

Ideation Phase

Define the Problem Statement

Date	31 October 2025
Team ID	NM2025TMID06633
Project Name	Medical Inventory Management
Maximum Marks	4 Marks

Introduction

Medical inventory management plays a crucial role in ensuring hospitals maintain accurate and timely records of medicines, medical devices, and consumables. An efficient management system helps reduce wastage, avoid stockouts, and improve patient care. The introduction of digital technologies like barcodes, RFID, and automated tracking has transformed traditional inventory management by improving transparency and accountability.

Problem Statement

Hospitals frequently encounter challenges in maintaining real-time and accurate inventory records. Manual data entry, lack of visibility, and poor coordination between departments lead to issues such as expired stock, medicine shortages, and supply mismatches. These challenges increase costs and disrupt hospital operations. The goal is to create a digital solution that automates the inventory process, tracks stock movement, and provides instant notifications for restocking or expiry alerts.

Problems, Solutions, and Benefits

Problems	Solutions	Benefits
Inefficient stock tracking	Automated system using RFID and barcoding	Minimized human error and improved accuracy
Inventory wastage due to expiry	Expiry alerts and real-time tracking dashboard	Reduced wastage and better resource utilization
Lack of stock visibility	Centralized digital inventory records	Improved transparency and faster decision-making
Manual entry errors	Cloud-based entry with validation checks	Accurate and reliable data across departments

Conclusion

Developing a digital medical inventory management system is essential for modern healthcare. By integrating automation, tracking, and data analytics, hospitals can enhance efficiency, minimize errors, and ensure timely availability of supplies. The proposed solution improves operational control and contributes to cost reduction and patient safety.

References

1. <https://miro.com/templates/customer-problem-statement/>