

Project Design Phase-II

Technology Stack (Architecture & Stack)

Date: 30 October 2025

Team ID: NM2025TMID01082

Project Name: Lease Management System in Salesforce

Maximum Marks: 4 Marks

Technical Architecture:

The deliverable includes the architectural diagram (to be added in the final report) and detailed component information as per **Table 1 & Table 2** below.

Example: The **Lease Management System in Salesforce** is a cloud-based application designed to automate lease creation, rent payments, and renewal tracking. It centralizes property, tenant, and payment management processes in a single Salesforce environment to enhance efficiency and transparency.

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

Table 1: Components & Technologies

S.No	Component	Description	Technology
1	Property Management	Manages property details including property ID, location, owner name, and rent value. Links each property with associated lease agreements.	Salesforce Custom Object (Property__c), Apex Classes, Lightning Web Components (LWC)
2	Tenant Management	Handles tenant details such as name, contact information, lease duration, and payment history.	Salesforce Object (Tenant__c), Validation Rules, Flows
3	Lease Agreement Management	Manages lease agreements between property owners and tenants, defining start and end dates, rent, and terms.	Salesforce Object (Lease__c), Apex Triggers, Flows
4	Payment Management	Tracks rent payments, due dates, and transaction details. Automatically updates payment status after confirmation.	Salesforce Object (Payment__c), Apex Triggers, Email Alerts

S.No	Component	Description	Technology
5	Notification & Reminder System	Sends automated reminders for rent due dates and lease renewals to property owners and tenants.	Salesforce Flow (Record-Triggered), Scheduled Flows, Email Templates
6	Reports & Dashboards	Provides real-time insights into active leases, upcoming renewals, rent collection, and overdue payments.	Salesforce Reports & Dashboards, Lightning Pages
7	Role & Access Management	Controls access levels for different users (Admin, Property Owner, Tenant).	Salesforce Role Hierarchy, Profiles, Permission Sets
8	Audit & Logging Module	Tracks create, update, and delete actions to ensure data transparency and compliance.	Salesforce Field History Tracking, Audit Trail
9	Integration Layer	Connects with external payment gateways and email APIs for processing rent payments and sending notifications.	REST / SOAP APIs, Apex Integration Services

Table 2: Application Characteristics

S.No	Characteristics	Description	Technology
1	User Interface (UI)	Provides an intuitive and responsive interface for managing leases, tenants, and payments.	Salesforce Lightning Experience, LWC, HTML5, CSS3
2	Automation	Automates workflows for lease creation, rent reminders, and payment tracking.	Salesforce Flow Builder, Process Builder, Apex Triggers
3	Data Management	Maintains structured storage of property, tenant, lease, and payment data.	Salesforce Custom Objects, SOQL, Relational Data Model
4	Integration	Connects with external systems such as payment gateways and notification APIs.	RESTful APIs, Apex HTTP Callouts, JSON / XML
5	Security	Ensures data privacy and protection through encryption, authentication, and access control.	OAuth 2.0, HTTPS / TLS 1.2+, Role-Based Access Control