

Proposed solution Document

Date	3 August 2025
Team ID	LTVIP2025TMID30830
Project name	Lease management
Maximum Marks	

Proposed Solution Document

Project Title: Lease Management System

Technology: Salesforce (Admin & Developer tools)

Problem statement:

Traditional lease management in property firms is primarily manual—relying on spreadsheets, email communication, and disconnected tools. This outdated approach results in:

- Missed deadlines for rent payments and lease renewals
- Data entry errors and duplication
- Lack of workflow automation and approval controls
- Poor communication with tenants
- No real-time tracking or reporting

1. Objective

To design and implement a centralized lease management system using Salesforce that allows property managers and tenants to manage leasing activities such as lease agreements, payments, approvals, and communications efficiently.

2. Proposed Solution Overview

A custom Salesforce application will be developed which includes:

- Custom objects to manage properties, tenants, leases, and payments.
- Email templates to automate communication.
- Approval processes to handle lease approvals.
- Validation rules to maintain data integrity.
- Automation tools such as flows and Apex triggers for business logic enforcement.
- Scheduled job for sending monthly payment reminders via email.

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3. System Components and Features

a. Custom Objects

- **Property:** Stores property information.
- **Tenant:** Stores tenant data, linked with properties.
- **Lease:** Stores lease agreements with start and end dates.
- **Payment for Tenant:** Tracks payment status, amount, and related lease/property.

b. Fields & Relationships

- Standard and custom fields added to each object as required.
- Master-detail and lookup relationships between Property-Tenant, Payment-Tenant, etc.
- Picklist fields for unit type (1BHK, 2BHK, 3BHK), status (Paid/Not Paid), etc.

c. Tabs and Lightning App

- Custom tabs created for all custom objects.
- A Lightning App named “Lease Management” built for easy navigation.

d. Validation Rules

Example: End date must be greater than start date in Lease object.

e. Email Templates

- Tenant leaving request
- Leave approval/rejection
- Monthly rent payment reminder
- Payment confirmation

f. Approval Processes

Automated approval workflow for lease activities like leave requests.

g. Apex Triggers & Classes

- Validation to ensure one tenant is linked to only one property.
- Trigger handler and logic classes implemented using Apex.

h. Scheduled Class

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- **MonthlyEmailScheduler:** Sends rent reminders on the 1st of every month to tenants.
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4. Benefits of the Proposed System

- Centralized data access and role-based visibility.
 - Improved communication using automated emails.
 - Validation and automation reduce errors and manual follow-ups.
 - Easy scalability and customizability using Salesforce.
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5. Tools & Technologies

Layer	Tool/Technology	Purpose
CRM Backend	Salesforce Platform	Data handling, logic, UI
Scripting	Apex	Custom logic and automation
Automation	Flows, Triggers	Business process automation
Communication	Email Templates	Notifications and alerts

6. Architecture Diagram

I can create and share a visual **Technology Stack Architecture Diagram** if needed.

7. Conclusion

This Lease Management solution provides an effective Salesforce-based platform to handle lease operations with automation, validation, and user-friendly access. It meets the requirements of modern lease administration and reduces administrative overhead for property managers.
