Planning Logic

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Team ID	LTVIP2025TMID30494
Project Name	Medical Inventory Management

1. Inventory Lifecycle Overview

Understand the stages involved in managing medical stock:

- **Initiation:** Defining stock requirements, adding suppliers and product data

- **Procurement:** Purchase Order creation, approvals, and supplier engagement

- **Fulfilment:** Goods received, inspection, and stock updates

- **Consumption & Monitoring:** Stock usage, expiry tracking, and alerts

- **Review & Reorder:** Inventory assessments, supplier performance, and restocking

2. Core Functional Modules

a. Product & Supplier Setup

- Record drug/product details with expiry and quantity thresholds

- Define supplier info with contact and delivery metrics

- Attach certificates, invoices, and compliance docs

b. Purchase Order Lifecycle

- Create, approve, and dispatch purchase orders

- Add multiple order items, link products and suppliers

- Calculate total cost using Apex Trigger logic

c. Inventory Transactions & Expiry Alerts

- Log received stock against POs

- Track stock levels and usage

- Schedule expiry checks and low-stock notifications

d. Role-Based Access & User Journeys

- Inventory Manager: Manages product data and transactions

- Purchase Manager: Oversees procurement and supplier coordination

- System Admin: Handles access control and process governance

e. Reporting & Analytics

- Purchase Summary reports

- Supplier performance trends

- Expiry forecasts and stock discrepancy reports

3. Data & Document Management

- Secure central repository for stock records and purchase contracts

- Role-based document access

- Version control for supplier certifications and order revisions

4. Automation & Alerts

- Scheduled Flows for expiry and stock alerts

- Flow to auto-update delivery confirmations

- Exception alerts for low stock and delivery delays

5. Compliance & Safety Standards

- Alert logs for audit trails

- Mandatory field validations for batch numbers, expiry dates

- Trackable approvals on high-value orders

6. Access & Security

- Permission Sets and Role Hierarchies

- Field-level security for sensitive supplier and pricing data

- Login history, audit tracking, and optional MFA

7. User Experience Planning

- Intuitive Lightning UI with Record Pages tailored per role

- Mobile accessibility for on-floor stock checks and receipts

- Visual dashboards for usage trends and alerts

8. Contingency Logic

- Alert for delayed deliveries or stock mismatches

- Logic for urgent reorder overrides

- Flow to escalate if critical medicine is near depletion

9. Future-Proofing

- Expandable to include multiple hospital units or inventory locations

- AI/ML support for predictive ordering or anomaly detection

- Environmental compliance (e.g., temperature-sensitive stock tracking)