Project Design Phase

Solution Architecture

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Team ID	NM2025TMID07221
Project Name	Lease Management

1. Introduction

The Solution Architecture outlines how the Lease Management System (LMS) is structured and implemented within the Salesforce platform. It describes system design, components, data flow, integrations, and user interactions, ensuring an efficient, scalable, and secure lease management process.

Objectives

Present a detailed architectural view of the LMS

Define system modules, data models, and workflows

Explain integration points and automation processes

Ensure system scalability, security, and reliability

2. System Architecture Overview

The LMS is built as a cloud-based application on Salesforce with a modular and scalable architecture supporting:

- Lease agreement lifecycle management
- Tenant information tracking
- Payment & rent schedule management
- Maintenance request automation
- Document storage and compliance management

Key Components

Component	Description
Salesforce CRM	Core platform for lease data and workflows
Custom Objects	Lease, Property, Tenant, Payments, Maintenance Ticket
Apex Triggers & Workflows	Automations & business logic
Lightning Pages & Forms	User UI for data entry & viewing
Reports & Dashboards	Real-time analytics & insights
Salesforce Files	Document & contract storage
Email/SMS Notification System	Customer alerts and reminders

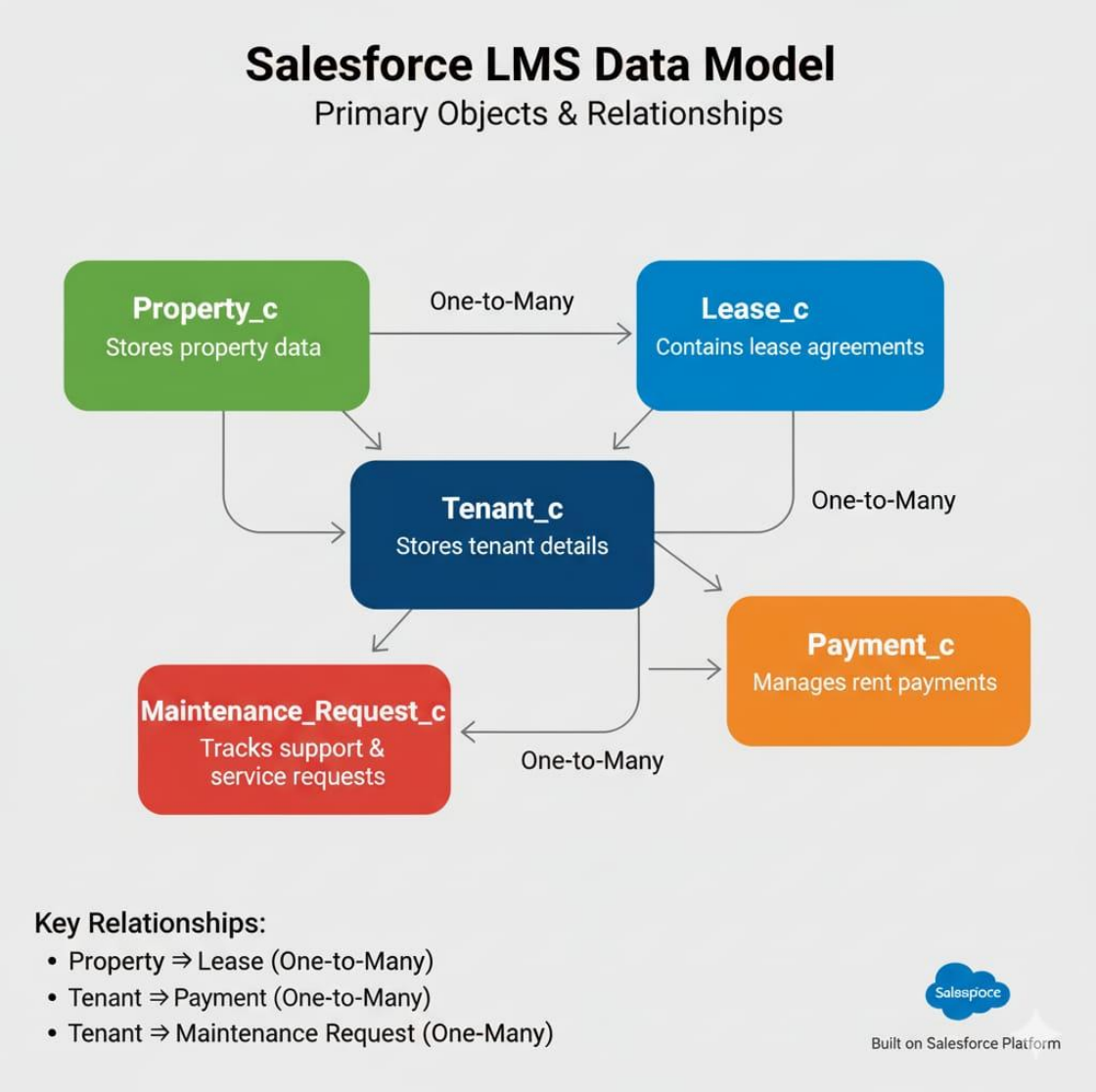
3. System Modules & Features

Module	Description	Key Functions
Lease Management	Manage property lease lifecycle	Create, update, track lease agreements
Tenant Management	Store tenant records	Contact details, history, documents
Payment & Billing	Track rent schedules	Billing, reminders, payment logs
Maintenance Management	Register & track service requests	Case creation, assignment, completion
Notification & Alerts	Automated communication	Lease expiry alerts, payment reminders
Reporting & Analytics	Data insights	Lease status, revenue dashboard, maintenance analytics

4. Data Model & Entities

Primary Objects

Salesforce Object	Purpose
Property__c	Stores property data
Lease__c	Contains lease agreements
Tenant__c	Stores tenant details
Payment__c	Manages rent payments
Maintenance_Request__c	Tracks support & service requests



5. Workflow & Process Flow

Lease Creation Workflow

1. Admin/Manager enters property & tenant details
2. Lease agreement created with start & end dates
3. Document uploaded and linked to record
4. Payment schedule auto-generated
5. Notification sent to tenant

Payment Reminder Workflow

1. System checks upcoming due date

2. Auto reminder sent 7 days before due

3. Second reminder on due date

4. Status updated on payment record

Maintenance Request Flow

1. Tenant logs complaint (via form/call/system)

2. Salesforce Case auto-created

3. Assigned to maintenance team

4. Work completed & updated

5. Feedback collected

6. Security & Compliance

Role-based access control

Permission sets for sensitive data

Encrypted data storage

Document access restrictions

Compliance support for lease documents & contracts

7. Conclusion

The Solution Architecture provides a robust and scalable foundation for the Lease Management System. By leveraging Salesforce’s cloud platform, automated workflows, secure data storage, and real-time dashboards, the LMS enhances operational efficiency, reduces manual workload, improves tenant experience, and ensures accurate lease tracking and compliance.