Ideation Phase

Define The Problem Statements

Date	**01 NOV 2025**
Team ID	**NM2025TMID02942**
Title	**Medical Inventory System**
Maximum Marks	**2 Marks**

1. Core Problem

Hospitals, clinics, and pharmacies often struggle with **inefficient inventory management**, leading to:

- Shortages of critical medicines or medical supplies.
- Overstocking of low-demand items.
- Expired products due to poor tracking.
- Manual errors in recording and replenishment.
- Lack of real-time visibility into stock levels across departments.

---

2. Problem Statements (Examples)

a. Inventory Visibility

How might we provide real-time visibility of medical inventory across departments to ensure availability of essential supplies when needed?

b. Stock Control and Forecasting

How might we prevent both overstocking and stockouts by implementing intelligent forecasting and automatic restocking alerts?

c. Expiry and Wastage Management

How might we reduce wastage caused by expired medicines and ensure timely usage through automated expiry alerts and tracking?

d. Human Error and Manual Processing

How might we minimize human errors in manual inventory tracking and streamline processes through automation and digital recordkeeping?

e. Compliance and Reporting

How might we ensure compliance with healthcare regulations and generate accurate inventory reports for audits and inspections efficiently?

f. Interdepartmental Coordination

How might we facilitate smooth coordination between pharmacy, procurement, and clinical departments for better inventory planning and resource utilization?

---

3. Supporting Observations / Pain Points

- Lack of integrated systems connecting suppliers and medical facilities.
- Time-consuming manual reconciliation between departments.
- No predictive analytics to anticipate shortages or surpluses.
- Difficulty in tracking usage patterns and reorder trends.

---

4. Desired Outcomes

- Real-time, centralized inventory dashboard.
- Automated alerts for low stock and near-expiry items.
- Data-driven forecasting for procurement.
- Reduced manual intervention and improved accuracy.
- Enhanced patient safety by ensuring timely availability of critical medicines.