PROJECTDESIGN
PHASE-IITECHNOLOGYSTACK
(ARCHITECTURE&STACK)

DATE	1NOVEMBER2025
TEAMID	NM2025TMID05759
PROJECTNAME	MEDICALINVENTORYMANAGEMENT
MAXIMUMMARKS	4 MARKS

TechnicalArchitecture:

BelowisasimplearchitecturediagramrepresentingthecomponentsoftheMedicalInventory Management System built on Salesforce.

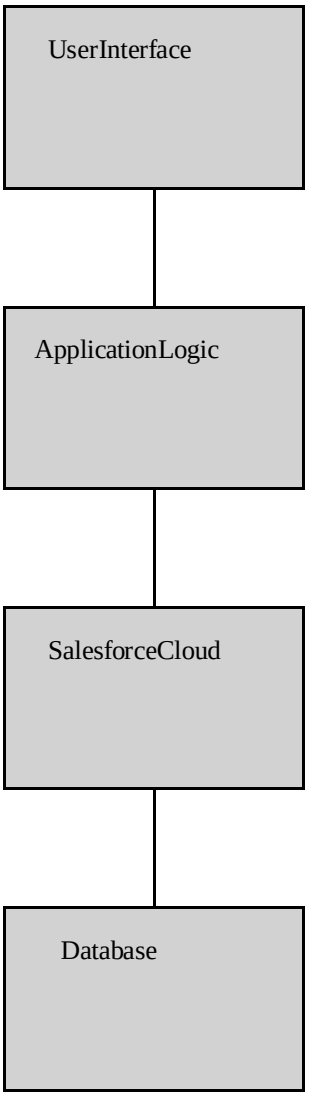

Table-1:Components&Technologies

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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	Salesforce Lightning Web Components (LWC
2	Application Logic-1 Lnnvetmemutionn innincieon ncioy	Apex Controllers and Lightning Components
3	Application Logic-2 Automates stock validations: inolntaton	Apex Triggers, Process Builder
4	Application Logic-3 Sends notifications email, critical items or	Salesforce Flow, Email Alerts
5	re-order alerts Stores product details sippliers	Salesforce Custom & Standard Objects
6	Cloud Database - All records are managenson	Salesforce Cloud Database (SaaS)
7	File storage - Stores invoices, supplier documents	Salesforce Files & Attachments
8	External API-1 - Integration With hospital ent mes	REST API Integration (Salesforce Connec
9	External API-2 - Optional Integration wtnomaocy	RESTful APIs / External Web Services
10	Machine Learning Model - (Optional) Predictive ar	Einstein AI / External ML Model Integration

Table-2:ApplicationCharacteristics

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 hos-pitals and multiple departments	Ensures 99.9% uptime through Salesforce's globally distributed infrastructure	Load-Balanced Salesforce Instances