Project Design Phase

Solution Architecture

Date	01/11/2025
Team ID	NM2025TMID04501
Project Name	CRM Application for Jewel Management - (Developer)
Maximum Marks	4 Marks

Goals of the Architecture:

The main goals of the architecture are to provide a unified CRM platform for jewellery management, maintain accurate records of customers, products, and sales transactions, automate price calculations and validation processes, and improve business efficiency and data reliability through Salesforce workflows.

Key Components:

☐ Customer Object – stores customer information, contact details, and purchase history.

☐ Jewellery Item Object – maintains data about gold, silver, and diamond items including price, weight, and category.

☐ Sales Record Object – tracks every sales transaction, quantity sold, and total billing amount.

☐ Formula Fields – automatically calculate item prices based on weight and material type.

☐ Validation Rules – prevent incorrect or incomplete data entry.

☐ Email Alerts and Flows – notify staff about stock updates or pending sales approvals.

☐ Reports and Dashboards – provide visual insights into sales performance and inventory levels.

Development Phases:

1. Create Salesforce custom objects for Customer, Jewellery Item, and Sales Record

2. Establish relationships between objects (Master–Detail and Lookup)

3. Add formula fields for price and total amount calculations

4. Implement validation rules and field dependencies for data accuracy

5. Create Flows and Email Alerts for automation and notifications

6. Design Reports and Dashboards for performance tracking and analytics

Solution Architecture Description:

The solution architecture for the CRM Application for Jewel Management is designed to integrate inventory management, customer data, and sales tracking into a single Salesforce-based system.

It ensures that every sales transaction is automatically linked to the correct customer and jewellery item, maintaining transparency and consistency.

The architecture uses object relationships (such as Customer → Sales → Item) to simplify data flow between modules. Formula fields are used to automate price calculations based on gold/silver rates, while validation rules ensure accurate and complete data entry.

Flows and Email Alerts automate repetitive business operations such as billing updates, payment reminders, and low-stock notifications. Reports and dashboards provide a real-time overview of jewellery sales, customer engagement, and overall business performance.

This architecture reduces manual work, increases efficiency, and promotes data-driven decision-making for jewellery businesses. It also provides scalability for adding future modules like supplier management or online orders.
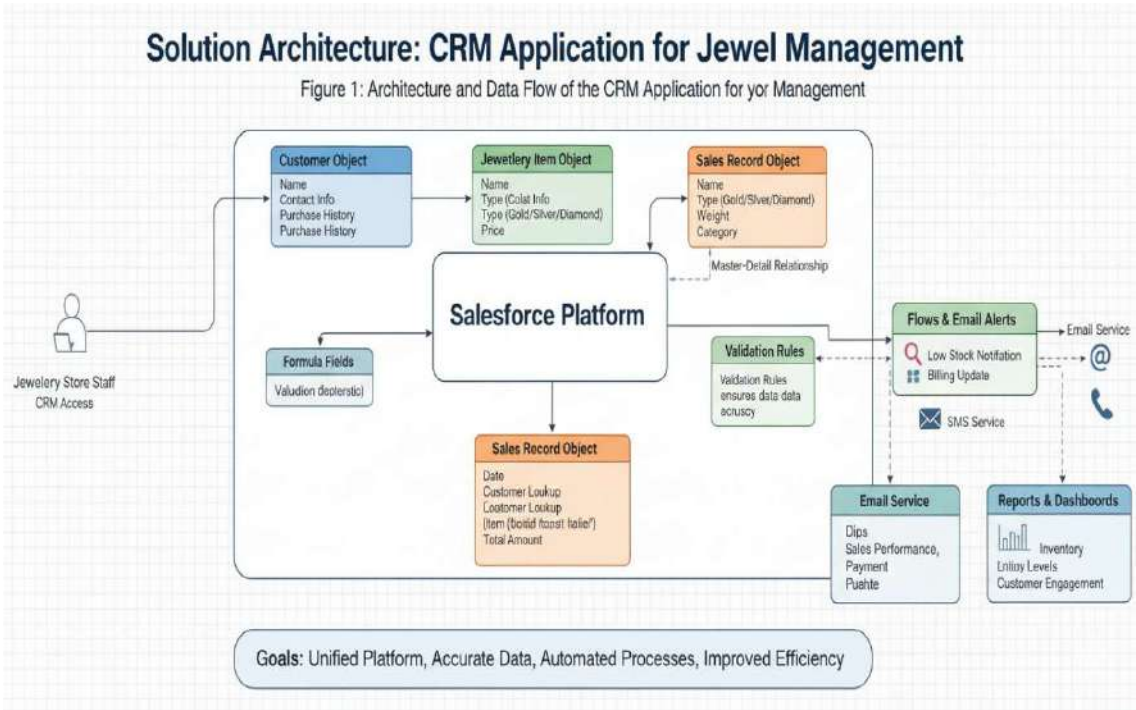
Solution Architecture Diagram:

Figure 1: Architecture and Data Flow of the CRM Application for Jewel Management