

**Project Design Phase**  
**Solution Architecture**

Date	1 NOVEMBER 2025
Team ID	NM2025TMID07834
Project Name	Medical Inventory Management System
Maximum Marks	4 Marks

**Solution Architecture:**

**Goals of the Architecture:**

- Automate medical stock management using Salesforce.
- Maintain data accuracy and integrity across medicine and supplier records.
- Reduce manual tracking of expiry dates and stock levels.
- Provide real-time visibility through reports and dashboards.

**Key Components:**

- **Medicine\_\_c Object** – Stores medicine details such as name, quantity, and expiry date.
- **Supplier\_\_c Object** – Maintains supplier contact and supply information.
- **PurchaseOrder\_\_c Object** – Tracks purchase transactions and stock entries.
- **Flows and Triggers** – Automate low-stock and expiry alerts.
- **Reports and Dashboards** – Provide insights into stock status and supplier performance.

**Development Phases:**

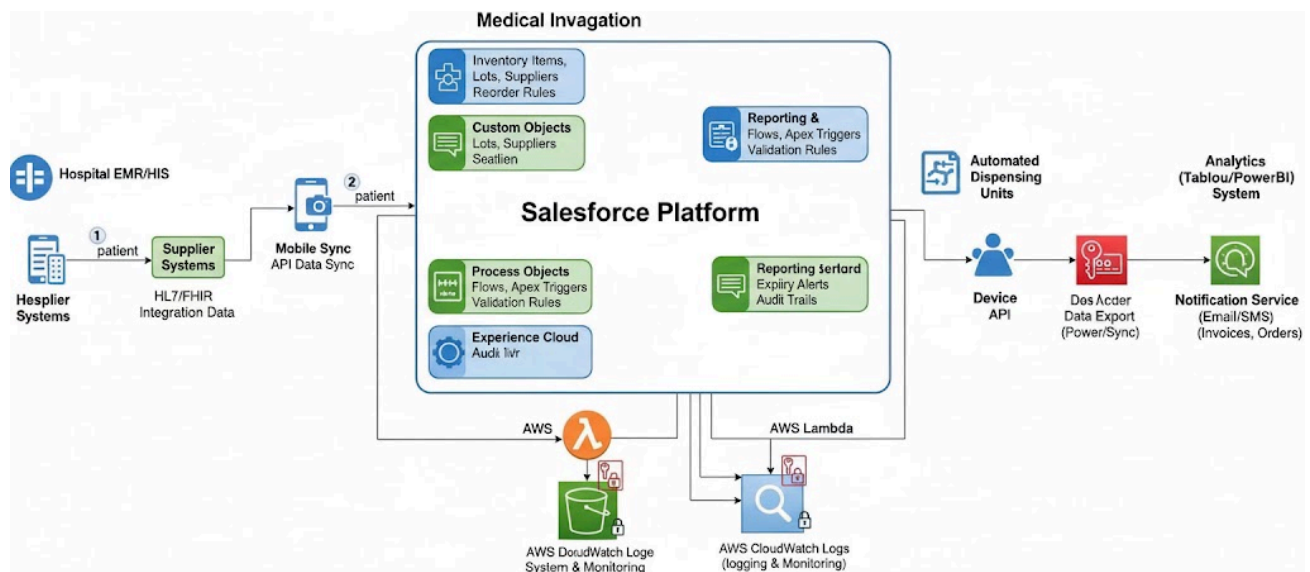
1. Create custom objects (Medicine, Supplier, Purchase Order).
2. Establish relationships between Medicine and Supplier objects.
3. Configure Flows or Triggers to send expiry and low-stock alerts.

4. Build Validation Rules for accurate data entry.
5. Design Reports and Dashboards for admin monitoring.
6. Test alerts and verify automated updates for various scenarios.

### 🌱 Solution Architecture Description:

The **solution architecture** for the *Medical Inventory Management System* is designed to ensure efficient and error-free handling of hospital inventory. It uses Salesforce custom objects to manage medicines, suppliers, and purchase orders. The system employs automation through **Flows and Triggers** to generate alerts for low stock and expiring medicines. Validation Rules maintain data integrity, while Reports and Dashboards offer real-time visibility to administrators. This architecture minimizes manual tracking, improves operational accuracy, and ensures the timely availability of medical supplies, creating a reliable and scalable solution for healthcare management.

### Example - Solution Architecture Diagram:



Architecture and Data Flow of the Medical Inventory Management System

Reference: <https://aws.amazon.com/architecture/>