

# LEASE MANAGEMENT

**College Name: KG COLLEGE OF ARTS AND SCIENCE**

**TEAM ID: NM2025TMID23668**

**TEAM MEMBERS:**

**Team Leader Name:**SIVARUDHARA K

**Email:** 2322jb49@kgcas.com

**Team Member1:** SRI HARISH E

**Email:** 2322jb50@kgcas.com

**Team Member2:** STEPHEN MOSES J

**Email:** 2322jb51@kgcas.com

**Team Member3:** SWETHA M

**Email:** 2322jb52@kgcas.com

## 1.INTRODUCTION

## 1.1 Project Overview

The Lease Management System is a Salesforce-based application designed to streamline the processes associated with leasing real estate properties. It handles tenant management, lease contracts, payments, and communication with automation features such as flows, approval processes, and email alerts.



## 1.2 Purpose

The main objective of the project is to enable organizations to efficiently manage properties, tenants, and lease-related activities. It reduces manual intervention, improves accuracy, and ensures better compliance and communication.

# DEVELOPMENT PHASE

### Creating Developer Account:

By using this URL - <https://www.salesforce.com/form/developer-signup/?d=pb>

salesforce.com/form/developer/signup/1d-jb

## Build enterprise-quality apps fast and get hands-on with Agentforce and Data Cloud.

Sign up for your Developer Edition.

- ✓ Build apps fast with drag-and-drop tools
- ✓ Go further with Apex code
- ✓ Build AI agents with Agentforce
- ✓ Harmonize your data with Data Cloud
- ✓ Ground Agentforce with structured and unstructured data
- ✓ Integrate with anything using APIs

### Sign up for your Developer Edition

A free Salesforce Platform environment with Agentforce and Data Cloud

First name: Amiraadi ✓ Last name: Aswini ✓

Job title: Student ✓ Work email: aswiniamiraadi15@gmail.com ✓

Company: Ideal Institute of Tech ✓ Country/Region: India ✓

☐ I agree to the Main Services Agreement – Developer Services and Salesforce Program Agreement. I acknowledge, as described in the Developer Documentation (D) the Developer Edition includes autonomous and other generative AI features and (2) Salesforce may limit use of those features and the org, and may terminate any org that has been inactive for 90 days.

[We value your privacy. To learn more, visit our Privacy Statement.](#)

- Created objects: Property, Tenant, Lease, Payment

Setup | Home | Object Manager

### property

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Links

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Record Rule Rules

Transfer Rules

Description

API Name: property\_\_c

Custom

✓ Singular Label: property

Plural Label: property

✓ Create Records

✓ Track Audits

✓ Track Field History

✓ Employment Status: Employed

Help Settings

Standard: salesforce.com Help Window

Edit | Delete

Browser address bar: org1am-5d1e0252-dev-ed:develop.lightning.force.com/lightning/setup/ObjectManager/01g000000rT0N/Details/view

Setup Home Object Manager

SETUP + OBJECT MANAGER

### Tenant

[Edit](#) [Delete](#)

**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

Aff Name  
Tenant\_\_c  
Custom  
✓  
Singular Label  
Tenant  
Plural Label  
Tenants

Exclude Reports  
✓  
Track Activities  
✓  
Track Field History  
✓  
Deployment Status  
Deployed  
Help Settings  
Standard salesforce.com Help Window

Browser address bar: org1am-5d1e0252-dev-ed:develop.lightning.force.com/lightning/setup/ObjectManager/01g000000rT0N/Details/view

Setup Home Object Manager

SETUP + OBJECT MANAGER

### lease

[Edit](#) [Delete](#)

**Details**

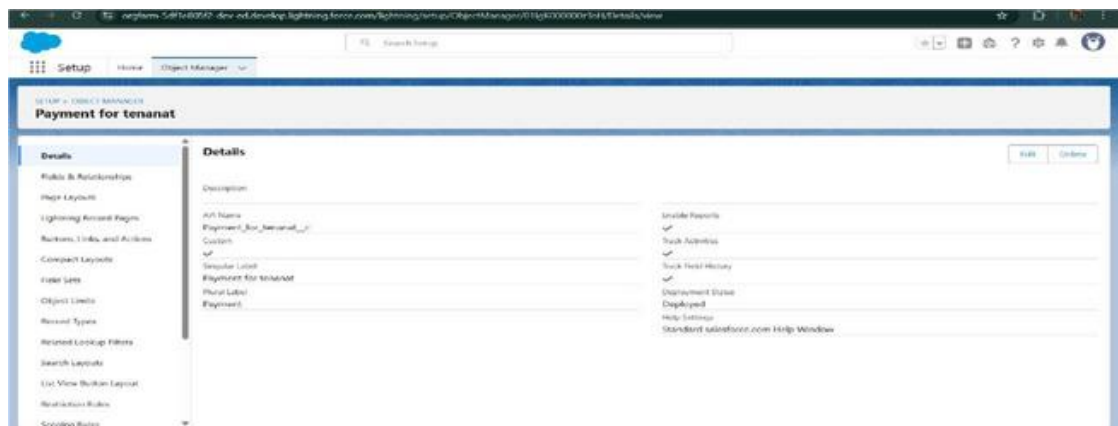
- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules

**Details**

Description

Aff Name  
lease\_\_c  
Custom  
✓  
Singular Label  
lease  
Plural Label  
leases

Exclude Reports  
✓  
Track Activities  
✓  
Track Field History  
✓  
Deployment Status  
Deployed  
Help Settings  
Standard salesforce.com Help Window



- Configured fields and relationships

Setup

Home

Object Manager

Search Setup

Setup > OBJECT MANAGER

property

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

Fields & Relationships

9 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Long Text Area (12700)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name__c	Text(255)		
Owner	OwnerId	Lookup(User Group)		✓
property	property__c	Lookup(Property)		✓
property Name	Name	Text(30)		✓
slug	slug__c	Text(18)		
Type	Type__c	Picklist		

Setup

Home

Object Manager

Search Setup

Setup > OBJECT MANAGER

Payment for tenanat

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

Fields & Relationships

7 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

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)		
Owner	OwnerId	Lookup(User Group)		✓
Payment date	Payment_date__c	Date		
Payment Name	Name	Text(30)		✓

Setup

Home

Object Manager

Search Setup

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

Fields & Relationships

7 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)		
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		

Setup

Home

Object Manager

Search Setup

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

Fields & Relationships

7 Items, Sorted by Field Label

Quick Find

New

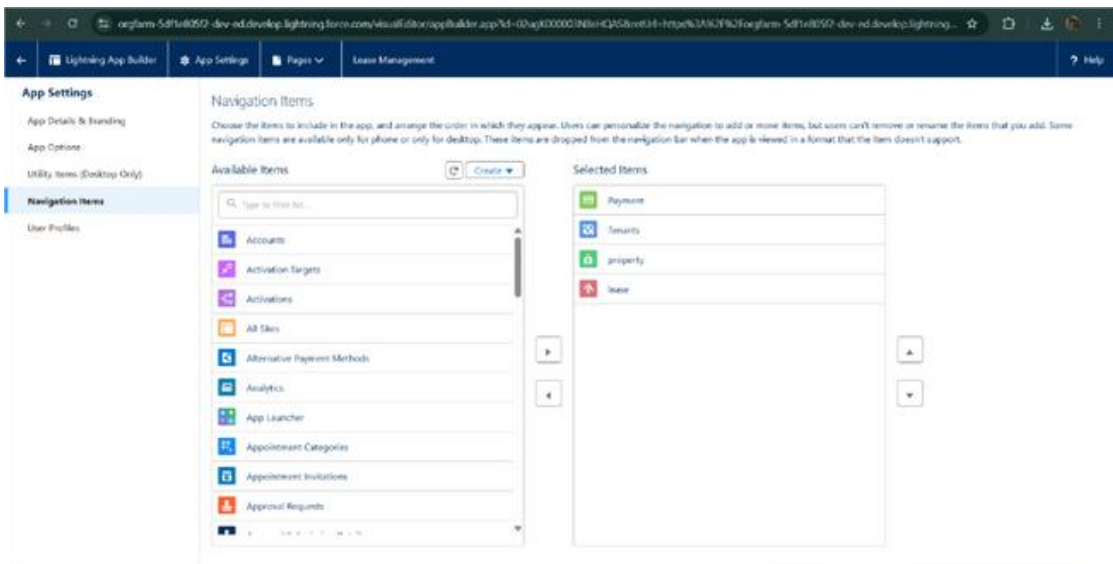
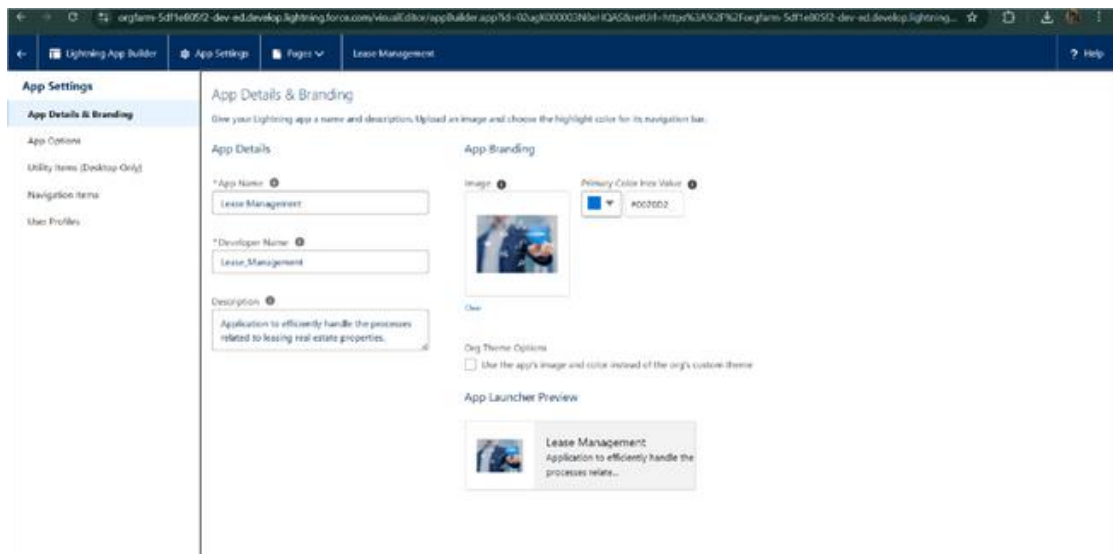
Deleted Fields

Field Dependencies

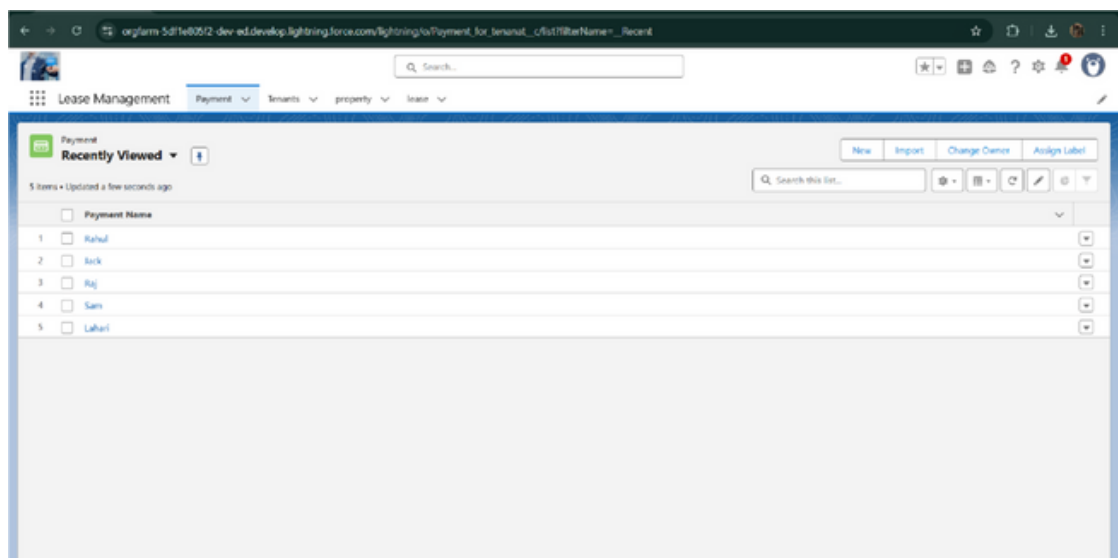
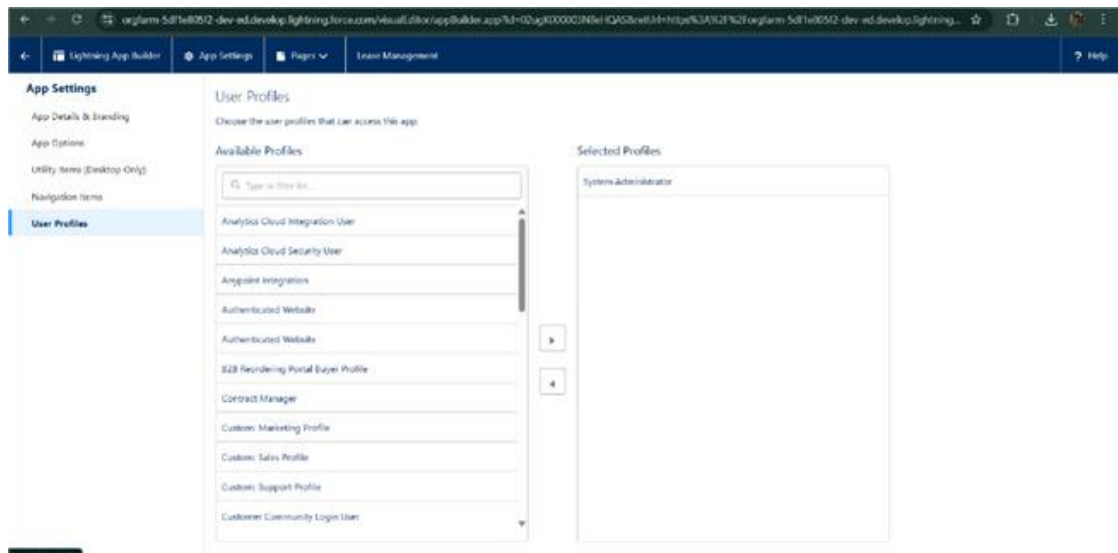
Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User/Group)		✓
Phone	Phone__c	Phone		
status	status__c	Picklist		
Tenant Name	Name	Text(80)		✓

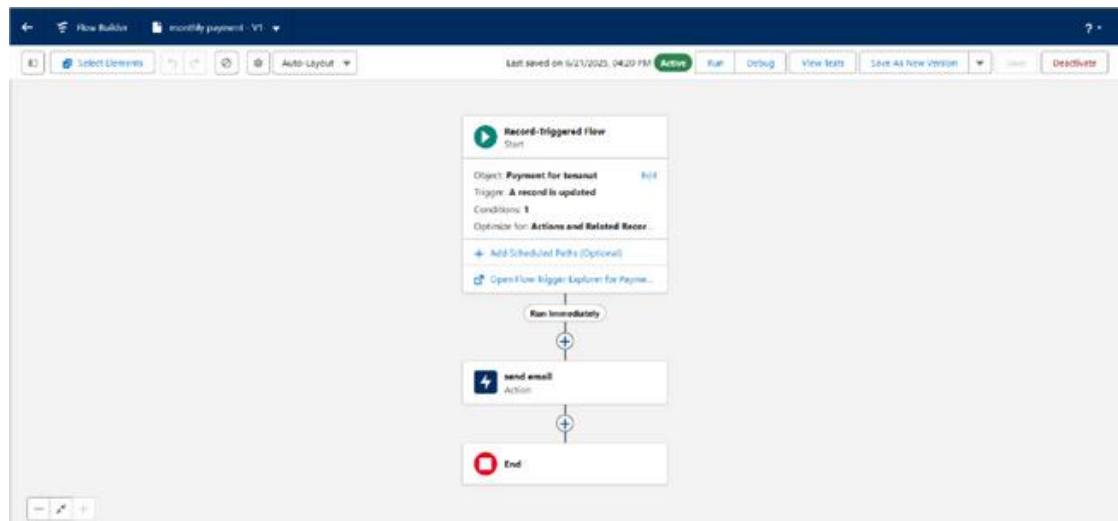
- Developed Lightning App with relevant tabs





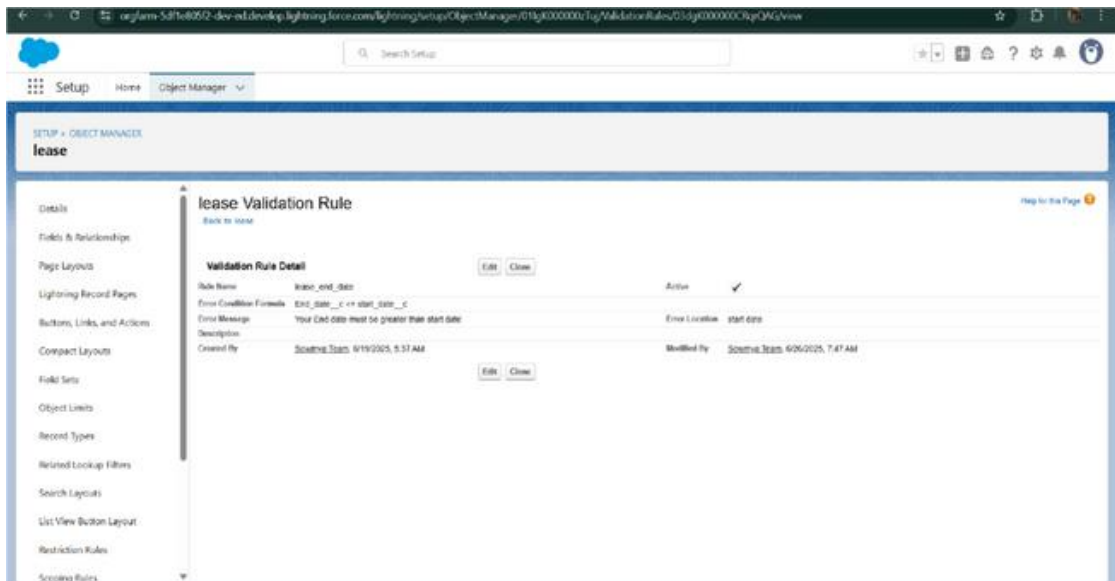


- Implemented Flows for monthly rent and payment success

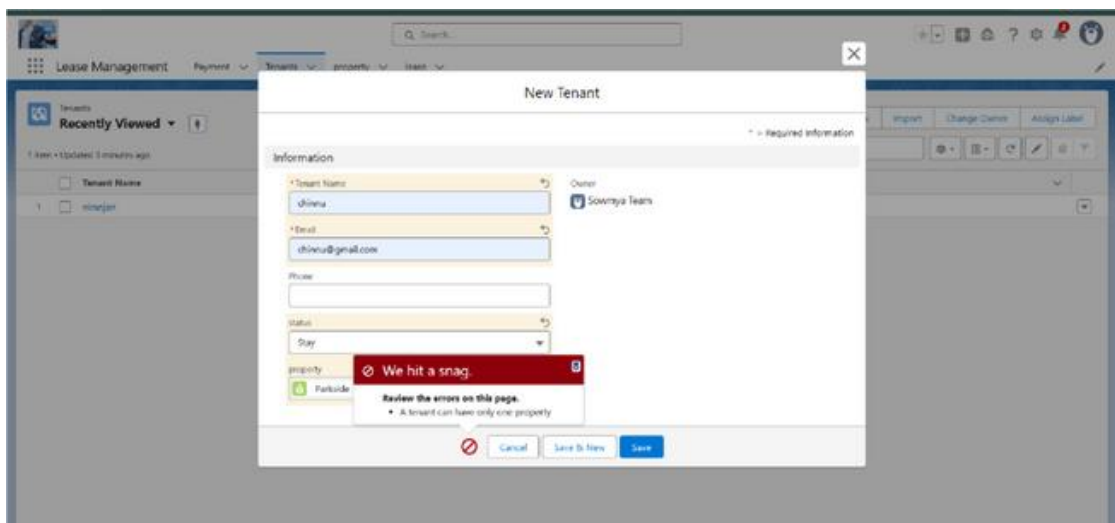


- To create a validation rule to a Lease Object

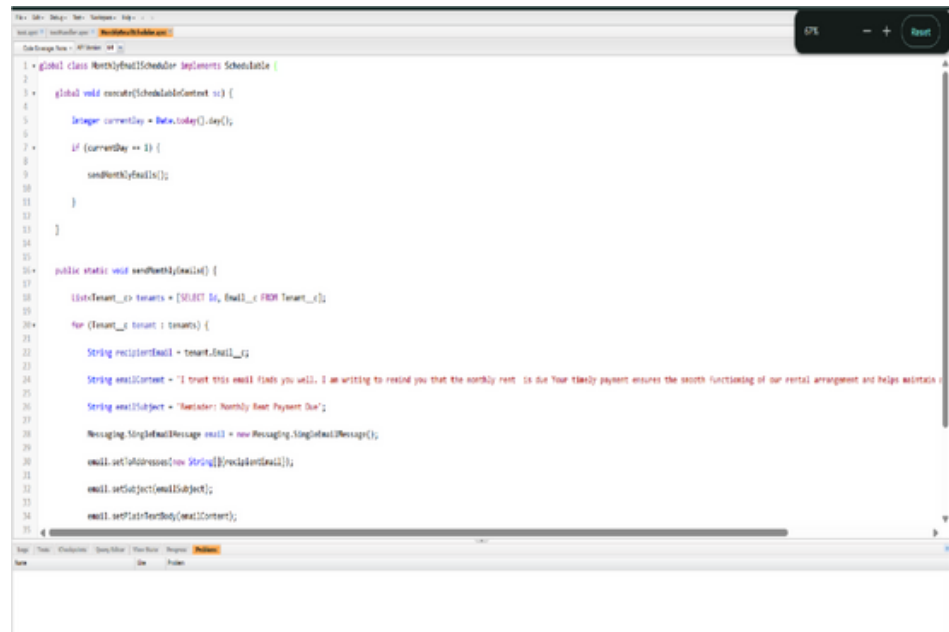
The screenshot shows the Salesforce Lightning Setup interface. The top navigation bar includes the Setup icon, a search bar, and various utility icons. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, and Scoping Rules. The main content area is titled 'SETUP > OBJECT MANAGER' and 'lease'. It displays the 'Validation Rule Edit' form for a rule named 'lease\_end\_date'. The form includes fields for Rule Name, Active status, and Description. Below these is the 'Error Condition Formula' section, which contains an example formula: `Discount_Percent__c > 30`. The formula editor shows the formula `End_date__c <= Start_date__c`. A functions sidebar is open, showing a list of functions including ABS, ACOS, ADDMONTHS, AND, ASIN, and ASIN. The bottom of the page shows the 'Error Message' field.



- Added Apex trigger to restrict multiple tenants per property



- Scheduled monthly reminder emails using Apex class



```
1 • global class MonthlyEmailScheduler implements Scheduler {
2
3 •   global void execute(ScheduleContext sc) {
4
5       Integer currentDay = Data.today().day();
6
7       if (currentDay == 1) {
8           sendMonthlyEmail();
9       }
10
11   }
12
13 }
14
15
16 public static void sendMonthlyEmail() {
17
18     List<Tenant> tenants = [SELECT t, Email_e FROM Tenant_e];
19
20     for (Tenant_e tenant : tenants) {
21
22         String recipientEmail = tenant.Email_e;
23
24         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 ";
25
26         String emailSubject = "Reminder: Monthly Rent Payment Due";
27
28         Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
29
30         email.setToAddresses(new String[] {recipientEmail});
31
32         email.setSubject(emailSubject);
33
34         email.setTextBody(emailContent);
35     }
36 }
```

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

Setup

Home

Object Manager

Search Setup

email template

Classic Email Templates

Lightning Email Templates

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

Classic Email Templates

Text Email Template

Leave approved

Preview your email template below.

Email Template Detail

Email Templates from Salesforce

Email Template Name

Template Unique Name

Encoding

Author

Description

Created By

United Public Classic Email Templates

Leave approved

Leave\_approved

Unicode (UTF-8)

System Administrator

System Administrator, 6/20/2025, 1:08 AM

Available For Use

Last Used Date

Team Used

Modified By

System Administrator, 6/20/2025, 1:08 AM

Edit

Delete

Close

Email Template

Send Text and Merge Fields

Subject

Plain Text Preview

Dear {Tenant\_\_c.Name},

I hope this message finds you well. I am writing to inform you that I have received your email confirming the approval of my leave request. I would like to express my gratitude for considering and approving my time off.

Your request is appreciated. You can view this.

Setup

Home

Object Manager

Search Setup

email template

Classic Email Templates

Lightning Email Templates

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

Classic Email Templates

Text Email Template

tenant leaving

Preview your email template below.

Email Template Detail

Email Templates from Salesforce

Email Template Name

Template Unique Name

Encoding

Author

Description

Created By

United Public Classic Email Templates

tenant leaving

tenant\_leaving

Unicode (UTF-8)

System Administrator

System Administrator, 6/20/2025, 1:06 AM

Available For Use

Last Used Date

Team Used

Modified By

System Administrator, 6/20/2025, 1:06 AM

Edit

Delete

Close

Email Template

Send Text and Merge Fields

Subject

Plain Text Preview

Dear {Tenant\_\_c.ContactId},

Please approve my leave.

Setup

Home

Object Manager

Search Setup

email template

Classic Email Templates

Lightning Email Templates

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

Classic Email Templates

Test 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

Available For Use

✓

Email Template Name

Leave\_rejected

Last Used Date

Never Used

Template Unique Name

Leave\_rejected

Encoding

Unicode (UTF-8)

Author

Scotlyn.Stacy

Created By

Scotlyn.Stacy

Created On

6/20/2025, 1:11 AM

Modified By

Scotlyn.Stacy

Modified On

6/20/2025, 1:11 AM

Email Template

Send Text and 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 lease.  
Your lease has rejected.

Setup

Home

Object Manager

Search Setup

email template

Classic Email Templates

Lightning Email Templates

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

Classic Email Templates

Test 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

Available For Use

✓

Email Template Name

Tenant\_Email

Last Used Date

Never Used

Template Unique Name

Tenant\_Email

Encoding

Unicode (UTF-8)

Author

Scotlyn.Stacy

Created By

Scotlyn.Stacy

Created On

6/20/2025, 1:12 AM

Modified By

Scotlyn.Stacy

Modified On

6/20/2025, 1:12 AM

Email Template

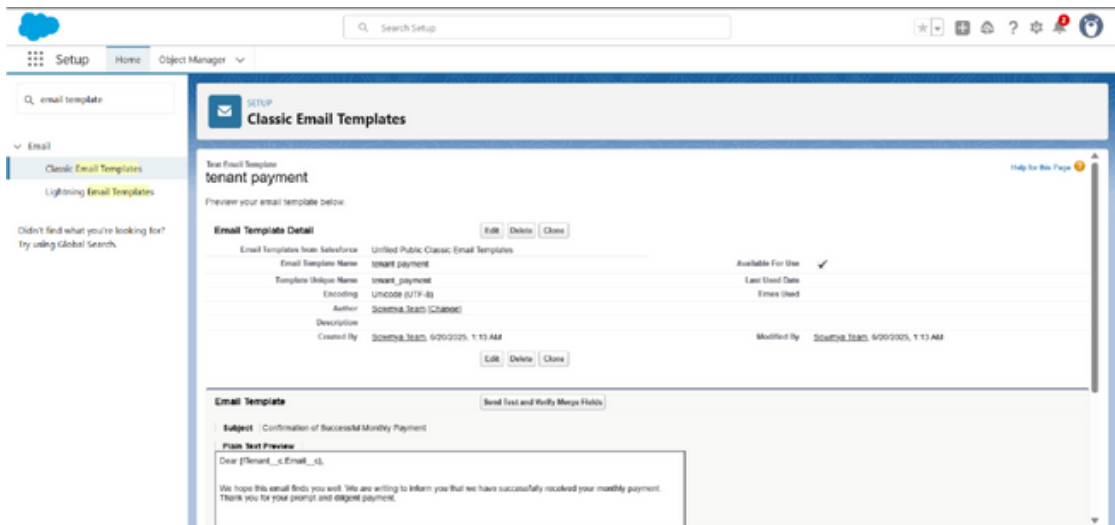
Send Text and Merge Fields

Subject

Urgent: Monthly Rent Payment Reminder

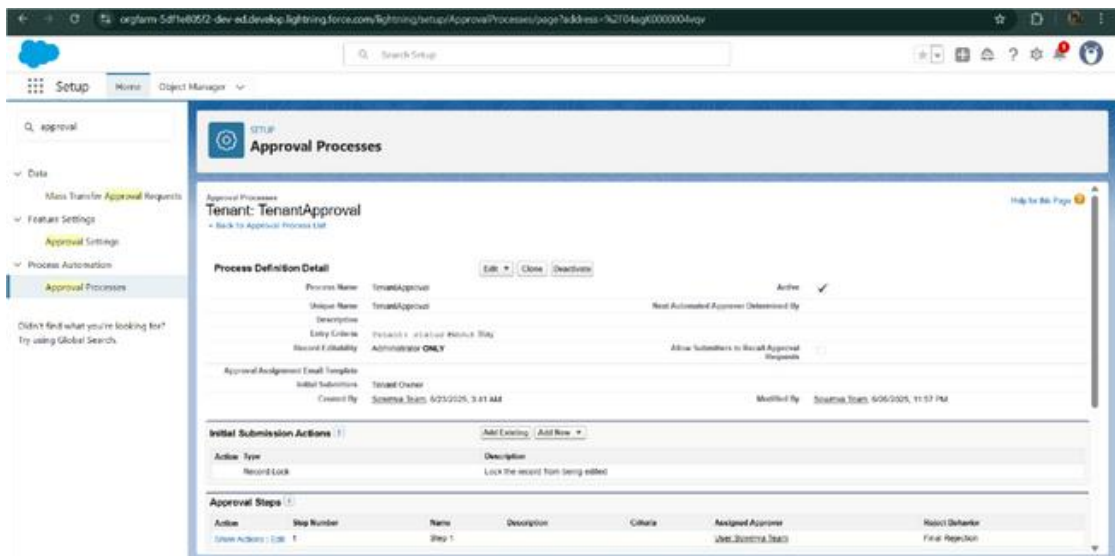
Plain Text Preview

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 reminder is to ensure you are up to date on your monthly rent payment. Please ensure you have received this information and act accordingly.

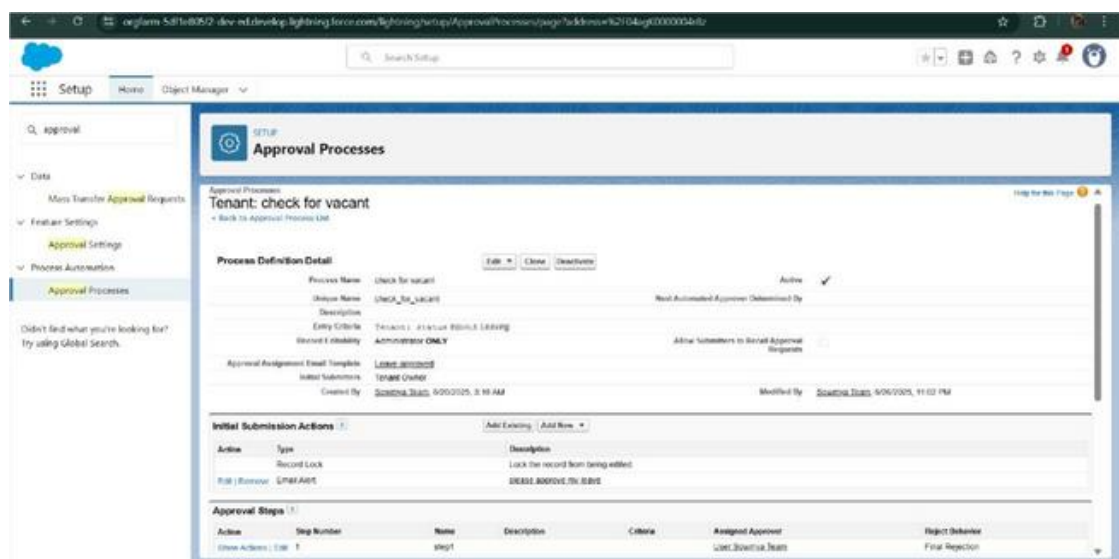


- Approval Process creation

For Tenant Leaving:

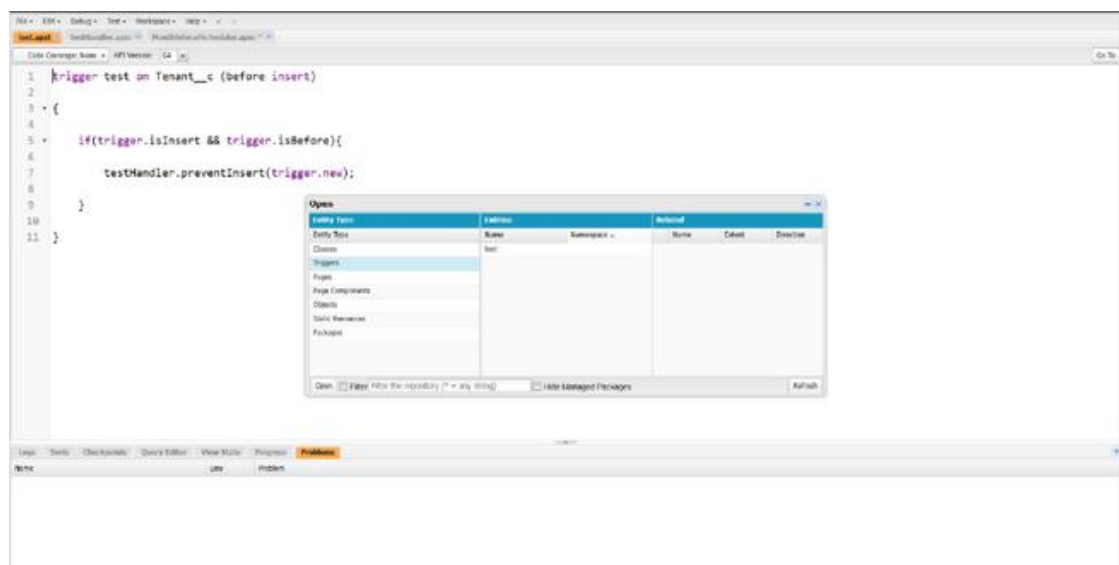


For Check for Vacant:

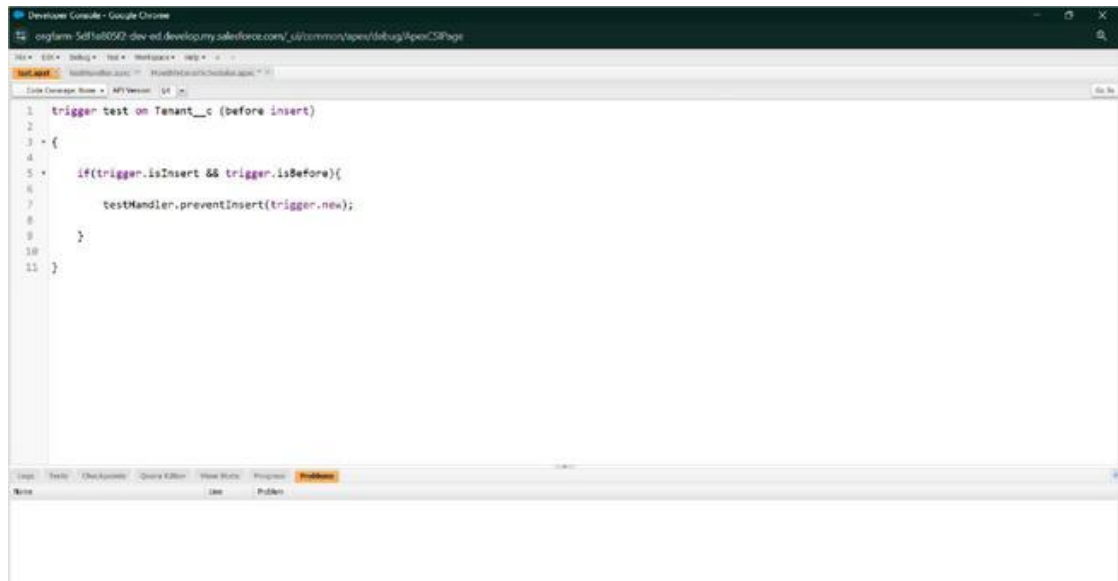


- Apex Trigger

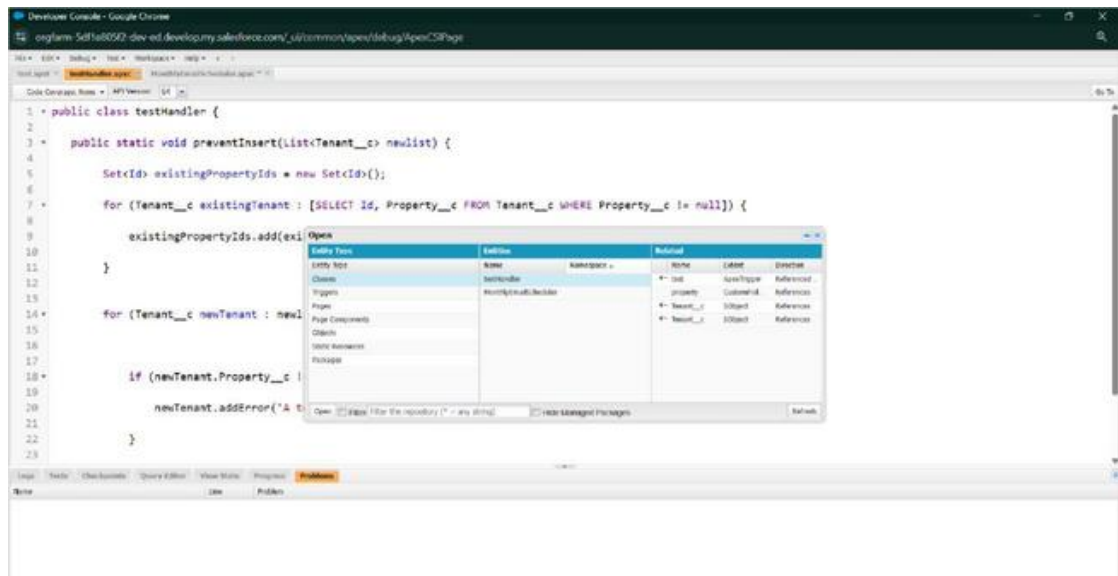
Create an Apex Trigger

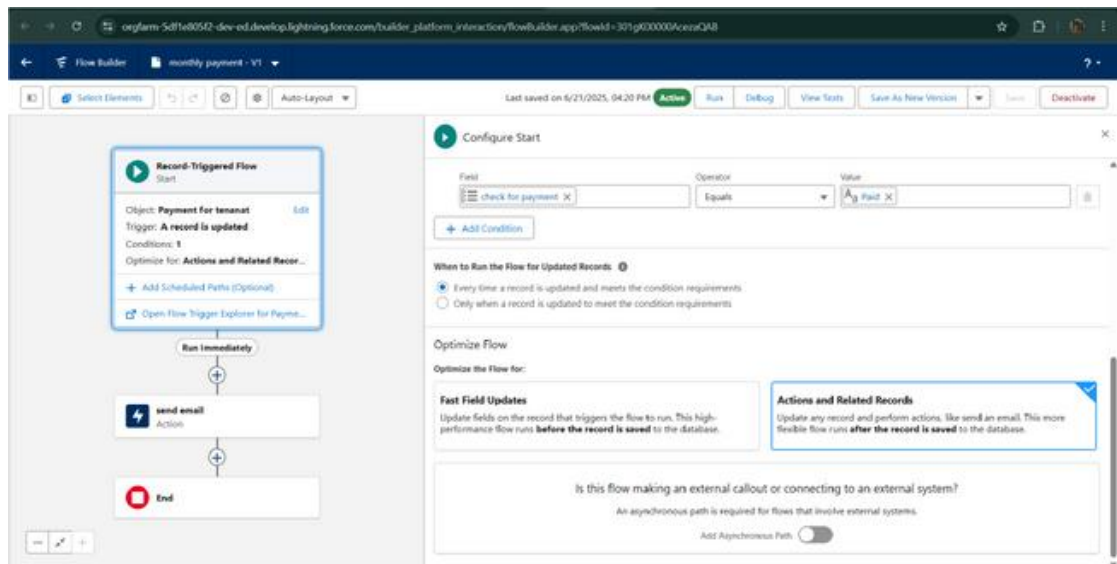


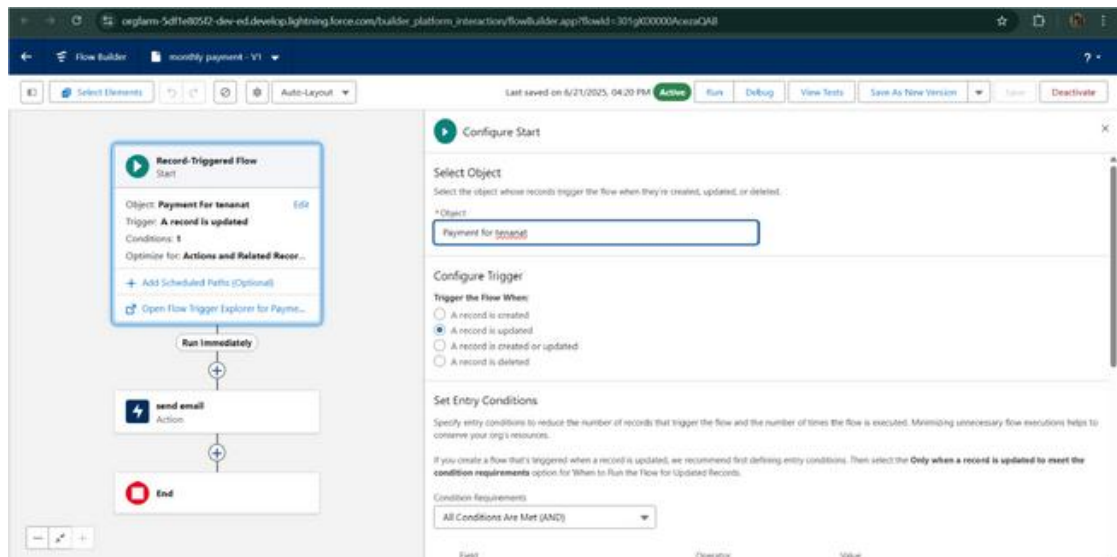




Create an Apex Handler class

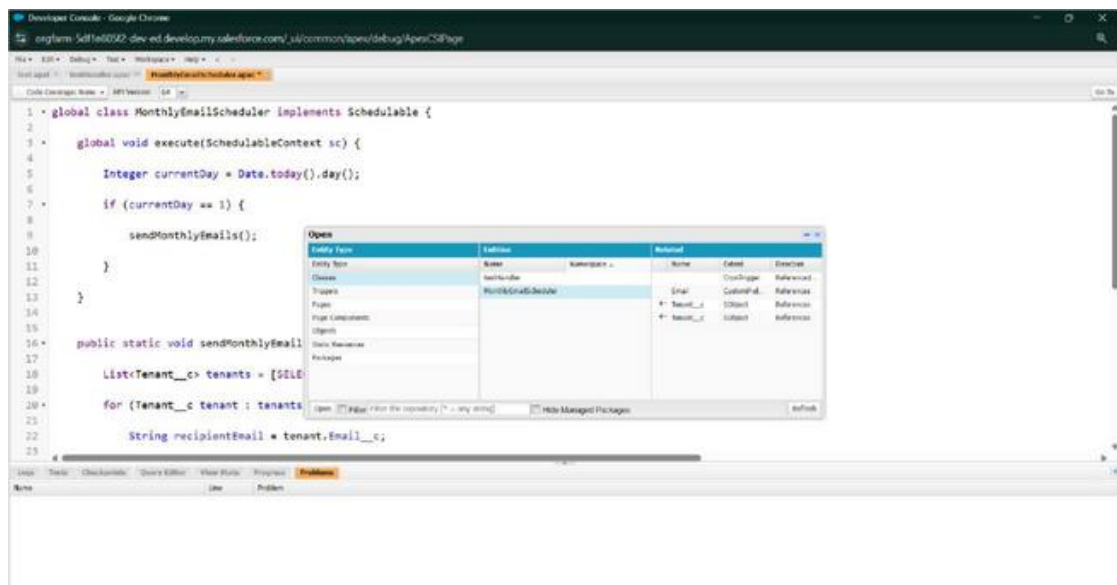






- Schedule class:

Create an Apex Class



```
Developer Console - Google Chrome
orgform:Selfta505D-dev-ed:develop.my.salesforce.com/servlet/apex/debug/ApexCSPage

1: global class MonthlyEmailScheduler implements Schedulable {
2:     global void execute(SchedulableContext sc) {
3:         Integer currentDay = Date.today().day();
4:         if (currentDay == 1) {
5:             sendMonthlyEmail();
6:         }
7:     }
8: }
9:
10: public static void sendMonthlyEmail() {
11:     List<Tenant__c> tenants = [SELECT Id, Email__c FROM Tenant__c];
12:     for (Tenant__c tenant : tenants) {
13:         Messaging.SendEmailMessage msg = new Messaging.SendEmailMessage();
14:         msg.setToAddresses = {tenant.Email__c};
15:         msg.setSubject = 'Hi! This email reminds 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.';
16:         msg.setBodyHtml = 'Hello! We hope you are well. We are 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.';
17:         Messaging.SingleEmailMessage msg = new Messaging.SingleEmailMessage(msg);
18:         msg.setBodyHtml = 'Hello! We hope you are well. We are 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.';
19:         msg.setBodyText = 'Hello! We hope you are well. We are 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.';
20:         Messaging.sendEmail(msg);
21:     }
22: }
23: }
```

## Schedule Apex class

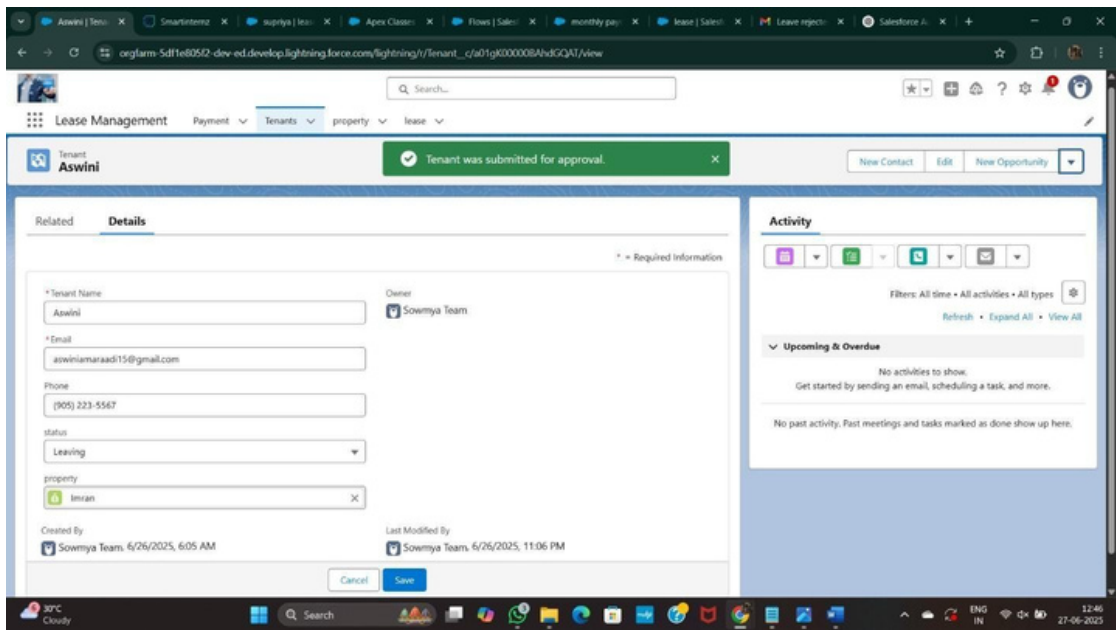
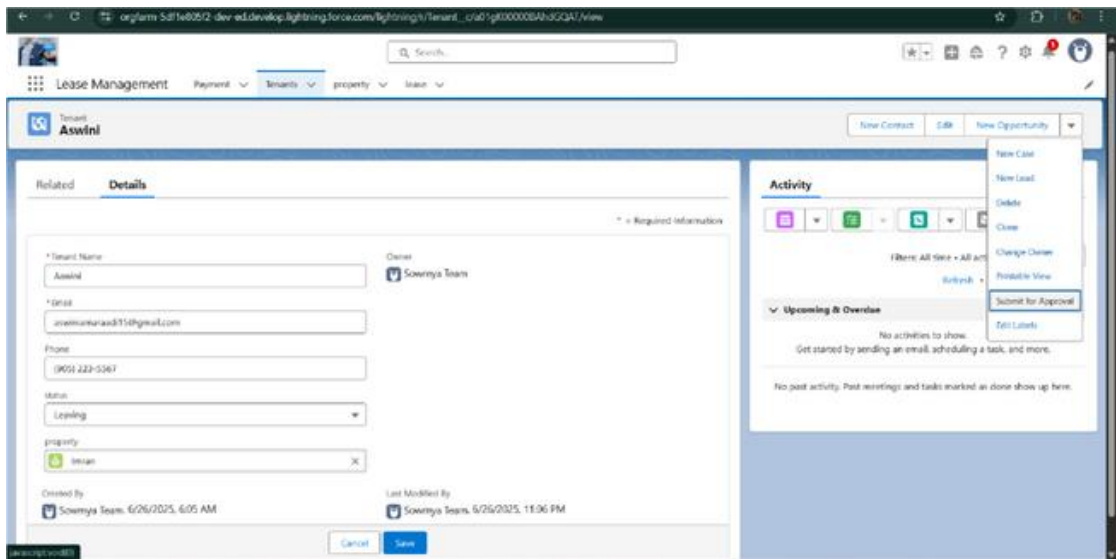
The screenshot shows the Salesforce Setup page with the 'Apex Classes' section selected. The class 'MonthlyEmailScheduler' is highlighted, and its details are shown. The class is implemented by the 'System Administrator' and was created on 6/23/2023 at 2:48 AM. The class body is visible, showing the implementation of the 'execute' method.

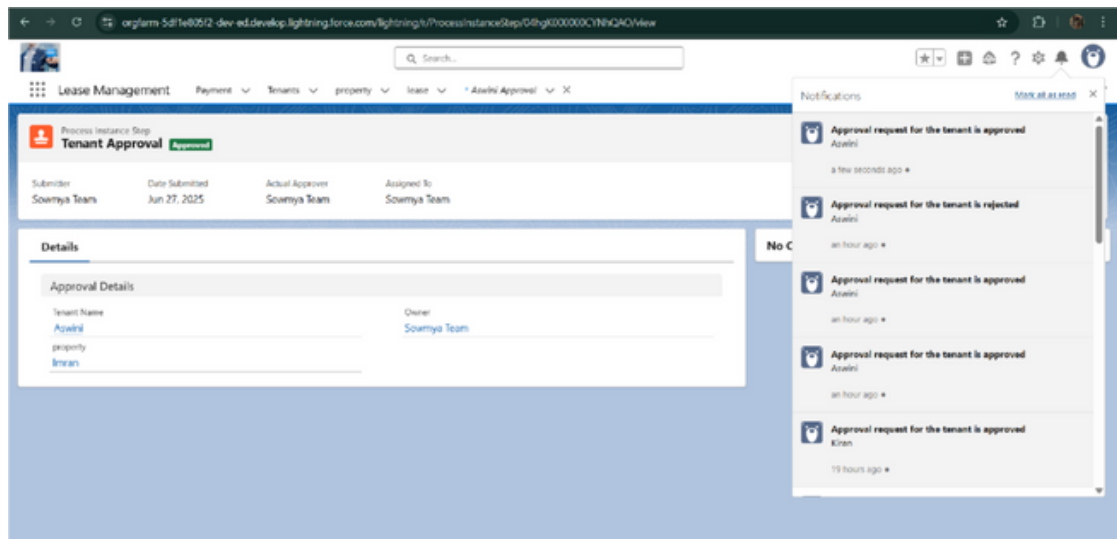
**Apex Class Detail**

Name	MonthlyEmailScheduler
Created By	System Administrator
Created On	6/23/2023, 2:48 AM
Last Modified By	System Administrator
Last Modified On	6/23/2023, 2:48 AM

**Class Body**

```
1: global class MonthlyEmailScheduler implements Schedulable {
2:     global void execute(SchedulableContext sc) {
3:         Integer currentDay = Date.today().day();
4:         if (currentDay == 1) {
5:             sendMonthlyEmail();
6:         }
7:     }
8: }
9:
10: public static void sendMonthlyEmail() {
11:     List<Tenant__c> tenants = [SELECT Id, Email__c FROM Tenant__c];
12:     for (Tenant__c tenant : tenants) {
13:         Messaging.SendEmailMessage msg = new Messaging.SendEmailMessage();
14:         msg.setToAddresses = {tenant.Email__c};
15:         msg.setSubject = 'Hi! This email reminds 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.';
16:         msg.setBodyHtml = 'Hello! We hope you are well. We are 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.';
17:         Messaging.SingleEmailMessage msg = new Messaging.SingleEmailMessage(msg);
18:         msg.setBodyHtml = 'Hello! We hope you are well. We are 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.';
19:         msg.setBodyText = 'Hello! We hope you are well. We are 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.';
20:         Messaging.sendEmail(msg);
21:     }
22: }
23: }
```

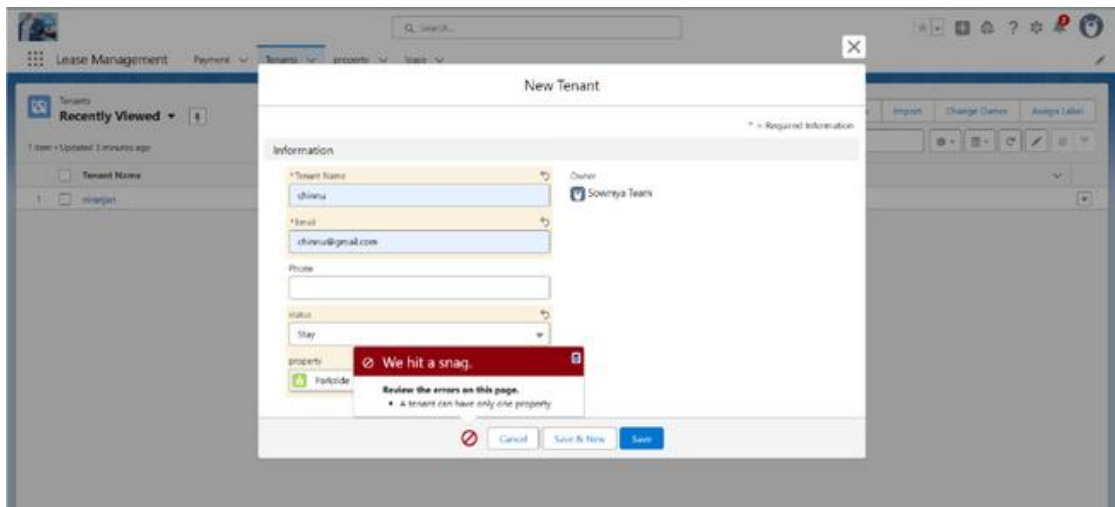




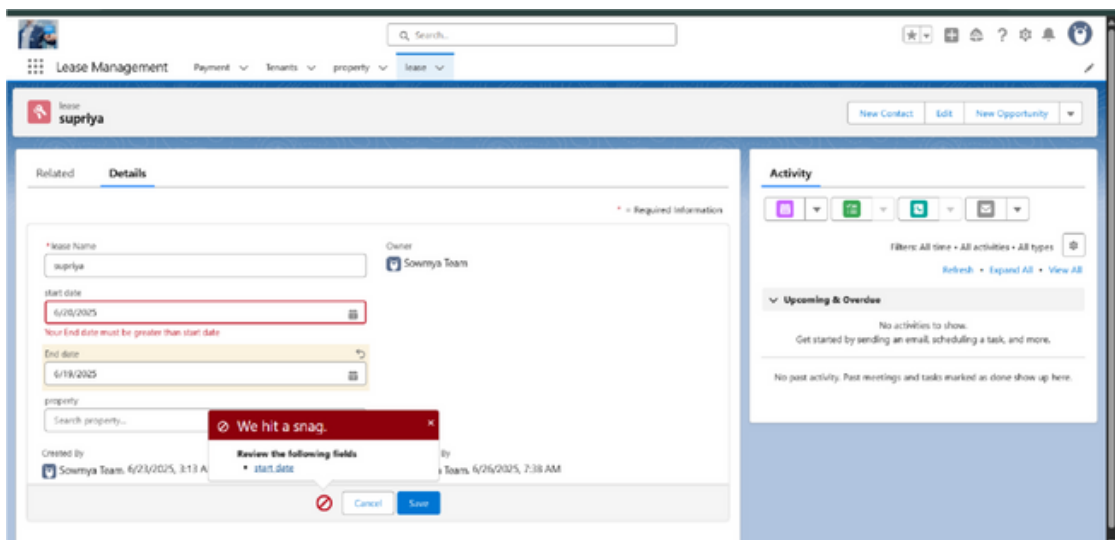
# FUNCTIONAL AND PERFORMANCE TESTING

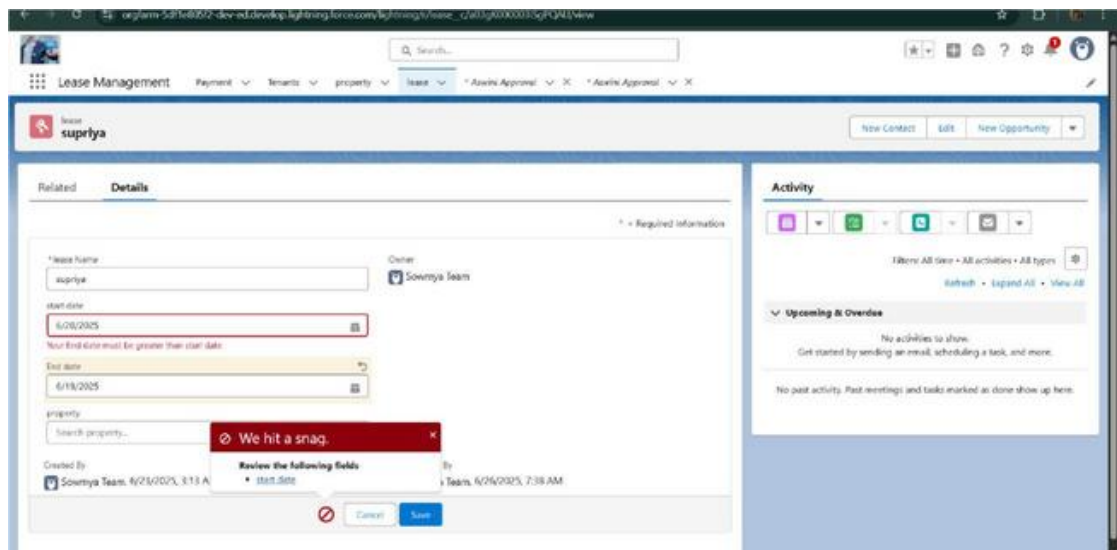
## Performance Testing

- Trigger validation by entering duplicate tenant-property records

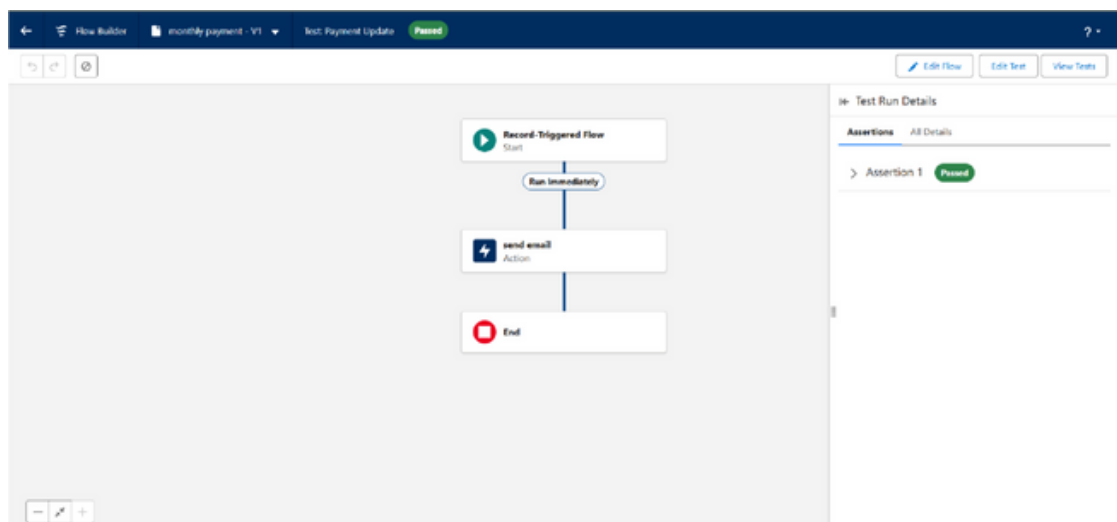


- Validation Rule checking



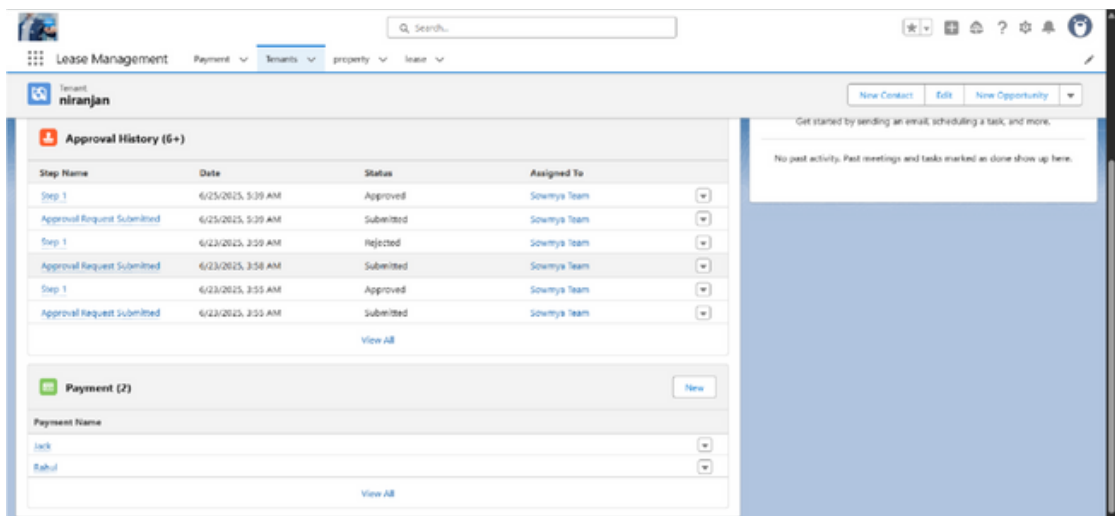
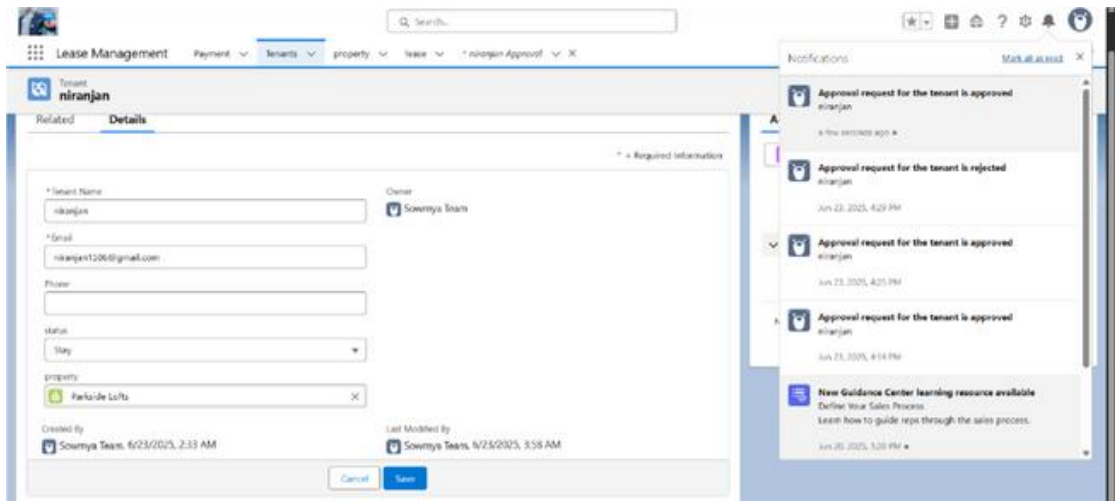


- Test flows on payment update



- Approval process validated through email alerts and status updates

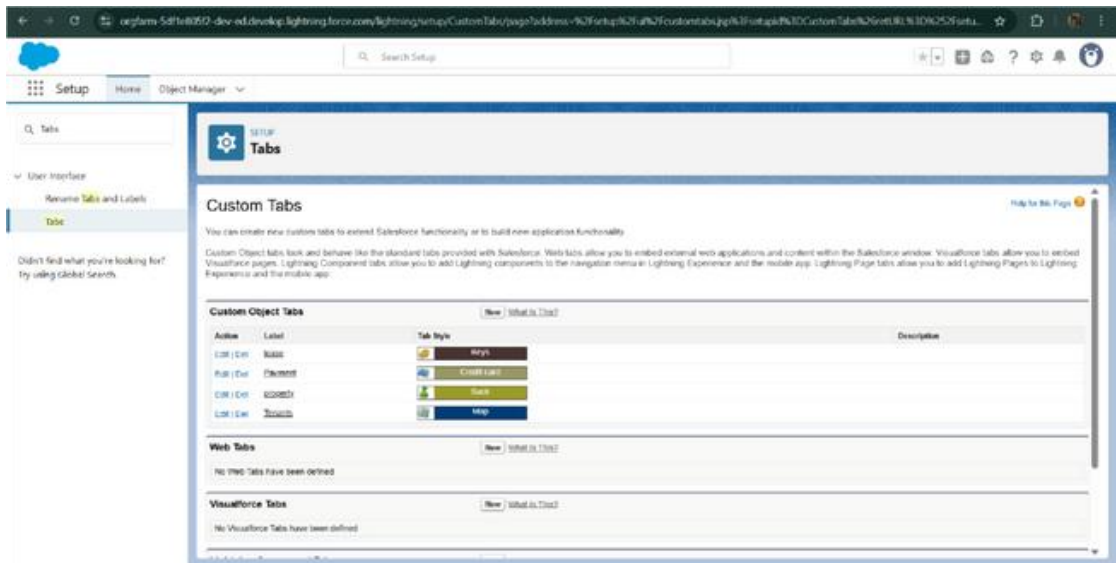




# RESULTS

## Output Screenshots

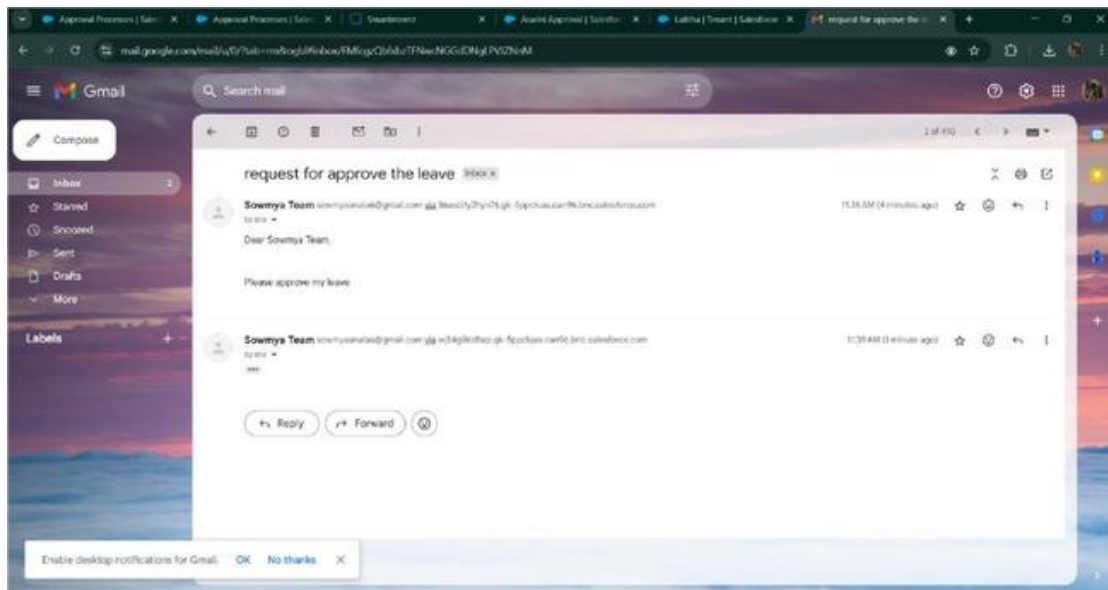
- Tabs for Property, Tenant, Lease, Payment



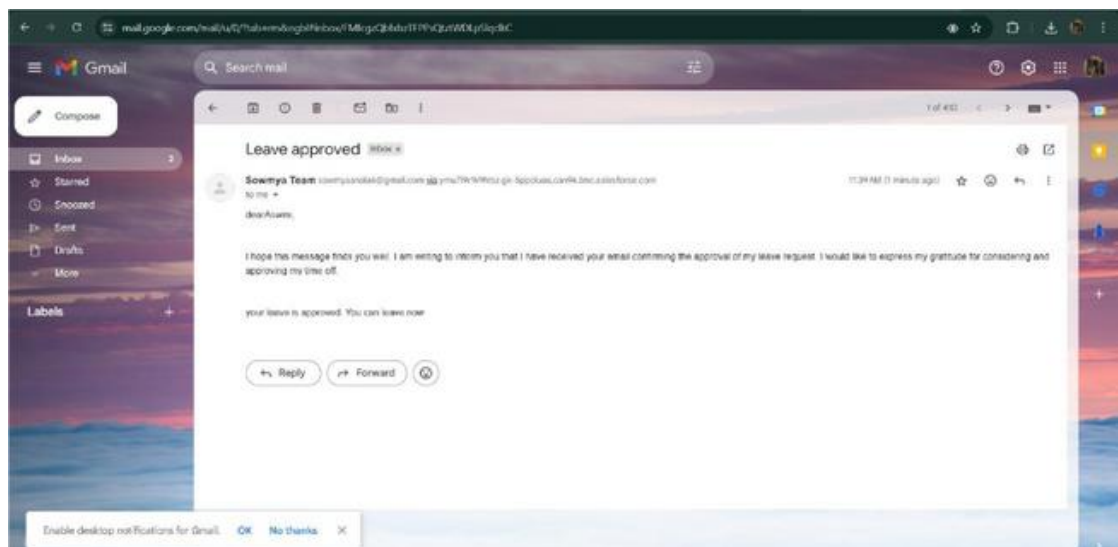
- Email alerts

Lease Management							
Payment							
Tenants							
property							
lease							
Approval History							
8 items • Sorted by: 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	Sourmya Team	Sourmya Team	approved		
2 Approval Request Submitted	6/25/2025, 5:39 AM	Submitted	Sourmya Team	Sourmya Team	leaving		
3 Step 1	6/23/2025, 3:59 AM	Rejected	Sourmya Team	Sourmya Team	Rejected		
4 Approval Request Submitted	6/23/2025, 3:58 AM	Submitted	Sourmya Team	Sourmya Team	leaving		
5 Step 1	6/23/2025, 3:55 AM	Approved	Sourmya Team	Sourmya Team	Approved		
6 Approval Request Submitted	6/23/2025, 3:55 AM	Submitted	Sourmya Team	Sourmya Team	leaving		
7 Step 1	6/23/2025, 3:44 AM	Approved	Sourmya Team	Sourmya Team	Approval Approved		
8 Approval Request Submitted	6/23/2025, 3:42 AM	Submitted	Sourmya Team	Sourmya Team	leaving		

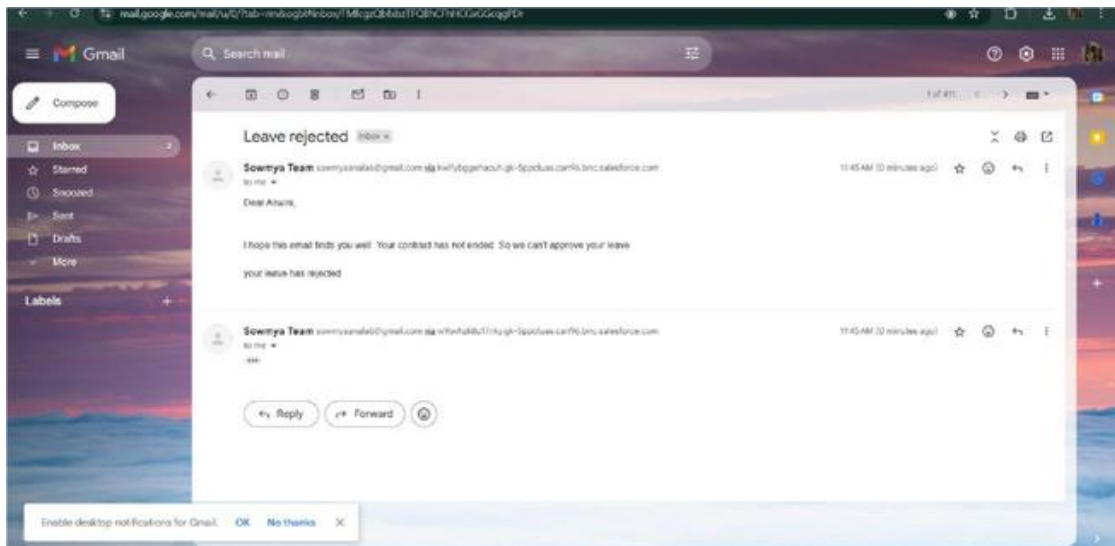
- Request for approve the leave



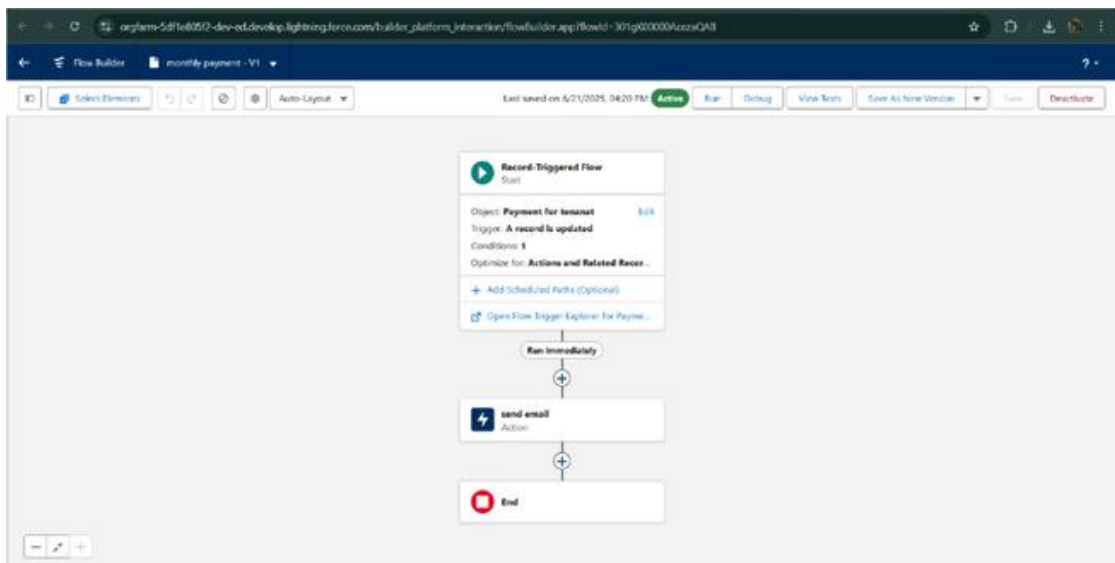
- Leave approved



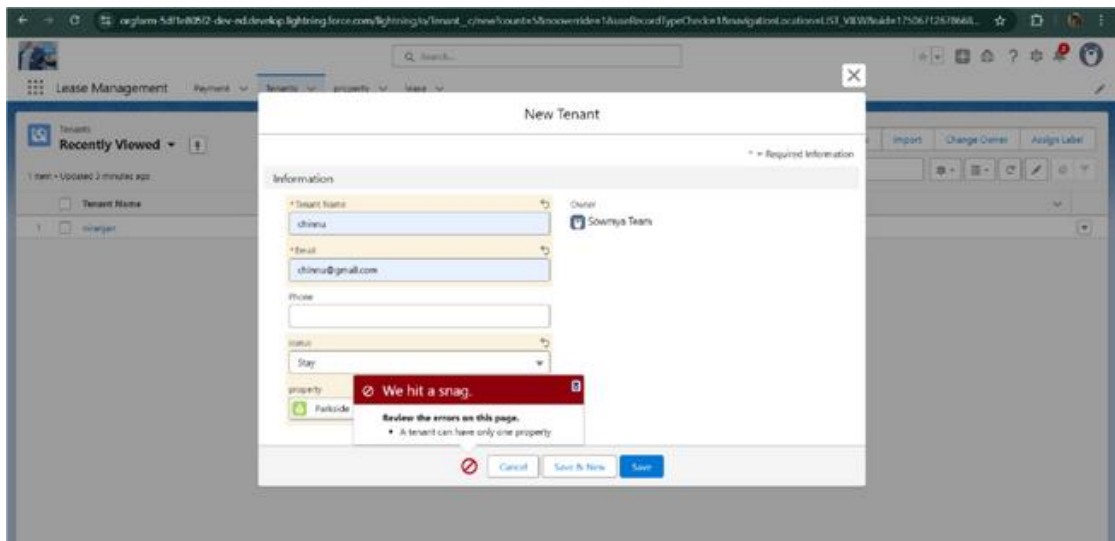
- Leave rejected



- Flow runs



- Trigger error messages



- Approval process notifications



## 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});
}
}
}

```