

PROJECT DESIGN PHASE – II

Technology Stack (Architecture & Stack)

Date	1 November 2025
Team ID	NM2025TMID08998
Project Name	CRM Application for Jewel Management
Maximum Marks	4 Marks

Technical Architecture

The deliverable includes an architectural diagram and detailed information of all system components and technologies used.

The **CRM Application for Jewel Management** is designed on the **Salesforce Cloud Platform**, enabling jewelry businesses to manage customers, sales, products, and analytics efficiently. The application provides seamless integration between customer management, product inventory, sales automation, and reporting modules—all within Salesforce's secure and scalable cloud environment.

Architecture Guidelines

- Includes all functional components such as UI, Logic, Database, and Reporting.
- Shows **infrastructural demarcation** (Salesforce Cloud).
- Indicates **external integrations** (email, payment gateways, and analytics APIs).
- Defines **data storage** using Salesforce Objects and Databases.
- Supports **automation** using Salesforce Flow, Apex Triggers, and Reports.

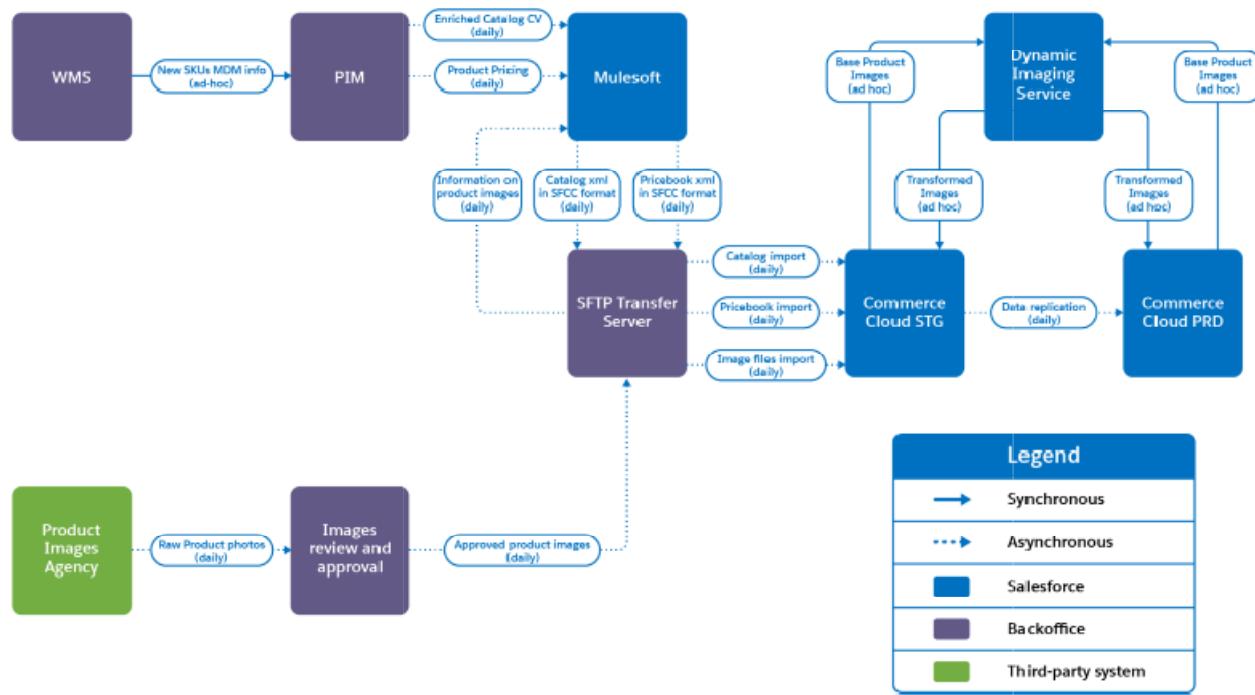


Table 1: Components & Technologies

S.No	Component	Description	Technology
1	User Interface	Sales reps and managers interact with the CRM through web dashboards and Lightning apps.	Salesforce Lightning Experience UI
2	Application Logic – 1	Handles jewelry sales entry, customer creation, and data validation.	Salesforce Apex Classes, Lightning Flow
3	Application Logic – 2	Updates stock quantity and customer purchase history after each transaction.	Apex Triggers, Process Builder
4	Application Logic – 3	Generates invoices and sends order confirmation via email or SMS.	Salesforce Email Templates, Workflow Rules
5	Database	Stores jewelry products, customers, and sales transaction records.	Salesforce Objects (Custom & Standard)
6	Cloud Database	Managed under Salesforce multi-tenant cloud architecture.	Salesforce Cloud Database
7	File Storage	Stores reports, invoices, and related documents securely.	Salesforce File Storage, Attachments

S.No	Component	Description	Technology
8	External API – 1	Integration with payment gateway for online jewelry purchases.	REST API Integration (Salesforce Apex REST)
9	External API – 2	Integration with email marketing tool for customer follow-ups.	Mailchimp / SendGrid API
10	Machine Learning Model (Optional)	Predicts high-value customers based on purchase patterns.	Salesforce Einstein Analytics
11	Infrastructure (Server / Cloud)	Hosted and managed on Salesforce SaaS cloud platform.	Salesforce Cloud (SaaS)

Table 2: Application Characteristics

S.No	Characteristics	Description	Technology
1	Open-Source Frameworks	Salesforce uses proprietary platform; minimal open-source components.	-
2	Security Implementations	Role-based access control, organization-wide sharing rules, field-level security.	Salesforce Security Model, Profiles, and Permission Sets
3	Scalable Architecture	Cloud-based CRM that scales automatically with data and users.	Salesforce Cloud Architecture
4	Availability	High availability ensured through Salesforce's multi-region cloud setup.	Load-balanced Salesforce Instances
5	Performance	Optimized through indexed queries, batch processing, and asynchronous Apex jobs.	SOQL Optimization, Batch Apex, Queueable Jobs