LEASE MANAGEMENT

College Name: KPR College of Arts Science and Research

College Code: bruaz

TEAM ID: NM2025TMID21504

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Team Member 3: JOVITA J

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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.

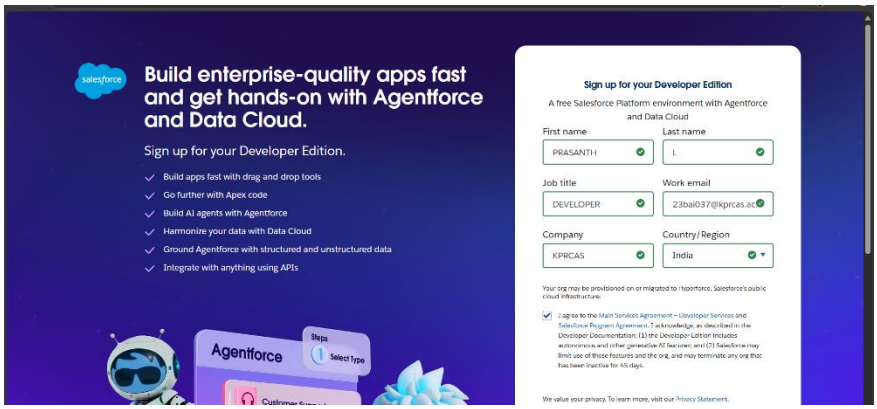
1.2 Purpose

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.

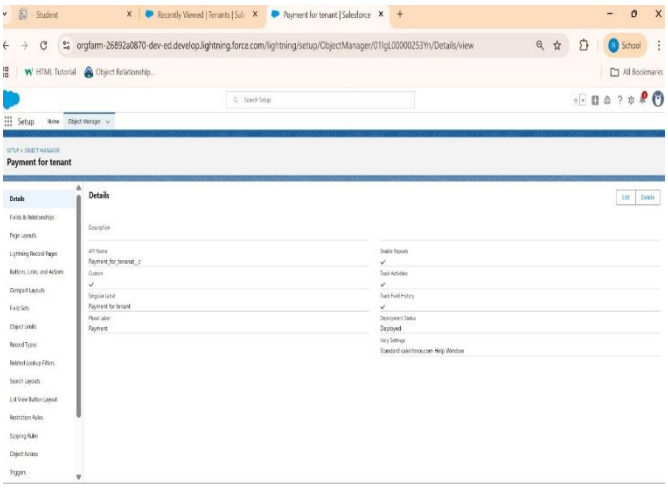
DEVELOPMENT PHASE

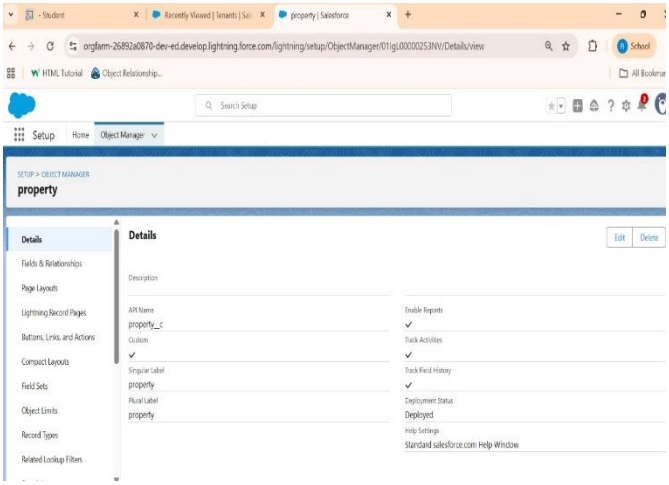
Creating Developer Account:

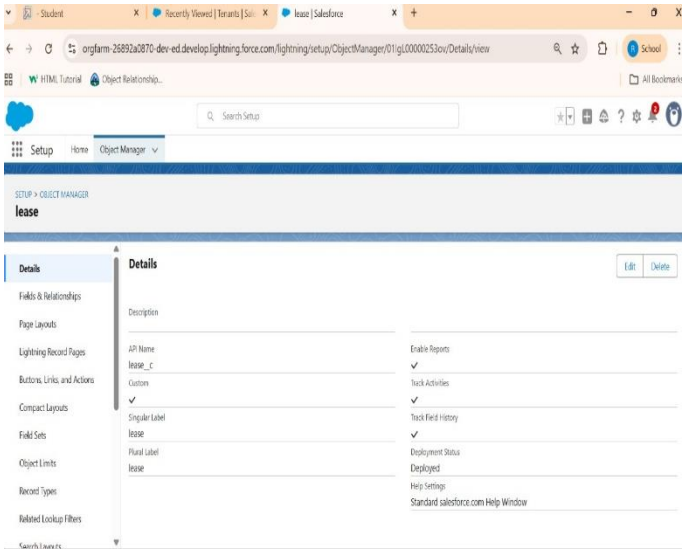
By using this URL - **https://www.salesforce.com/form/developer-signup/?d=pb**

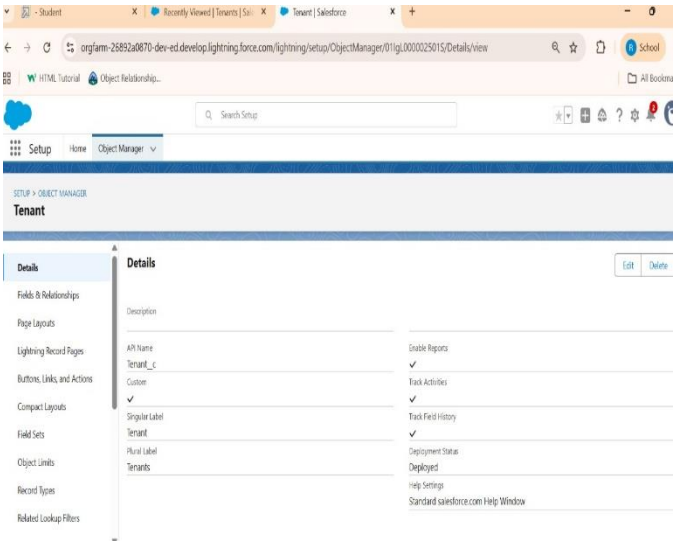


- Created objects: Property, Tenant, Lease, Payment

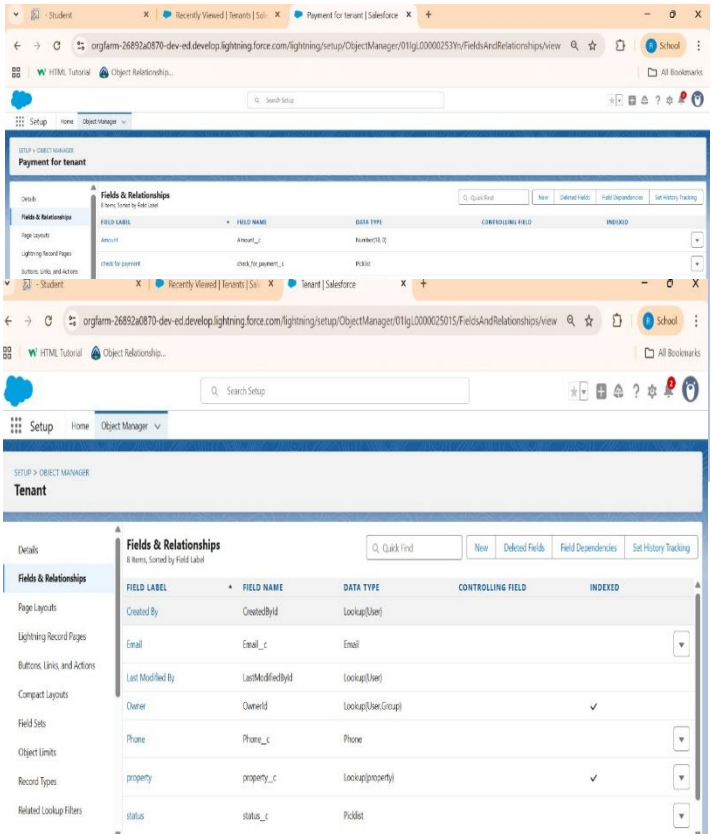


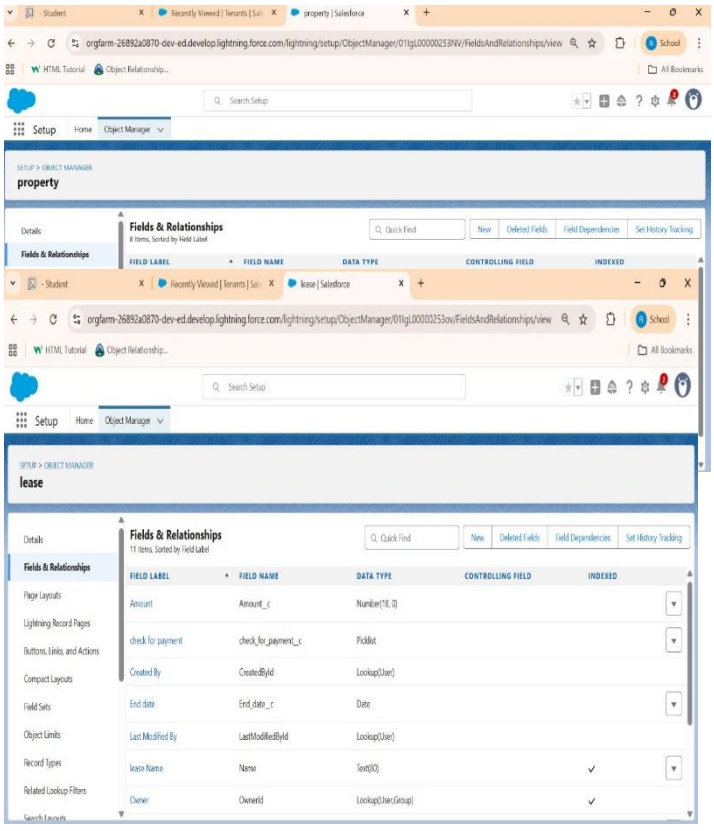




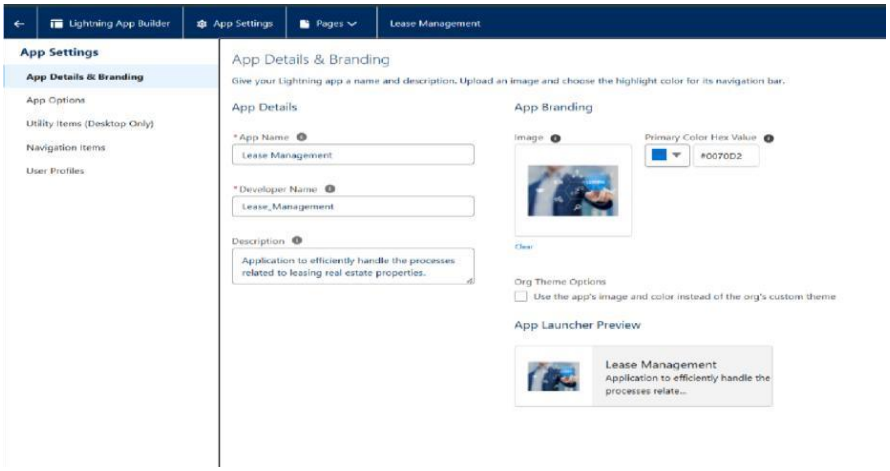


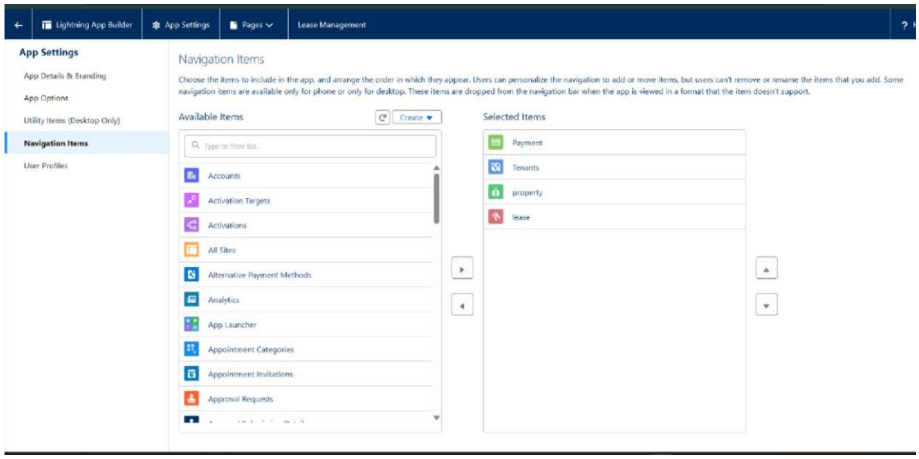
- Configured fields and relationships

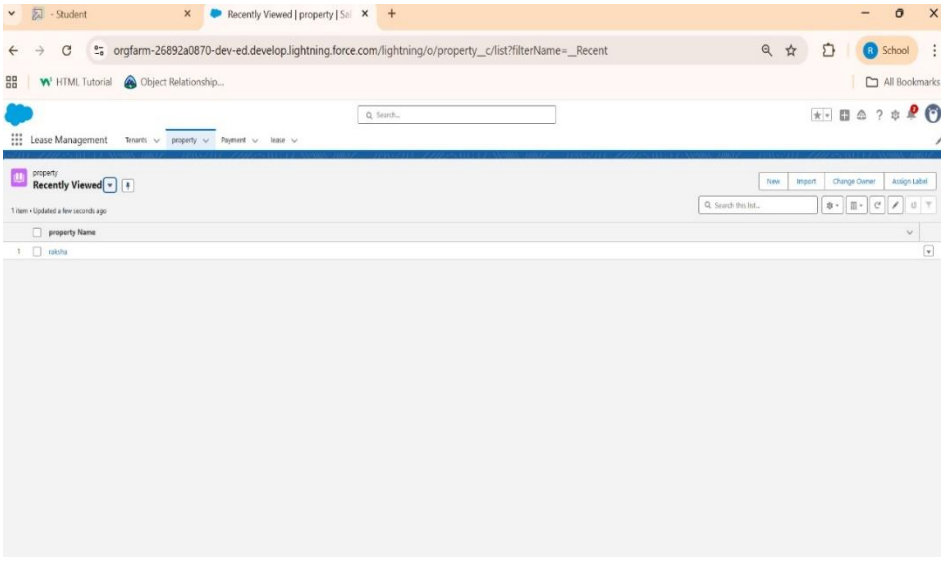




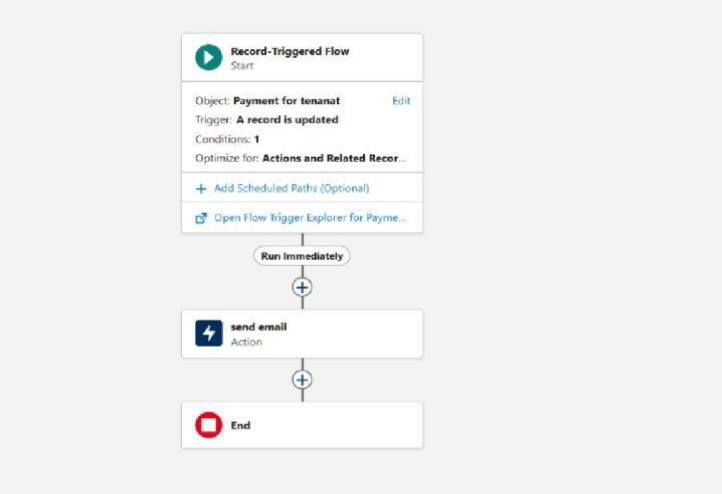
- Developed Lightning App with relevant tabs



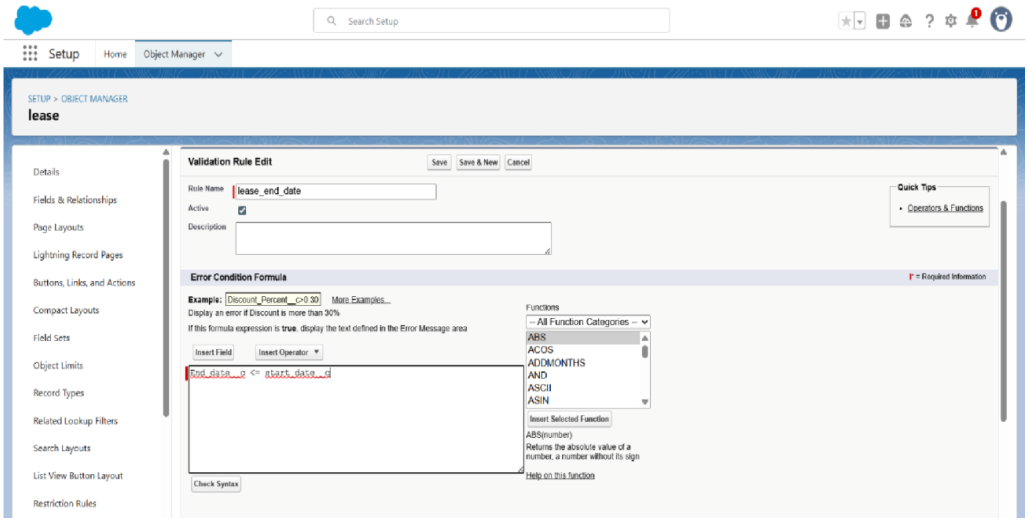




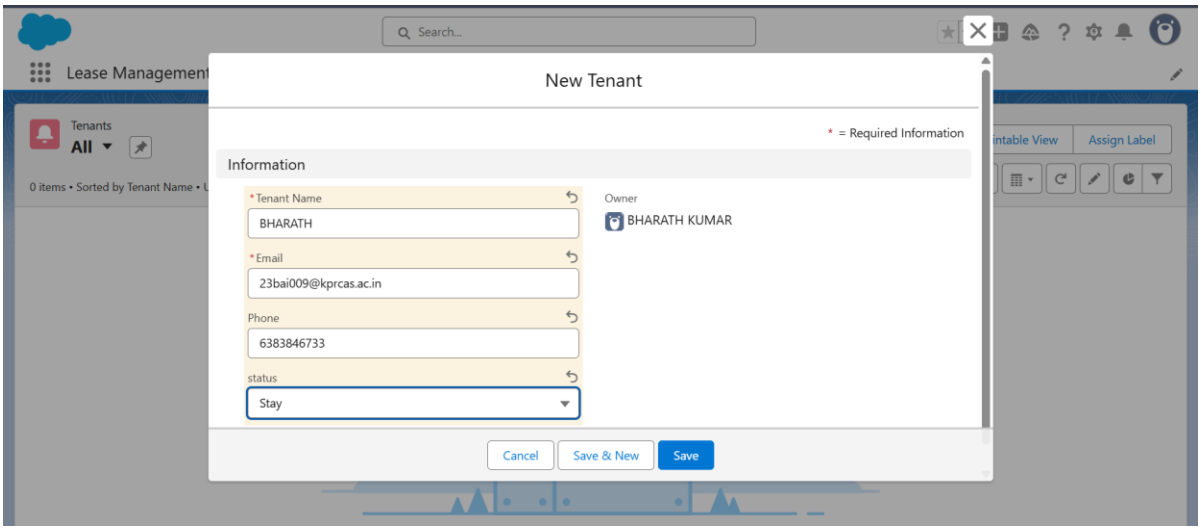
- Implemented Flows for monthly rent and payment success



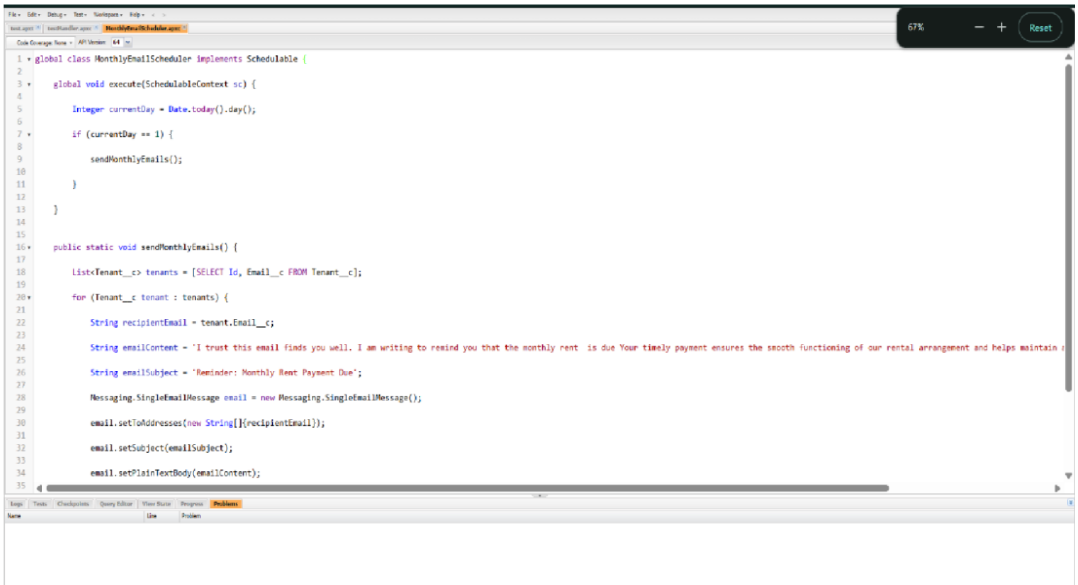
- To create a validation rule to a Lease Object



- Added Apex trigger to restrict multiple tenants per property

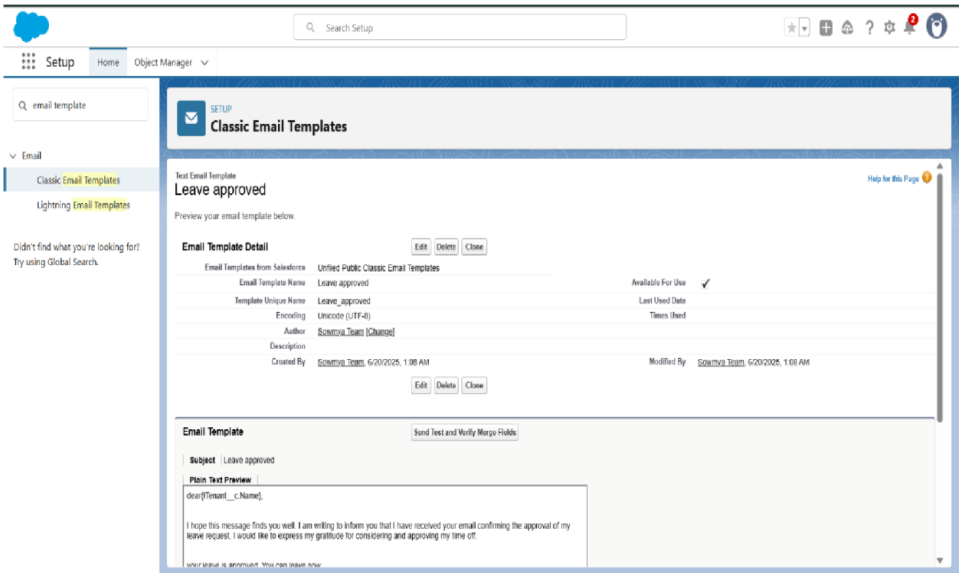


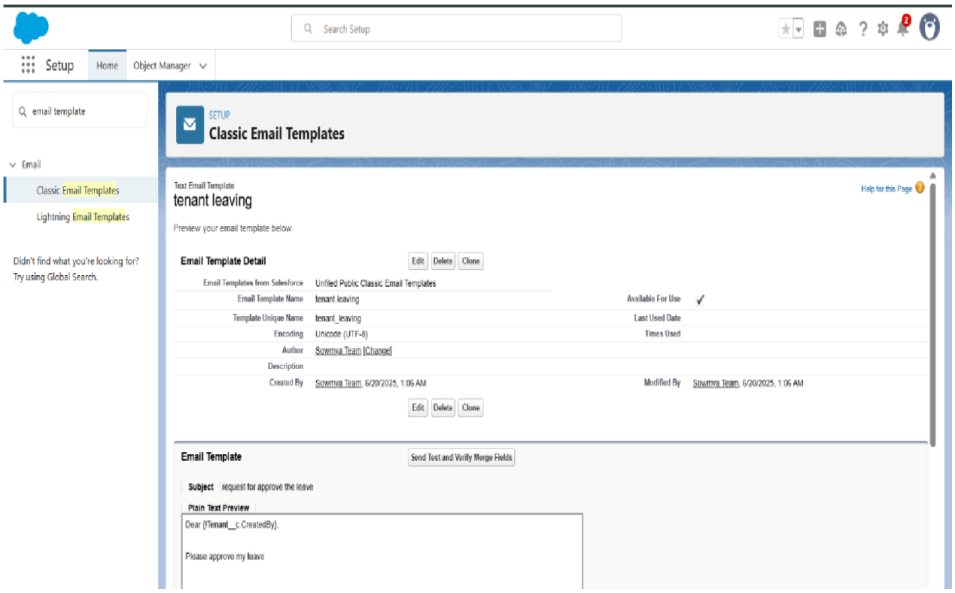
- Scheduled monthly reminder emails using Apex class

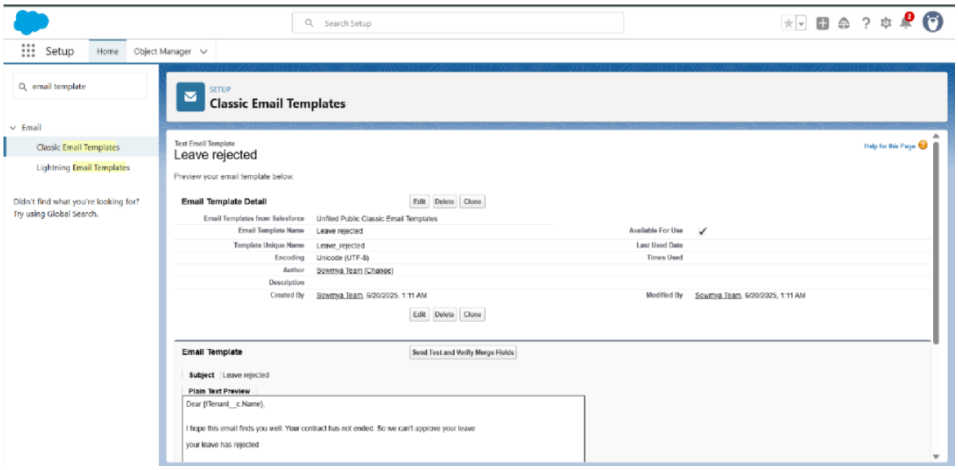


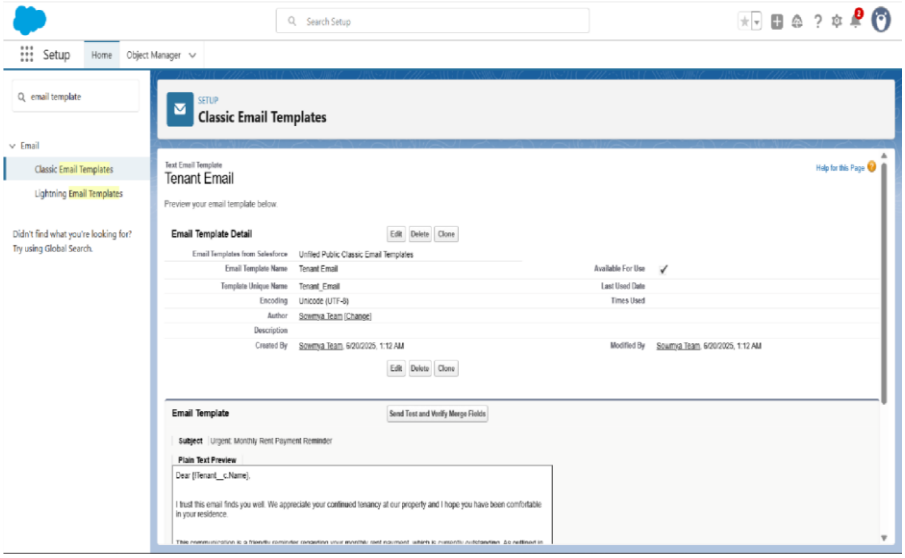
```
global class MonthlyEmailScheduler implements Schedulable {

    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

            String emailSubject = 'Reminder: Monthly Rent Payment Due';

            Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();

            email.setToAddresses(new String[]{recipientEmail});

            email.setSubject(emailSubject);

            email.setPlainTextBody(emailContent);
```

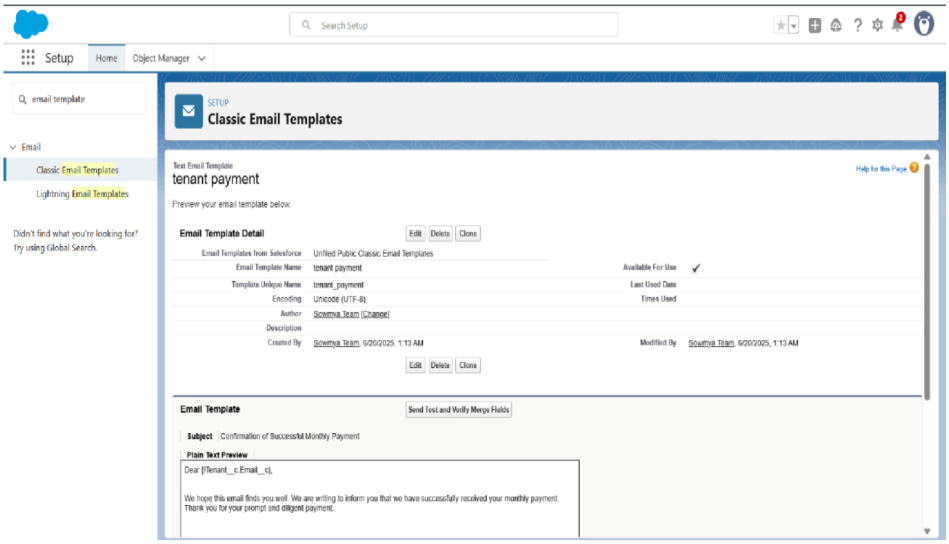
- Built and tested email templates for leave request, approval, rejection, payment, and reminders

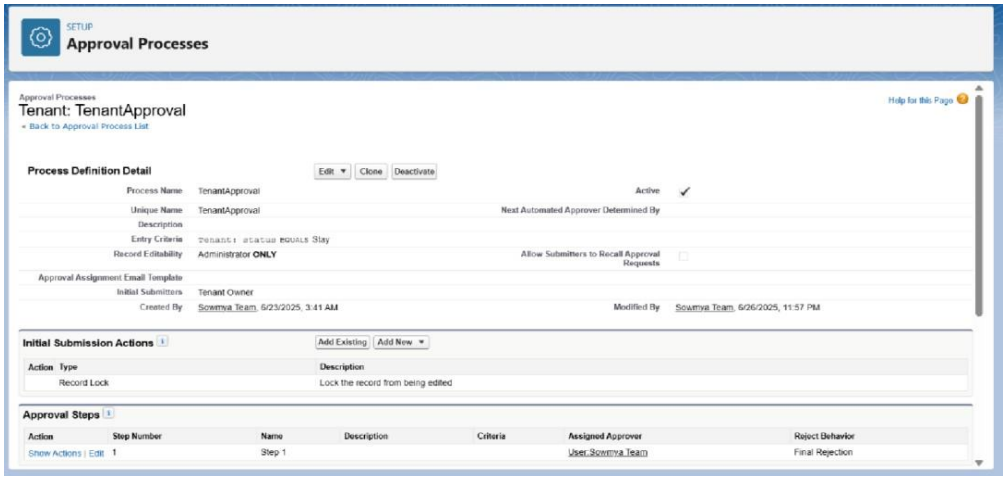





Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
Leave rejected
Help for this Page
Preview your email template below.
Email Template Detail
Edit
Delete
Clone
Email Templates from Salesforce
Unfiled 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
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:11 AM
Modified By
Sowmya Team, 6/20/2025, 1:11 AM
Email Template
Send Test 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

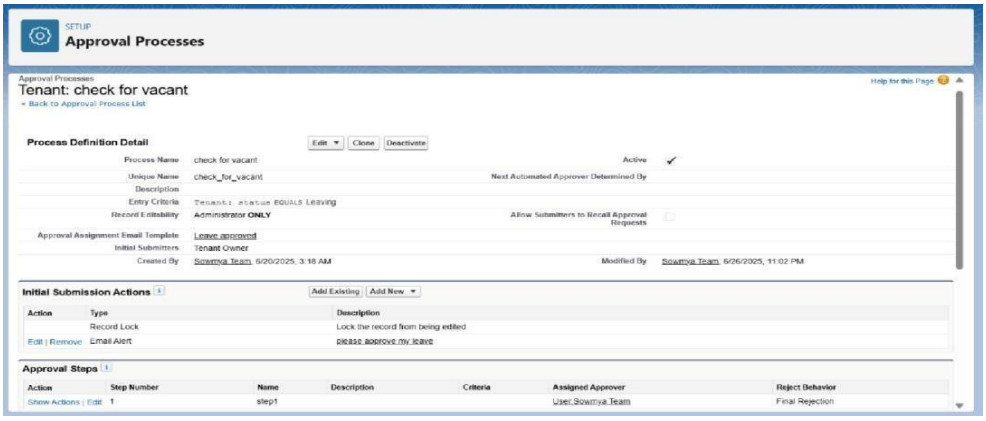

Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
Tenant Email
Help for this Page
Preview your email template below.
Email Template Detail
Edit
Delete
Clone
Email Templates from Salesforce
Unfiled 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
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:12 AM
Modified By
Sowmya Team, 6/20/2025, 1:12 AM
Email Template
Send Test 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.

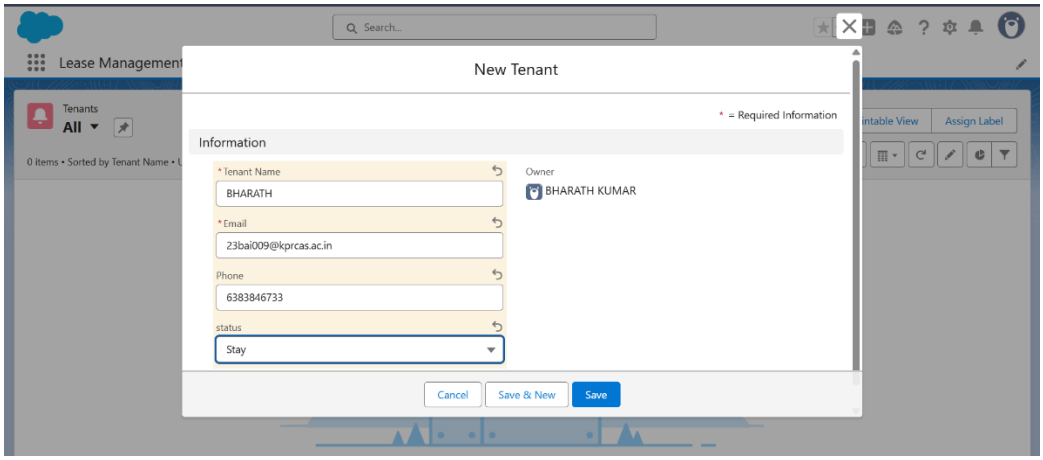

Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
tenant payment
Help for this Page
Preview your email template below.
Email Template Detail
Edit
Delete
Clone
Email Templates from Salesforce
Unfiled Public Classic Email Templates
Email Template Name
tenant payment
Available For Use
Template Unique Name
tenant_payment
Last Used Date
Encoding
Unicode (UTF-8)
Times Used
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:13 AM
Modified By
Sowmya Team, 6/20/2025, 1:13 AM
Email Template
Send Test and Verify Merge Fields
Subject
Confirmation of Successful Monthly Payment
Plain Text Preview
Dear {!Tenant__c.Email__c},
We hope this email finds you well. We are writing to inform you that we have successfully received your monthly payment.
Thank you for your prompt and diligent payment.



Approval Process creation

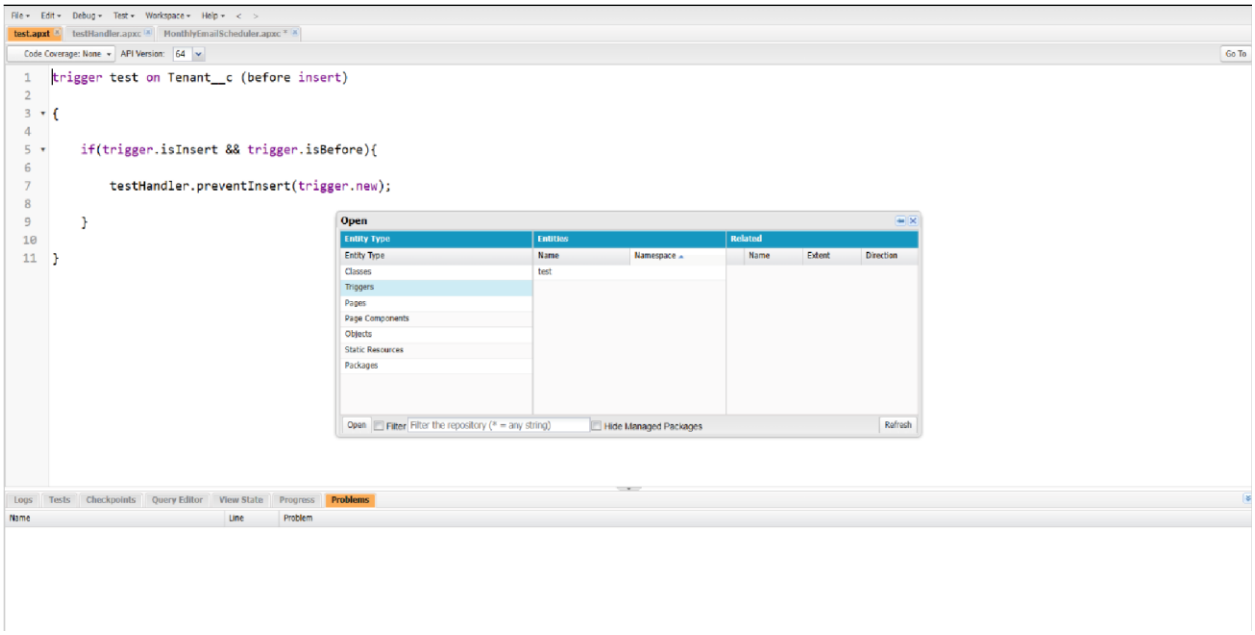
For Check for Vacant:



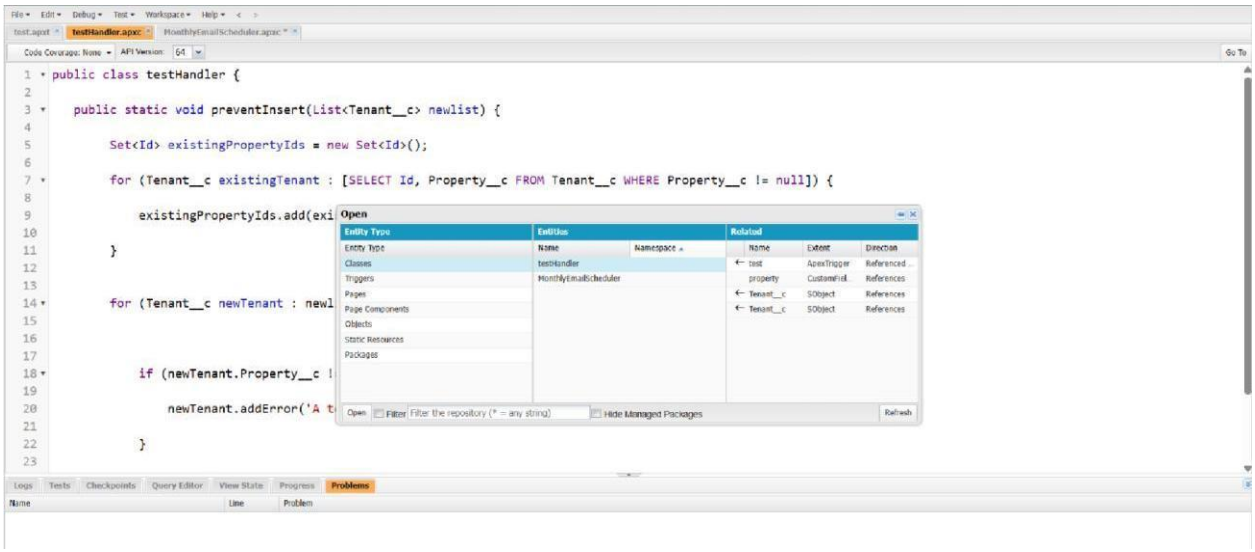


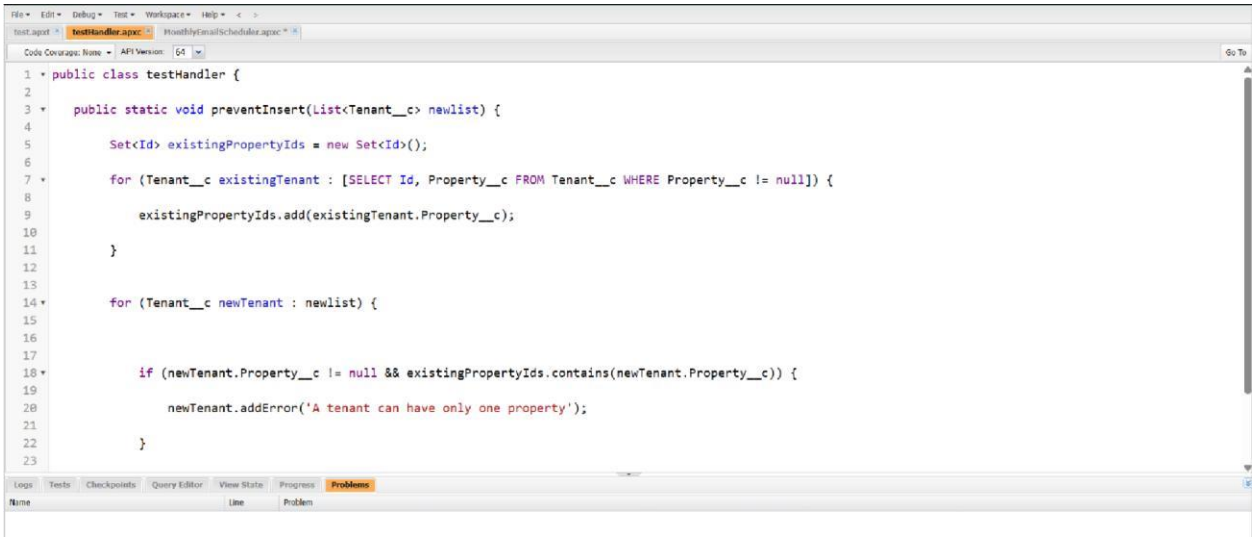
Apex Trigger

Create an Apex Trigger

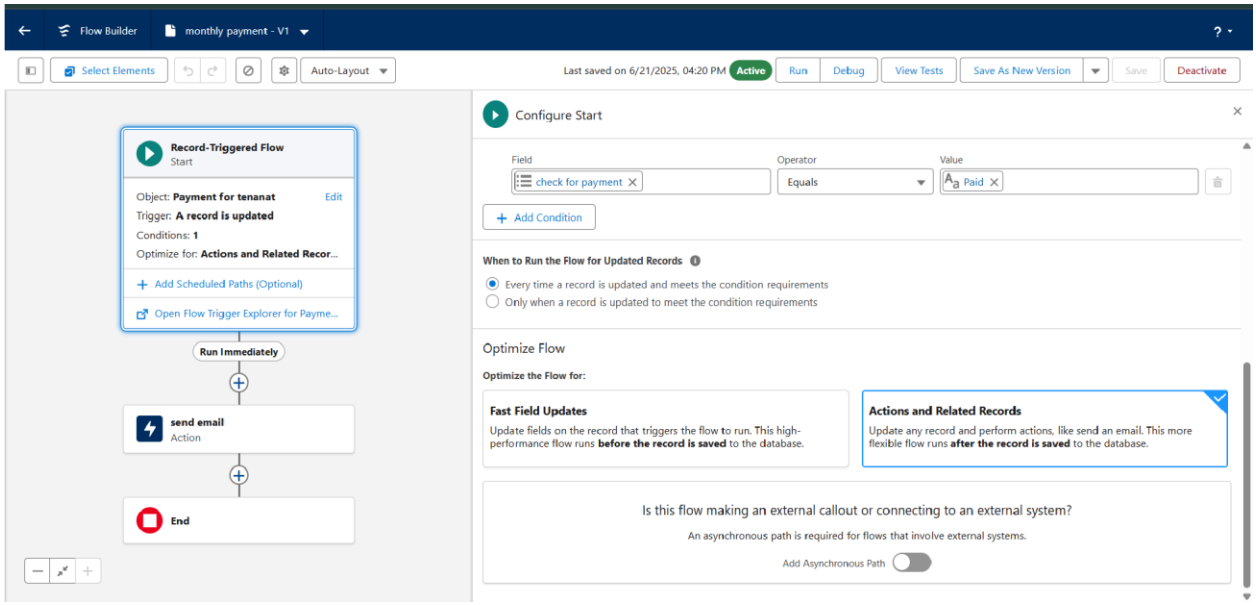


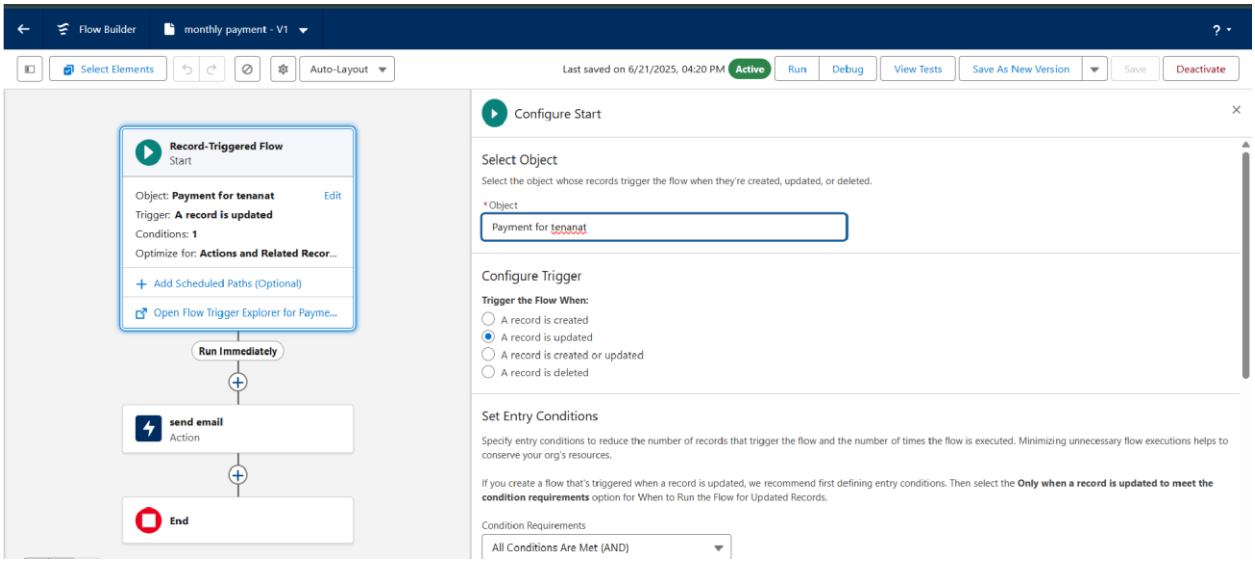
Create an Apex Handler class





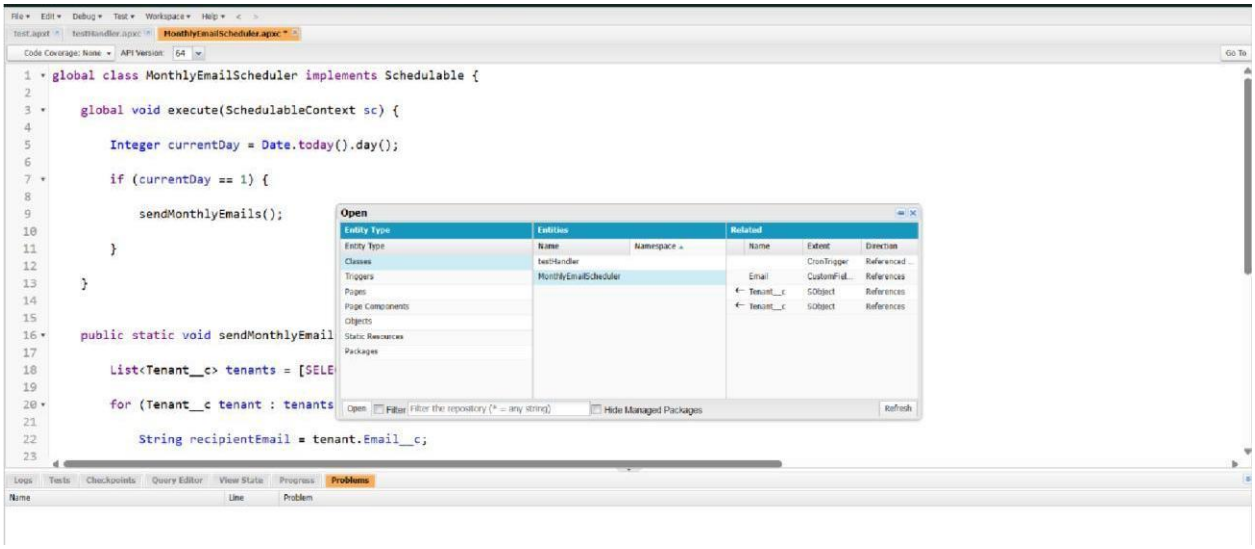
FLOWS


Flow Builder
monthly payment - V1
Select Elements
Auto-Layout
Last saved on 6/21/2025, 04:20 PM
Active
Run
Debug
View Tests
Save As New Version
Save
Deactivate
Record-Triggered Flow
Start
Object: Payment for tenanat
Edit
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Payme...
Run Immediately
send email
Action
End
Configure Start
Field
Operator
Value
check for payment
Equals
Paid
Add Condition
When to Run the Flow for Updated Records
Every time a record is updated and meets the condition requirements
Only when a record is updated to meet the condition requirements
Optimize Flow
Optimize the Flow for:
Fast Field Updates
Update fields on the record that triggers the flow to run. This high-performance flow runs before the record is saved to the database.
Actions and Related Records
Update any record and perform actions, like send an email. This more flexible flow runs after the record is saved to the database.
Is this flow making an external callout or connecting to an external system?
An asynchronous path is required for flows that involve external systems.
Add Asynchronous Path


Flow Builder
monthly payment - V1
Select Elements
Auto-Layout
Last saved on 6/21/2025, 04:20 PM
Active
Run
Debug
View Tests
Save As New Version
Save
Deactivate
Record-Triggered Flow
Start
Object: Payment for tenanat
Edit
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...
Add Scheduled Paths (Optional)
Open Flow Trigger Explorer for Payme...
Run Immediately
send email
Action
End
Configure Start
Select Object
Select the object whose records trigger the flow when they're created, updated, or deleted.
* Object
Payment for tenanat
Configure Trigger
Trigger the Flow When:
A record is created
A record is updated
A record is created or updated
A record is deleted
Set Entry Conditions
Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.
If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the Only when a record is updated to meet the condition requirements option for When to Run the Flow for Updated Records.
Condition Requirements
All Conditions Are Met (AND)

- Schedule class:

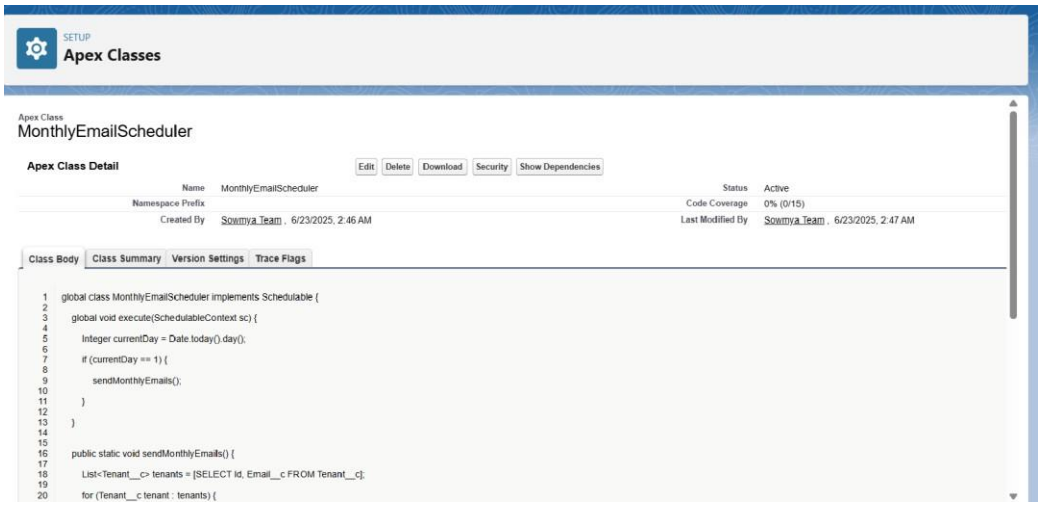
  Create an Apex Class

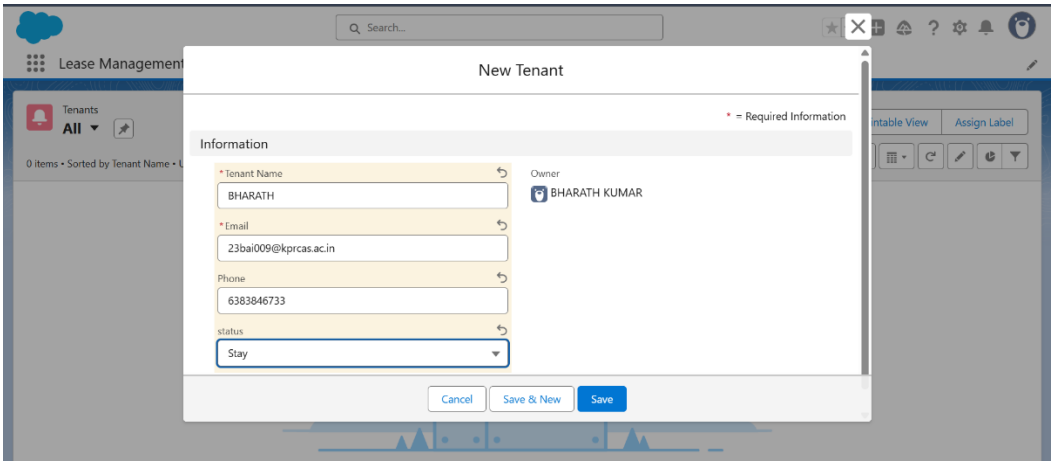


```
global class MonthlyEmailScheduler implements Schedulable {

    global void execute(SchedulableContext sc) {

        Integer currentDay = Date.today().day();

        if (currentDay == 1) {

            sendMonthlyEmails();

        }

    }


    public static void sendMonthlyEmail

        List<Tenant__c> tenants = [SELE

        for (Tenant__c tenant : tenants

            String recipientEmail = tenant.Email__c;
```

```
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

            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});

        }

    }

}
```

Schedule Apex class

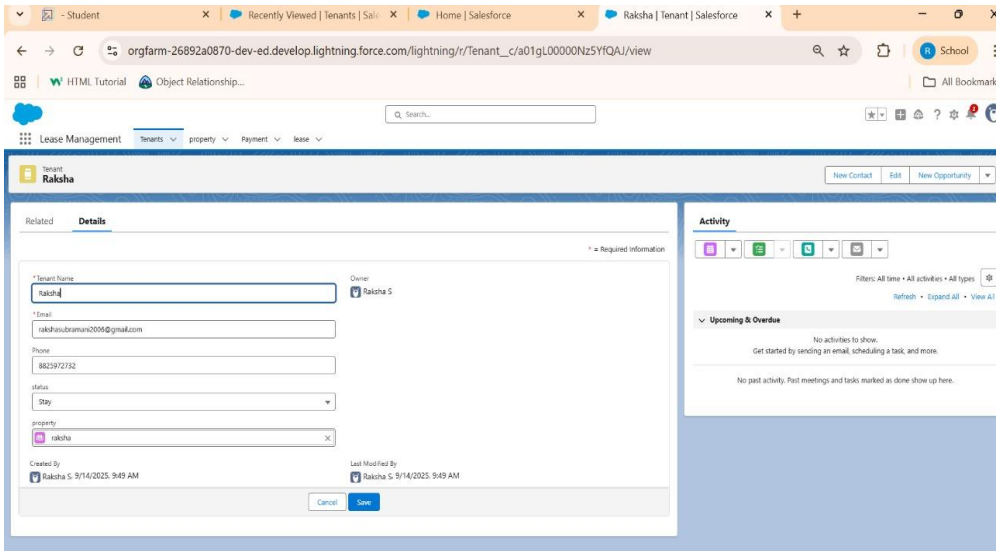




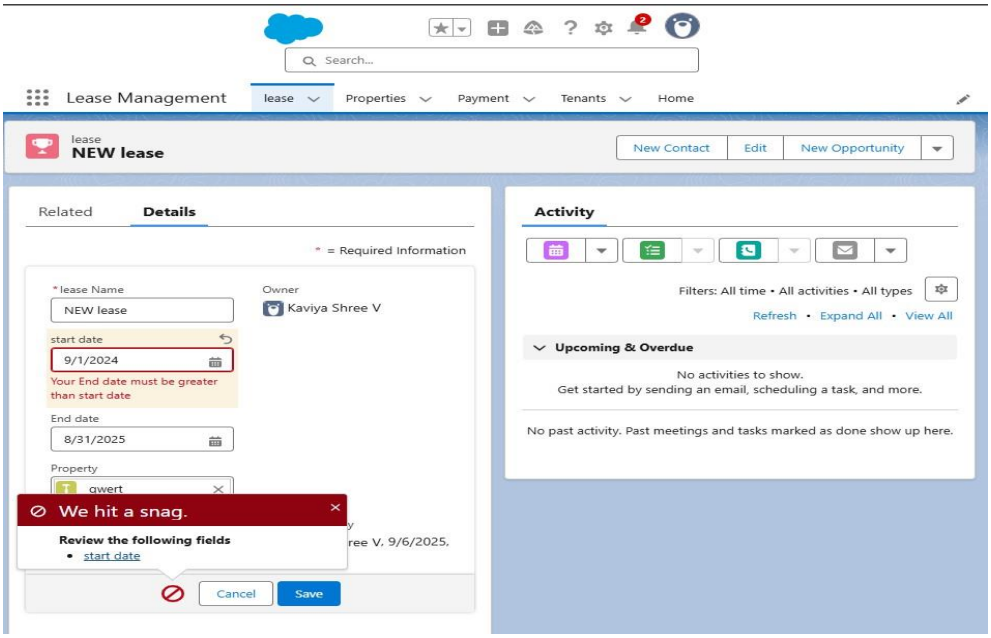
FUNCTIONAL AND PERFORMANCE TESTING

Performance Testing

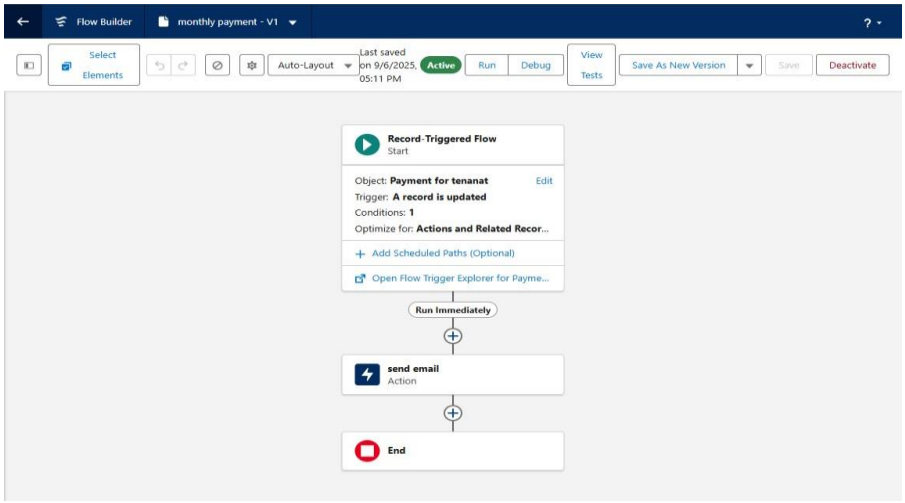
- Trigger validation by entering duplicate tenant-property records

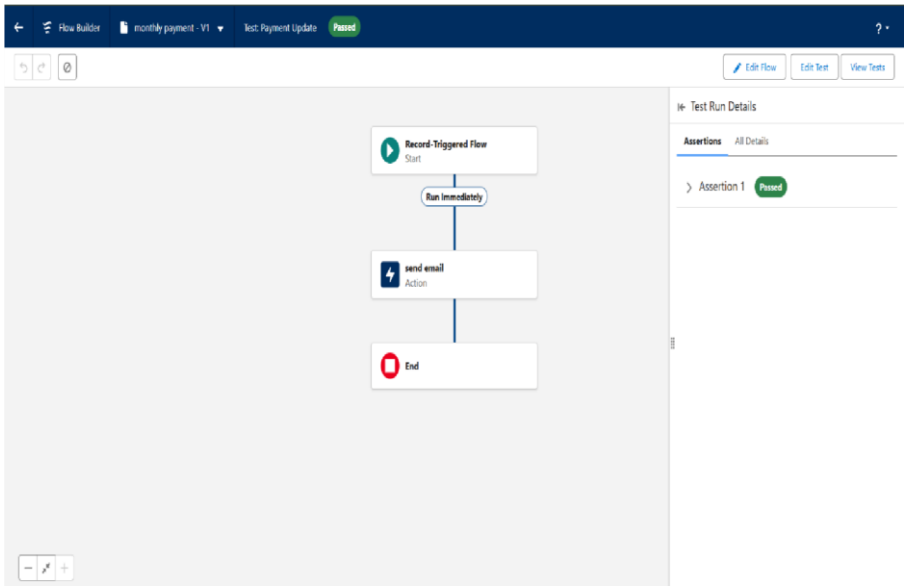


- Validation Rule checking

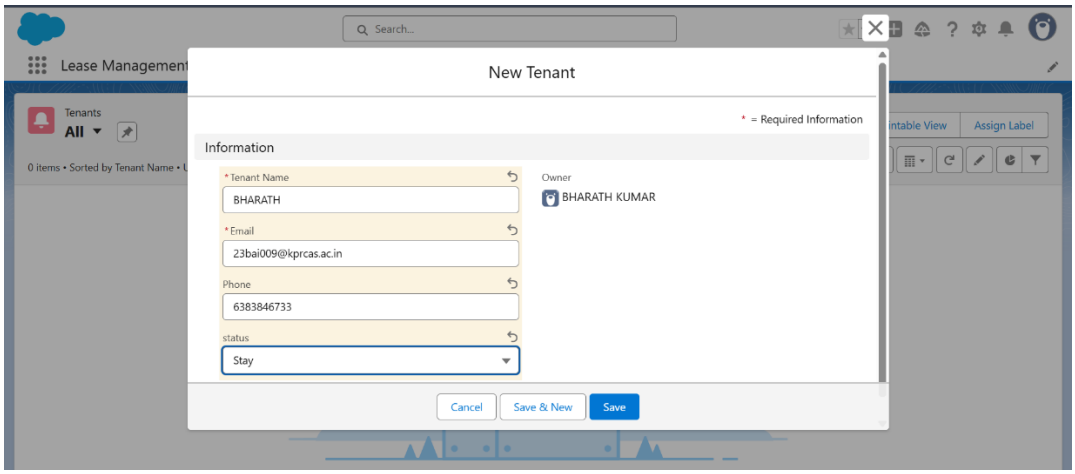


- Test flows on payment update





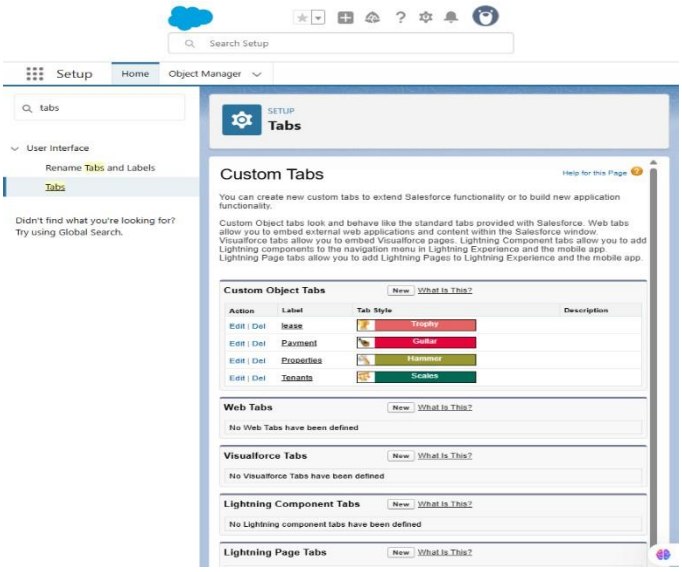
- Approval process validated through email alerts and status updates



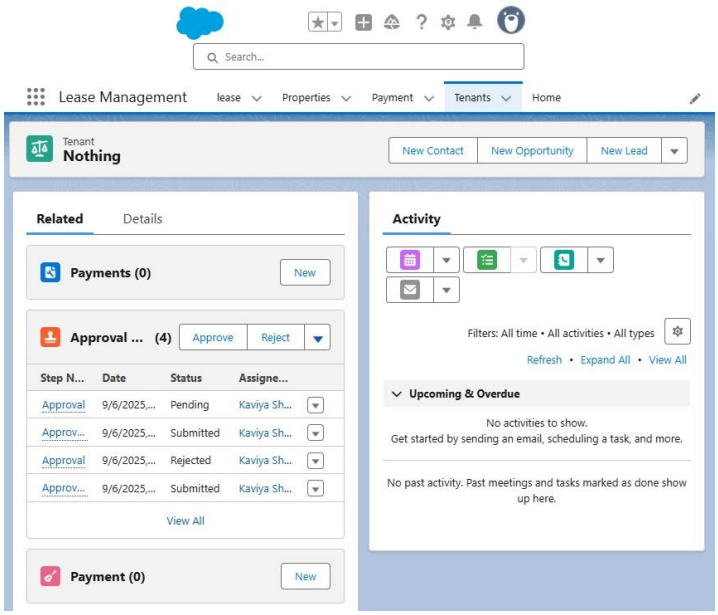
RESULTS

Output Screenshots

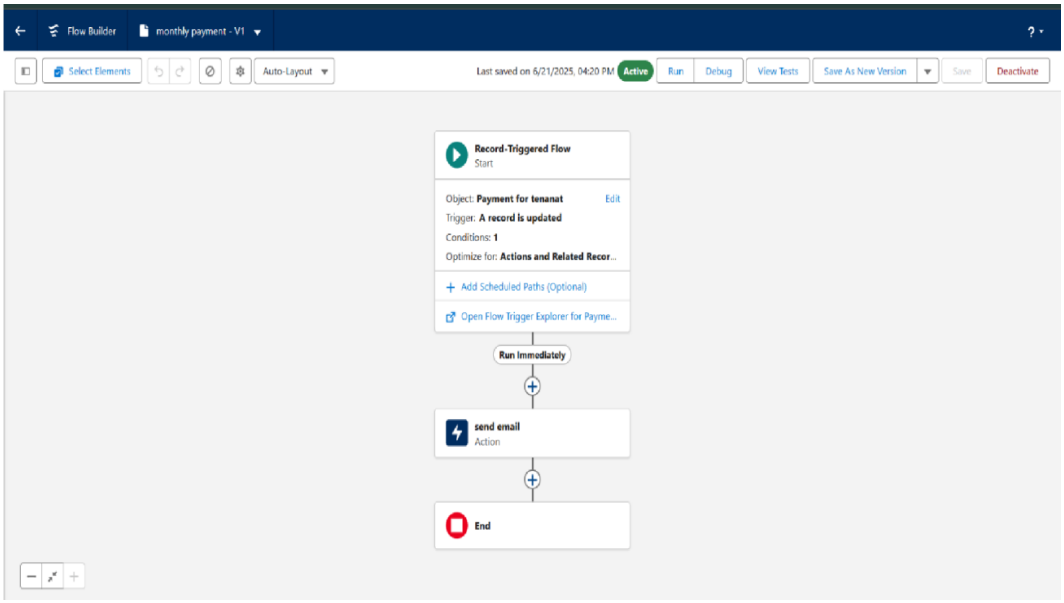
- Tabs for Property, Tenant, Lease, Payment



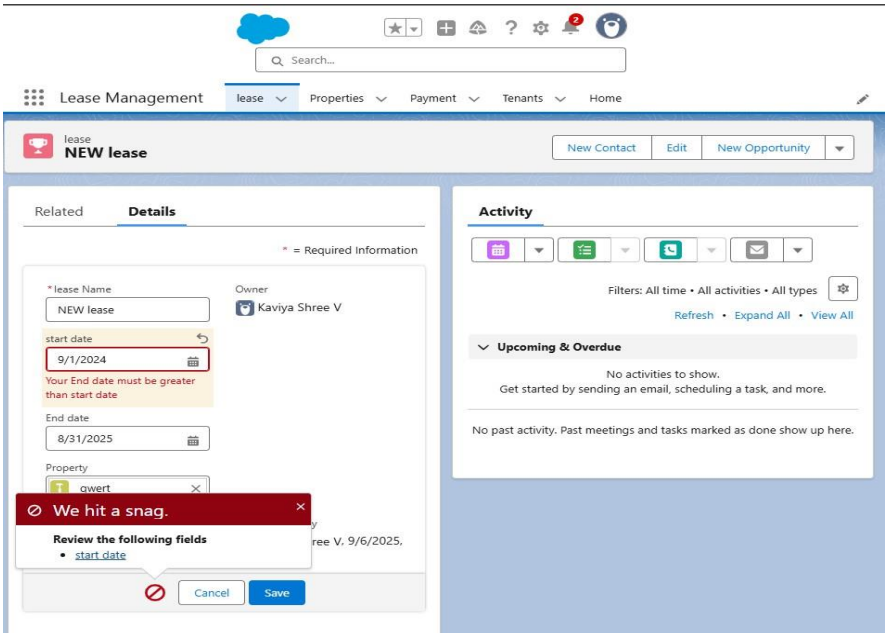
- Email alerts



- Flow runs



- Trigger error messages



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');
}
}
}
}
```

MothlyEmailScheduler.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});

        }

    }


}
```