

**Project Design Phase**  
**Solution Architecture**

Date	06 NOV 2025
Team ID	NM2025TMID07115
Project Name	CRM Application for Jewel Management - (Developer)
Maximum Marks	4 Marks

**Solution Architecture:**

**Goals of the Architecture:**

- Unified Data Integration: Single source of truth across all business data
- Real-Time Business Visibility: Immediate insights through dashboards and analytics
- Operational Efficiency and Automation: Streamlined processes reducing manual work
- Enterprise-Grade Scalability: Support growth from boutiques to global enterprises
- Omnichannel Customer Experience: Consistent experience across all touchpoints

**Key Components:**

1. Core CRM Platform (Salesforce backbone with account, opportunity, activity management)
2. Jewelry-Specific Data Models (custom objects for inventory, orders, repairs, layaways)
3. Inventory Management System (real-time tracking across multiple locations)
4. Sales Pipeline and Lead Management (jewelry-specific workflow automation)
5. Customer Analytics and Business Intelligence (segmentation, predictive analytics, dashboards)
6. Marketing Automation and Customer Engagement (email, SMS, loyalty programs)
7. Multi-Channel Integration Layer (POS, e-commerce, marketplace, payment gateways)
8. Reporting and Compliance Module (financial reporting, audit trails, tax documentation)

## **Development Phases:**

- Foundation and Planning - governance, requirements, architecture
- Core CRM Configuration - custom objects, data models, security setup
- Integration Development - POS, e-commerce, inventory sync
- Advanced Features - analytics, AI recommendations, marketing automation
- Testing and Deployment - UAT, performance optimization, go-live
- Post-Deployment Support - monitoring, feedback, continuous improvement

## **✖ Solution Architecture Description:**

Comprehensive overview of the layered architecture including:

- Presentation Layer: Web and mobile interfaces for different user roles
- Business Logic Layer: Workflows and custom code for jewelry-specific processes
- Data Layer: Specialized data model for jewelry retail operations
- Integration Layer: APIs connecting external systems in real-time

Plus detailed explanations of data flow, security architecture, scalability mechanisms, disaster recovery, and integration patterns.

Example - Solution Architecture Diagram:

