Technology Stack:

Technology Stack (Architecture & Stack)

Date: 24 June 2025

Team ID: LTVIP2025TMID30526

Project Name: Jewelry Inventory Management System using Salesforce

Maximum Marks: 4 Marks

Technical Architecture:

This Jewelry Inventory CRM Application is developed using Salesforce to digitize and streamline jewelry operations such as customer handling, item tracking, billing, and pricing. The system efficiently manages gold/silver item data, pricing logic based on purity and type, and automates billing calculations.

Key functionalities include:

- Customer and employee record management

- Item classification by type, purity, and weight

- Automatic billing and price calculations using formula fields and triggers

- Role-based access for Admins, Workers, and Goldsmiths

- Dashboards and reports for billing summaries and item tracking

- Validations and flows for secure, error-free data entry

The application enhances user experience, data accuracy, and operational visibility across the RTC department.

Table-1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Manage jewelry	Salesforce

2	Application Logic-1	operations and roles	Lightning App Builder
4	Application Logic-3	Field validation and layout assignment per Record Type	Validation Rules, Flows
5	Database	Customer, Item, Billing, and Price data	Salesforce Custom Objects
6	Cloud Database	Hosted data model and object storage	Salesforce Platform Database
7	File Storage	Store billing records, customer slips, gold rates	Salesforce Files / ContentVersion

Table-2: Application Characteristics

S.No	Characteristics	Description / Technology
1	Open-Source Frameworks	Not applicable (Salesforce is proprietary) / N/A
2	Security Implementations	Role/Profile-based access control, FLS
3	Scalable Architecture	Multi-tenant, scalable cloud architecture / Salesforce Platform
4	Availability	Salesforce Cloud availability (99.9%) / Load Balanced
5	Performance	Fast load times with optimized Flows and Triggers / SOQL, Apex

Milestones Implemented:

1. Created Salesforce Developer Org for Jewelry CRM System

2. Designed custom objects – Customer, Gold/Silver Item, Billing, Pricing

3. Created tabs for each object for easier access

4. Built Lightning App – "Jewelry Inventory CRM"

5. Added required fields (standard, picklist, formula, lookup, checkbox)

6. Customized page layouts and record types for Gold and Silver categories

7. Applied validation rules to ensure item data integrity

8. Built flows to auto-calculate total price and check purity logic

9. Created Apex Trigger to calculate and auto-fill Paid Amount

10. Generated reports for Items by Type, Customers by Billing

11. Built dashboards for billing trends and item tracking

12. Finalized project delivery with summary, use cases, and business value

References:

- https://www.salesforce.com/products/platform/overview/

- https://trailhead.salesforce.com/

- https://developer.salesforce.com/docs

- https://help.salesforce.com/s/articleView?id=sf.flow_build.htm