IDEATION PHASE

Team ID	NM20NM2025TMID04832
Project Name	Medical Inventory Management System
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Folder Reference:

Document/Ideationphase/

Includes:

- Brainstorming & Idea Generation

- Define Problem Statement

- Empathy Map Canvas

- Readme.md

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1. Introduction
Hospitals and healthcare centers depend on reliable access to medicines and equipment. Manual tracking often causes stockouts, overstocking, and expired materials. The **Medical Inventory Management System (MIMS)** is proposed to address these inefficiencies through digital automation, ensuring accurate, real-time control of medical inventory across all departments.

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2. Problem Statement

The current manual inventory systems lack efficiency, leading to:

- Mismanagement of critical supplies.
- Frequent stock shortages or surpluses.
- Expired drugs being overlooked.
- Time-consuming audits and reporting.

Defined Problem:
Healthcare facilitiesneed an automated, real-time, centralized inventory solution to optimizesupply management, enhance transparency, and support data-driven decision-making.
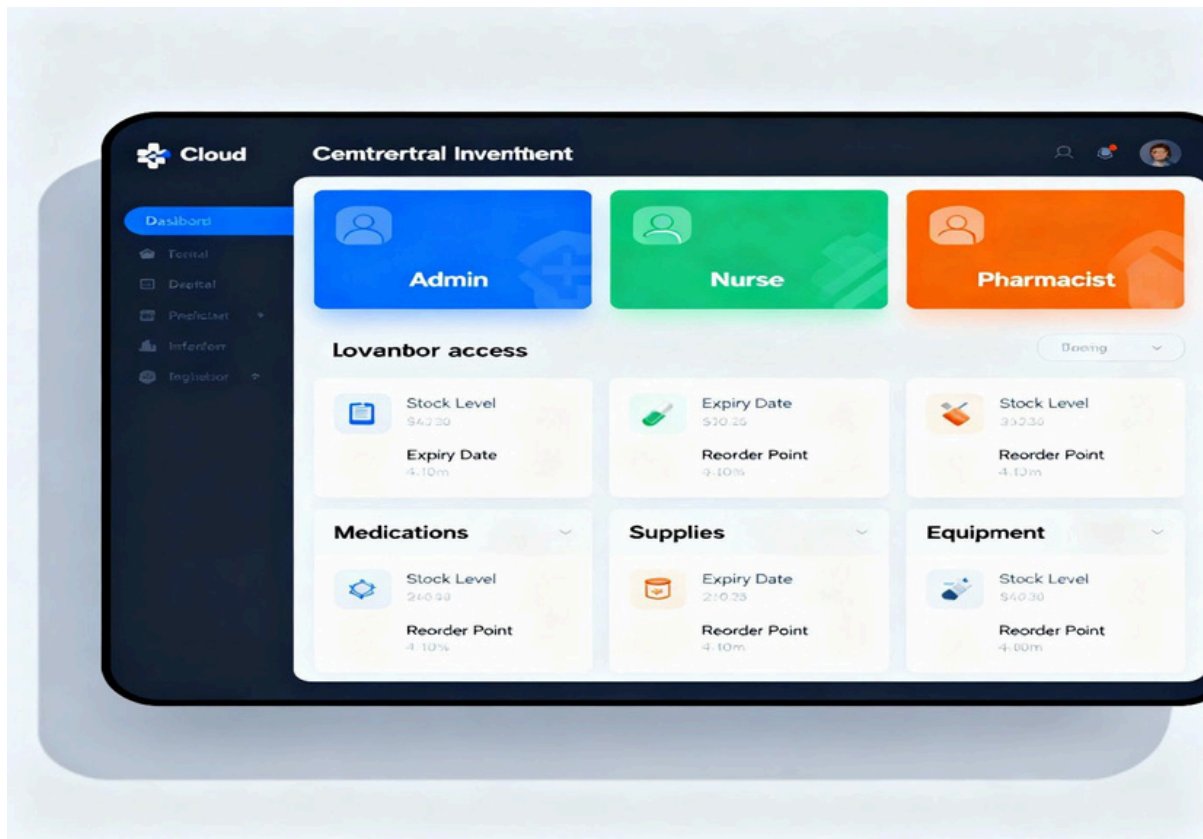
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3. Empathy Map Canvas

Perspective Insights

Says	"Weoftendon't know when stock runs out."
Thinks	"Automationcan prevent medical delays."
Does	Trackssupplies manually in spreadsheets.
Feels	Overwhelmed during shortages and emergency requests.

Conclusion:
Userswantanintuitive,automated solution that ensures real-time stock visibility andsmart reordering alerts.

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4. Brainstorming & Idea Prioritization

Generated Ideas:

1. QR/barcodetracking of medical items.

2. Centralizedcloud dashboard for hospital-wide access.

3. Automaticreorder triggers.

4. Expiry-basedsorting and disposal alerts.

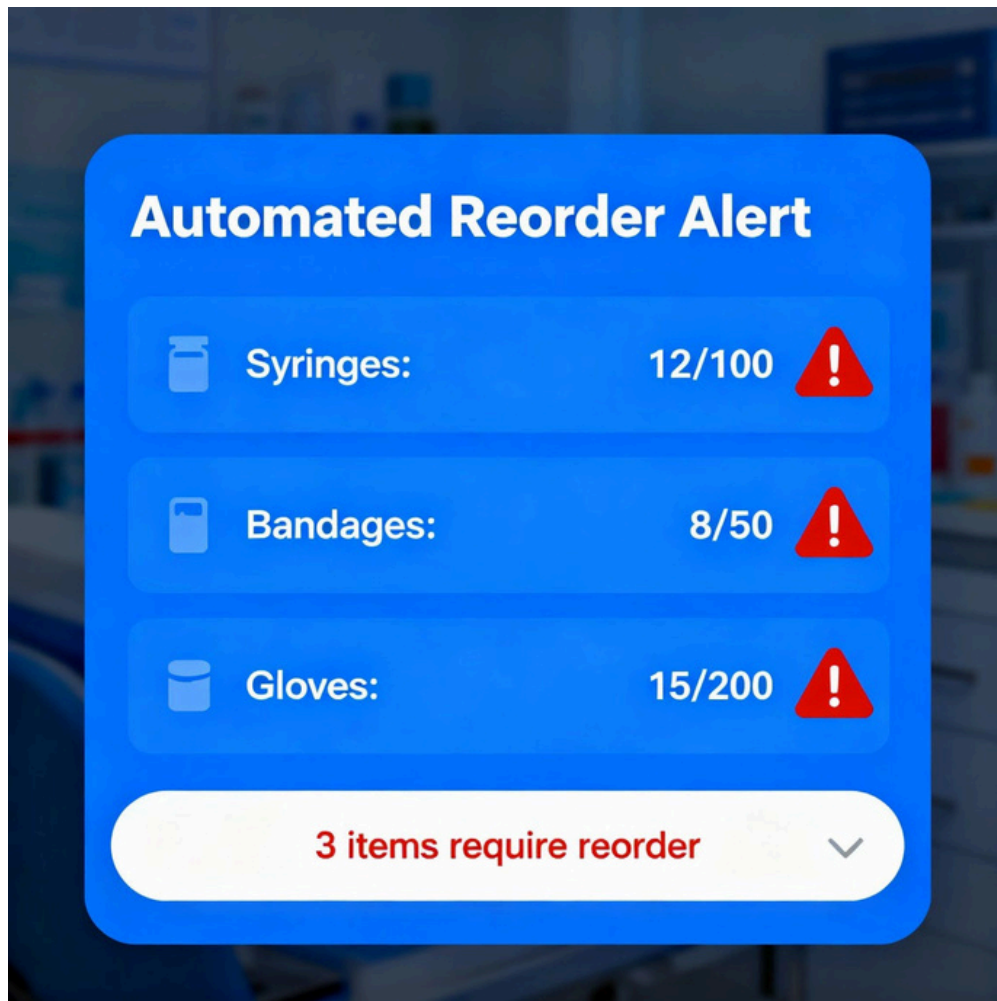5. Role-based access for admin, pharmacist, and doctor.

Prioritization (Impact × Feasibility):

- High: Stock alerts, expiry tracking, barcode scanning.
- Medium: Predictive restocking and analytics.
- Low: ERP integration (future enhancement).

5. Objectives

- Digitize stock management.
- Enable low-stock and expiry alerts.
- Maintain supplier and purchase history.
- Improve audit accuracy and reduce waste.

Automated Reorder Alert

	Syringes:	12/100 ⚠
	Bandages:	8/50 ⚠
	Gloves:	15/200 ⚠

3 items require reorder ⌄

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6. Expected Outcomes

- Faster, error-free inventory updates.
- Enhanced hospital readiness.
- Reduced operational cost through analytics.