

# REQUIREMENT ANALYSIS

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Project Name	LEASE MANAGEMENT
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## 1. Overview

The **Salesforce Lease Management System** is built entirely on the **Salesforce Lightning Platform**, leveraging both **declarative** (no-code) and **programmative** (code-based) tools for automation, customization, and data management.

## 2. Technology Components

Category	Technology / Tool	Purpose
Platform	Salesforce Lightning Platform	Core platform to build, automate, and manage application processes.
Database Layer	Salesforce Object Database	Stores all Property, Tenant, Lease, and Payment records as custom objects.
Automation Tool	Salesforce Flow	Automates actions such as email sending, updates, and field changes.
Process Automation	Approval Process	Manages tenant leave approval workflows.
Backend Logic	Apex Triggers & Apex Classes	Implements business logic like preventing multiple tenants per property and scheduling monthly reminders.
Scheduling Tool	Apex Scheduler	Automates recurring rent reminder emails.
User Interface	Lightning App Builder	Creates navigation and UI layout for end users.
Communication	Classic Email Templates	Sends structured emails for payments and approvals.
Validation Layer	Validation Rules	Ensures data consistency (e.g., lease end date > start date).
Testing Environment	Salesforce Developer Console	Used for debugging, testing, and validating Apex and Flows.

### 3. Supporting Tools:

Tool	Purpose
Setup Menu (Object Manager)	For object creation, field management, and relationship setup.
Schema Builder	Visualizes relationships between custom objects.
Flow Builder	Builds automated record-triggered workflows.
Email Deliverability Settings	Enables email communication from Salesforce.
App Manager	Manages Lightning App configuration.

### 4. Architecture Type

- **Cloud-Based Architecture** – Hosted on Salesforce’s multi-tenant cloud.
- **Modular Structure** – Separate objects for Property, Tenant, Lease, and Payment.
- **Event-Driven Automation** – Uses triggers, flows, and schedulers based on record events.

### 5. Advantages of the Chosen Stack

- Fully integrated environment (no external dependencies).
- Scalable for additional modules like Maintenance Requests.
- Secure, using Salesforce’s built-in access control.
- User-friendly with drag-and-drop tools for admin-level customization.