilization, compliance, and service delivery efficiency.