

# Requirement Analysis Phase

## Technology Stack Template

### 1. Introduction

The Technology Stack defines the set of platforms, tools, and technologies used to design, develop, test, and deploy the Salesforce CRM for Jewel Management system.

A well-structured technology stack ensures seamless integration, efficient development, enhanced performance, and long-term maintainability.

This project primarily utilizes the Salesforce ecosystem and its declarative and programmatic capabilities to deliver a scalable and cloud-based CRM solution.

### 2. Technology Overview

The Salesforce CRM for Jewel Management leverages the Software as a Service (SaaS) model, hosted entirely on the Salesforce Cloud Platform.

The stack integrates both declarative tools (point-and-click configuration) and programmatic tools (custom code) to build a secure, flexible, and user-friendly solution for jewelry business management.

Category	Technology / Tool	Purpose / Description
<b>Platform</b>	Salesforce Developer Edition	Core development and deployment environment for CRM application creation.
<b>Frontend (UI Layer)</b>	Lightning App Builder, Lightning Pages, Record Pages	Design interactive and user-friendly interfaces in Salesforce Lightning Experience.
<b>Backend (Logic Layer)</b>	Apex Classes, Apex Triggers	Implements business logic, data validation, and automation beyond declarative capabilities.
<b>Database Layer</b>	Salesforce Objects (Standard & Custom)	Stores records such as Jewel Customers, Items, Orders, and Reports in relational structured format.
<b>Automation Tools</b>	Flow Builder, Validation Rules, Workflow Rules	Automates repetitive processes, maintains data accuracy, and triggers system actions.
<b>Security Management</b>	Profiles, Roles, Permission Sets, Role Hierarchies	Manages user access and ensures data security for Goldsmiths, Workers, and Admins.
<b>Reporting &amp; Analytics</b>	Reports and Dashboards	Provides insights into sales performance, inventory health, and customer engagement.

Category	Technology / Tool	Purpose / Description
<b>Testing &amp; Debugging</b>	Developer Console, Apex Test Execution, Debug Logs	Supports application testing, debugging, and performance validation.
<b>Version Control / Deployment</b>	Change Sets, Salesforce Setup Menu	Used for migration of configurations and deployment across environments.
<b>Documentation &amp; Collaboration</b>	Trailhead, Salesforce Setup Notes	Platform for documentation, training, and continuous skill development.

#### 4. Integration and Cloud Services

Although the CRM primarily functions within the Salesforce environment, it remains open to future integrations with external tools such as:

- Email Services (e.g., Outlook Integration) for customer communication.
- Salesforce Mobile App for on-the-go access and management.
- Einstein Analytics (optional) for advanced reporting and AI-driven insights.

#### 5. Advantages of the Chosen Stack

- 100% Cloud-Based, ensuring no infrastructure management.
- High scalability and reliability using Salesforce's multi-tenant architecture.
- Seamless data automation through Flows and Triggers.
- Strong built-in security and compliance features.
- Rapid development using low-code and no-code tools.

#### 6. Summary

The Technology Stack for the Salesforce CRM for Jewel Management system is a robust combination of Salesforce's declarative tools and Apex-based customization capabilities.

This integrated ecosystem provides a secure, scalable, and user-friendly platform that simplifies jewelry business operations—from managing customers and inventory to tracking orders and analyzing performance.