

## TECHNOLOGY STACK(ARCHITECTURE & STACK)

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|---------------|--|
| Date          | 31 OCTOBER 2025  |
| Team ID       | NM2025TMID04251  |
| Project Name  | CRM Application for Jewel Management-(Developer) in Salesforce |
| Maximum Marks | 4 Marks  |

### Technical Architecture

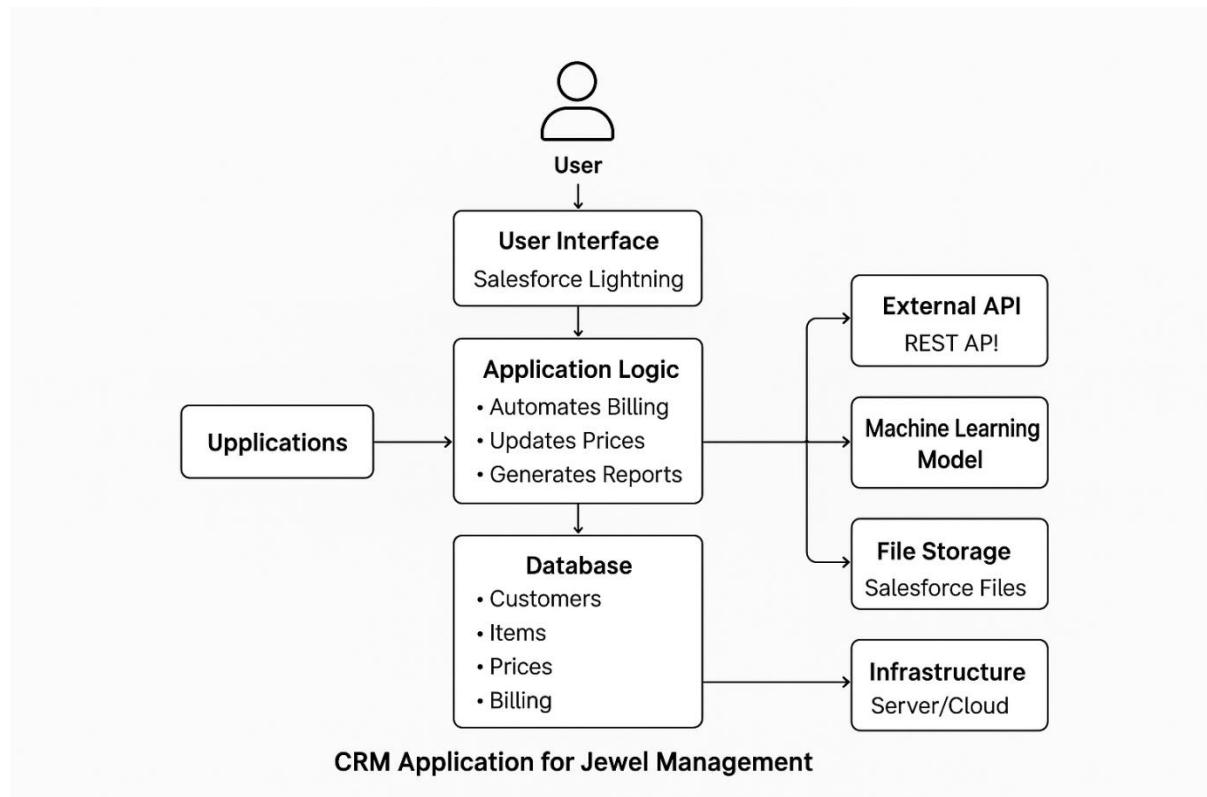
The deliverable includes the architecture diagram and detailed component information as outlined below.

**Example:** CRM-based jewelry management application with real-time automation and reporting using Salesforce Lightning.

#### Reference:

<https://developer.salesforce.com/docs>

<https://www.salesforce.com/in/products/platform/overview/>



## Guidelines:

- Include all system modules (Customer, Item, Price, Billing, Dashboard).
- Show separation between application logic and cloud infrastructure.
- Highlight Salesforce's role as the main platform for database, automation, and UI.
- Indicate any external services such as payment APIs or data imports.
- Define data storage and reporting layers clearly.

## Components & Technologies:

| S.No | Component Description   | Technology Used                              |
|------|---|--|
| 1.   | <b>User Interface</b> – The admin and staff interact via a Salesforce Lightning web dashboard and mobile app. | Salesforce Lightning Experience, App Builder |
| 2.   | <b>Application Logic – 1</b> Automates billing generation and total price calculation after item selection.   | Record-Triggered Flow, Formula Fields        |
| 3.   | <b>Application Logic – 2</b> Automatically updates price records when metal rates change.                     | Flow Builder, Process Automation             |
| 4.   | <b>Application Logic – 3</b> Generates sales and performance reports dynamically.                             | Salesforce Reports & Dashboards              |
| 5.   | <b>Database</b> – Stores all business data such as customers, jewelry items, prices, and invoices.            | Salesforce Object Database (Custom Objects)  |
| 6.   | <b>Cloud Database</b> – Managed through Salesforce's secure multi-tenant architecture.                        | Salesforce Cloud (Force.com Platform)        |
| 7.   | <b>File Storage</b> – Used for storing invoices and customer purchase documents.                              | Salesforce Files, Document Storage           |
| 8.   | <b>External API – 1 (Optional)</b> – Integrate metal rate updates or third-party payment gateways.            | REST API Integration (Salesforce Apex)       |
| 9.   | <b>External API – 2</b> – Optional CRM extensions for external email/SMS alerts.                              | Salesforce Connect, Email API                |
| 10.  | <b>Machine Learning Model (Future Scope)</b> – Predicts jewelry sales trends and customer preferences.        | Einstein Analytics (Salesforce AI)           |
| 11.  | <b>Infrastructure (Server/Cloud)</b> – Entire system hosted and maintained on Salesforce Cloud.               | Salesforce Cloud Infrastructure (SaaS)       |

## **Application Characteristics:**

| S.No | Characteristics                 | Description  | Technology Used                             |
|------|---------------------------------|--|---|
| 1.   | <b>Open-Source Frameworks</b>   | Not applicable – Salesforce is a proprietary platform with built-in tools.                   | -   |
| 2.   | <b>Security Implementations</b> | Role-based access control, permission sets, profile restrictions, and encrypted connections. | Profiles, Permission Sets, Role Hierarchies |
| 3.   | <b>Scalable Architecture</b>    | Highly scalable due to Salesforce multi-tenant cloud platform.                               | Salesforce Cloud Architecture               |
| 4.   | <b>Availability</b>             | Ensures 99.9% uptime with globally distributed cloud servers.                                | Load-Balanced Salesforce Instances          |
| 5.   | <b>Performance</b>              | Optimized using asynchronous automation and indexed objects for faster query execution.      | Apex Batch Jobs, Flow Optimization          |

## **Conclusion**

The **CRM Application for Jewel Management** utilizes Salesforce's cloud-native architecture to achieve automation, scalability, and robust data management. It integrates advanced CRM capabilities with automation flows, dashboards, and security features to deliver a complete, efficient, and intelligent jewelry management system.

This architecture ensures high performance, real-time insights, and secure access for all users, aligning with modern CRM development standards.