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Pharmacy Supply Chain Management System

Problem Statement

Pharmacies and small pharmaceutical warehouses manage their medicine inventory manually, leading to frequent stockouts of critical medicines, expired inventory waste (10-15% loss), poor supplier coordination, and difficulty meeting SFDA compliance requirements. They order based on guesswork rather than data, resulting in financial losses and reduced patient care quality.

Proposed Solution

PharmaVision is a **web-based supply chain management system** that connects pharmacies with their suppliers to optimize ordering decisions and inventory management through data analysis and structured processes.

Key Features

Supplier Management	Track suppliers, pricing, lead times, and delivery performance
Purchase Orders	Create and manage orders with recommendations based on consumption patterns
Inventory Tracking	Monitor stock levels, batch numbers, expiry dates, and GTIN barcodes
Demand Analysis	Classify medicines by demand patterns (stable, seasonal, critical)
Alerts & Reports	Automated notifications for low stock, expiring items, and visual dashboards

Supply Chain Flow

Suppliers → Purchase Orders → Incoming Shipments → Inventory → Sales/Dispensing → Analysis → Reorder

Expected Impact

30-40% Reduction	In expired medicine waste
35-40% Decrease	In stockout incidents
10-15 Hours/Month	Time saved on inventory management

What Makes It Different

Pharmacy-focused: Specifically designed for pharmacy-supplier relationships, not complex full-chain blockchain solutions found on GitHub. **Simple & Practical:** Easy-to-use web interface without technical complexity. **Saudi Market:** Built with SFDA compliance and local market understanding (seasonal patterns like Ramadan).

Target Audience & Scope

Target: Community pharmacies and small-medium pharmaceutical warehouses in Saudi Arabia.
Scope: Supply chain from supplier to pharmacy (inventory tracking, purchase orders, demand analysis, alerts, reporting). **NOT** a full POS system or patient management system.

Implementation Timeline

8-week MVP development: Database design → Core features (supplier/inventory/orders) → Analysis & dashboard → Alerts & tes