

LEASE MANAGEMENT SYSTEM

A PROJECT REPORT

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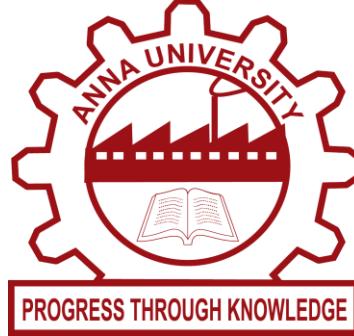
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ABSTRACT

The Lease Management System is a Salesforce-based cloud application designed to streamline and automate the end-to-end process of managing property and equipment leases. The system provides a centralized platform to handle lease agreements, tenant/lessee records, rent schedules, payment tracking, renewal reminders, and issue resolution. By leveraging Salesforce features such as Apex Classes, Flows, Validation Rules, Reports, and Dashboards, the system ensures accuracy, transparency, and efficient workflow management.

The application simplifies lease lifecycle management by enabling users to generate new lease contracts, monitor due dates, compute billing automatically, and maintain communication with tenants through automated notifications. The system also supports tracking maintenance requests and lease expirations to avoid delays and ensure timely renewals. Administrators can visualize operational performance through interactive dashboards for payment status, occupancy rate, and revenue reports.

Key Tools and Features Used:

- Salesforce CRM Platform
- Apex Classes and Triggers
- Flows and Process Automation
- Validation Rules
- Reports and Dashboards

This Lease Management System offers a scalable and reliable digital solution for businesses, property owners, and lease administrators, ensuring systematic record management, faster processing, and improved decision-making.

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LEASE MANAGEMENT

CHAPTER 1 – INTRODUCTION

1.1 Overview

- The Lease Management System is designed to automate operations such as maintaining tenant details, lease contract records, rent payment tracking, renewal scheduling, and termination updates.
- Using Salesforce CRM, all lease activities are maintained in integrated objects that ensure efficient workflow and record transparency.

1.2 Objectives

- To automate the leasing process and centralize data storage.
- To implement Salesforce automation for rent payment reminders
- To track contract start/end dates and renewal notifications.
- To generate dashboards for payment status and occupancy reports.

1.3 Scope

This project focuses on:

- Tenant information management
- Lease contract tracking
- Rent payment updates and reminders
- Renewal & termination handling
- Reports and dashboards for analysis

1.4 Existing vs Proposed System

Existing System

Manual paperwork

Proposed System (Salesforce)

Fully automated cloud system

Missed payment & renewal reminders Automated alerts and notifications

Difficulty tracking tenant records

Structured data with relational objects

No analytics or reports

Real-time dashboards and insights

CHAPTER 2 – PROJECT IDEATION (Phase 1)

2.1 Problem Identification

Property managers and landlords often maintain lease records manually, leading to errors, missed payments, lost documents, and delayed renewals.

2.2 Idea Description

The idea is to build a centralized lease management application in Salesforce that automates the lifecycle of lease records, rent collection, and contract expiration reminders.

2.3 Feasibility

Salesforce provides ready infrastructure, automation, and reporting tools, making the system scalable and cost-effective.

2.4 Innovation

- Automated rent due reminders via email
- Dashboard showing active, expired, and upcoming contracts
- Flow-based automated renewal status updates

CHAPTER 3 – REQUIREMENT ANALYSIS (Phase 2)

3.1 Functional Requirements

- Add, update, and maintain tenant and property records.
- Track lease duration, rent amount, and payment status.
- Generate renewal and termination alerts.
- Display reports for income and occupancy.

3.2 Non-Functional Requirements

- Secure cloud-based database (Salesforce).
- User-friendly interface.
- High scalability and reliability.

3.3 User Roles

Role	Permissions
Admin	Manage all system settings and objects
Property Manager	Handle tenant/lease records and payments
Tenant	Receives email notifications & payment details

3.4 Entity Relationship

Objects: Property → Lease Contract → Payment Records → Tenant Information
Uses Lookup and Master-Detail relationships.

CHAPTER 4 – PROJECT DESIGN (Phase 3)

4.1 Schema Builder

Visual representation of entities and object relationships.

4.2 Process Flow

1. Tenant record created.
2. Lease contract assigned to property.
3. Payment reminders triggered monthly.
4. Renewal/termination updated automatically.

4.3 UI Layout

Salesforce lightning page layouts with separate navigation tabs for Tenants, Properties, Lease Contracts, and Payments.

CHAPTER 5 – PROJECT DEVELOPMENT (Phase 4)

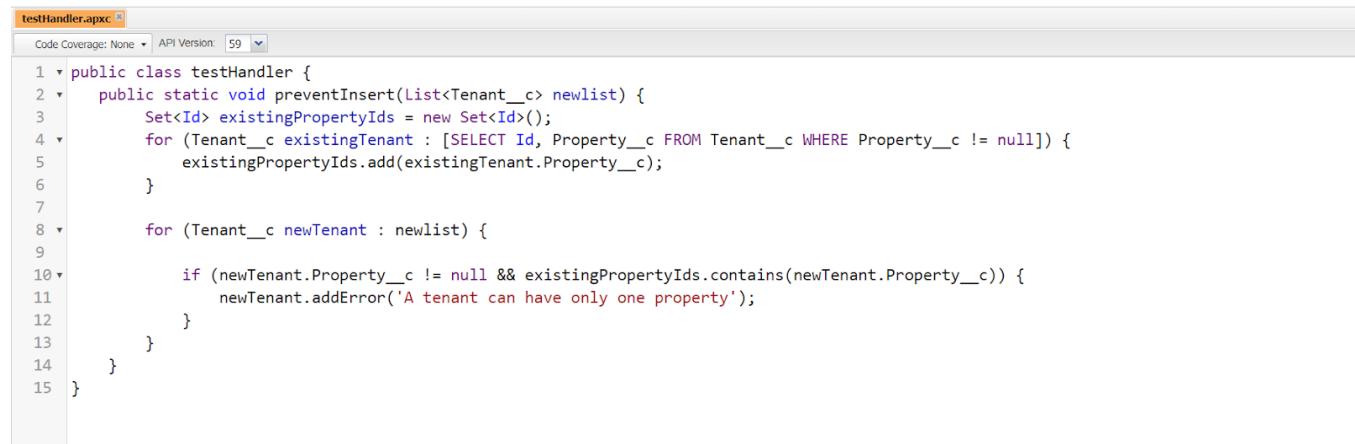
5.1 Custom Objects Created

- Tenant Information
- Property Details
- Lease Contract
- Payment Record

5.2 Sample Apex Logic (Rent Auto Calculation)

```
public class testHandler {
    public static void preventInsert(List<Tenant__c> newList) {
        Set<Id> existingPropertyIds = new Set<Id>();
        for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE Property__c != null]) {
            existingPropertyIds.add(existingTenant.Property__c);
        }

        for (Tenant__c newTenant : newList) {
            if (newTenant.Property__c != null && existingPropertyIds.contains(newTenant.Property__c)) {
                newTenantaddError('A tenant can have only one property');
            }
        }
    }
}
```



```
testHandler.apxc
Code Coverage: None API Version 59
1 public class testHandler {
2     public static void preventInsert(List<Tenant__c> newList) {
3         Set<Id> existingPropertyIds = new Set<Id>();
4         for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE Property__c != null]) {
5             existingPropertyIds.add(existingTenant.Property__c);
6         }
7
8         for (Tenant__c newTenant : newList) {
9
10            if (newTenant.Property__c != null && existingPropertyIds.contains(newTenant.Property__c)) {
11                newTenantaddError('A tenant can have only one property');
12            }
13        }
14    }
15 }
```

5.3 Trigger

```
trigger test on Tenant__c (before insert)
{
    if(trigger.isInsert && trigger.isBefore){
        testHandler.preventInsert(trigger.new);
    }
}
```

5.4 Flows

Flow 1: Rent Reminder Email Flow

Flow 2: Contract Renewal Date Checker Flow

5.5 Reports & Dashboards

- Payment Status Report
- Tenant Occupancy Dashboard
- Revenue Summary Chart

CHAPTER 6 – PROJECT DOCUMENTATION (Phase 5)

6.1 Execution Steps

- Created custom objects & relationships
- Implemented triggers and flows
- Designed reports and dashboards
- Tested validation and workflow logic

6.2 GitHub & SmartInternz Links

- GitHub Repository: <https://github.com/susmi3264-blip/LEASE-MANAGEMENT-.git>
- SmartInternz Workspace: https://nme.smartinternz.com/Student/guided_project_workspace/3739

6.2 Challenges & Solutions

Challenge	Solution
Payment reminder not triggering	Adjusted flow scheduling and criteria
Missing data in report	Added necessary lookup relationships

CHAPTER 7 – PROJECT DEMONSTRATION & RESULTS

7.1 Demo Summary

System successfully tracks lease lifecycle and automates rent reminders.

7.2 Outcome

- Reduced manual workload
- Improved visibility of lease records
- Real-time payment dashboard

CHAPTER 8 – CONCLUSION & FUTURE ENHANCEMENT

8.1 Conclusion

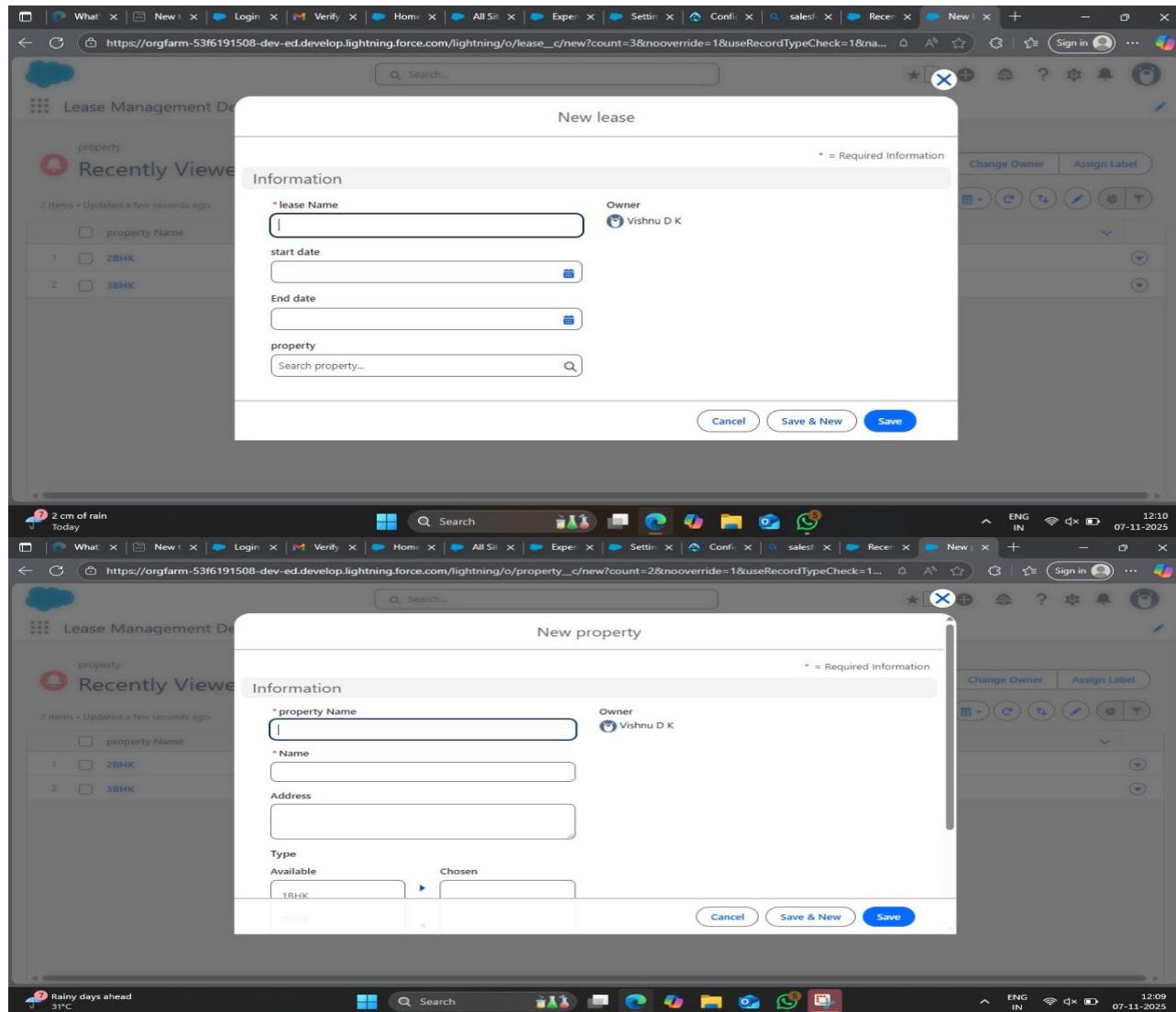
The Lease Management System successfully automates the process of managing tenant records, lease contracts, and rent payments. By using Salesforce tools, the system improves efficiency, reduces manual errors, and ensures timely reminders for payment and contract renewals. Overall, it enhances transparency and makes lease handling faster, accurate, and more organized.

8.2 Future Enhancements

- Integrate online payment gateway
- Add mobile application
- Enable AI-based rent forecasting

APPENDIX - SCREENSHOTS

Lease Management App home



The screenshot displays two overlapping modal windows on a Salesforce Lightning interface. The background shows a sidebar with 'Recently Viewed' items and a search bar.

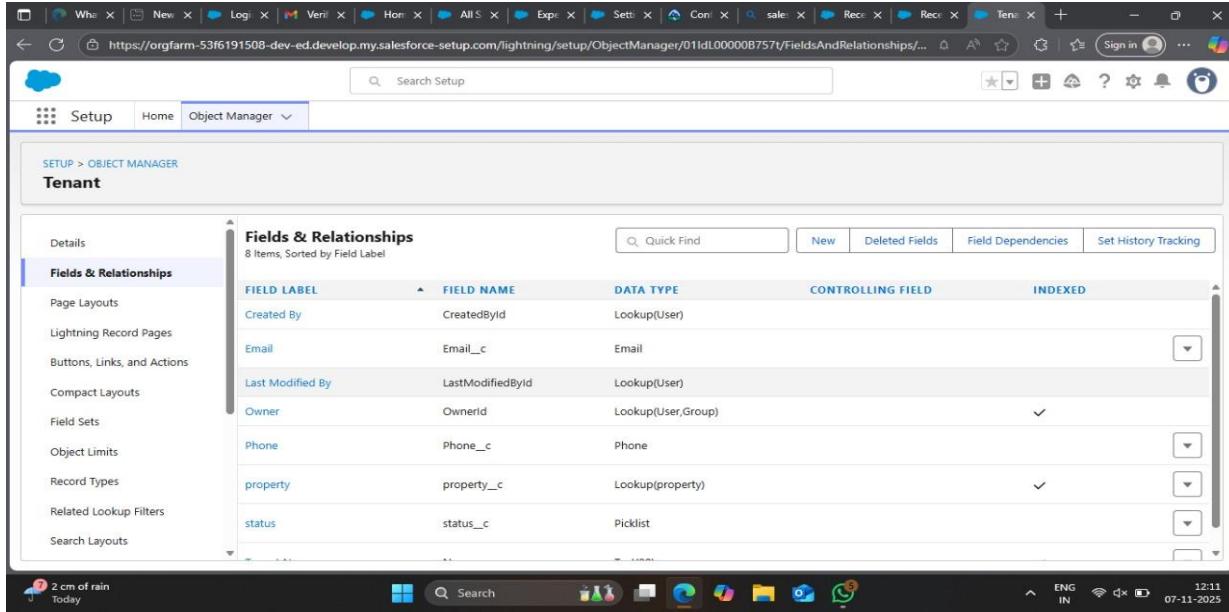
New lease (Top Modal):

- Information** section:
 - * lease Name: Input field
 - Owner: Vishnu D K
 - start date: Input field
 - End date: Input field
 - property: Search property... input field
- Buttons: Cancel, Save & New, Save

New property (Bottom Modal):

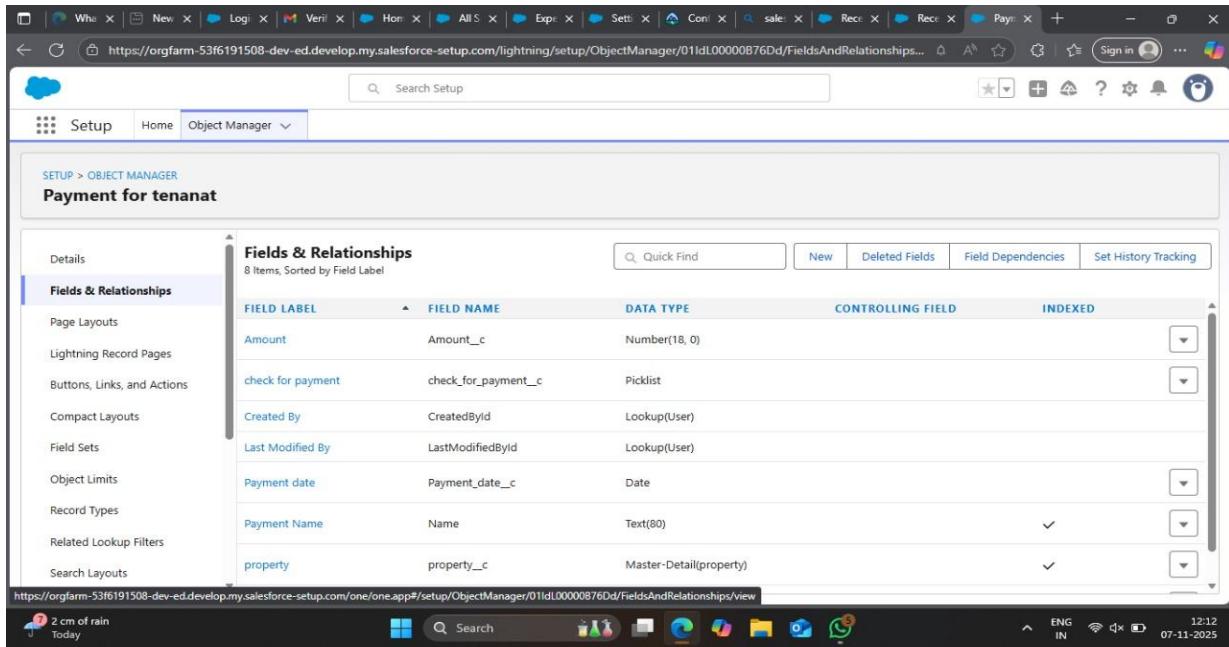
- Information** section:
 - * property Name: Input field
 - * Name: Input field
 - Address: Input field
- Type section:
 - Available: 1BHK, 2BHK
 - Chosen: 1BHK
- Buttons: Cancel, Save & New, Save

Fields & Relationship for an object



The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various setup categories like Page Layouts, Lightning Record Pages, and Field Sets. The main content area is titled "Fields & Relationships" for the "Tenant" object. It displays 8 items, sorted by Field Label. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Email	Email_c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone_c	Phone		
property	property_c	Lookup(property)		✓
status	status_c	Picklist		



The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various setup categories. The main content area is titled "Fields & Relationships" for the "Payment for tenantat" object. It displays 8 items, sorted by Field Label. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount_c	Number(18, 0)		
check for payment	check_for_payment_c	Picklist		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Payment date	Payment_date_c	Date		
Payment Name	Name	Text(80)		✓
property	property_c	Master-Detail(property)		✓

https://orgfarm-53f6191508-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01IdL00000B75np/FieldsAndRelationships... 07-11-2025 12:12

Setup Home Object Manager lease

SETUP > OBJECT MANAGER lease

Fields & Relationships				
7 Items, Sorted by Field Label				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
End date	End_date_c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
lease Name	Name	Text(80)		✓
Owner	OwnerId	Lookup(User,Group)		✓
property	property_c	Lookup(property)		✓
start date	start_date_c	Date		

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https://orgfarm-53f6191508-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01IdL00000B74IJ/FieldsAndRelationships... 07-11-2025 12:12

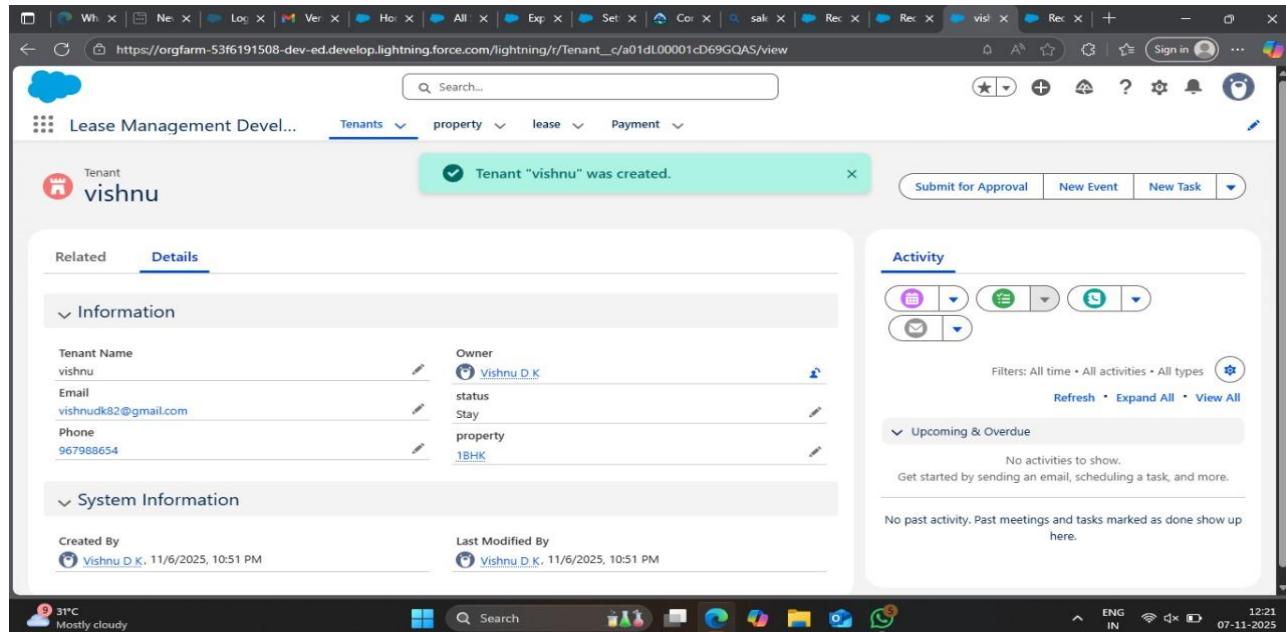
Setup Home Object Manager property

SETUP > OBJECT MANAGER property

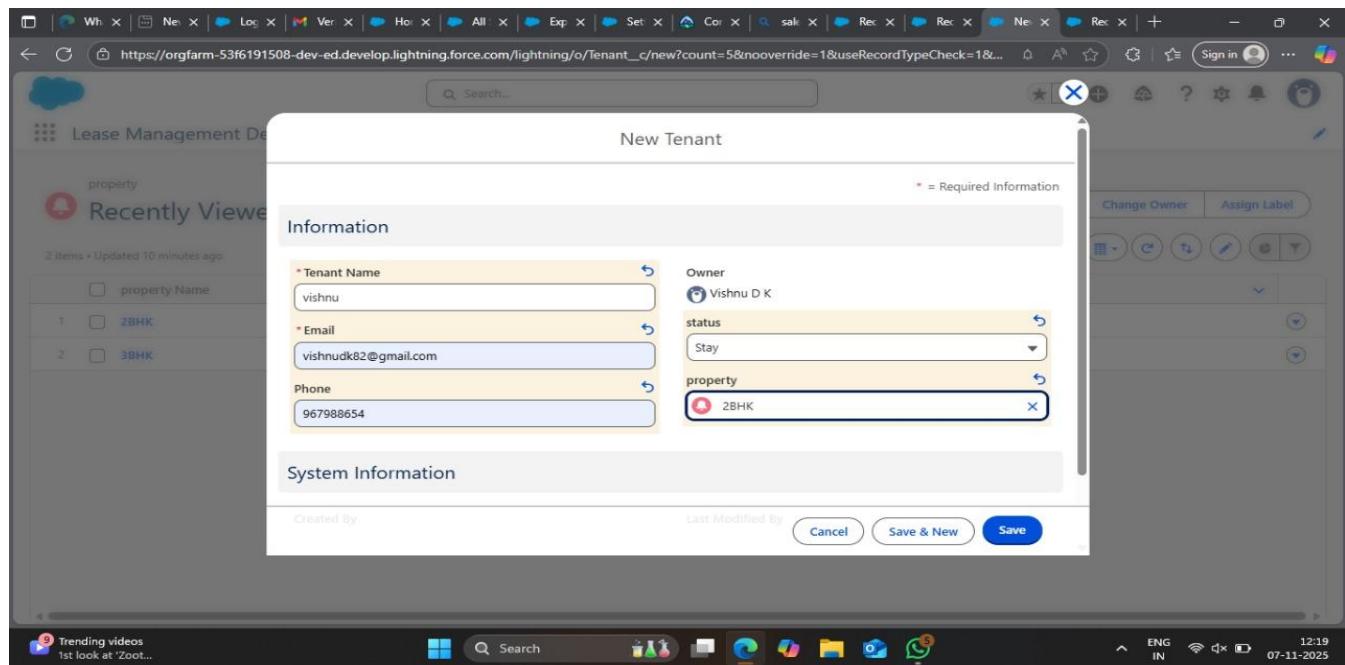
Fields & Relationships				
8 Items, Sorted by Field Label				
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Long Text Area(32768)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name_c	Text(25)		
Owner	OwnerId	Lookup(User,Group)		✓
property Name	Name	Text(80)		✓
sfqt	sfqt_c	Text(18)		

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Record Creation(show working flow)



The screenshot shows a Salesforce Lightning page for 'Lease Management Dev...'. A green success message at the top right says 'Tenant "vishnu" was created.' The main area displays the details of the newly created Tenant record for 'vishnu'. The 'Information' section includes fields for Tenant Name (vishnu), Owner (Vishnu D K), Email (vishnudk82@gmail.com), status (Stay), and property (1BHK). Below this is a 'System Information' section showing creation and modification details. To the right, there is an 'Activity' sidebar with buttons for different types of activities and a message indicating no past activity.



The screenshot shows a 'New Tenant' creation form in a modal window. The 'Information' section contains required fields: Tenant Name (vishnu), Owner (Vishnu D K), Email (vishnudk82@gmail.com), status (Stay), and property (2BHK). The 'System Information' section shows the current user as Created By and Last Modified By. At the bottom are 'Cancel', 'Save & New', and 'Save' buttons. The background shows a list of recently viewed properties.

Lease Management De...

Recently Viewed

0 items • Updated a few seconds ago

New lease

* = Required Information

Information

* lease Name: house

Owner: Vishnu D K

start date: 11/6/2025

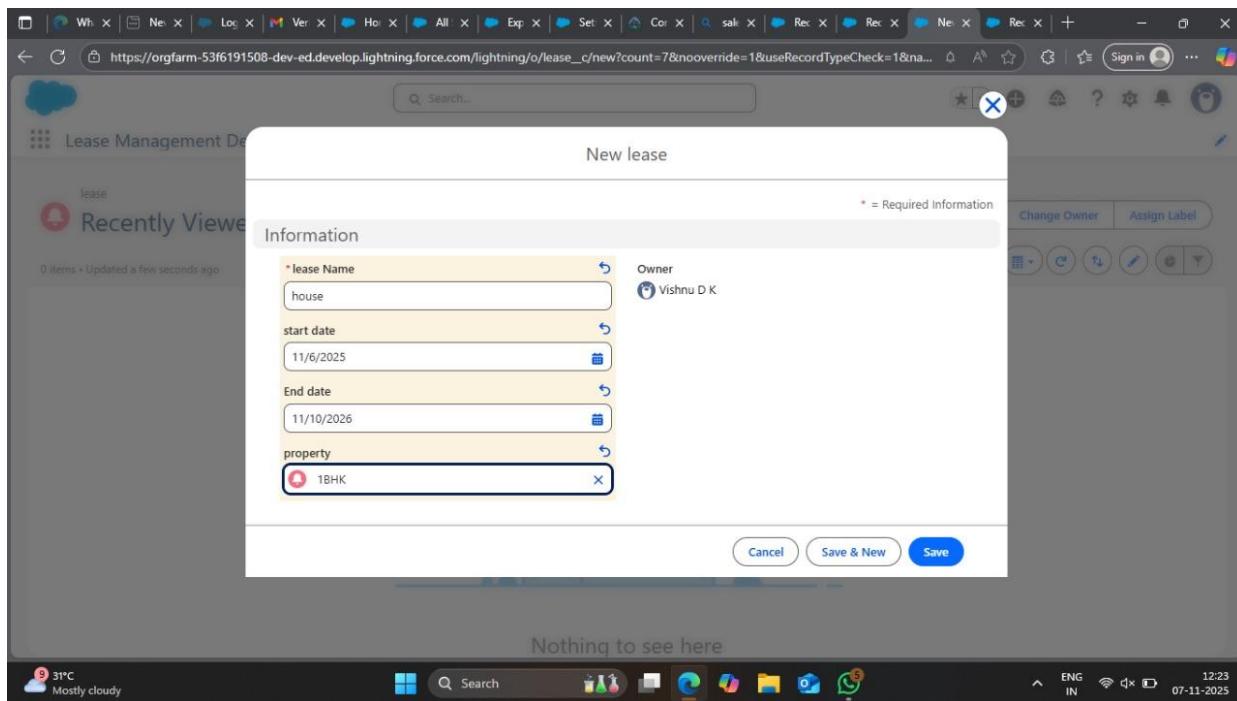
End date: 11/10/2026

property: 1BHK

Cancel Save & New Save

Nothing to see here

31°C Mostly cloudy Search ENG IN 12:23 07-11-2025



Lease Management De...

Recently Viewed

0 items • Updated a few minutes ago

property Name: 1BHK

Name: Vishnu

Address:

Type

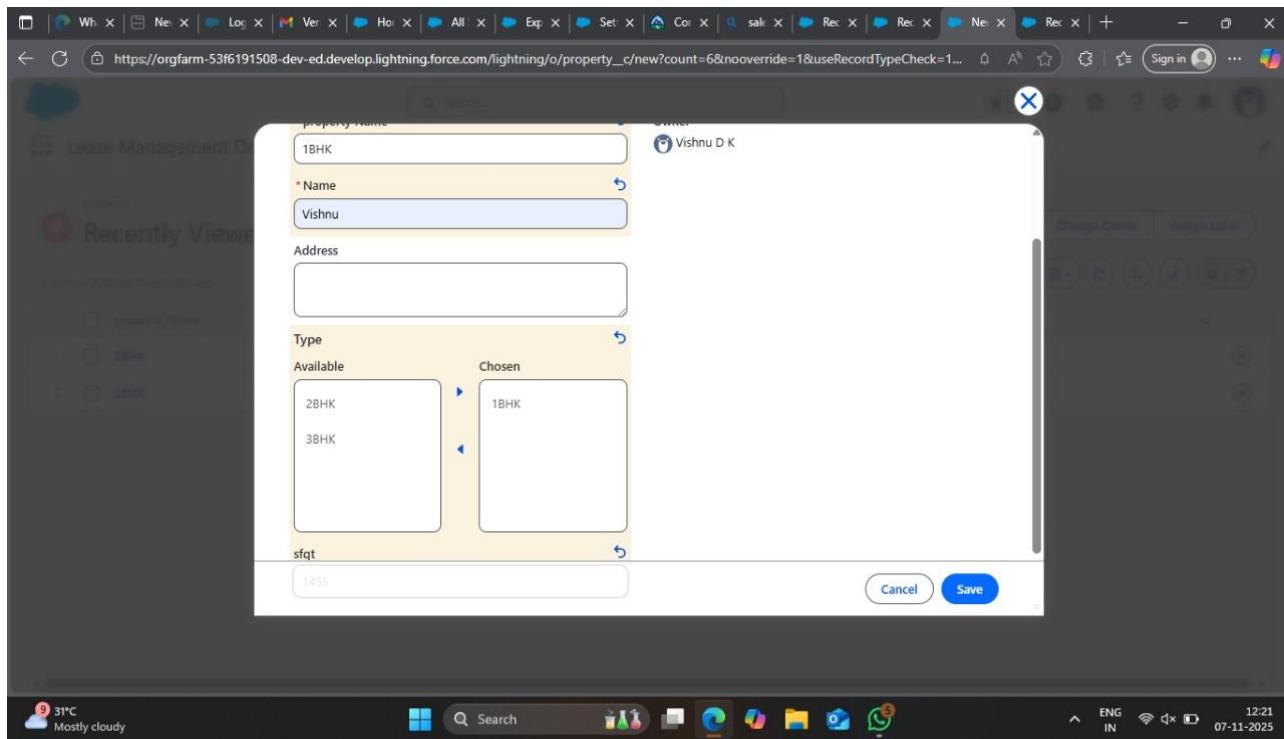
Available: 2BHK, 3BHK

Chosen: 1BHK

sfqt: 1455

Cancel Save

31°C Mostly cloudy Search ENG IN 12:21 07-11-2025



Wh X | Ne X | Loc X | Ver X | Ho X | All X | Exp X | Set X | Cor X | sal X | Rec X | Rec X | Rec X | + | Sign in | ...

https://orgfarm-53f6191508-dev-ed.lightning.force.com/lightning/o/property__c/list?filterName=_Recent

Lease Management Devel... Tenants property lease Payment

Recently Viewed

3 items • Updated a few seconds ago

	property Name	
1	1BHK	
2	2BHK	
3	3BHK	

Search this list...     

31°C Mostly cloudy  Search       ENG IN 12:22 07-11-2025

Wh X | Ne X | Loc X | Ver X | Ho X | All X | Exp X | Set X | Cor X | sal X | Rec X | Rec X | Rec X | + | Sign in | ...

https://orgfarm-53f6191508-dev-ed.lightning.force.com/lightning/r/property__c/a00dL00002Olk8AGQAZ/view

Lease Management Devel... Tenants property lease Payment

1BHK

New Contact | Edit | New Opportunity

Related	Details
property Name	1BHK
Name	Vishnu
Address	
Type	1BHK
sfqt	1455
Created By	Vishnu D K, 11/6/2025, 10:51 PM
Last Modified By	Vishnu D K, 11/6/2025, 10:51 PM

Activity

Filters: All time • All activities • All types 

Refresh • Expand All • View All

Upcoming & Overdue

No activities to show.
Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.

31°C Mostly cloudy  Search       ENG IN 12:22 07-11-2025

Lease Management Dev...

Payment Recently Viewed

0 items • Updated a few seconds ago

Information

* Payment Name: Bank

Payment date: 11/6/2025

Amount: 100,000

check for payment: Paid

* property: 1BHK

Tenant: vishnu

New Import Assign Label

Cancel Save & New Save

Nothing to see here

31°C Mostly cloudy

Search

ENG IN 12:26 07-11-2025

Lease Management Dev...

Tenants property lease Payment

Payment for tenant: Bank

Payment for tenantat "Bank" was created.

New Contact Edit New Opportunity

Related Details

Payment Name: Bank

Payment date: 11/6/2025

Amount: 100.000

check for payment: Paid

property: 1BHK

Tenant: vishnu

Created By: Vishnu D K, 11/6/2025, 10:56 PM

Last Modified By: Vishnu D K, 11/6/2025, 10:56 PM

Activity

Filters: All time • All activities • All types

Refresh • Expand All • View All

Upcoming & Overdue

No activities to show. Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.

31°C Mostly cloudy

Search

ENG IN 12:26 07-11-2025

1. REFERENCE:

- 1) **Salesforce Trailhead Documentation —**
<https://trailhead.salesforce.com>
- 2) **SmartInternz Naan Mudhalvan Portal—**
<https://nme.smartinternz.com>
- 3) **Salesforce Developer Guide —**<https://developer.salesforce.com>
- 4) **GitHub Repository —**<https://github.com/susmi3264-blip/LEASE-MANAGEMENT-.git>