

Project Design Phase–II

Data Flow Diagram & User Stories

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Project Name: Medical Inventory Management System (Salesforce)

Maximum Marks: 4 Marks

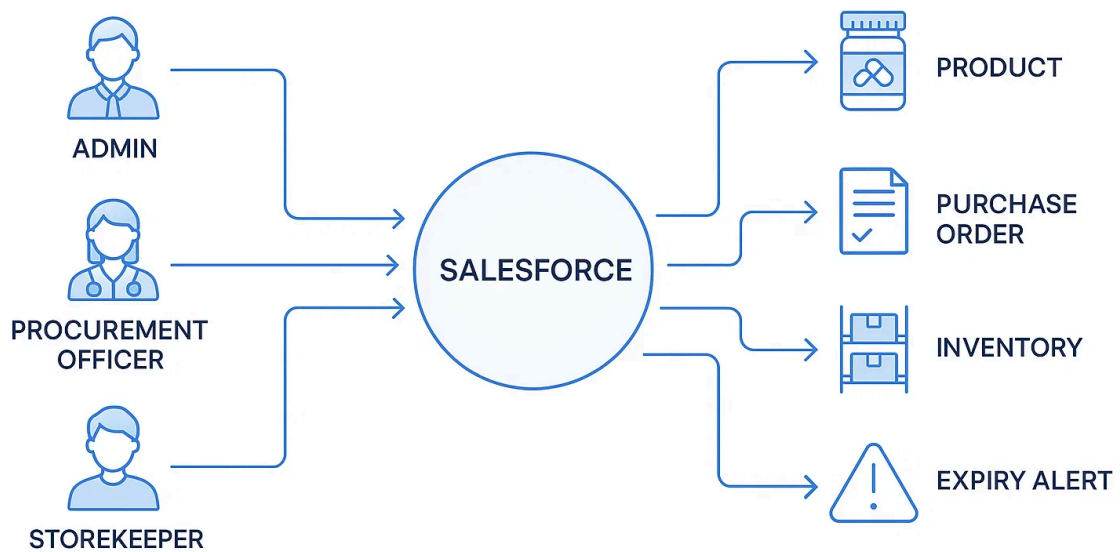
Data Flow Diagrams

A **Data Flow Diagram (DFD)** is a visual representation of how data moves through a system. It helps illustrate the flow of information between users, processes, and data stores within the application.

For the **Medical Inventory Management System (Salesforce)**, the DFD demonstrates how supplier, product, and purchase order data interact with the inventory management processes and how expiry alerts are generated.

This diagram outlines how input (supplier and product data) is processed, validated, and stored. It also shows the automated alert system that notifies users when products near expiry or when stock levels drop below the defined threshold. The DFD provides a clear visualization of how each module integrates seamlessly within the Salesforce ecosystem.

MEDICAL INVENTORY MANAGEMENT SYSTEM - DATA FLOW



Level 0 – Context Diagram

Actors:

- **Supplier** (provides product details and shipments)
- **Procurement Officer** (creates purchase orders)
- **Storekeeper** (updates stock entries)
- **Pharmacist** (monitors expiry alerts and stock levels)
- **System (Salesforce)** (validates data, generates reports, and triggers notifications)

System Overview:

1. Suppliers provide product and batch data → stored in Salesforce.
2. Procurement Officer creates purchase orders → updates inventory on delivery.
3. Storekeeper logs received stock → product quantities and expiry dates stored.

4. System continuously monitors expiry dates and reorder levels.
 5. Notifications sent to users for action (e.g., reorder or discard expired stock).
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Level 1 – Data Flow Explanation

- **Process 1:** Supplier submits product details → System stores in *Supplier Object*.
 - **Process 2:** Procurement Officer creates *Purchase Orders* linked to Supplier and Product records.
 - **Process 3:** Storekeeper updates *Inventory Transactions* when stock is received or adjusted.
 - **Process 4:** System checks *Expiry Dates* periodically → generates *Expiry Alerts*.
 - **Process 5:** Admin and Pharmacist review dashboards and reports for actions.
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Example Data Flow Description

The **Salesforce-based Medical Inventory Management System** handles all core inventory operations within a connected data architecture.

When a purchase order is raised, the system validates supplier and product data, updates inventory quantities upon goods receipt, and logs all transactions.

Automated flows track expiry dates and trigger alerts to pharmacists and admins before the items expire.

All modules (Supplier, Product, Purchase Order, Inventory, Expiry Alert) interact through Salesforce relationships, ensuring complete data traceability and preventing manual oversight.

This architecture maintains healthcare compliance and operational efficiency while allowing future scalability into ERP or billing modules.

User Stories

User stories define what different user roles need from the system in clear, action-oriented terms.

In this project, user stories ensure that the system automates essential operations such as stock tracking, supplier management, and expiry monitoring with accuracy and accountability.

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance Criteria	Priority	Release
Procurement Officer	Supplier & Purchase Management	USN-1	As a procurement officer, I want to create and manage purchase orders linked to suppliers.	The system should allow creating POs only for active suppliers and update stock once received.	High	Sprint-1
Storekeeper	Stock Handling	USN-2	As a storekeeper, I can log received stock, record product batches, and quantities.	The system should validate batch entries and update stock levels automatically.	High	Sprint-1
Pharmacist	Expiry Alert Monitoring	USN-3	As a pharmacist, I want to receive alerts for products nearing expiry within 30 days.	The system should trigger an alert and generate an expiry report weekly.	High	Sprint-2
Admin	Dashboard & Analytics	USN-4	As an admin, I want to view real-time reports on supplier performance and stock status.	Dashboards should show up-to-date supplier ratings and inventory summaries.	Medium	Sprint-3
System (Automation)	Data Validation	USN-5	As a system, I should validate all data entries for duplicate products or	Duplicate or expired data should be blocked automatically before saving.	High	Sprint-3

expired
items.

Summary

The Data Flow Diagram and user stories together define the structure and behavior of the **Medical Inventory Management System**.

They ensure that every role — from procurement to pharmacy — interacts efficiently within a unified Salesforce platform, maintaining accuracy, compliance, and operational readiness.

Through automation, the system replaces manual oversight with real-time intelligence, making inventory control reliable and auditable.