| Date | 03 NOV 2025 |
|---|---|
| Team ID | NM2025TMID01745 |
| Project Name | CRM Application for Jewel Management – (Developer) |
| Maximum Marks | 4 Marks |

## Solution Architecture:

### Goals of the Architecture:

- To create a robust feasible solution that meets all specified business requirements

- Ensuring about qualities like security, performance and scalability,

- Efficient management & reduce manual systems.

### Key Components:

- Custom objects creation.

- Lightning app creation (Jewellery Inventory system)

- Page layouts, profiles & validation rules

- Flows automate essential task.

- Reports and dashboards.

### Development Phases:

1. Planning & Setup (Initial Design)

2. Security logic and User Experience Implementation

3. Business Logic and Automation

4. Reporting & Testing

5. Deployment & Adoption

### ❇️ Solution Architecture Description:

Centralization and Data Integrity: The system moves all core business data (Jewels, Customers, Orders) into a single, secure database using Custom Objects, eliminating fragmented spreadsheets and enforcing data accuracy through Validation Rules (e.g., ensuring positive Carat Weight).

Security and Access Control: Access to high-value assets is managed through a strict security layer utilizing Profiles (Gold Smith, Worker) and Roles, ensuring users only see and interact with the data necessary for their specific job function.

Automation and Efficiency: Workflow bottlenecks are removed by implementing Flows, which automatically handle critical, time-sensitive tasks, such as sending Billing Notifications immediately upon invoice creation.

### Data Flow Summary:

The architectural flow begins when a user interacts with the Jewellery Inventory System Lightning App. This action triggers a Profile Check for authorization.

Validated data is then checked by Validation Rules before being committed to the Custom Objects (the database). Upon storage, the data triggers any necessary Flows for automation, and finally, the new information is instantly reflected in the Reports and Dashboards layer for business intelligence.
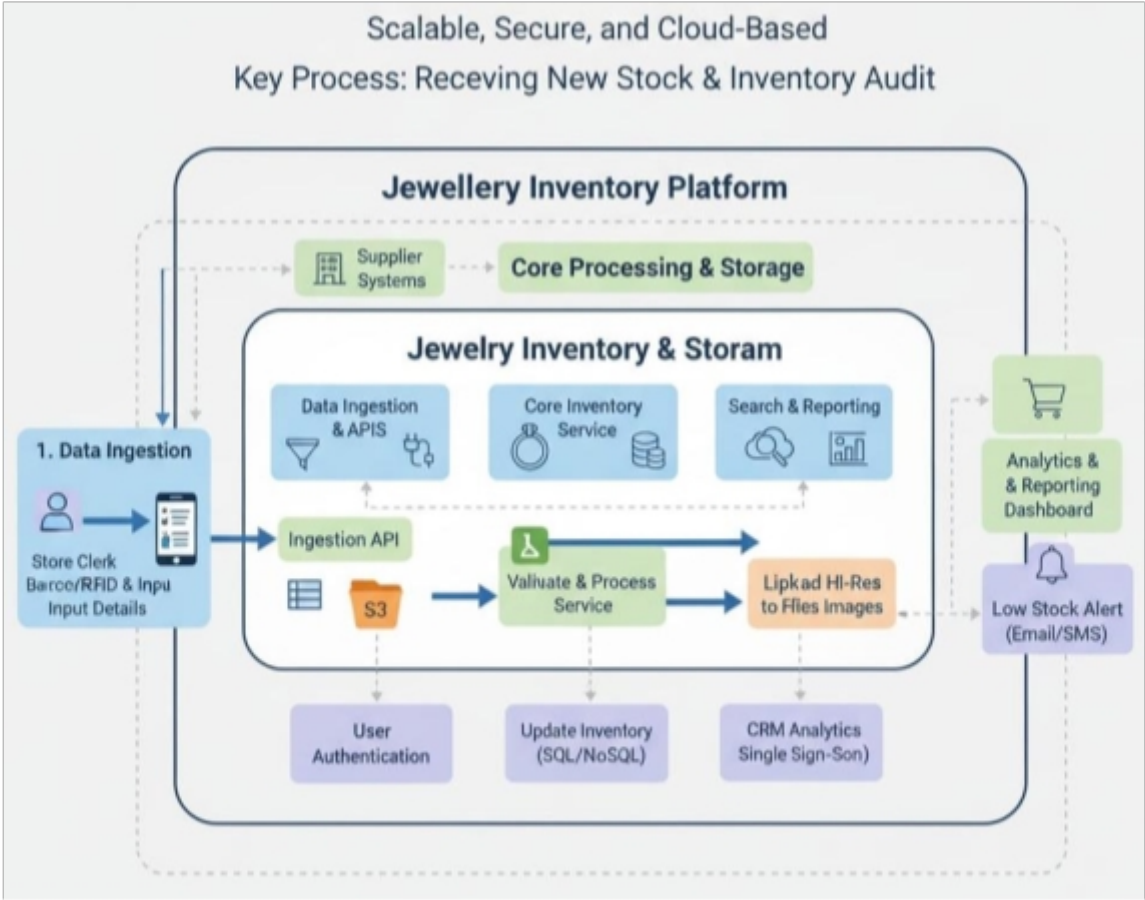
**Example - Solution Architecture Diagram:**



Figure 1: Architecture and data flow of the Application for jewel management system