INFO FINAL PROJECT PROPOSAL

DEEPTHI RAMESH
JE SAI KAILASH PULIPATI
PRIYANKA SATISH KUMAR
Approved by: Shreya Jaiswal

PHARMAFLOW

PROBLEM STATEMENT:

Pharmacies play a vital role in ensuring people get the medications they need, but managing inventory can be a real headache. Keeping track of stock levels, making sure medicines don't expire on the shelf, and avoiding shortages are constant challenges. Additionally, poor communication and coordination between pharmacies, manufacturers, and distributors result in delayed restocking and inefficiencies in procurement processes.

There is a need for a healthcare inventory management system that offers a comprehensive solution for tracking, managing, and ordering medications and healthcare products. The system should enable real-time monitoring of stock levels, product expiry dates, and pricing, while facilitating seamless communication between all stakeholders in the supply chain. This will enhance operational efficiency, reduce wastage, and ensure timely availability of medications, ultimately improving patient outcomes.

SOLUTION:

1. Streamlined Workflows

The system simplifies processes with functionalities designed for efficiency. Pharmacy managers can initiate order approval requests for low-stock or out-of-stock items, which are approved by relevant distributors or manufacturers. Orders are then assigned to distributors, either automatically or manually, based on availability and location. Distributors can also request items from manufacturers and allocate them to pharmacies as required. Additionally, transportation requests and tracking ensure that shipments are assigned to transportation services and monitored for timely deliveries.

2. Real-Time Inventory Management

Pharmacies and distributors benefit from real-time tracking of stock levels, helping prevent stockouts and overstocking. The system generates automatic alerts for expiring products, reducing wastage. Detailed records of batch numbers, expiry dates, and pricing ensure transparency and accountability.

3. Seamless Communication

Integrated messaging features enable smooth communication between pharmacies, distributors, manufacturers, and transport teams. Timely notifications and alerts for approvals, dispatches, and deliveries help minimize delays and improve coordination.

4. Data Analytics and Reporting

The system provides detailed reports on stock usage, wastage, and order history, enabling organizations to make informed decisions. These insights optimize procurement and storage processes, helping businesses reduce costs and improve efficiency.

5. Scalability and Security

The platform is designed to support businesses of all sizes with its scalable architecture. It ensures data security through role-based access and complies with healthcare regulations like HIPAA and GDPR, making it a reliable solution for the healthcare industry.

ECOSYSTEM HIERARCHY:

1. **NETWORK**:
    PharmaFlow - A Pharmacy Supply Management System

2. **ENTERPRISE**:
    a. Distributor Enterprise
        Manages the sales and service as well as controls the inventory management
    b. Manufacturer Enterprise
        Handles the Accounting and Store Management
    c. Pharmacy
        Controls the supplies available in the store
    d. Transportation
        Manages the transport department

3. **ORGANIZATION**:
    a. Transport Department
    b. Inventory Management
    c. Production Department
    d. Sales and Service
    e. Accounting
    f. Store management

4. **Roles**:
    a. Pharmacy Admin
    b. Distributor Admin
    c. Distributor Manager
    d. Manufacturer Admin

e. Pharmacy Store Manager
f. Transport Admin
g. Accounting Manager
h. Sales Manager

High Level Component Diagram