Project Design Phase
Solution Architecture

Date	27 June 2025
Team ID	NM2025TMID08998
Project Name	CRM Application for Jewel Management
Maximum Marks	4 Marks

Solution Architecture:

Goals of the Architecture:

- Build a centralized CRM system for jewelry business operations.
- Enable seamless integration between customers, items, billing, and orders.
- Ensure data consistency and automation using Salesforce Flows, Validation Rules, and Triggers.
- Improve sales tracking, reporting, and billing accuracy through dashboards and analytics.

Key Components:

- Jewel Customer Object**:** Stores customer details (name, address, contact, postal code).
- Item Object: Contains jewelry details (Gold/Silver, weight, purity, prices).
- Customer Order Object**:** Manages order details and status tracking.
- Billing Object**:** Automates invoice generation and payment details.
- Price Object**:** Holds live metal price data (Gold/Silver).
- Flow & Trigger Automation**:** Used to send emails and auto-update fields.
- Reports & Dashboards**:** Provide business insights and visual analytics.

Development Phases:

1. **Object Creation** – Define Jewel Customer, Item, Price, Order, and Billing objects.
2. **Field Configuration** – Add fields and formula logic for pricing, KDM, and weight.
3. **Validation Rules** – Ensure data accuracy (e.g., postal code validation).
4. **Roles and Profiles** – Create Gold Smith and Worker with appropriate permissions.
5. **Automation Setup** – Implement Trigger Handler and Flows for billing and notifications.
6. **Reporting & Dashboard** – Create reports for "Items with Billings" and visualize KPIs.

✖ Solution Architecture Description:

The solution architecture is designed to ensure **data integrity and operational accuracy** within the *CRM Application for Jewelry Management* by implementing automation and validation mechanisms across all related objects. The architecture focuses on maintaining consistency between the **Jewel Customer**, **Item**, **Billing**, and **Customer Order** records through **Flows**, **Validation Rules**, and **Apex Triggers**. For example, automated flows send email notifications when a billing record is created or updated, while validation rules ensure required fields and data formats are accurate. Trigger handlers manage updates to payment amounts and prevent inconsistencies across linked records. The development process involves creating sample data, configuring automation, and verifying system behavior. This architecture minimizes manual errors, enhances data reliability, and promotes accountability in jewelry business operations.

Example - Solution Architecture Diagram: