Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	2 NOV 2025
Team ID	NM2025TMID02866
Project Name	Medical Inventory Management
Maximum Marks	4 Marks

Technical Architecture

The deliverable shall include the **architectural diagram** (we'll use your Medical Inventory Management architecture diagram here) and the information as per **Table 1** & **Table 2**.

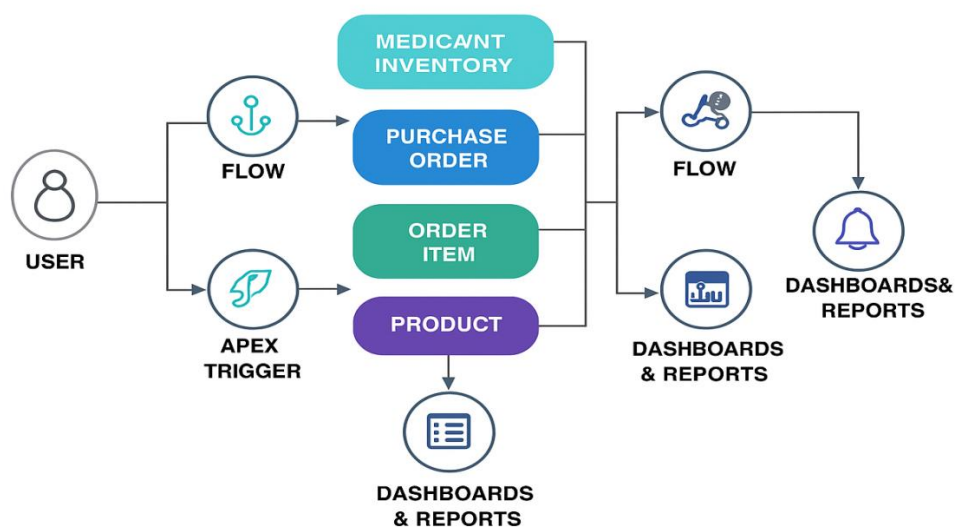**Example:** Medical Inventory Management System using Salesforce Platform

Figure 1: Architecture and data flow of the Medical Inventory Management application

Guidelines (as per your system):

- Include all the major processes (as application logic blocks).

- Provide infrastructural demarcation (Salesforce Cloud).

- Indicate external interfaces (Email Notification APIs).

- Indicate data storage components (Salesforce Object Database).

- Indicate automation logic using Flows and Apex Triggers.

Table 1: Components & Technologies

S.No	Component Description	Technology Used
1	**User Interface** – Admin and Managers interact via Salesforce Lightning App dashboard.	Salesforce Lightning App Builder
2	**Application Logic – 1**: Manage supplier, product, and purchase order operations.	Salesforce Custom Objects
3	**Application Logic – 2**: Automates Actual Delivery Date updates and calculations.	Salesforce Flow
4	**Application Logic – 3**: Calculates Total Order Cost using triggers.	Apex Trigger
5	**Database**: Stores supplier, product, and transaction data.	Salesforce Object Database
6	**Cloud Database**: Managed within Salesforce Cloud (SaaS).	Salesforce Cloud Backend
7	**File Storage**: Stores reports and dashboard data internally.	Salesforce File Storage

8	**External API – 1 (Optional)**: Integration with hospital ERP or inventory tools.	REST API (Salesforce Integration)
9	**External API – 2**	Not Applicable
10	**Machine Learning Model**	Not Applicable
11	**Infrastructure (Server / Cloud)**: Hosted and managed on Salesforce SaaS platform.	Salesforce Cloud (SaaS)

Table 2: Application Characteristics

S.No	Characteristic Description	Technology
1	**Open-Source Frameworks**	Not Applicable (Salesforce proprietary system)
2	**Security Implementations**: Role-based access and object-level permissions.	Profiles, Roles, Permission Sets
3	**Scalable Architecture**: SaaS-based, scalable via Salesforce multi-tenant architecture.	Salesforce Cloud Infrastructure
4	**Availability**: High availability through Salesforce-managed hosting.	Load-balanced Salesforce Instances
5	**Performance**: Optimized via Flows, Triggers, and Indexed Fields.	Apex Logic & Flow Optimization