

PROJECT DESIGN
PHASE-II TECHNOLOGY STACK
(ARCHITECTURE & STACK)

DATE	1 NOVEMBER 2025
TEAM ID	NM2025TMID02682
PROJECT NAME	MEDICAL INVENTORY MANAGEMENT
MAXIMUM MARKS	4 MARKS

Technical Architecture:

Below is a simple architecture diagram representing the components of the Medical Inventory Management System built on Salesforce.

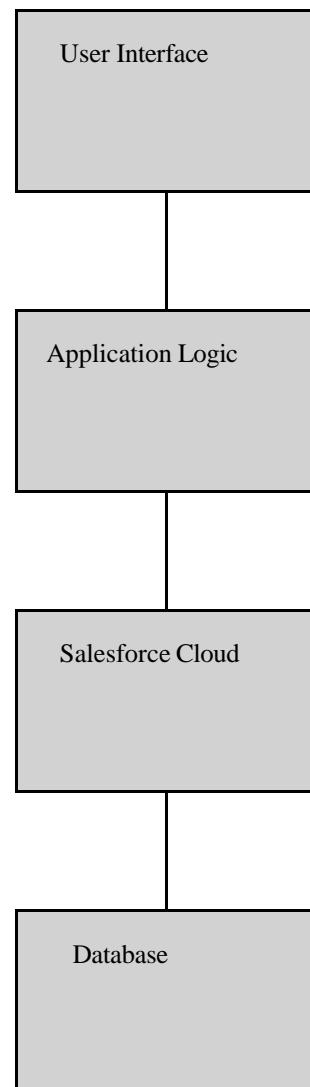


Table-1 : Components & Technologies

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S.No	Component Description	Technology
1	User Interface - The front-end used by medical staff to manage inventory, view reports, and track patient admissions.	Salesforce Lightning Web Components (LWC)
2	Application Logic-1	Apex Controllers and Lightning Components
3	Application Logic-2 Automates stock validation during intation	Apex Triggers, Process Builder
4	Application Logic-3 Sends notifications via email, critical items or re-order alerts	Salesforce Flow, Email Alerts
5	Stores product details from suppliers	Salesforce Custom & Standard Objects
6	Cloud Database - All records are managed on	Salesforce Cloud Database (SaaS)
7	File storage - Stores invoices, supplier documents	Salesforce Files & Attachments
8	External API-1 - Integration With hospital ER systems	REST API Integration (Salesforce Commerce)
9	External API-2 - Optional Integration with medical facilities	RESTful APIs / External Web Services
10	Machine Learning Model - (Optional) Predictive analysis	Einstein AI / External ML Model Integration

Table-2 : Application Characteristics

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Not applicable (Salesforce is a proprietary platform)	
2	Security Implementations	Provides high-level security using user authentication, role-based access control, and encryption for sensitive medical data	Salesforce Shield, Permission Sets, Profile Security
3	Scalable Architecture Scales horizontally to support large hospitals and multiple departments	Ensures 99.9% uptime through Salesforce's globally distributed infrastructure	Load-Balanced Salesforce Instances