

Project Design Phase

Problem Solution Fit

Date	31-10-2025
Team ID	NM2025TMID06793
Project Name	Medical Inventory Management

1. Introduction

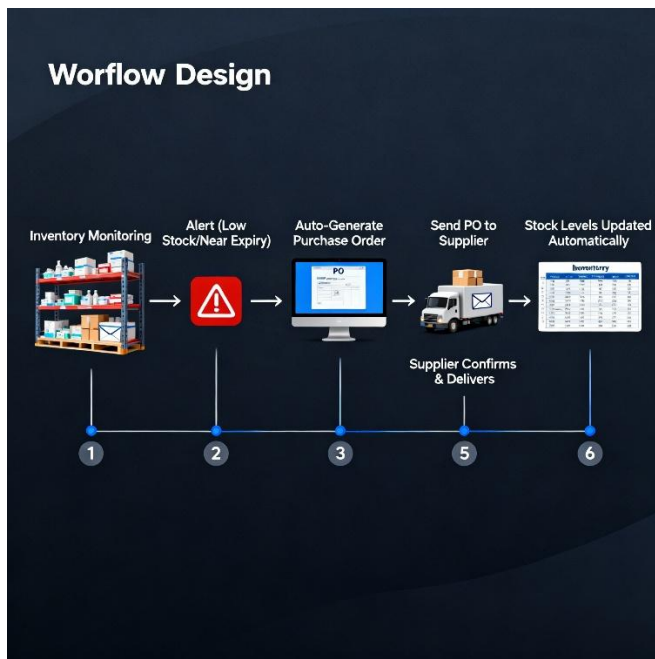
The Problem Solution Fit identifies how the proposed Medical Inventory Management System (MIMS) addresses the challenges identified in the ideation phase. It aligns problems with actionable solutions and validates the system's relevance for users.

Key Objectives:

Validate that system features solve real problems.

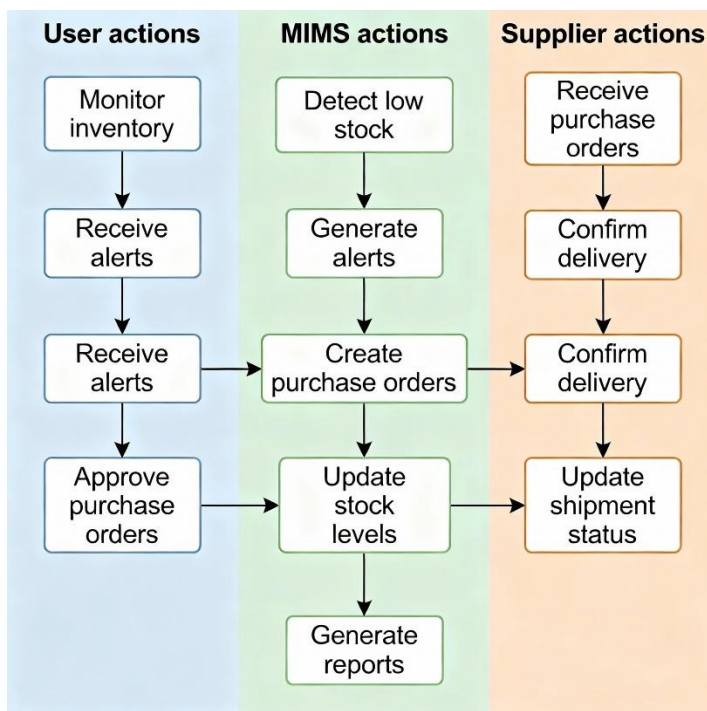
Map user pain points to proposed functionalities.

Ensure alignment with operational goals and regulatory requirements.



2. Problem Analysis

Problem	Impact	Current Challenges
Inventory Tracking	Stock inaccuracies, delays	Spreadsheet errors, no real-time data
Supplier Management	Delays, poor selection	Contacts scattered, no performance tracking
Purchase Order Inefficiencies	Duplicate orders, late procurement	Manual PO creation and approvals
Product	Wastage, compliance risk	Manual expiry checks, missed notifications
Order Item	Slow decision-making	Manual report compilation, errors



3. Solution Mapping

Problem	MIMS Solution	Expected Outcome
Inventory Tracking	Real-time dashboard and updates	Accurate stock levels, fewer errors
Supplier Management	Centralized supplier database with ratings	Faster procurement, reliable suppliers
Purchase Order Inefficiencies	Automated PO creation and approval workflow	Reduced manual workload, faster processing
Product	Automated alerts and expiry reports	Reduced wastage, compliance ensured
Order Item	Dashboards and automated reports	Quick, accurate decision-making

4. User Scenarios Demonstrating Problem-Solution Fit

Scenario 1: Inventory Accuracy

- Problem: Manual stock errors caused shortages of critical medicines.
- Solution: MIMS provides real-time dashboard updates for all inventory items.
- Outcome: Inventory discrepancies reduced to <1%, stockouts minimized.

Scenario 2: Supplier Selection

- Problem: Procurement staff spends hours choosing reliable suppliers.

- Solution: MIMS supplier rating system automatically recommends top suppliers.
- Outcome: Faster procurement and higher supplier reliability.

Scenario 3: Expiry Management

- Problem: Expired medicines go unnoticed.
- Solution: Automated expiry alerts and reports.
- Outcome: Wastage minimized, compliance ensured.

5. Alignment with Business Goals

Operational Efficiency: Automation reduces manual tasks.

Accuracy: Real-time tracking ensures data reliability.

Compliance: Expiry alerts and reporting support regulatory adherence.

Decision Making: Dashboards provide actionable insights.