Project Design Phase-II

Technology Stack (Architecture & Stack)

Date	23 June 2025
Team ID	LTVIP2025TMID31339
Project Name	CRM Application for Jewel Management - (Developer)

Technical Architecture

The Jewelry Inventory Management System is designed to digitize and automate core operations such as inventory tracking, order management, billing, and pricing for gold and silver items. It supports multiple user roles (e.g., Goldsmith, Worker) with controlled access and includes automation features like email notifications and dynamic pricing through formulas and triggers.

Table-1: Components & Technologies

S.No	Component Description	Technology
1	User Interface	Salesforce Lightning App (Custom Tabs, Page Layouts)
2	Application Logic-1	Apex Classes, Triggers, Flows
3	Application Logic-2	Formula Fields and Validation Rules
4	Application Logic-3	Salesforce Flow for Notifications
5	Database	Custom Objects and Fields in Salesforce
6	Cloud Database	Salesforce Platform Data Layer (Multi-Tenant DB)

7	File Storage	Salesforce Files/Attachments
8	External API-1	Optional: Payment Gateway API or Email API
9	External API-2	Optional: SMS/WhatsApp Notification API
10	Machine Learning Model	N/A (Can be added later for demand prediction)
11	Infrastructure (Server/Cloud)	Salesforce Cloud Platform (multi-region support)

Table-2: Application Characteristics

S.No	Characteristics Description	Technology
1	Open-Source Frameworks	Apex, Lightning Web Components (Salesforce-provided)
2	Security Implementations	Role-Based Access Control, Object/Field-Level Security
3	Scalable Architecture	Cloud-Native 3-Tier Model (UI, Logic, Data)
4	Availability	Salesforce Multi-Zone High Availability Architecture
5	Performance	Formula Fields, Triggers, Indexed Fields, Caching via Salesforce