Project Design Phase

Proposed Solution

Date	02 November 2025
Team ID	NM2025TMID01386
Project Name	Lease Management
Maximum Marks	**4 Marks**

Technical Architecture:

The deliverable includes the architectural diagram (Lease Management System in Salesforce) and the details listed in Table 1 and Table 2 below.

This system focuses on automating the entire lease management process — from property listing to agreement renewal — using Salesforce's low-code tools and cloud infrastructure.

Reference:

https://developer.salesforce.com/

https://trailhead.salesforce.com/

Guidelines:

Includes all application logic processes (Lease creation, Renewal, Payment tracking)

Defines Salesforce cloud infrastructure and tenant data storage

Integrates third-party APIs for e-signature and payment updates

Uses Salesforce cloud database and CRM analytics

Optionally supports AI-based rent prediction models

Table 1: Components & Technologies

S.No	Component	Description	Technology
1.	User Interface	Users interact through a responsive Salesforce Lightning Web Dashboard	Salesforce Lightning UI
2.	Application Logic-1	Automates lease creation and digital approval workflows	Salesforce Flow, Process Builder
3.	Application Logic-2	Sends reminders for renewals and overdue payments	Salesforce Scheduled Flows

4.	Application Logic-3	Manages role-based data access for tenants, landlords, and admins	Role Hierarchies & Permission Sets
5.	Database	Stores property, tenant, and lease details	Salesforce Custom Objects
6.	Cloud Database	Managed by Salesforce Cloud Infrastructure	Salesforce Platform Database
7.	File Storage	Lease documents and receipts stored securely	Salesforce Files / Content Library
8.	External API-1	E-signature integration for lease approval	DocuSign API or Adobe Sign API
9.	External API-2	Optional payment gateway integration	Razorpay / Stripe REST API
10.	Machine Learning Model	Predicts rent trends and renewal chances	Einstein AI / Salesforce ML Model
11.	Infrastructure (Server / Cloud)	Hosted and managed on Salesforce SaaS Cloud	Salesforce Cloud (SaaS)

Table 2: Application Characteristics

S. No.	Characteristics	Description	Technology
1.	Open-Source Frameworks	Salesforce proprietary ecosystem with limited open-source	-
2.	Security Implementations	Role-based access, record-level security, and encrypted fields	Salesforce Shield, Profiles & Permission Sets
3.	Scalable Architecture	Cloud-native and horizontally scalable via Salesforce multi-tenant architecture	Salesforce Cloud Platform
4.	Availability	Ensures 99.9% uptime using distributed Salesforce infrastructure	Load-balanced Salesforce Instances
5.	Performance	Optimized via asynchronous	Salesforce Apex, Flow Orchestration