

LEASE MANAGEMENT

College name: Sri Ramakrishna College Of Arts and Science for Women

College code: Bru28

Team id: NM2025TMID24283

TEAM MEMBERS:

Team Leader : HARINISRI R

Email id: srcw2326j118@srcw.ac.in

Team member 1 : BHAVANA DHARSHINI S

Email id: srcw2326j110@srcw.ac.in

Team member 2 : DHATCHAYINI P

Email id: srcw2326j159@srcw.ac.in

Team member 3 : ILAKKIYA R

Email id: srcw2326j121@srcw.ac.in

INTRODUCTION:

1.1 PROJECT OVERVIEW:

A lease management project involves creating a system or application to efficiently handle the processes related to leasing real estate properties, equipment, or other assets. The goal is to streamline and automate various tasks associated

ed with lease agreements, ensuring accurate record-keeping, compliance with regulations, and effective communication between parties involved.



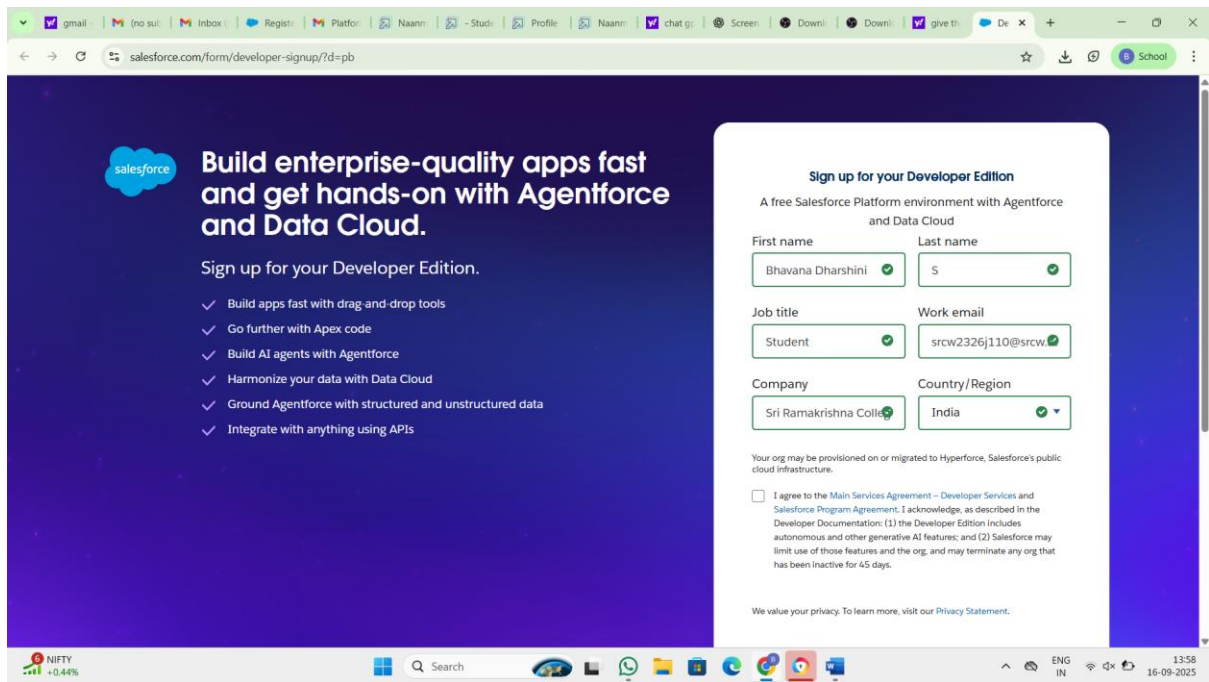
1.2 PURPOSE:

The purpose of the Lease Management project is to streamline and automate the end-to-end process of handling property leases. It helps in systematically managing property listings, creating accurate lease agreements, performing proper tenant screening, executing leases efficiently, and ensuring timely lease renewals. By following this structured workflow, the project aims to reduce manual errors, save time, and provide a clear and organized approach to managing properties, tenants, and payments within a single platform.

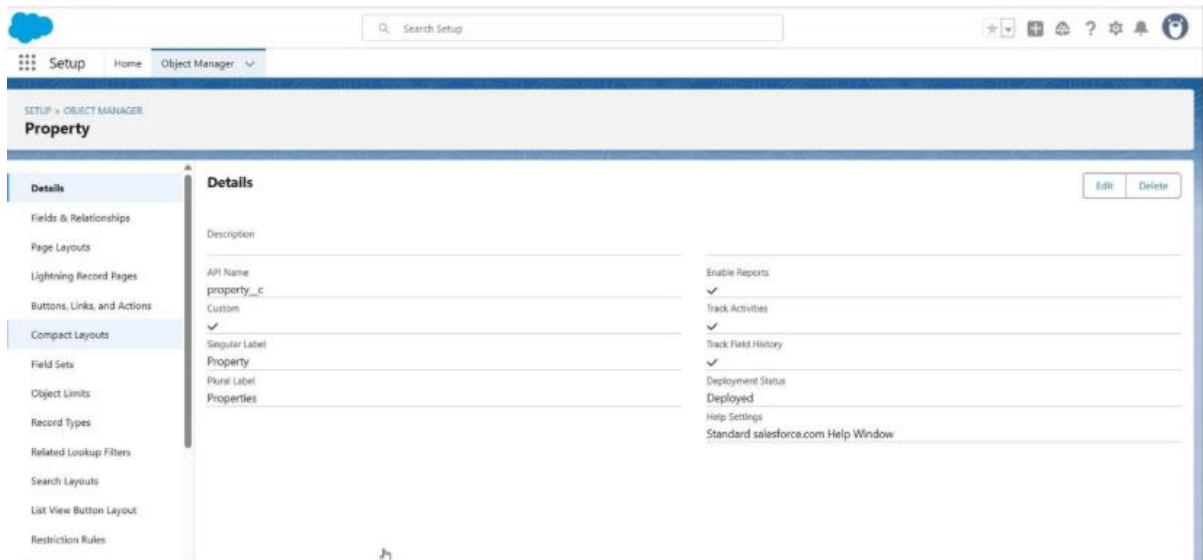
DEVELOPMENT PHASE:


CREATING A DEVELOPER ACCOUNT:

BY USING THE URL: <https://www.salesforce.com/form/developer-signup/?d=pb>










- Created objects : Property, Tenant, Lease, Payment





Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Tenant

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name

Tenant_c

Custom

✓

Singular Label

Tenant

Plural Label

Tenants

Enable Reports

✓

Track Activities

✓

Track Field History

✓


Deployment Status

Deployed








Help Settings

Standard salesforce.com Help Window

EditDelete



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

lease

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name

lease_c

Custom

✓

Singular Label

lease

Plural Label

leases

Enable Reports

✓

Track Activities

✓

Track Field History

✓


Deployment Status

Deployed








Help Settings

Standard salesforce.com Help Window

EditDelete



Search Setup



SetupHomeObject Manager

SETUP > OBJECT MANAGER

Payment for tenant

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name

Payment_for_tenant_c

Custom

✓

Singular Label

Payment for tenant

Plural Label

Payment

Enable Reports

✓

Track Activities

✓

Track Field History

✓

Deployment Status

Deployed

Help Settings

Standard salesforce.com Help Window

EditDelete

- Configured fields and relationships.

Setup Home Object Manager

Search Setup

Setup > OBJECT MANAGER

Property

Details

Fields & Relationships

4 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
property Name	Name	Text(80)		✓

Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules

Setup Home Object Manager

Search Setup

Setup > OBJECT MANAGER

Payment for tenanat

Details

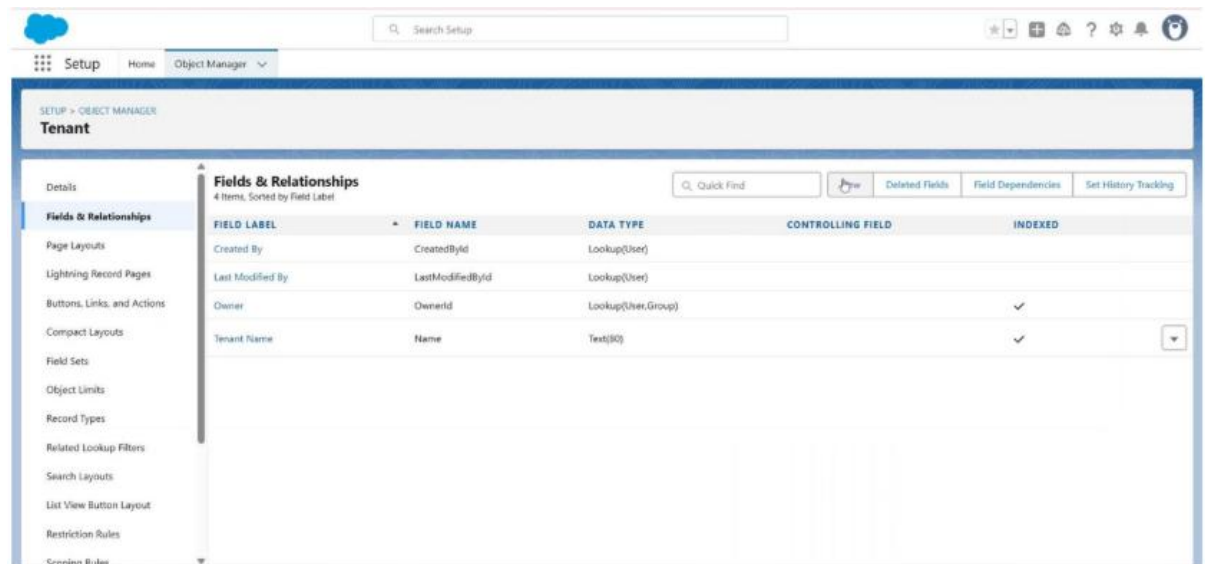
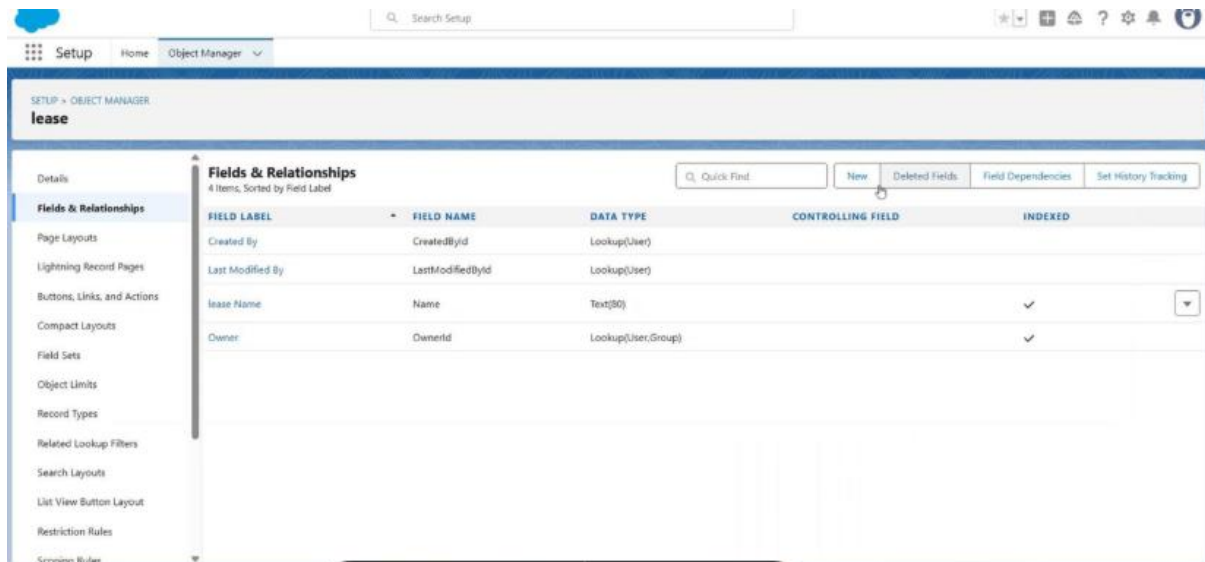
Fields & Relationships

4 Items, Sorted by Field Label

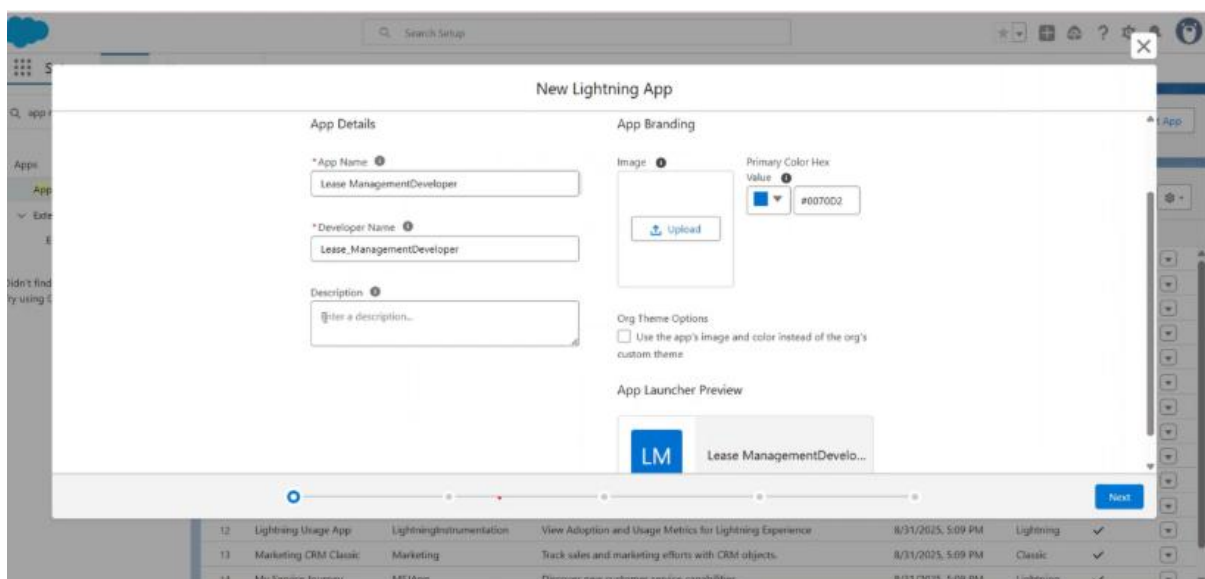
Quick Find New Deleted Fields Field Dependencies Set History Tracking

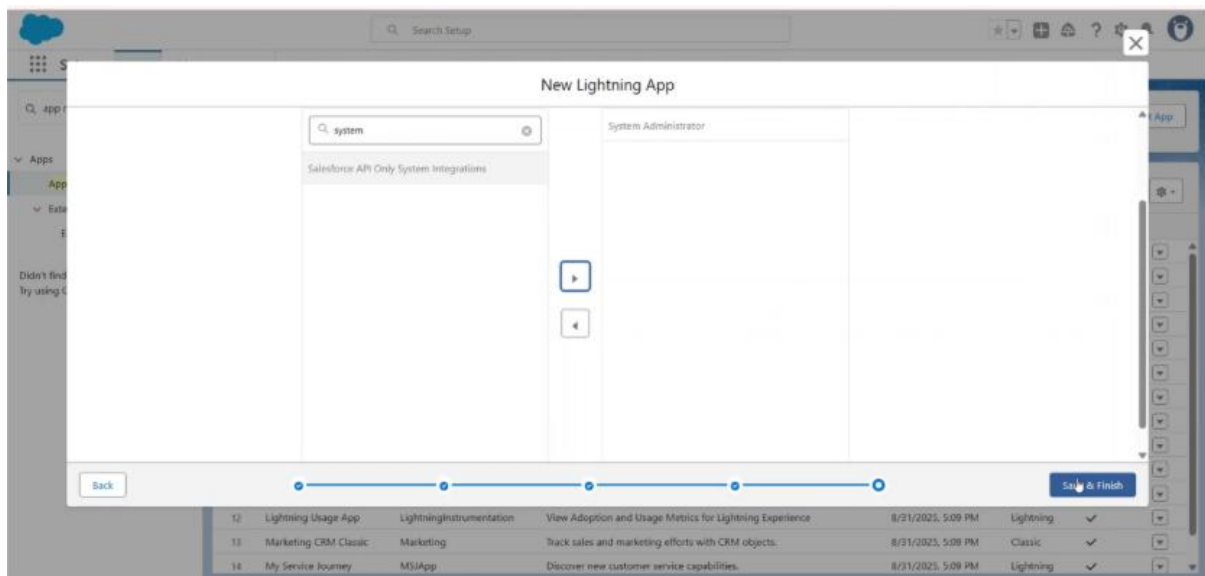
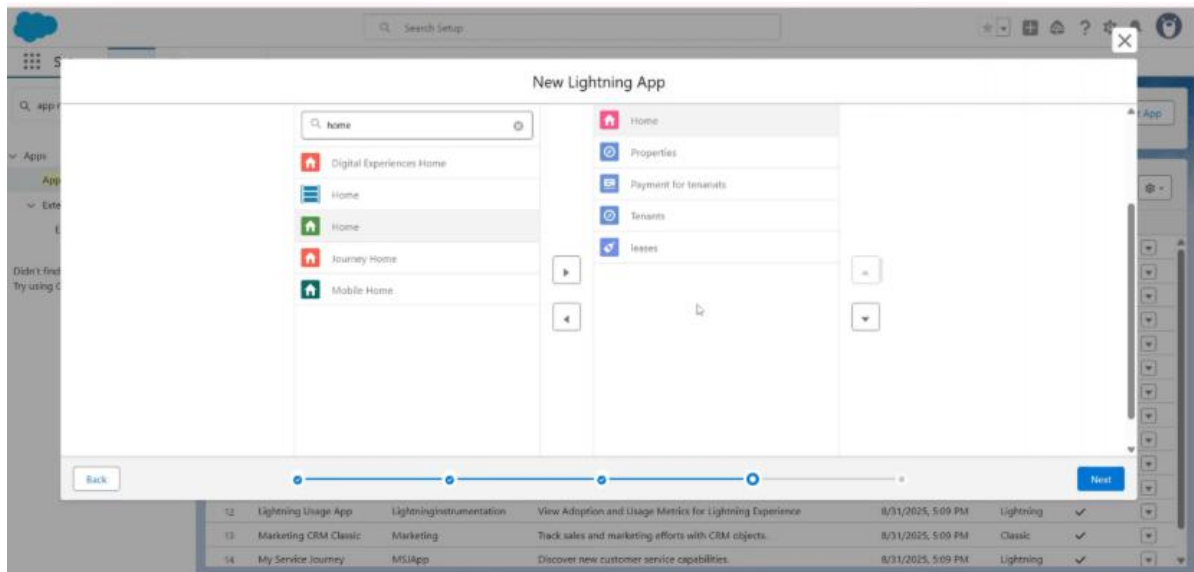
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Payment for tenanat Name	Name	Text(80)		✓

Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules



- Developed Lightning App with relevant tabs





Lease Management

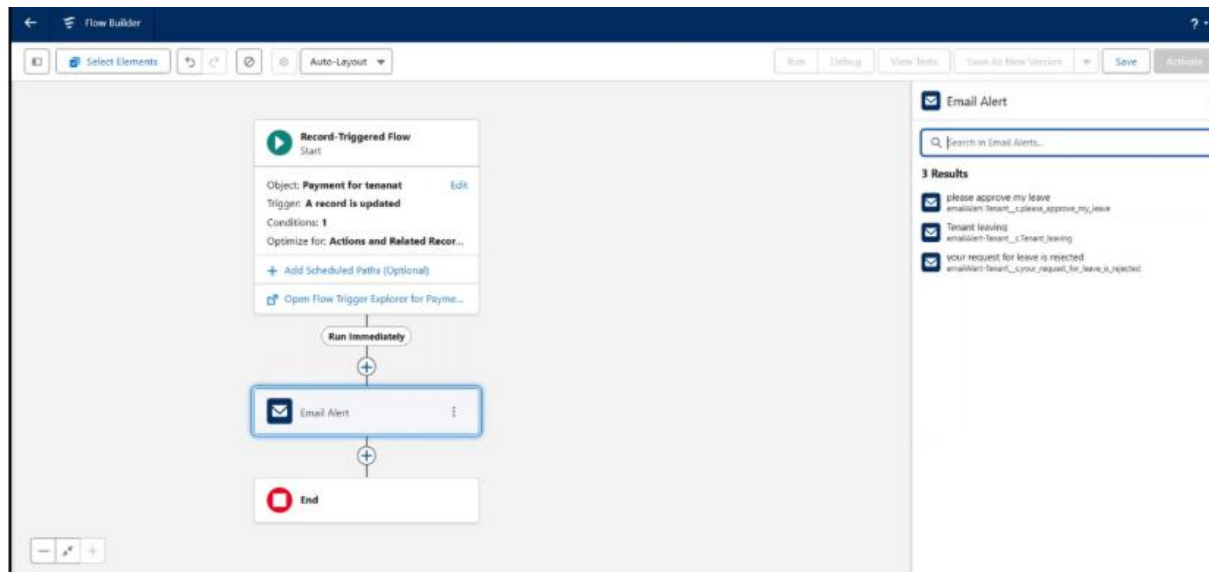
Payment

Recently Viewed

5 items • Updated a few seconds ago

	Payment Name	
1	Rahul	
2	Jack	
3	Raj	
4	Sam	
5	Lahari	

- Implemented Flows for monthly rent and payment success



- To create a validation rule to a Lease Object

The screenshot shows the Salesforce Setup page for the 'Lease' object. The 'Validation Rule' section is active, displaying the 'Lease Validation Rule' configuration.

Validation Rule Edit

- Rule Name:** lease_end_date
- Active:** ☒
- Description:**

Error Condition Formula

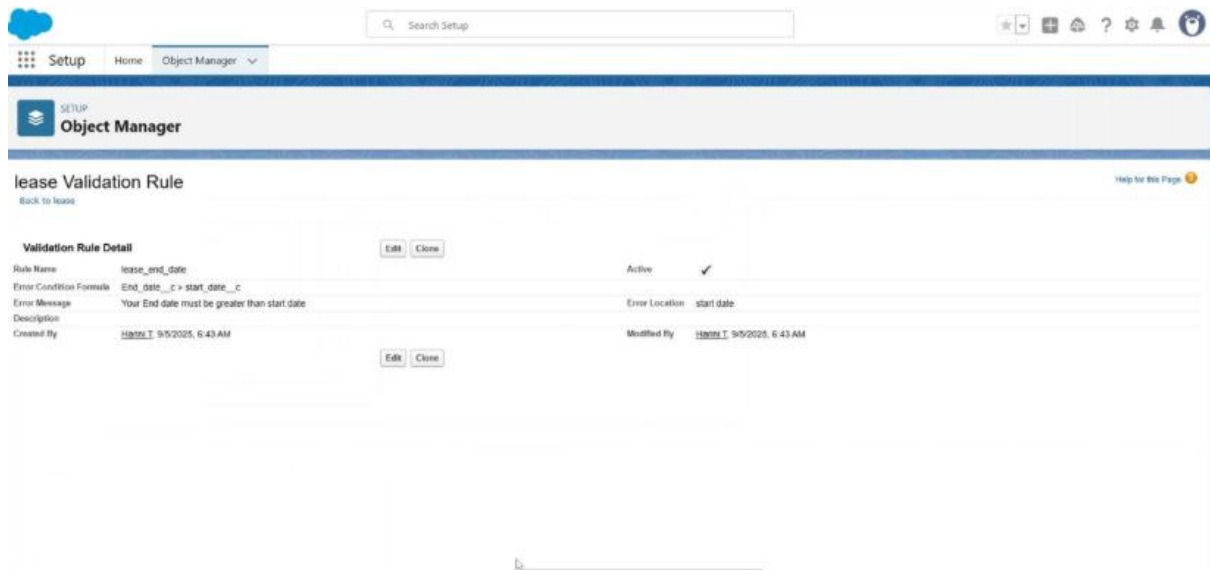
Example: `Discount_Percent_c > 0.30` More Examples...

Display an error if Discount is more than 30%. If this formula expression is true, display the text defined in the ErrorMessage area.

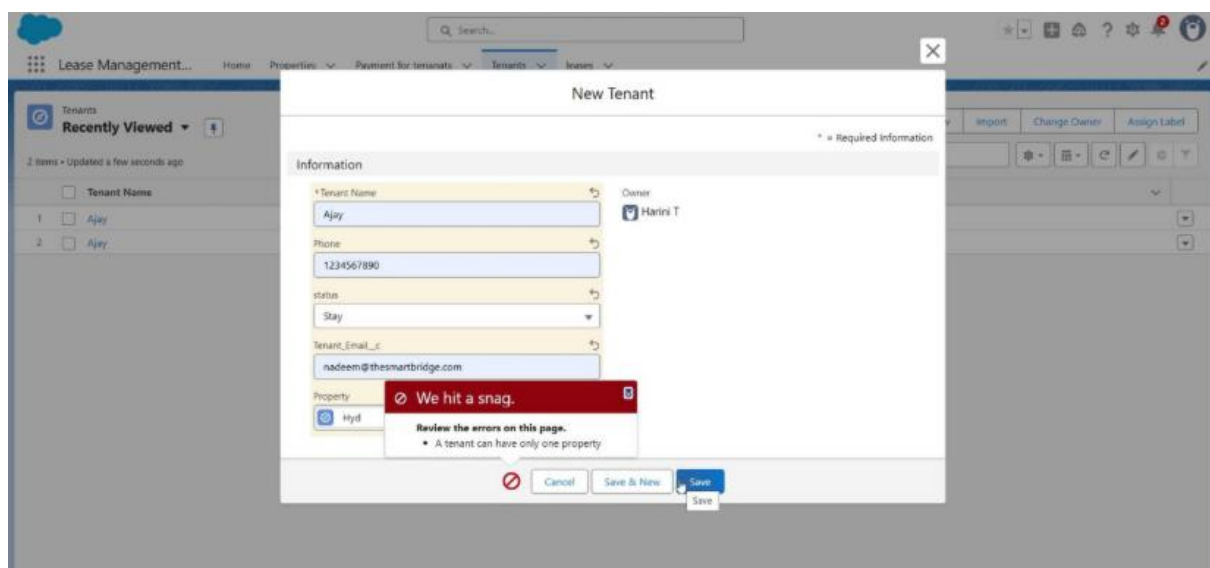
Formula Builder:

- Fields:** End_date__c, start_date__c
- Operator:** >
- Functions:** ABS, ACOS, ADDMONTHS, AND, ASCII, ASIN

Quick Tips: Operators & Functions



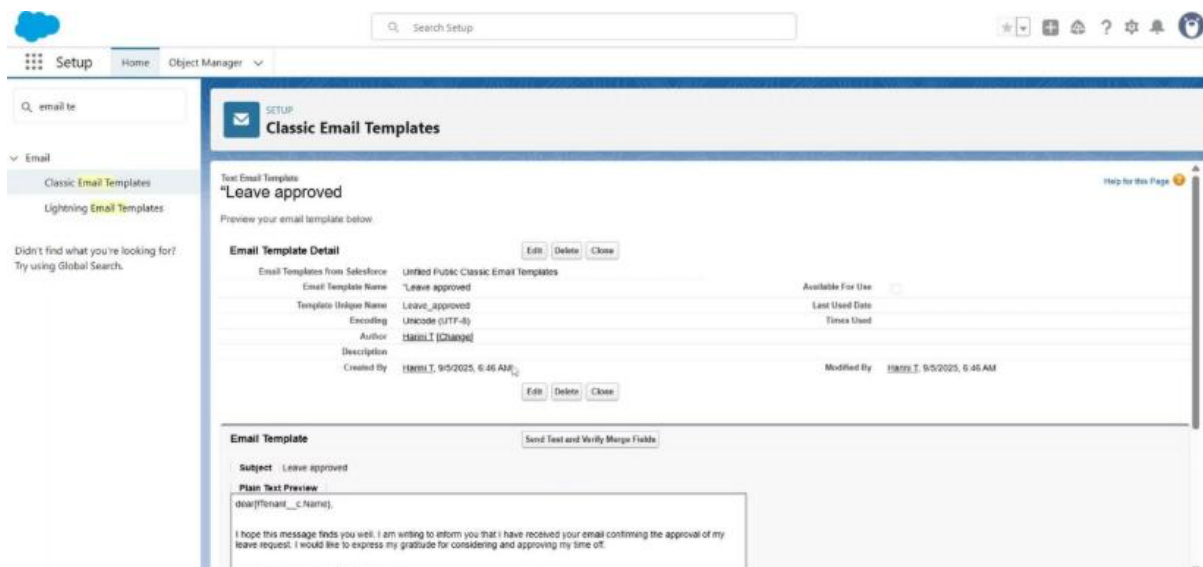
- Added Apex trigger to restrict multiple tenants per property



- Scheduled monthly reminder emails using Apex class

```
File Edit Setup Tools Help
Salesforce.com | Setup | Search | Home | Object Manager | Profiles | Roles | Settings | Help
Sub-Organization: All | Status: All | 44 | 20
1 * global class MonthlyEmailScheduler implements Schedulable {
2
3     global void execute(SchedulableContext sc) {
4
5         Integer currentTime = Date.today().day();
6
7         if (currentTime == 1) {
8
9             sendMonthlyEmails();
10
11         }
12
13     }
14
15 }
16
17 public static void sendMonthlyEmails() {
18
19     List<Tenant__c> tenants = [SELECT Id, Email__c FROM Tenant__c];
20
21     for (Tenant__c tenant : tenants) {
22
23         String recipientEmail = tenant.Email__c;
24
25         String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent is due. Your timely payment ensures the smooth functioning of our rental arrangement and helps maintain';
26
27         String emailSubject = 'Reminder: Monthly Rent Payment Due';
28
29         Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
30
31         email.setToAddresses(new String[]{recipientEmail});
32
33         email.setSubject(emailSubject);
34
35         email.setPlainTextBody(emailContent);
36
37     }
38 }
```

- Built and tested email templates for leave request, approval, rejection, payment, and reminders



Setup

Home

Object Manager

Search Setup

email te

Email

Classic Email Templates

Lightning Email Templates

Didn't find what you're looking for?
Try using Global Search.

SETUP

Classic Email Templates

Text Email Template

tenant leaving

Help for this Page

Preview your email template below:

Email Template Detail

Email Templates from Salesforce

Unified Public Classic Email Templates

Email Template Name

tenant leaving

Available For Use

☐

Template Unique Name

tenant_leaving

Last Used Date

Encoding

Unicode (UTF-8)

Times Used

Author

HARSH T (Chatter)

Description

Created By

HARSH T 9/5/2025, 6:45 AM

Modified By

HARSH T 9/5/2025, 6:40 AM

Edit

Delete

Close

Email Template

Send Text and Verify Merge Fields

Subject

request for approve the leave

Plain Text Preview

Dear (Tenant__c.CreatedBy),

Please approve my leave

Text Email Template: tenant leaving - Salesforce - Developer Edition

Setup

Home

Object Manager

Search Setup

email te

Email

Classic Email Templates

Lightning Email Templates

Didn't find what you're looking for?
Try using Global Search.

SETUP

Classic Email Templates

Text Email Template

Leave rejected

Help for this Page

Preview your email template below:

Email Template Detail

Email Templates from Salesforce

Unified Public Classic Email Templates

Email Template Name

Leave rejected

Available For Use

☐

Template Unique Name

Leave_rejected

Last Used Date

Encoding

Unicode (UTF-8)

Times Used

Author

HARSH T (Chatter)

Description

Created By

HARSH T 9/5/2025, 6:47 AM

Modified By

HARSH T 9/5/2025, 6:47 AM

Edit

Delete

Close

Email Template

Send Text and Verify Merge Fields

Subject

Leave rejected

Plain Text Preview

Dear (Tenant__c.Name),

I hope this email finds you well. Your contract has not ended. So we can't approve your leave
your leave has rejected

Setup

Home

Object Manager

Search Setup

email te

Email

Classic Email Templates

Lightning Email Templates

Didn't find what you're looking for?
Try using Global Search.

SETUP

Classic Email Templates

Text Email Template

Tenant Email

Help for this Page

Preview your email template below:

Email Template Detail

Email Templates from Salesforce

Unified Public Classic Email Templates

Email Template Name

Tenant Email

Available For Use

☐

Template Unique Name

Tenant_Email

Last Used Date

Encoding

Unicode (UTF-8)

Times Used

Author

HARSH T (Chatter)

Description

Created By

HARSH T 9/5/2025, 6:48 AM

Modified By

HARSH T 9/5/2025, 6:48 AM

Edit

Delete

Close

Email Template

Send Text and Verify Merge Fields

Subject

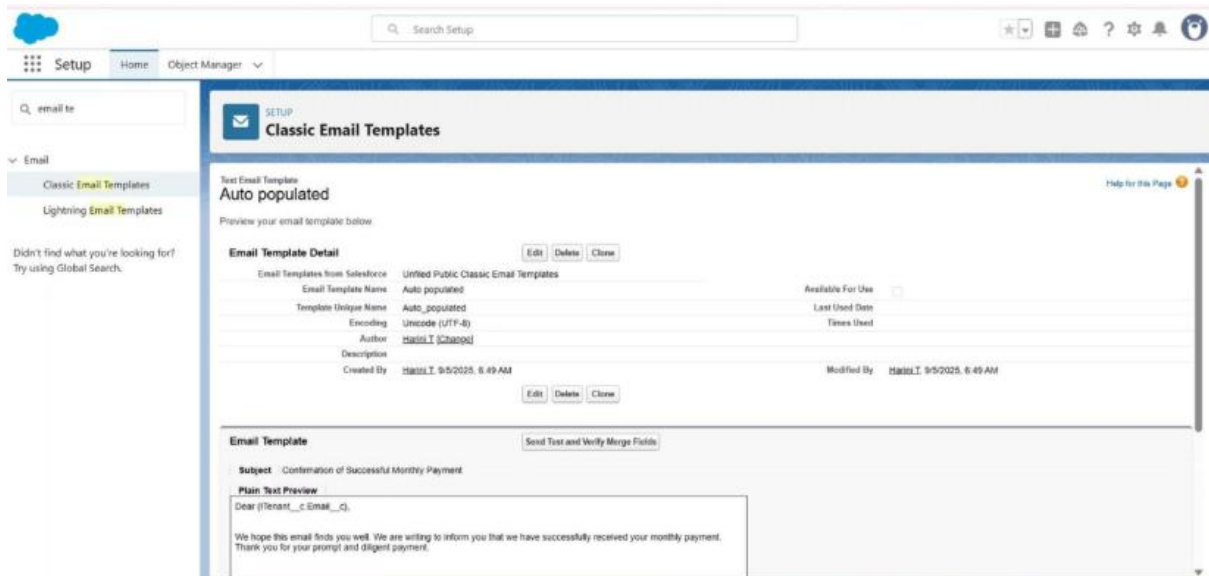
Urgent: Monthly Rent Payment Reminder

Plain Text Preview

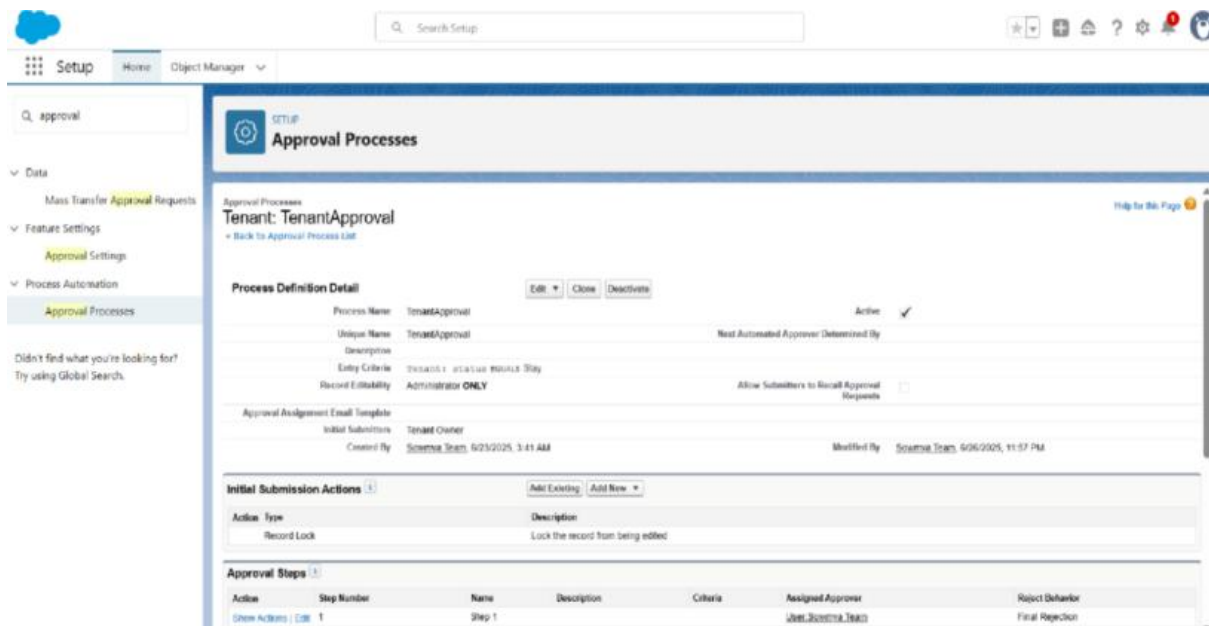
Dear (Tenant__c.Name),

I trust this email finds you well. We appreciate your continued tenancy at our property and I hope you have been comfortable in your residence.

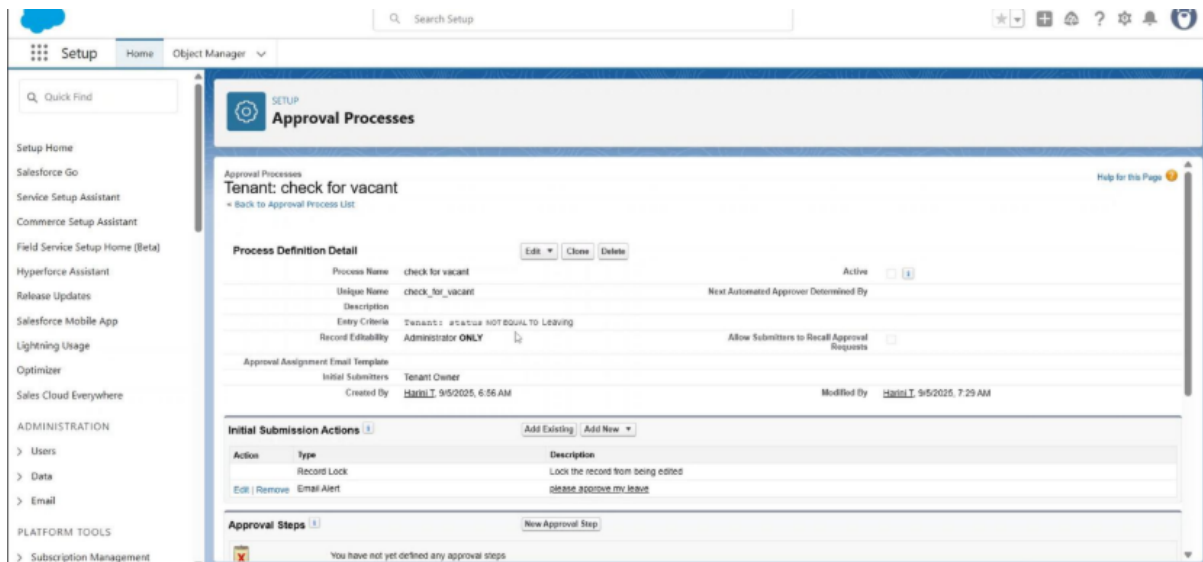
This communication is a friendly reminder regarding your monthly rent payment, which is currently overdue. As outlined in



- Approval Process creation
- For Tenant Leaving:

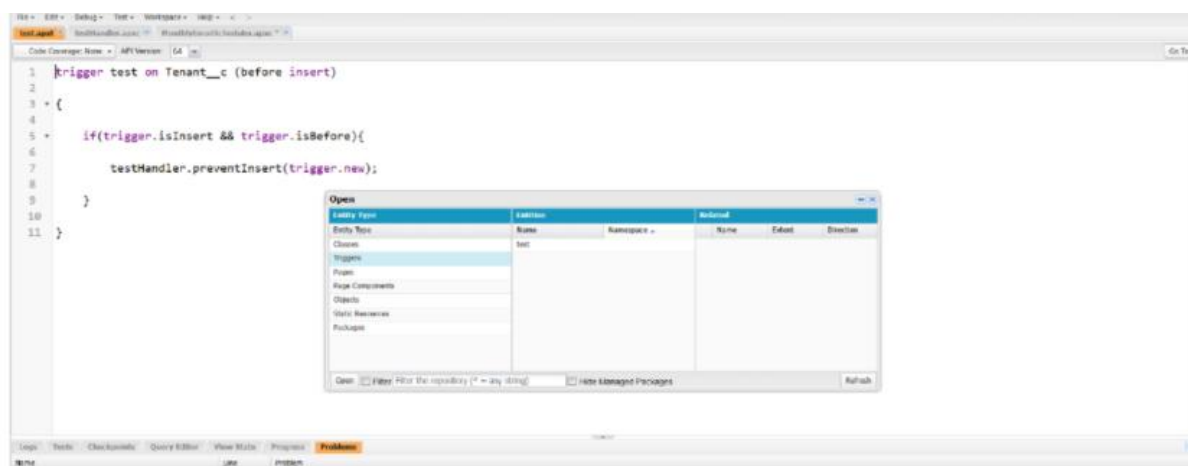


For Check for Vacant:

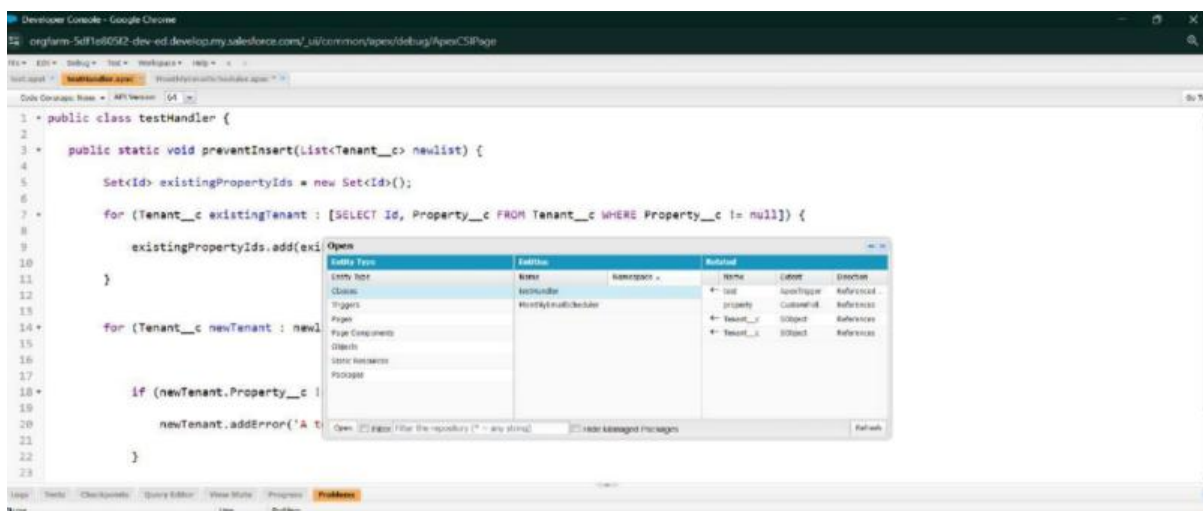


● Apex Trigger

Create an Apex Trigger



Create an Apex Handler class:



● FLOWS

The screenshot shows the 'Configure Start' panel for a Record-Triggered Flow. The flow is named 'Payment for tenant' and is triggered by 'A record is updated'. The condition requirements are set to 'All Conditions Are Met (AND)'. The field 'check for payment' is set to 'Equals' the value 'A Field'. The 'When to Run the Flow for Updated Records' section is configured to 'Every time a record is updated and meets the condition requirements'. The 'Optimize Flow' section is set to 'Fast Field Updates'. The 'Actions and Related Records' section is highlighted, indicating that the flow runs after the record is saved to the database.

The screenshot shows the 'Configure Start' panel for a Record-Triggered Flow. The flow is named 'Payment for tenant' and is triggered by 'A record is updated'. The condition requirements are set to 'All Conditions Are Met (AND)'. The 'Select Object' section is set to 'Payment for tenant'. The 'Configure Trigger' section is set to 'A record is updated'. The 'Set Entry Conditions' section is set to 'All Conditions Are Met (AND)'. The flow is configured to run immediately after the record is updated.

● Schedule class:

Create an Apex Class



Schedule Apex class

Setup

Home

Object Manager

Q apex class

Custom Code

Apex Classes

Didn't find what you're looking for?

Try using Global Search.

Apex Classes

Apex Code is an object oriented programming language that allows developers to develop on-demand business applications on the Lightning Platform.

Percent of Apex Used: 0.02%

You are currently using 1,874 characters of Apex Code (excluding comments and @test annotated classes) in your organization, out of an allowed limit of 6,000,000 characters. Note that the amount in use includes both Apex Classes and Triggers defined in your organization.

Estimate your organization's code coverage

Consider all classes

View: All Create New View

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Other All

Action	Name	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit Del Security	MurthyEmailScheduler		64.0	Active	1,143	ISWELLT 9/5/2025, 9:42 AM	
Edit Del Security	testHandler		64.0	Active	564	ISWELLT 9/5/2025, 7:45 AM	

Dynamic Apex Classes

Dynamic Apex extends your programming reach by interacting with Lightning Platform components.

View: All Create New View

Class Name	Namespace Prefix	Api Version	Created By	Last Modified By
No records to display.				

Apex Classes - Salesforce - Developer Edition

Lease Management

Payment

Tenants

property

lease

Search...

Tenant

Aswini

New Contact

Edit

New Opportunity

Related

Details

* Tenant Name

Aswini

Owner

Sowmya Team

* Email

aswiniamaraad15@gmail.com

Phone

(903) 223-5567

status

Leasing

property

resan

Created By

Sowmya Team, 6/26/2025, 6:05 AM

Last Modified By

Sowmya Team, 6/25/2025, 11:06 PM

Cancel

Save

Activity

New Case

New Lead

Delete

Clone

Change Owner

Printable View

Submit for Approval

Edit Labels

Filter: All Item • All act

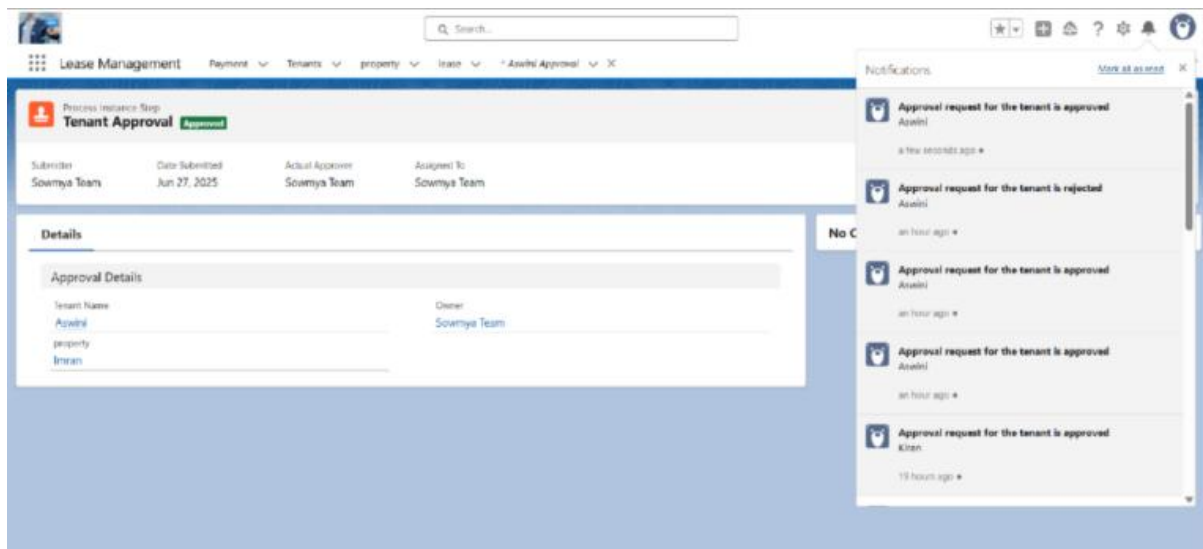
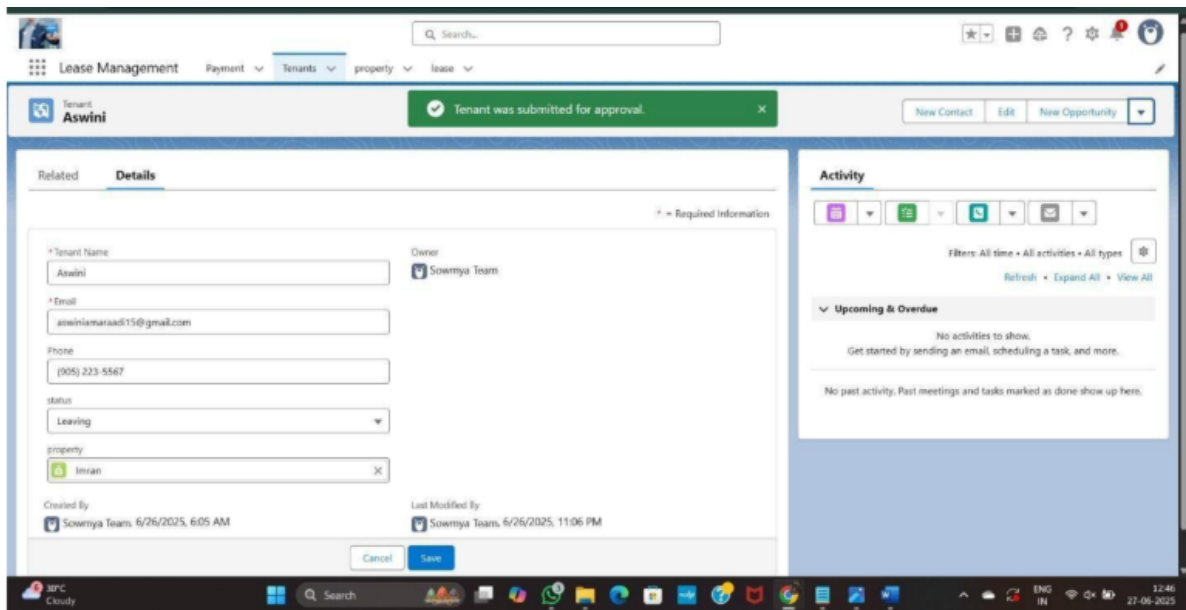
Refresh

Upcoming & Overview

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.



FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing

- * Trigger validation by entering duplicate tenant-property records

New Tenant

* = Required Information

Information

* Tenant Name chinu Owner Sovmitya Team

* Email chinu@gmail.com

Phone

Status Stay

Property Parkside

We hit a snag.

Review the errors on this page.

- A tenant can have only one property

Cancel Save & New Save

Lease supriya

* = Required Information

* Lease Name supriya Owner Sovmitya Team

start date 6/20/2025

Your End date must be greater than start date.

End date 6/18/2025

Property Search property...

We hit a snag.

Review the following fields

- start date

Cancel Save

Activity

Filter: All time • All activities • All types

Refresh Expand All View All

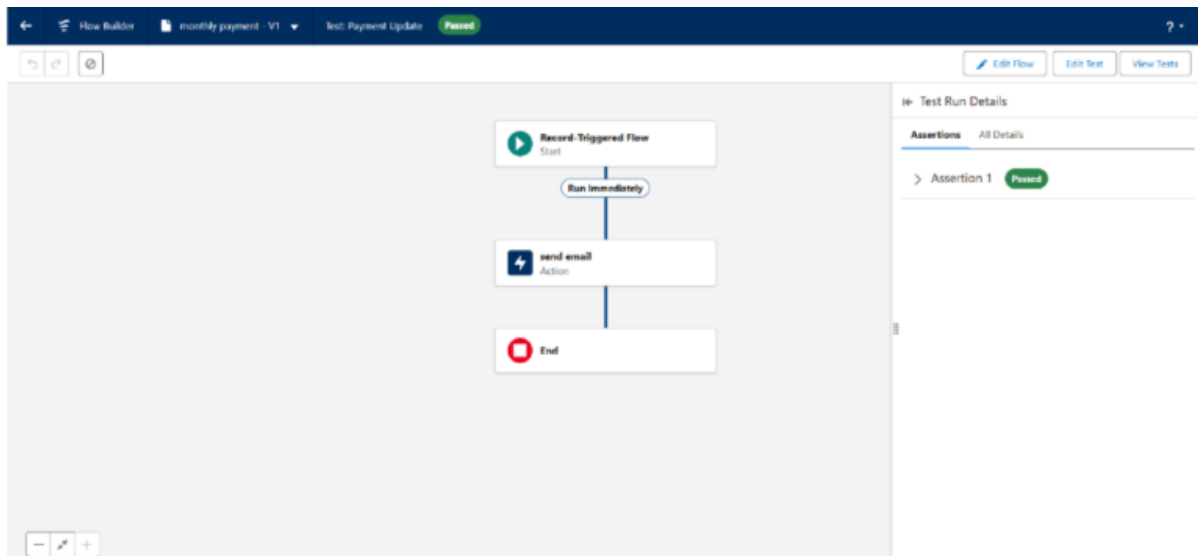
Upcoming & Overdue

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.

- Test flows on payment update



- Approval process validated through email alerts and status updates

The screenshot shows a CRM interface with a 'Lease Management' header. The main section displays tenant details for 'niranjan'. The details include fields for 'Tenant Name' (niranjan), 'Email' (niranjan106@gmail.com), 'Phone', 'status' (Stay), and 'property' (Parkside Lofts). The 'Owner' is 'Sowmya Team'. The 'Created By' is 'Sowmya Team' on 6/23/2025, 2:33 AM, and the 'Last Modified By' is 'Sowmya Team' on 6/23/2025, 3:58 AM. There are 'Cancel' and 'Save' buttons at the bottom.

On the right side, there's a 'Notifications' panel. It contains several notifications:

- 'Approval request for the tenant is approved niranjan' (a few seconds ago)
- 'Approval request for the tenant is rejected niranjan' (Jun 23, 2025, 4:29 PM)
- 'Approval request for the tenant is approved niranjan' (Jun 23, 2025, 4:25 PM)
- 'Approval request for the tenant is approved niranjan' (Jun 23, 2025, 4:14 PM)
- 'New Guidance Center learning resource available' (Jun 20, 2025, 1:20 PM)

Below the tenant details, there's a section for 'Approval History (6+)'. It contains a table with the following data:

Step Name	Date	Status	Assigned To
Step 1	6/25/2025, 5:39 AM	Approved	Sowmya Team
Approval Request Submitted	6/25/2025, 5:39 AM	Submitted	Sowmya Team
Step 1	6/23/2025, 3:59 AM	Rejected	Sowmya Team
Approval Request Submitted	6/23/2025, 3:58 AM	Submitted	Sowmya Team
Step 1	6/23/2025, 3:55 AM	Approved	Sowmya Team
Approval Request Submitted	6/23/2025, 3:55 AM	Submitted	Sowmya Team

Below the table, there's a 'View All' link. Under the table, there's a section for 'Payment (2)' with a 'New' button. It contains a table with the following data:

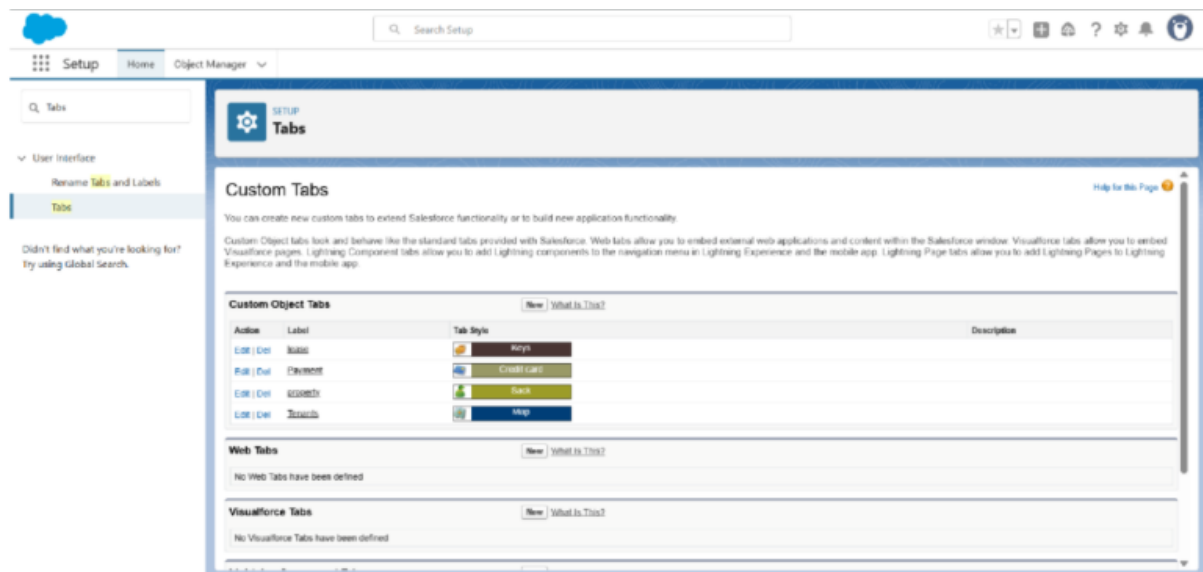
Payment Name
Jack
Rahul

Below the table, there's a 'View All' link.

RESULTS

Output Screenshots

- Tabs for Property, Tenant, Lease, Payment



- Email alerts

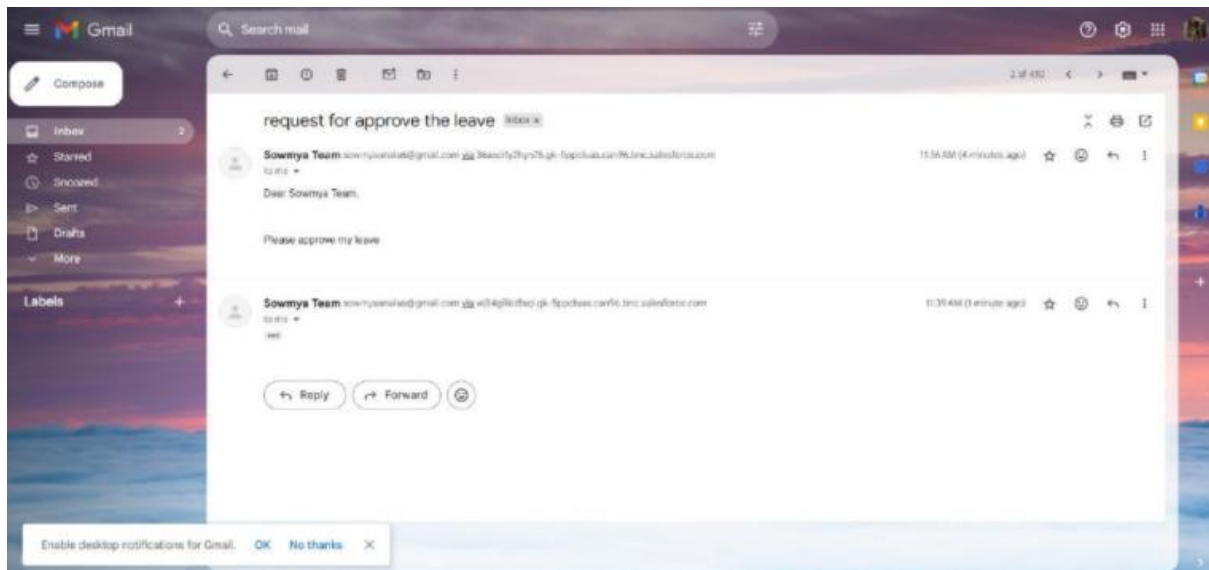
Lease Management Payment **Tenants** property lease

Tenants > **Approval History**

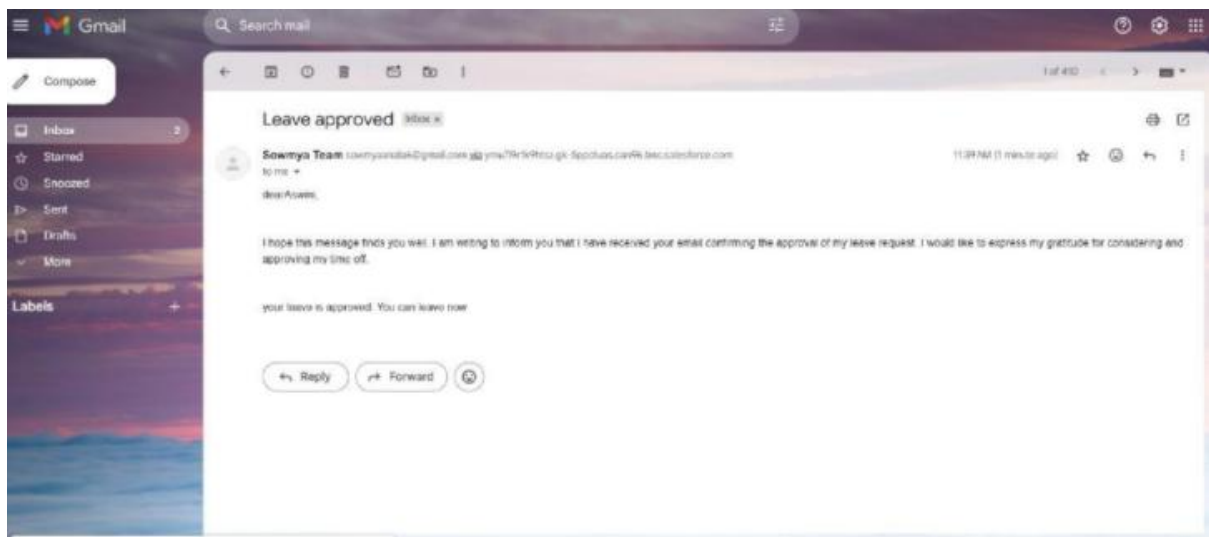
8 items • Sorted by In Pending • Updated a few seconds ago

Step Name	Date	Status	Assigned To	Actual Approver	Comments
1 Step 1	6/25/2025, 5:39 AM	Approved	Sowmya Team	Sowmya Team	approved
2 Approval Request Submitted	6/25/2025, 5:39 AM	Submitted	Sowmya Team	Sowmya Team	invoing
3 Step 1	6/23/2025, 3:59 AM	Rejected	Sowmya Team	Sowmya Team	rejected
4 Approval Request Submitted	6/23/2025, 3:58 AM	Submitted	Sowmya Team	Sowmya Team	Leaving
5 Step 1	6/23/2025, 3:55 AM	Approved	Sowmya Team	Sowmya Team	Approved
6 Approval Request Submitted	6/23/2025, 3:55 AM	Submitted	Sowmya Team	Sowmya Team	invoing
7 Step 1	6/23/2025, 3:44 AM	Approved	Sowmya Team	Sowmya Team	Approval Approved
8 Approval Request Submitted	6/23/2025, 3:42 AM	Submitted	Sowmya Team	Sowmya Team	Leaving

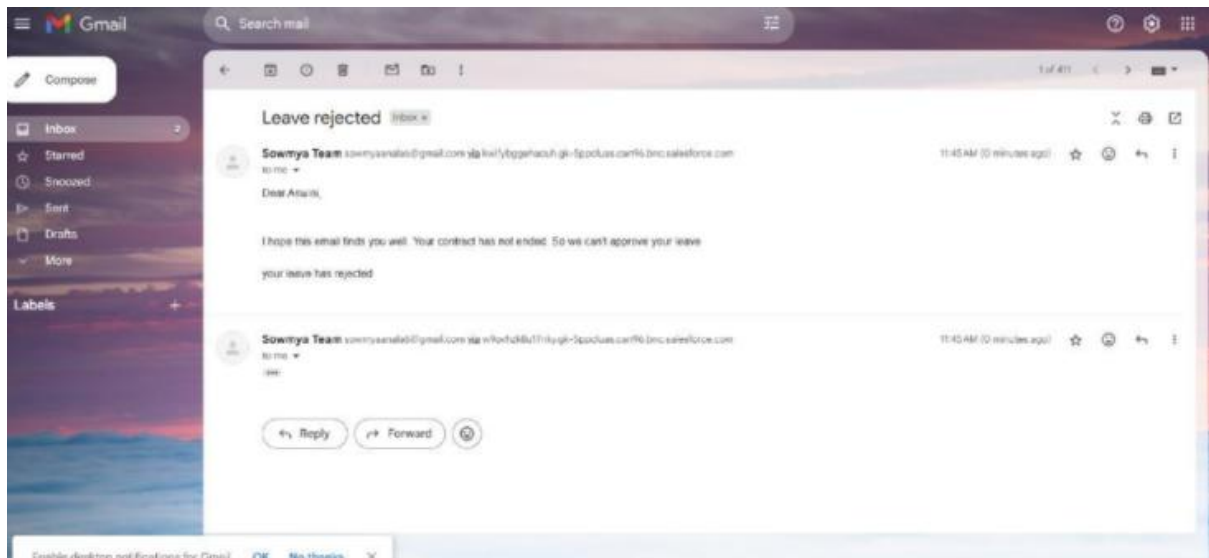
- Request for approve the leave



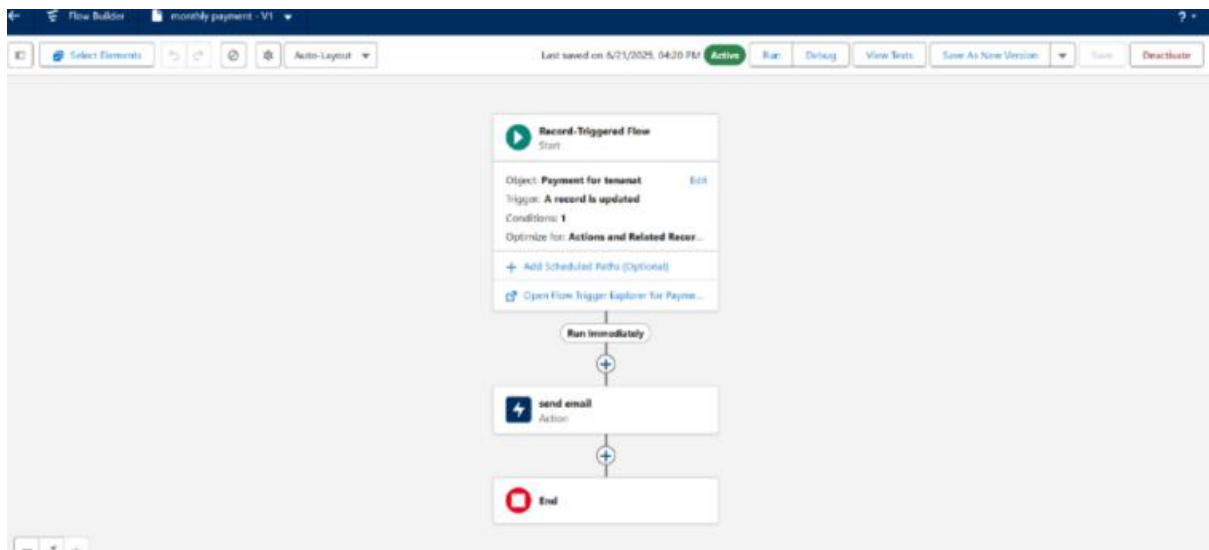
- Leave approved



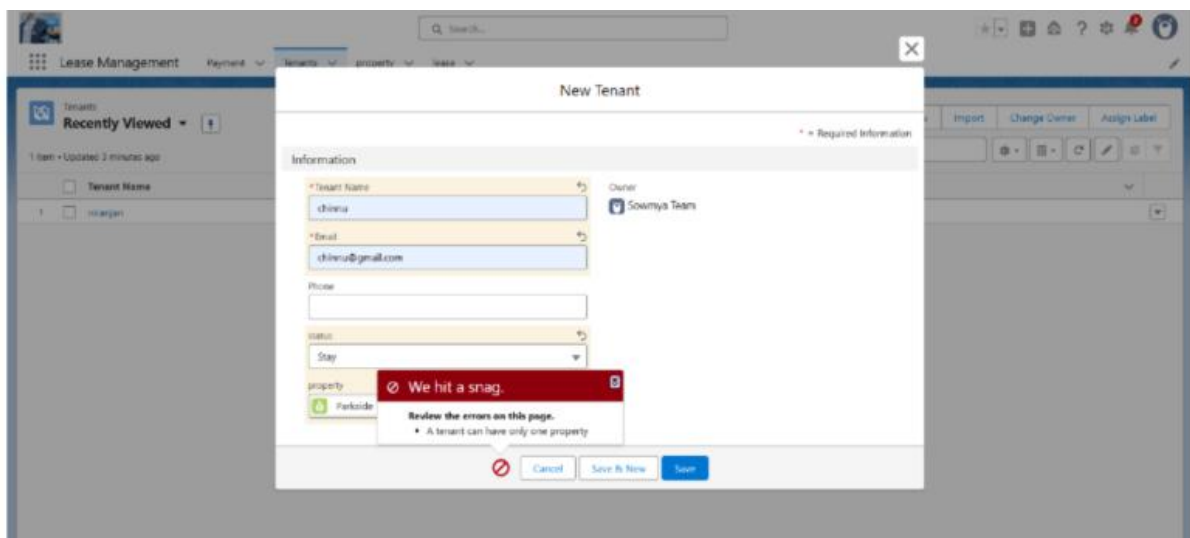
- Leave rejected



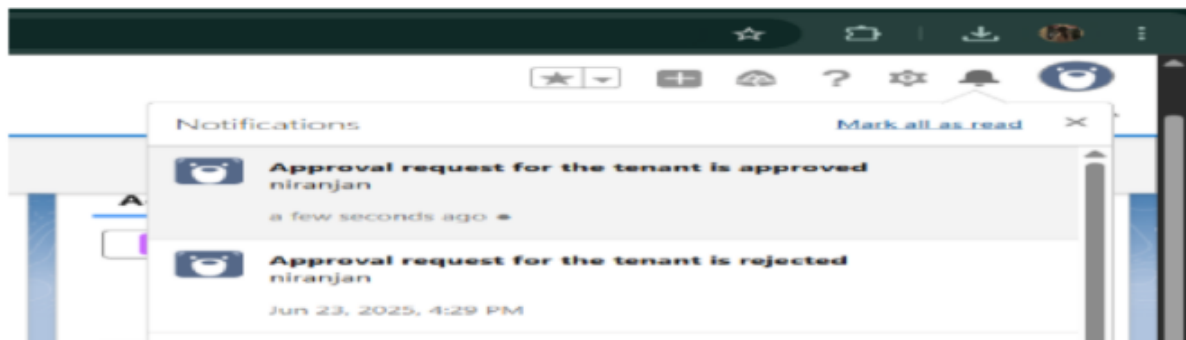
● Flow runs



● Trigger error messages



- Approval process notifications



ADVANTAGES & DISADVANTAGES

Advantages:

- Automates routine tasks like rent reminders, approvals, and payments.
- Reduces manual errors by using validation rules and flows.
- Improves efficiency and saves time for administrators.
- Provides real-time tracking of properties, tenants, and payments.
- Enhances communication through automated email alerts and notifications.
- Centralized data storage ensures easy access and better decision-making.

Disadvantages:

- Requires initial learning effort to understand salesforce setup and features.
- Internet connectivity is mandatory to use salesforce effectively.
- Advanced customization (like Apex coding for triggers/schedulers) may be difficult for beginners.

- In real-world business, Salesforce licensing costs can be high (though the developer edition is free for projects).

CONCLUSION

The Lease Management System successfully streamlines the operations of leasing through a structured, automated Salesforce application. It improves efficiency, communication, and data accuracy for both admins and tenants.

APPENDIX

- Source Code: Provided in Apex Classes and Triggers

Test.apxt: trigger test on

Tenant__c (before insert) { if

(trigger.isInsert &&

trigger.isBefore){

testHandler.preventInsert(trigger.new

);

}}

testHandler.apxc:

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)) {
```

```
newTenant.addError('A tenant can have only one property');
```

```
}
```

```
}
```

```
}
```

```
}
```

MonthlyEmailScheduler.apxc:

```
global class MonthlyEmailScheduler implements
```

```
Schedulable { global void
```

```
execute(SchedulableContext sc) { Integer currentDay
```

```
= Date.today().day(); if (currentDay == 1) {sendMonthlyEmails();
```

```
}  
} public static void  
sendMonthlyEmails() { List<Tenant__c>  
tenants = [SELECT Id, Email__c FROM  
Tenant__c]; for (Tenant__c tenant :  
tenants) {  
  
String recipientEmail = tenant.Email__c;  
String emailContent = 'I trust this email finds you well. I am writing to  
remind you that the monthly rent is due Your timely payment  
ensures the  
smooth functioning of our rental arrangement and helps maintain a  
positive  
living environment for all.';  
String emailSubject = 'Reminder: Monthly Rent Payment Due';  
Messaging.SingleEmailMessage email = new  
Messaging.SingleEmailMessage(); email.setToAddresses(new  
String[]{recipientEmail}); email.setSubject(emailSubject);  
email.setPlainTextBody(emailContent);  
  
Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});  
}  
}  
}
```