

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	31 st October 2025
Team ID	NM2025TMID06633
Project Name	Medical Inventory Management
Maximum Marks	4 Marks

Technical Architecture:

The Deliverable shall include the architectural diagram as below and the information as per the table 1 & table 2.

Example: Order processing for Medical Inventory Management

Example



Medical Inventory Management

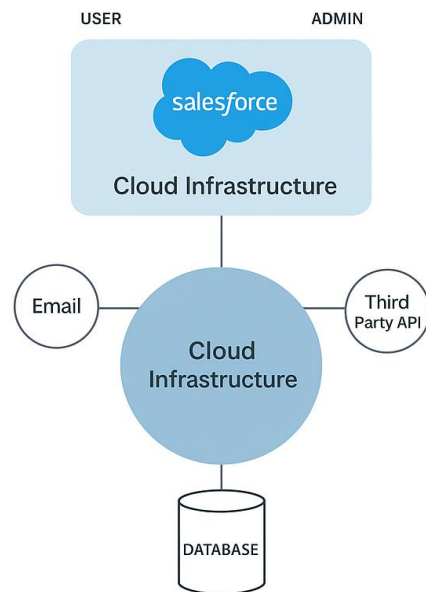


Table-1: Components & Technologies:

S.No	Component	Description	Technology
1	User Interface	Users (Admin, Staff) interact through Salesforce Lightning App dashboard.	Salesforce Lightning Experience (UI)
2	Application Logic-1	Handles creation and management of products, suppliers, and purchase orders.	Salesforce Apex Classes, Flows

3	Application Logic-2	Validates stock levels and product expiry dates before transactions.	Apex Triggers, Validation Rules
4	Application Logic-3	Generates reports and sends notifications for low stock or expired items.	Salesforce Process Builder, Flows
5	Database	Stores product, supplier, and purchase order data.	Salesforce Object Database (Custom Objects)
6	Cloud Database	Data stored securely in Salesforce Cloud (multi-tenant environment).	Salesforce Cloud Platform (Force.com)
7	File Storage	Stores attached documents like supplier invoices or delivery receipts.	Salesforce Files / Attachments
8	External API-1	(Optional) Integration with external supplier systems for automatic order updates	Salesforce REST API / External Services
9	External API-2	(Optional) Integration with medical regulatory databases for expiry validation.	Salesforce API Gateway
10	Machine Learning Model	(Optional) Predictive analytics for inventory restocking and demand forecasting.	Einstein AI / Salesforce Analytics
11	Infrastructure (Server / Cloud)	Hosted and managed on Salesforce's secure cloud infrastructure.	Salesforce Cloud (SaaS)

Table-2: Application Characteristics

S.No	Characteristics	Description	Technology
1	Open Source Frameworks	Supports integration with open APIs and tools.	Salesforce Lightning, Apex, REST APIs
2	Security Implementation	Ensures data protection and controlled access.	Salesforce Shield, MFA, Role-Based Access
3	Scalable Architecture	Easily scales with users and data growth.	Salesforce Cloud, Force.com
4	Availability	Provides continuous uptime and reliability.	Salesforce Cloud (99.9% SLA)
5	Performance	Delivers fast operations and reporting.	Apex Optimization, SOQL Tuning