Medical Inventory Management System

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Project Name	Medical Inventory Management System
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Ideation Phase

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.

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 facilities need an automated, real-time, centralized inventory solution to optimize supply management, enhance transparency, and support data-driven decision-making.

3. Empathy Map Canvas
Perspective Insights

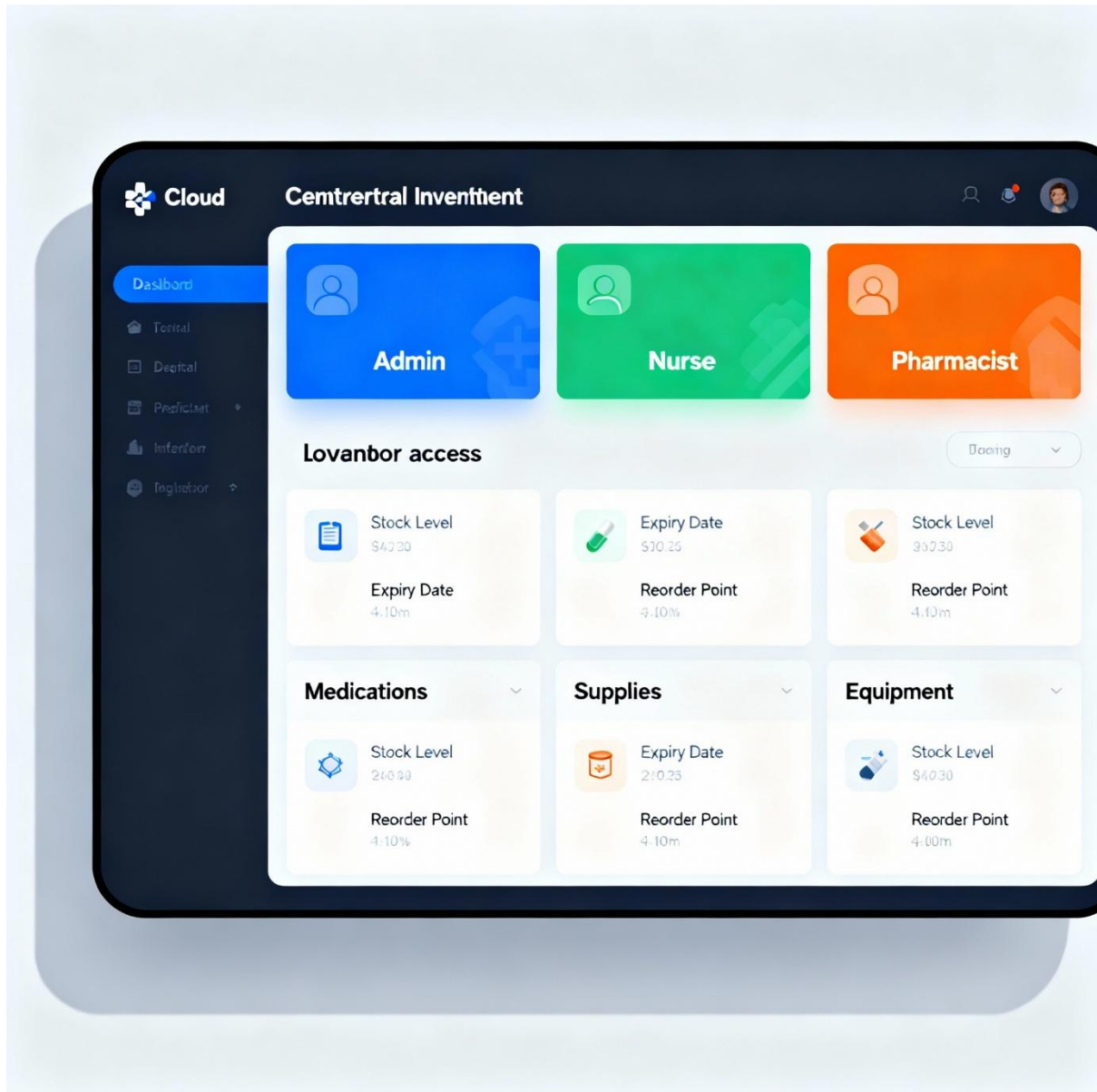|	
Says	"We often don't know when stock runs out."
Thinks	"Automation can prevent medical delays."
Does	Tracks supplies manually in spreadsheets.

Perspective Insights

Feels   Overwhelmed during shortages and emergency requests.

Conclusion:

Users want an intuitive, automated solution that ensures real-time stock visibility and smart reordering alerts.

4. Brainstorming & Idea Prioritization

Generated Ideas:

1. QR/barcode tracking of medical items.

2. Centralized cloud dashboard for hospital-wide access.

3. Automatic reorder triggers.

4. Expiry-based sorting 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.

6. Expected Outcomes
- Faster, error-free inventory updates.

- Enhanced hospital readiness.

- Reduced operational cost through analytics.