Lease Management

College Name: Tiruppur kumaran college for women

College Code: bru3j

TEAM ID: NM2025TMID28432

TEAM MEMBERS:

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1.INTRODUCTION

1.1 Project Overview

The Lease Management System is a Salesforce-based application that simplifies real estate leasing operations by managing tenants, lease agreements, payments, and communications, while leveraging automation tools like flows, approval processes,and email alerts.

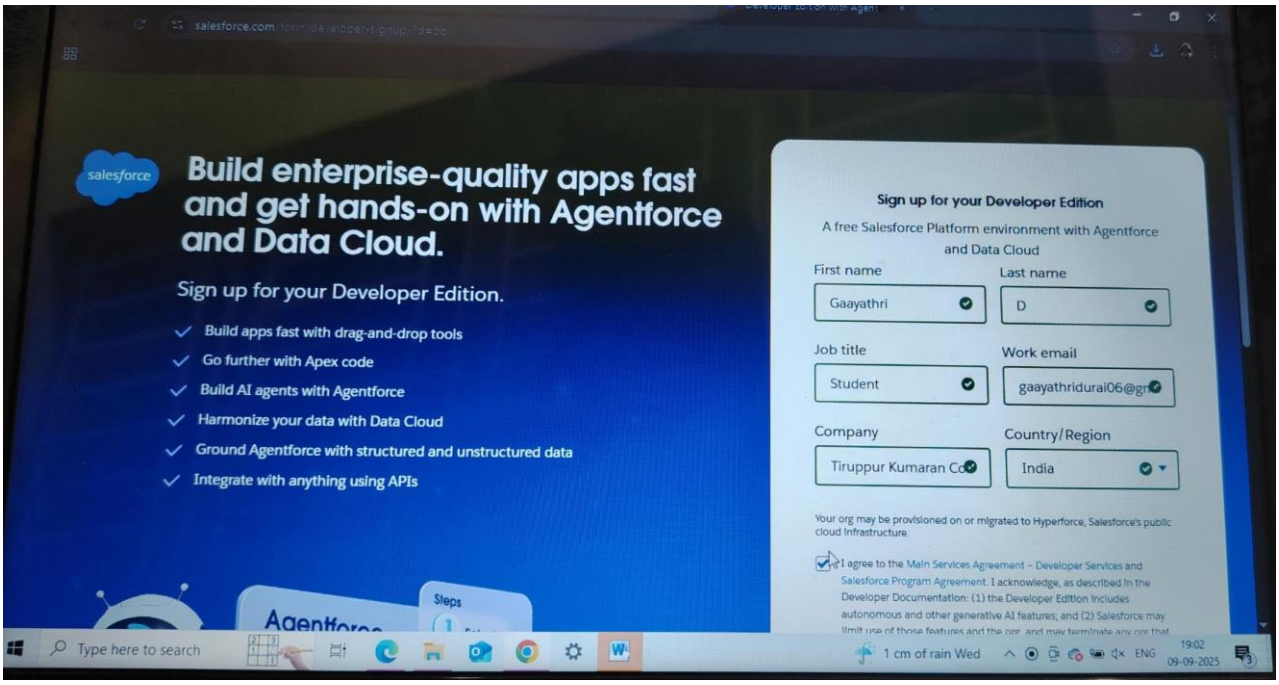
1.2 Purpose

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.

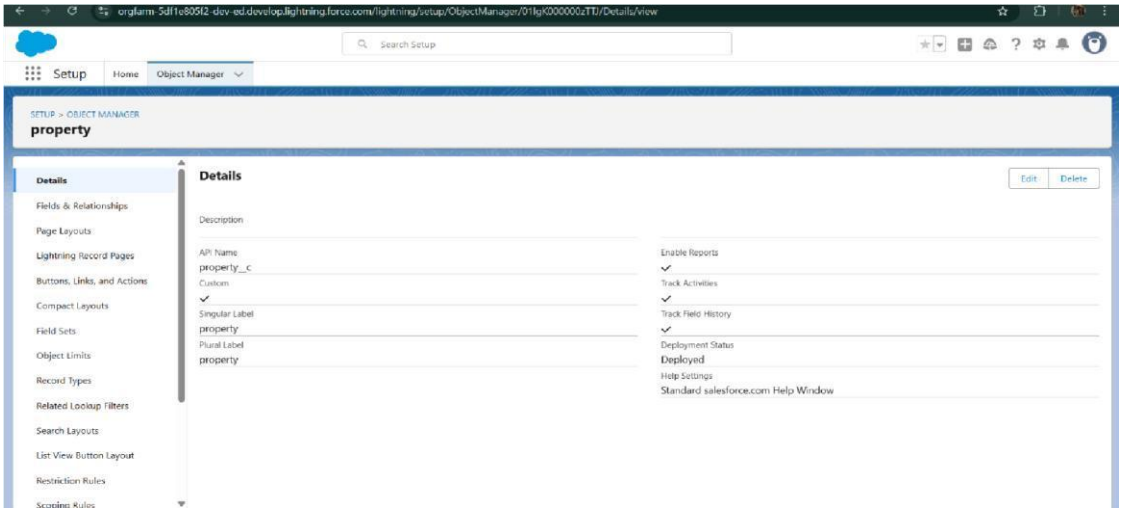
DEVELOPMENT PHASE

Creating Developer Account:

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



- Created objects: Property, Tenant, Lease, Payment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Search Setup
Setup
Home
Object Manager
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
Details
Edit
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Description
API Name
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Enable Reports
Track Activities
Track Field History
Deployment Status
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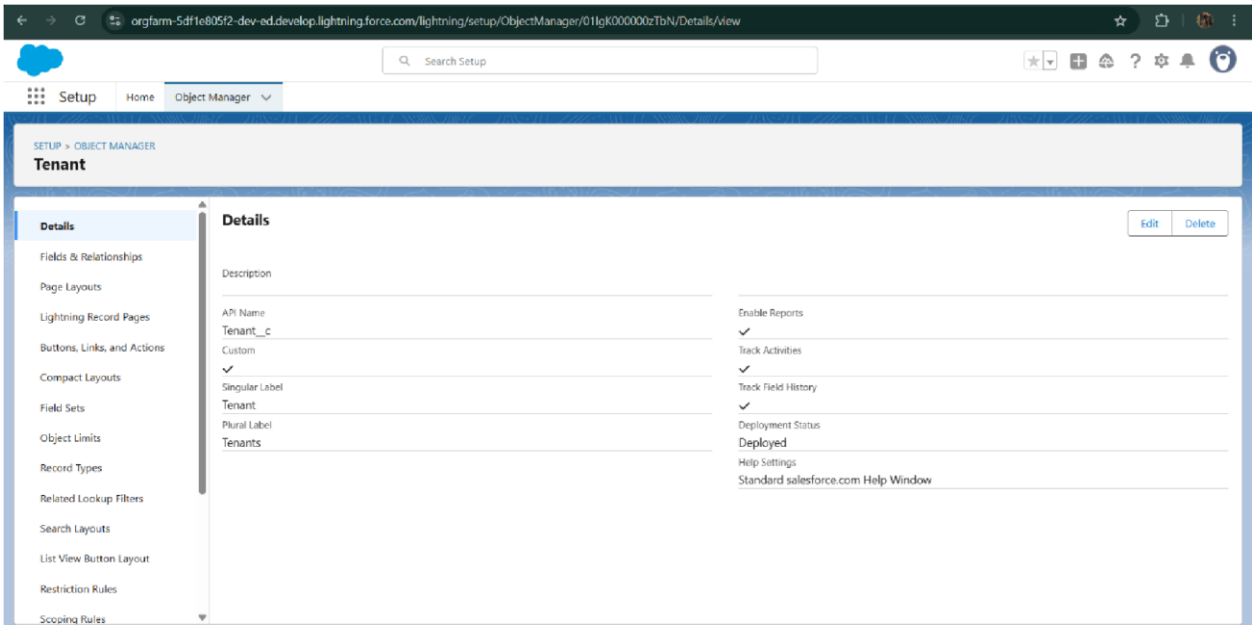
Help Settings
Standard salesforce.com Help Window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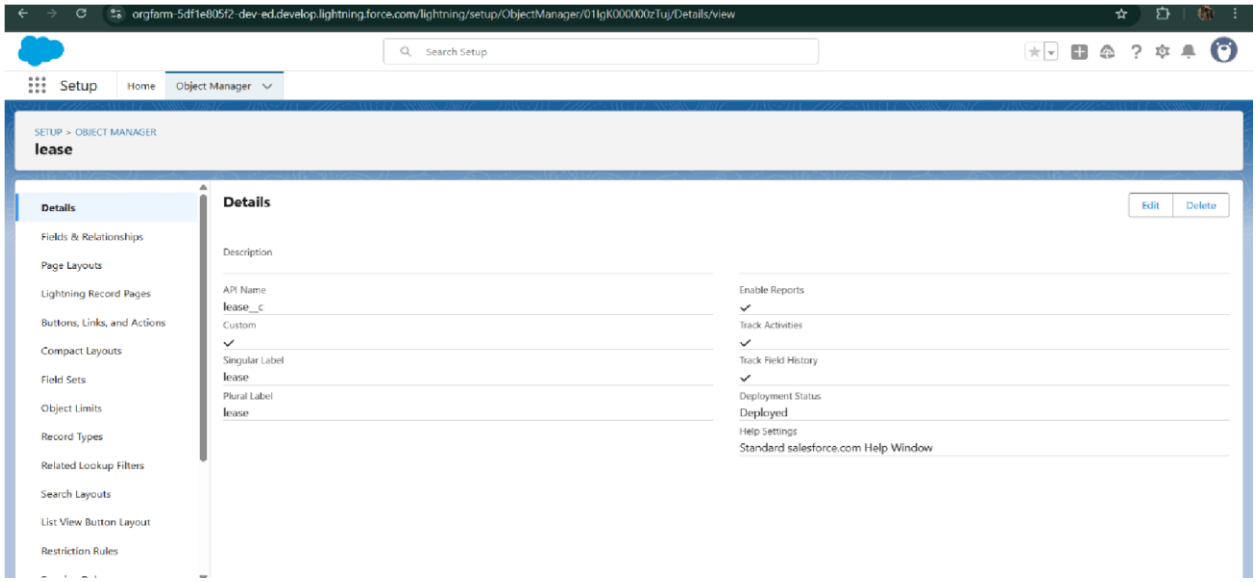
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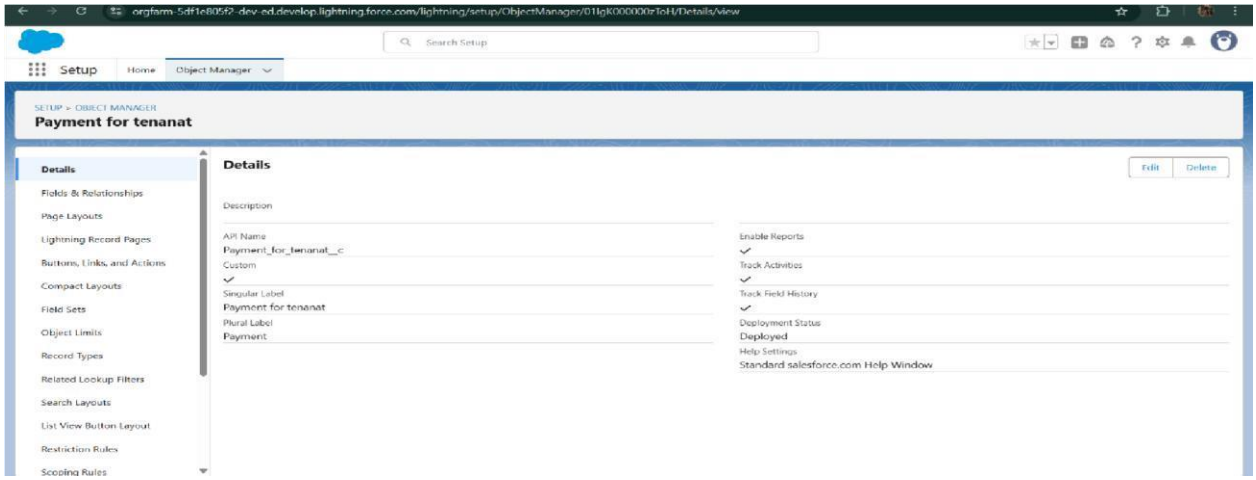
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Record Types
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Payment
Enable Reports
Track Activities
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Deployment Status
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Help Settings
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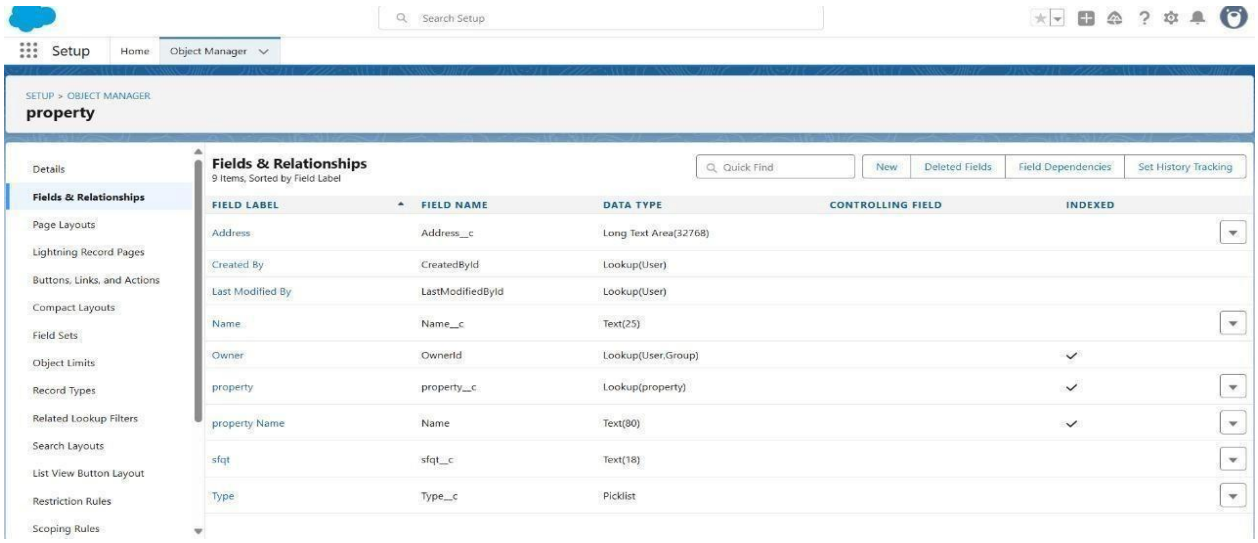
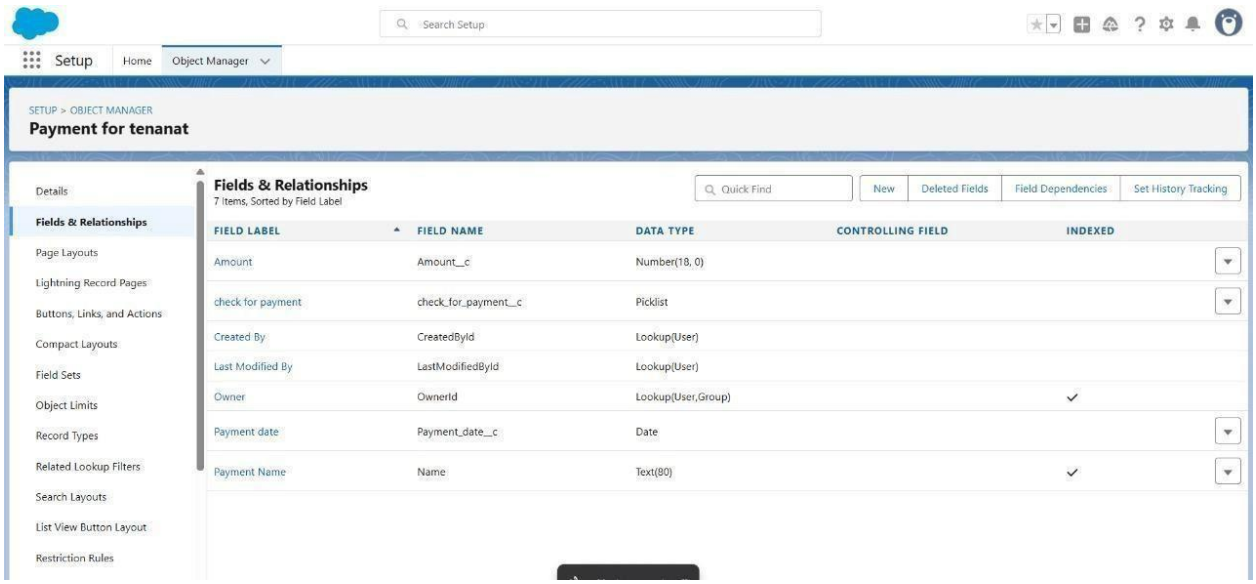
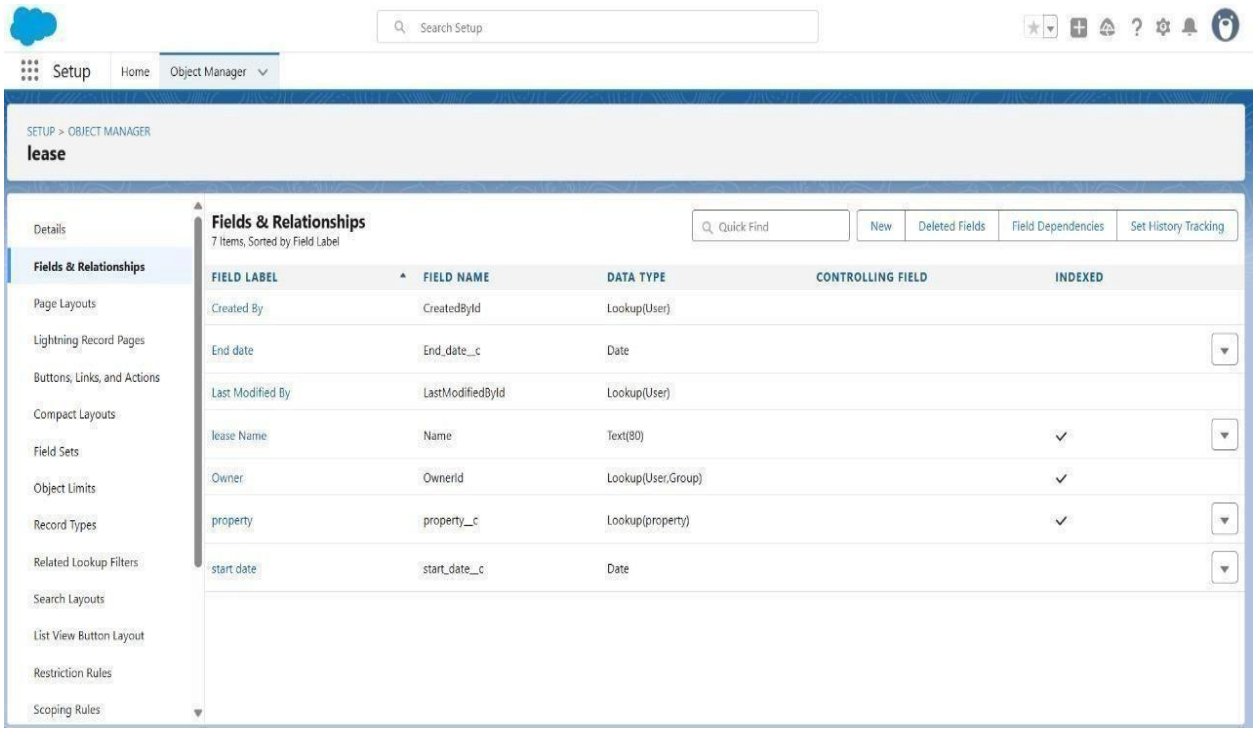
- Configured fields and relationships



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lease
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Fields & Relationships
Page Layouts
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Field Sets
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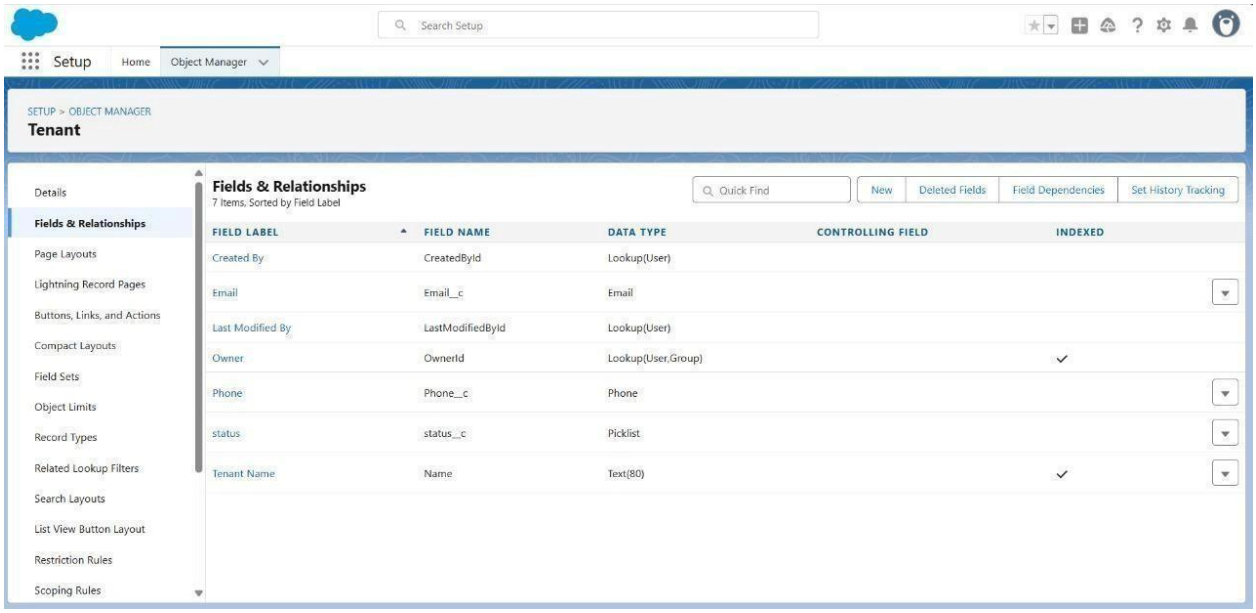
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Created By
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


Search Setup
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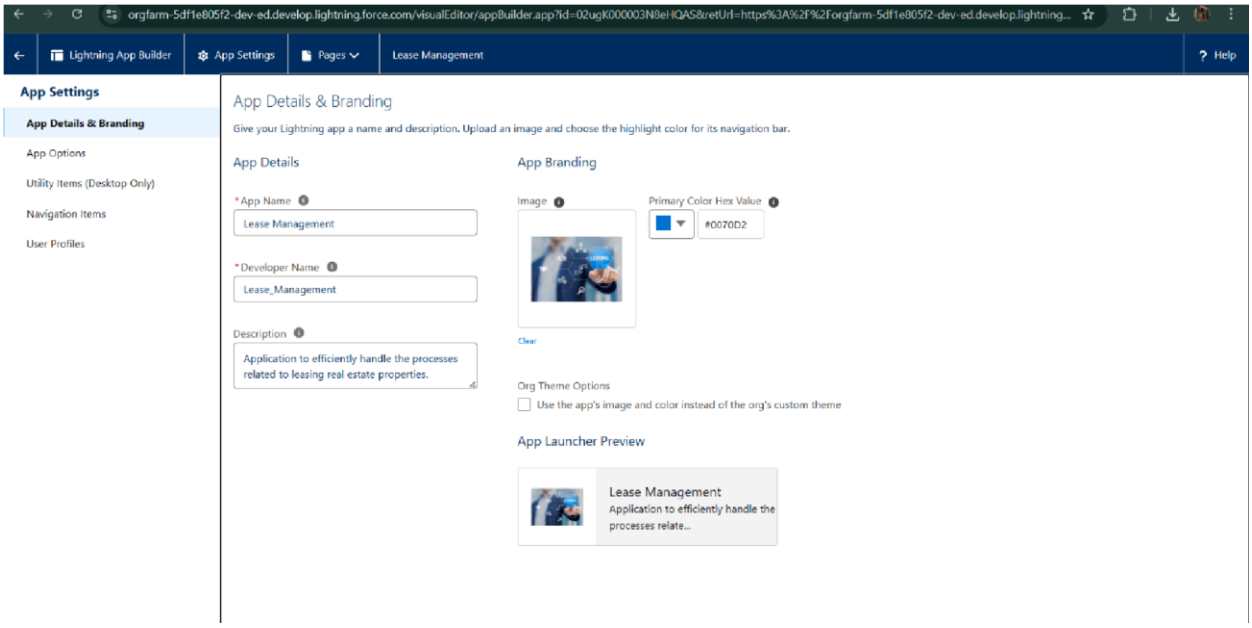
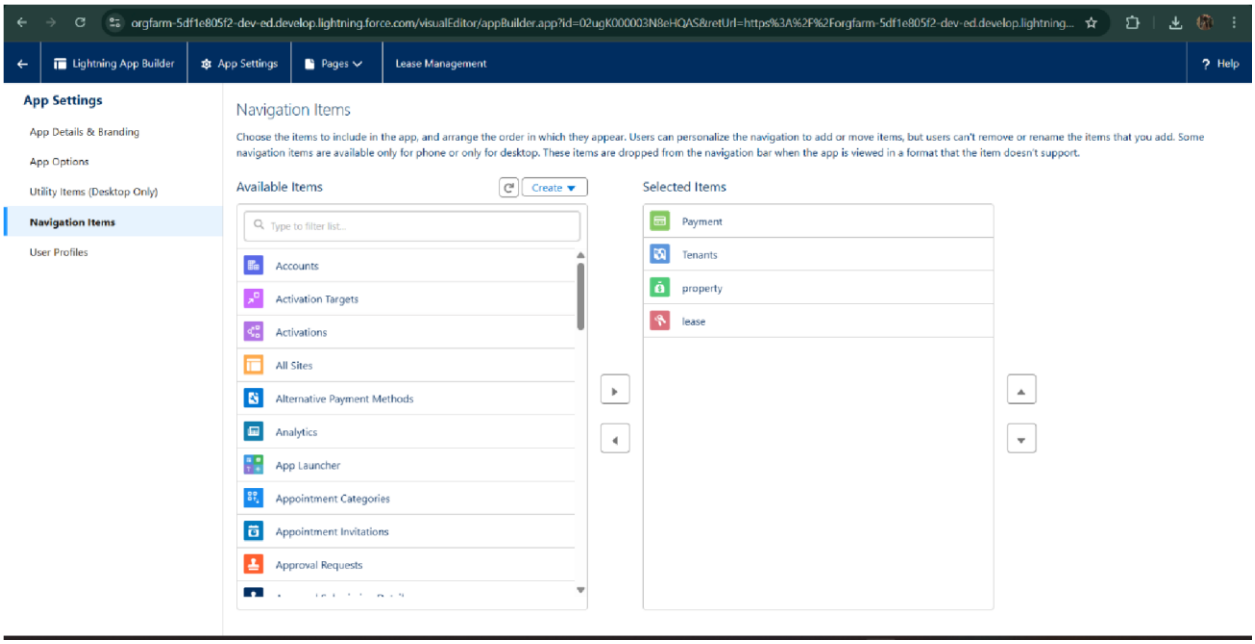
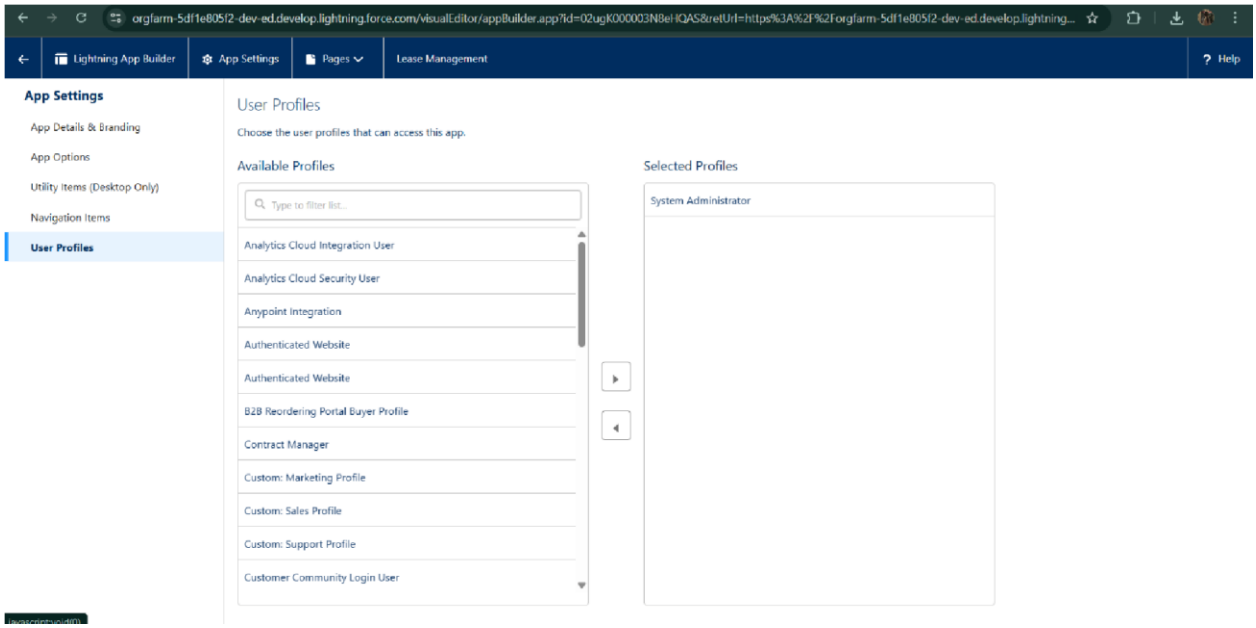
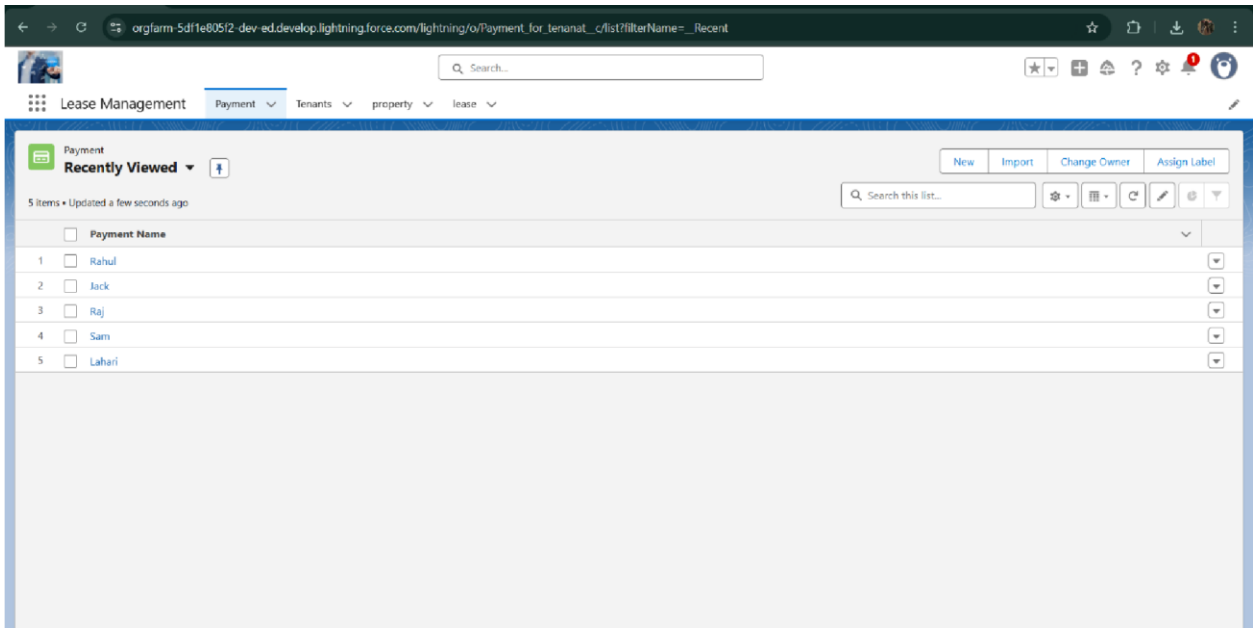
Object Manager
SETUP > OBJECT MANAGER
Tenant
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Fields & Relationships
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

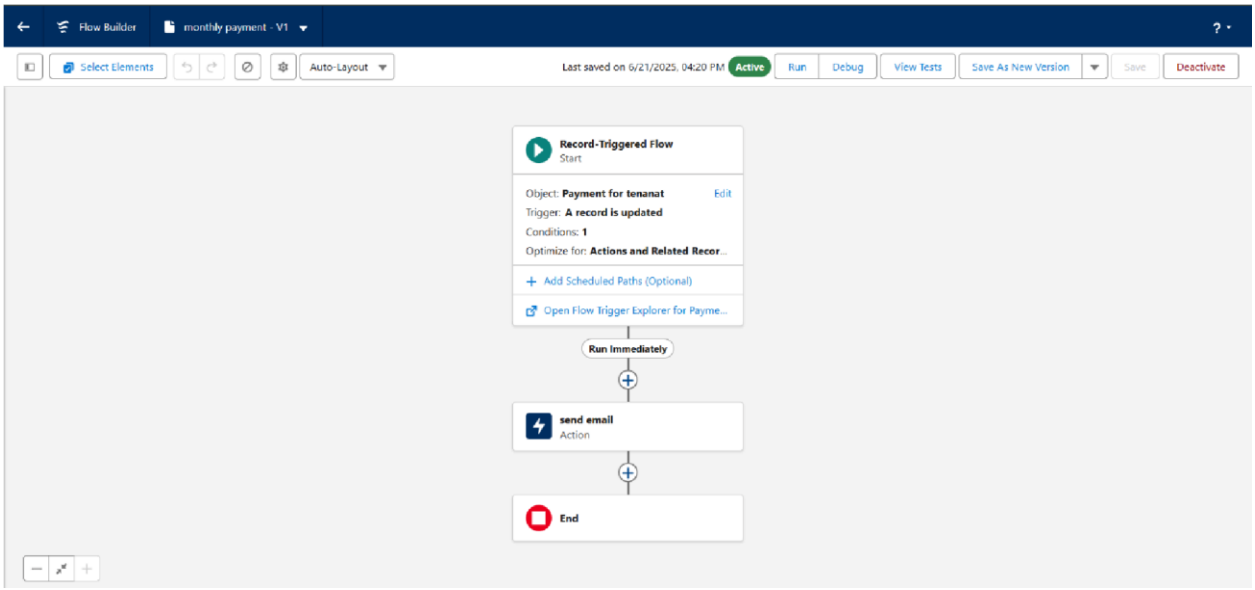




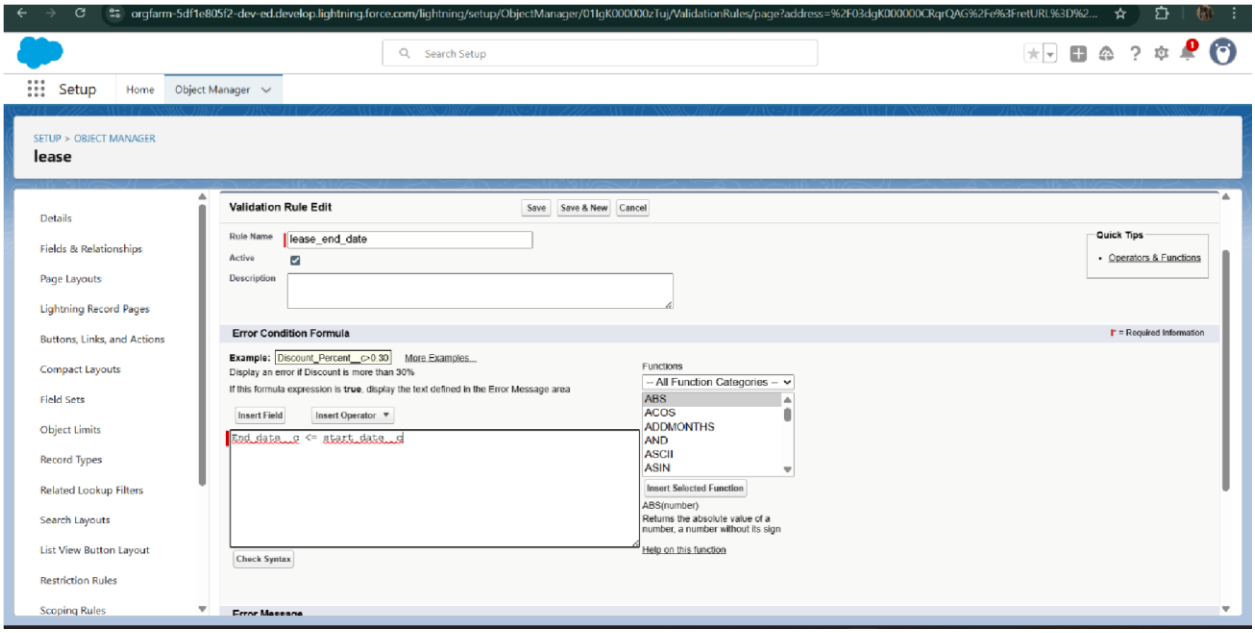


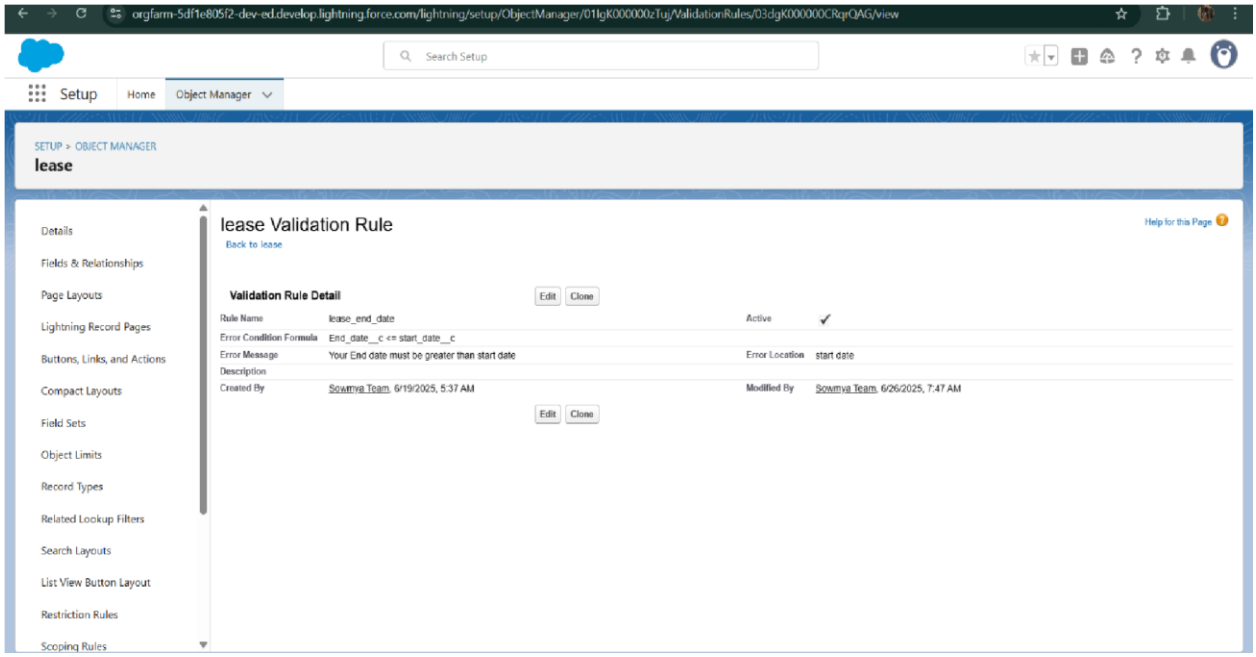


- Implemented Flows for monthly rent and payment success

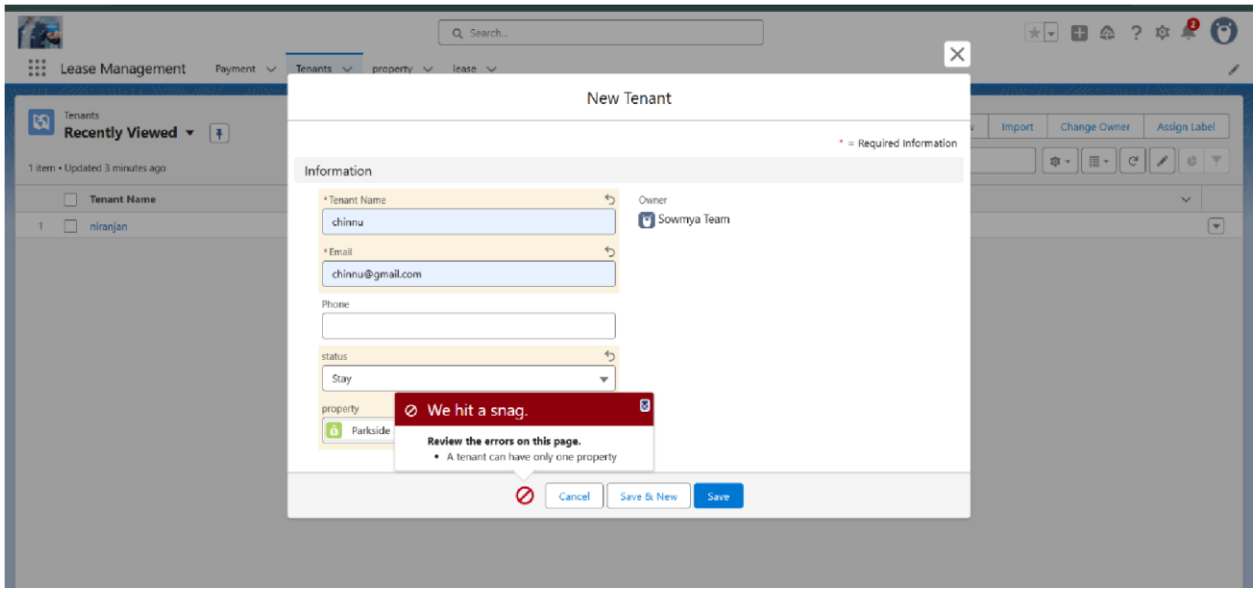


- To create a validation rule to a Lease Object

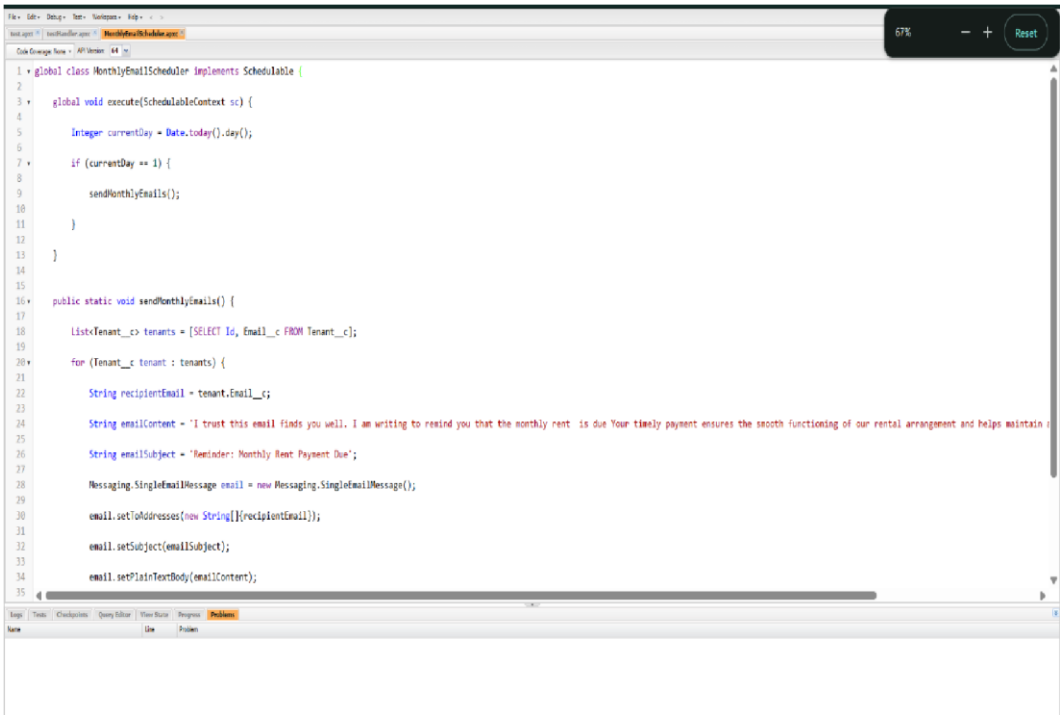




- Added Apex trigger to restrict multiple tenants per property

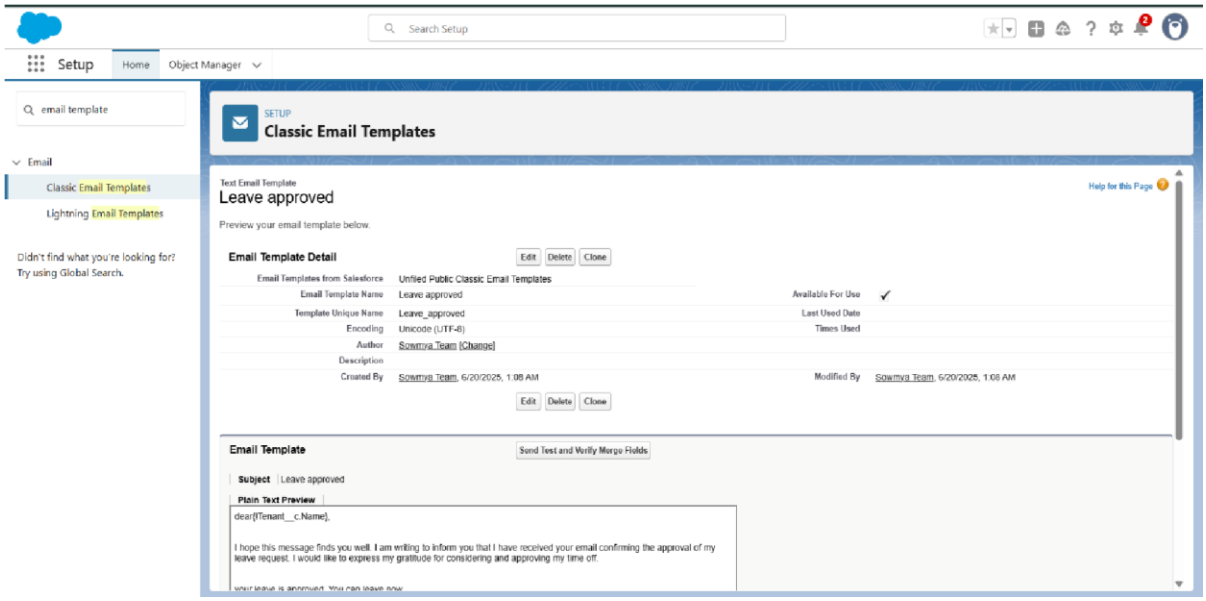


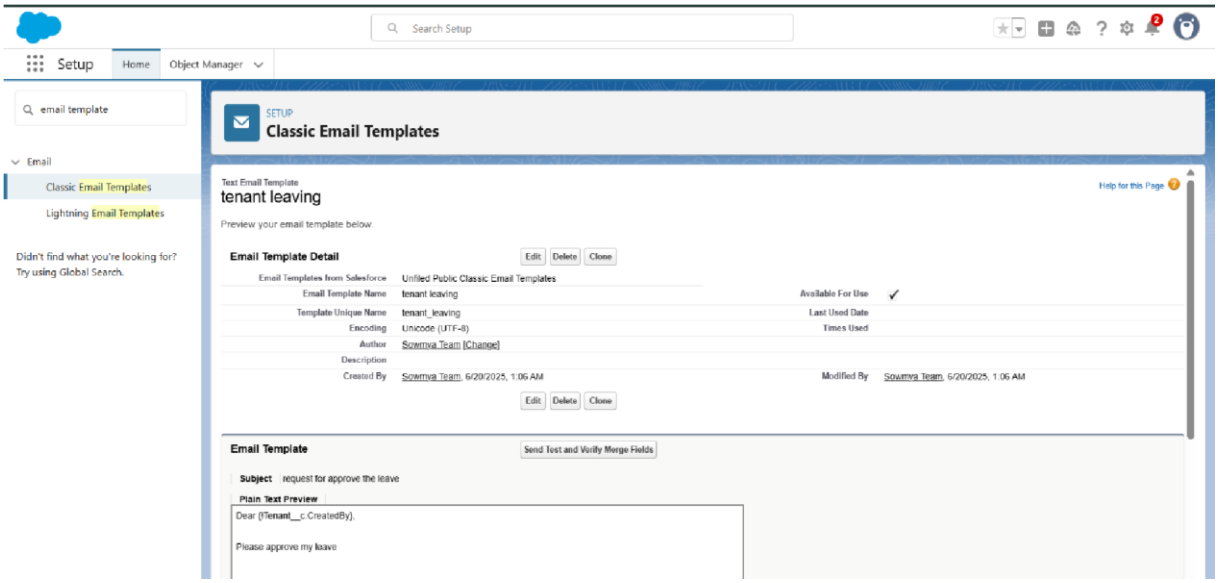
- Scheduled monthly reminder emails using Apex class

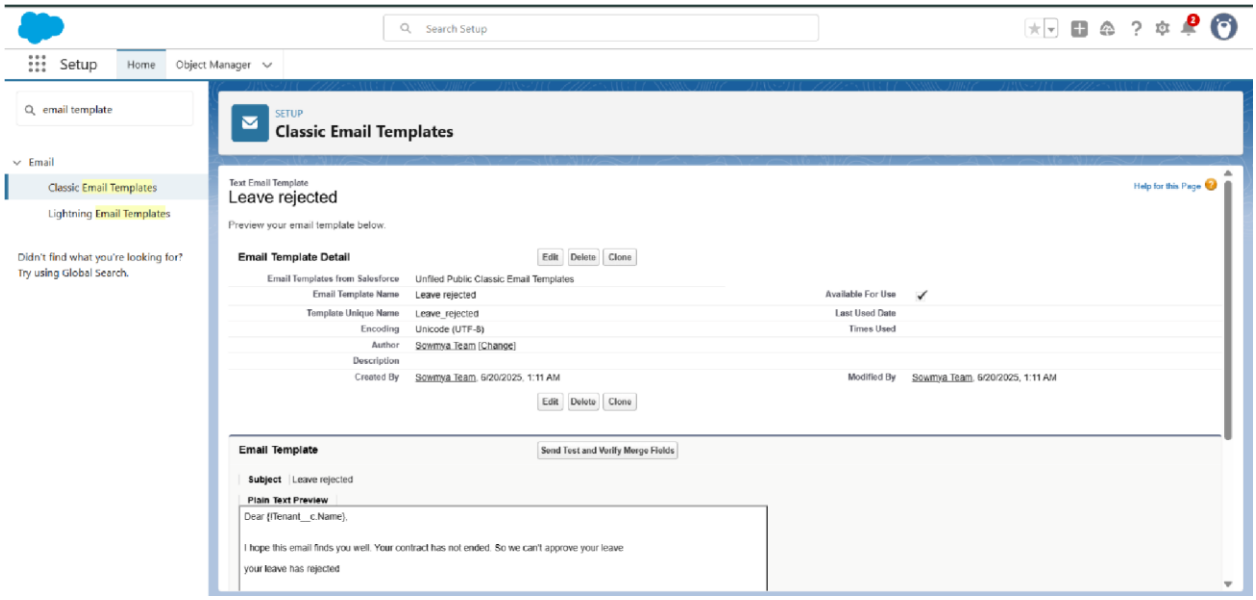


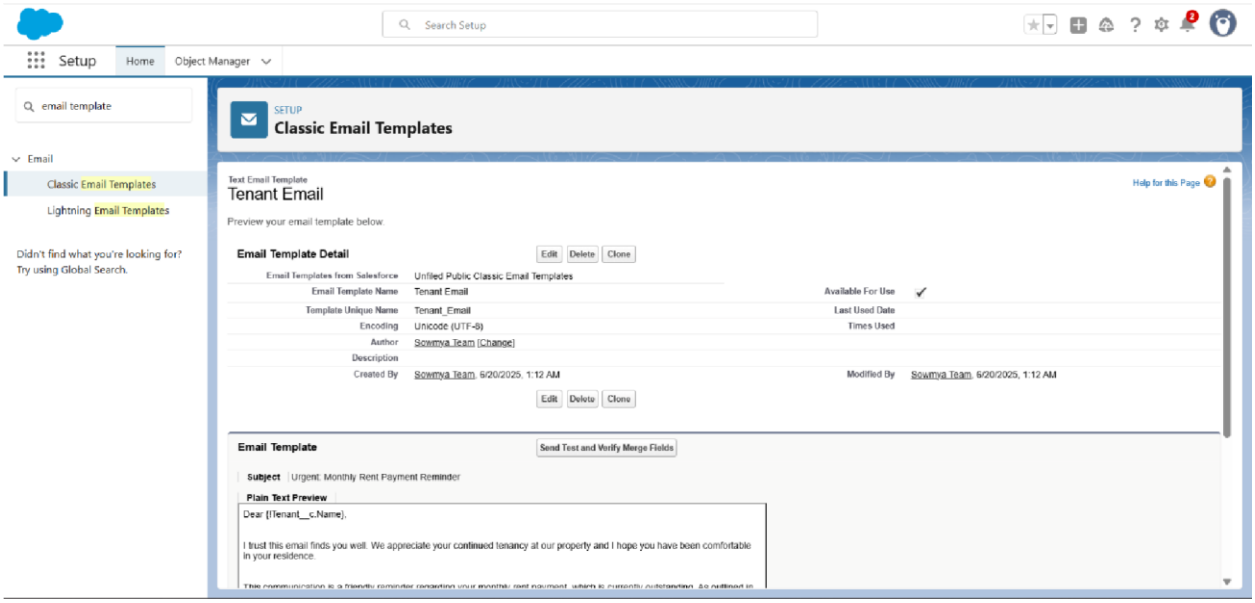
```
global class MonthlyEmailScheduler implements Schedulable {

    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);
```

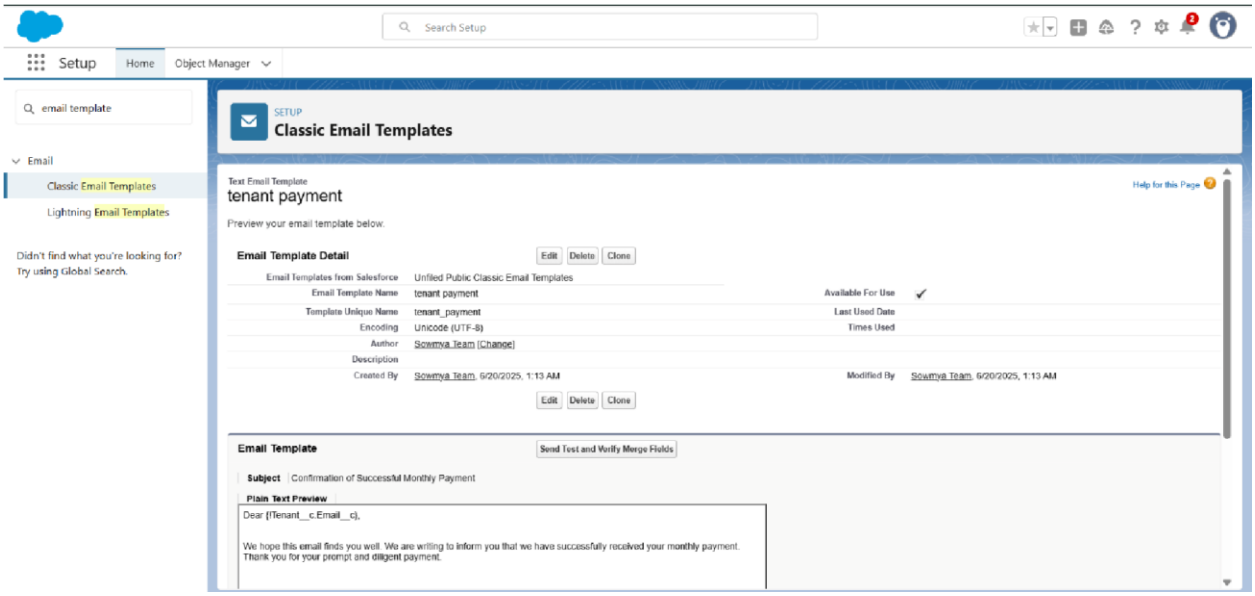
- Built and tested email templates for leave request, approval, rejection, payment, and reminders




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
tenant leaving
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 leaving
Available For Use
Template Unique Name
tenant_leaving
Last Used Date
Encoding
Unicode (UTF-8)
Times Used
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:06 AM
Modified By
Sowmya Team, 6/20/2025, 1:06 AM
Email Template
Send Test and Verify Merge Fields
Subject
request for approve the leave
Plain Text Preview
Dear {!Tenant__c.CreatedBy},
Please approve my leave

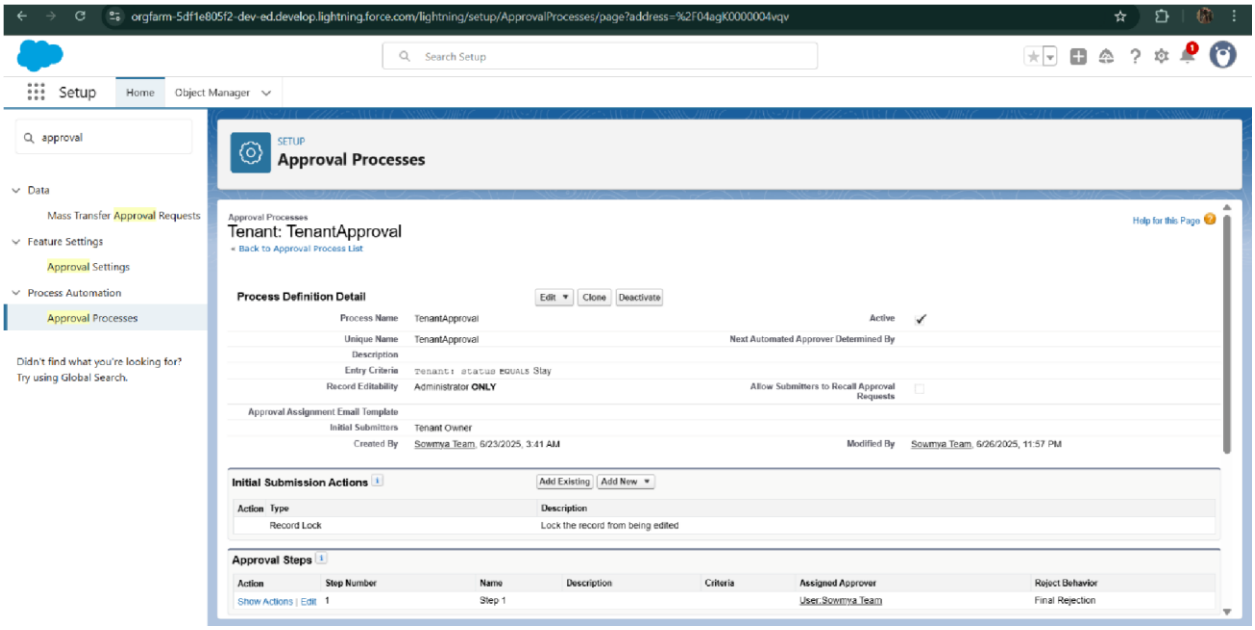

Search Setup
Setup
Home
Object Manager
email template
Email
Classic Email Templates
Lightning Email Templates
Didn't find what you're looking for?
Try using Global Search.
SETUP
Classic Email Templates
Text Email Template
Leave rejected
Help for this Page
Preview your email template below.
Email Template 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



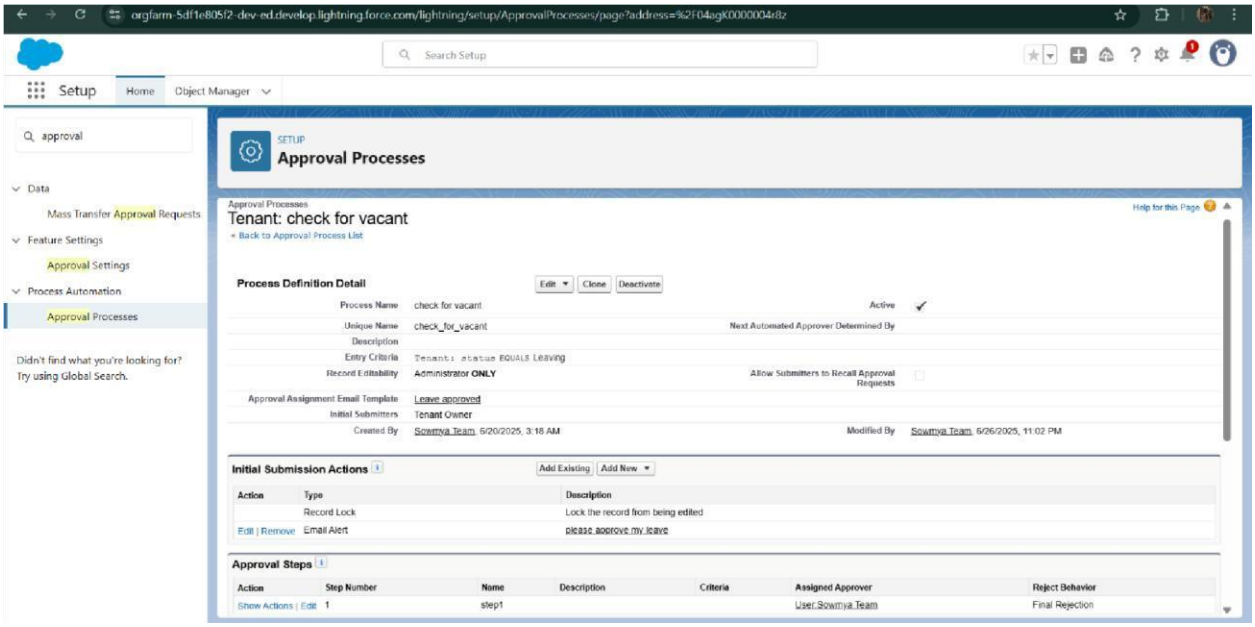


- Approval Process creation

  For Tenant Leaving:

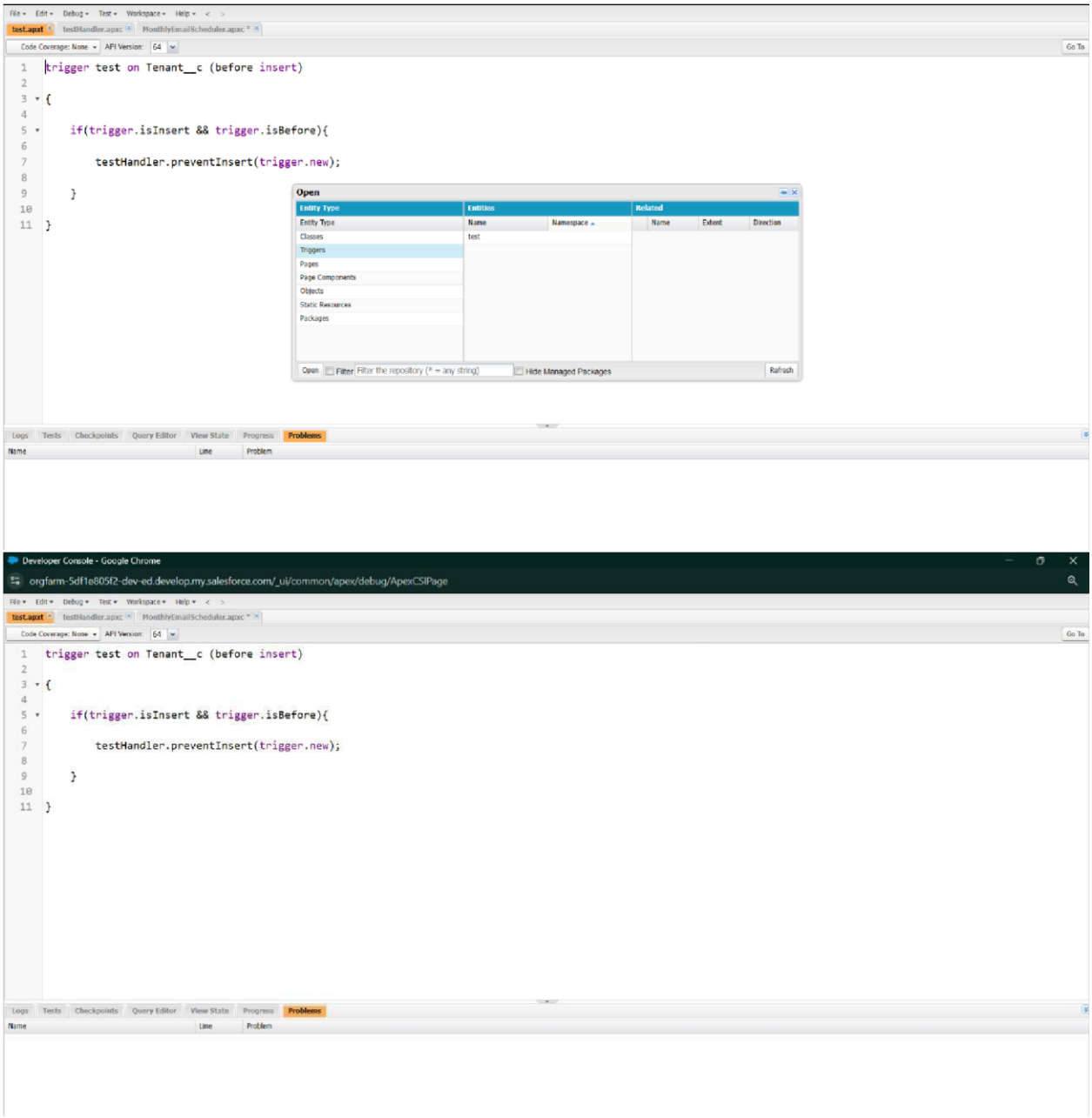


For Check for Vacant:

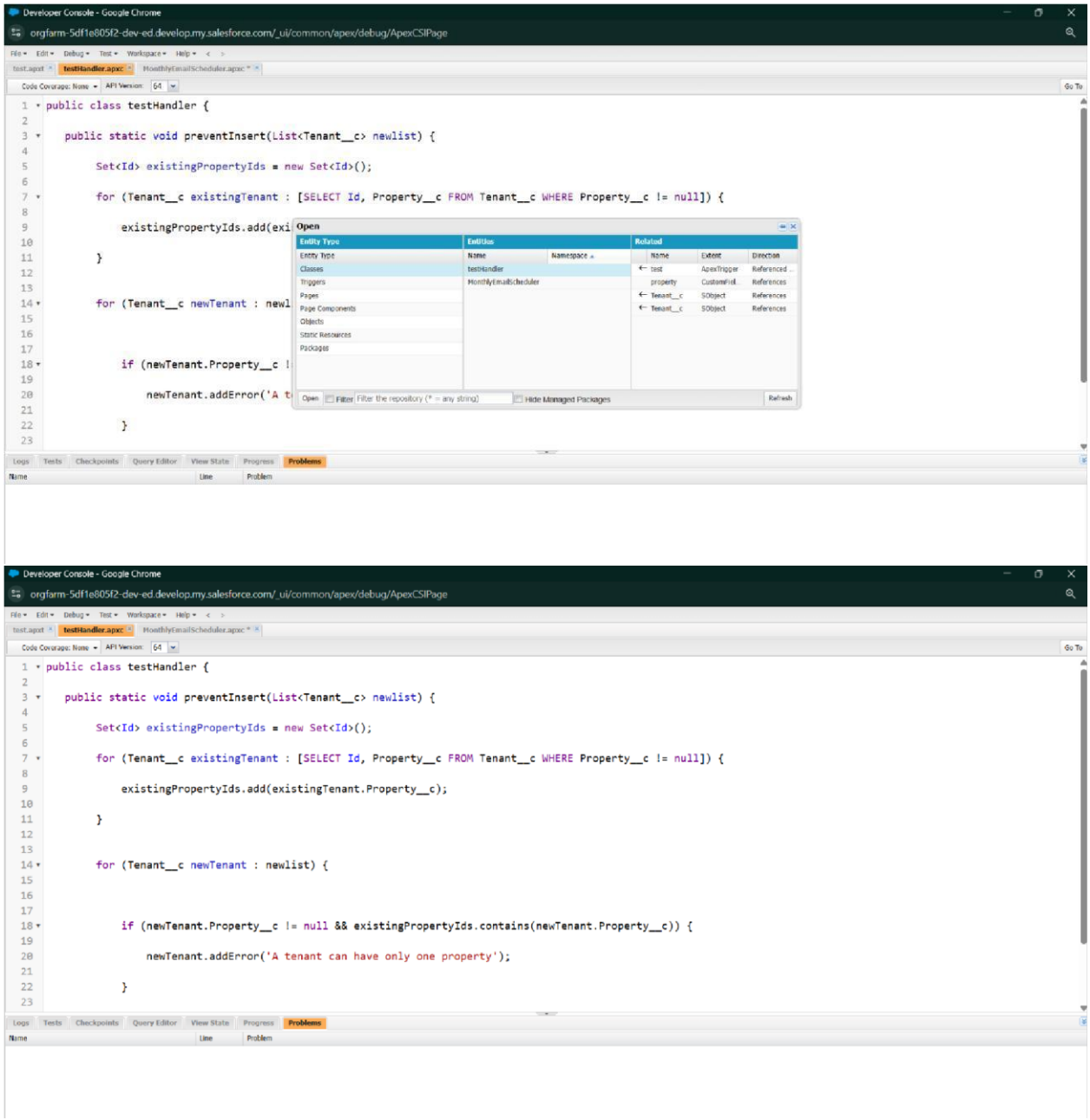


- Apex Trigger

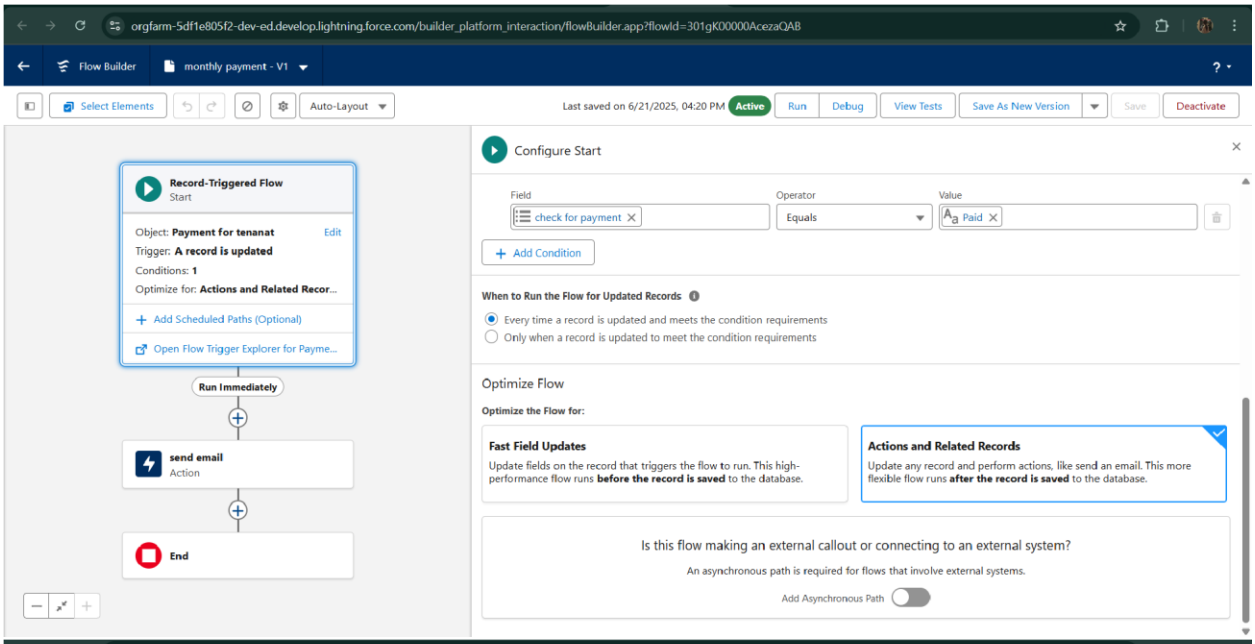
  Create an Apex Trigger

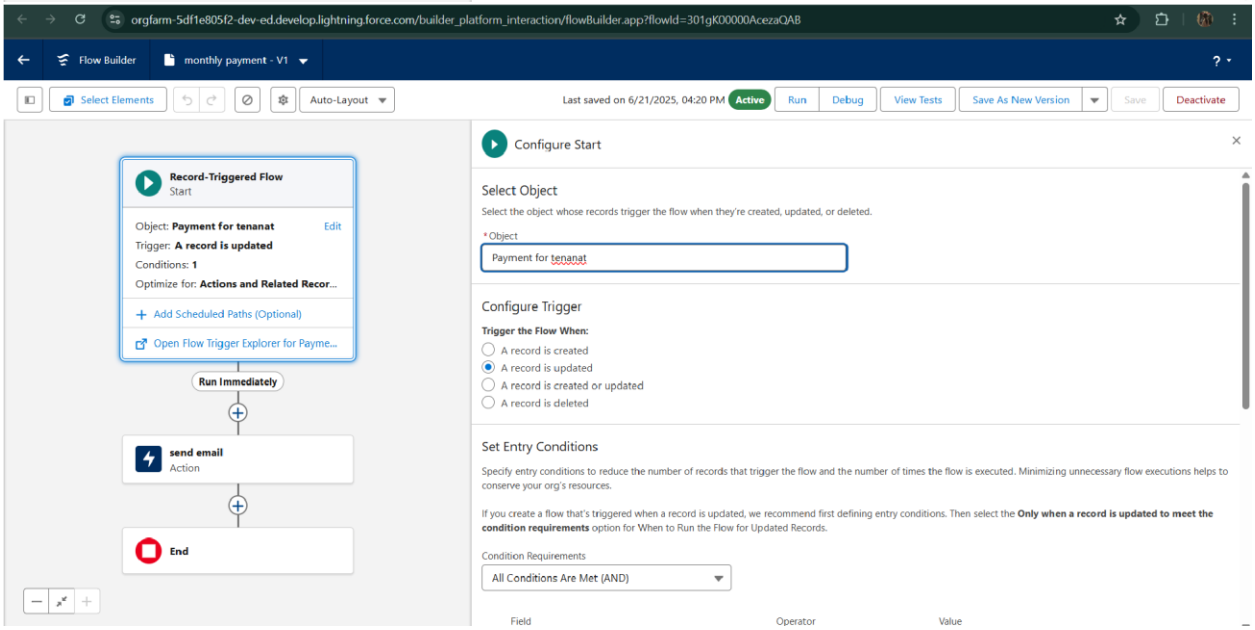


Create an Apex Handler class

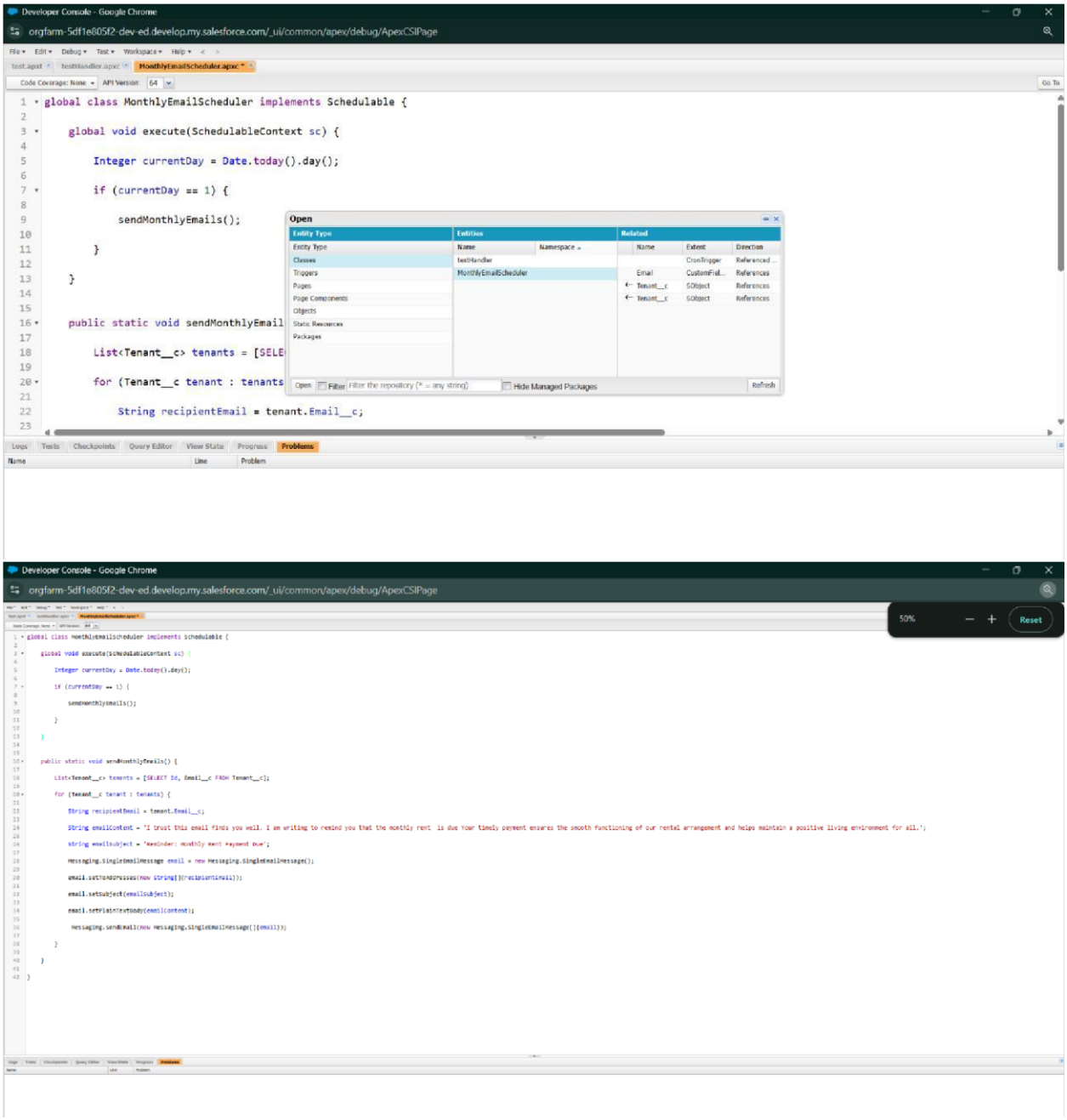

Developer Console - Google Chrome
orgfarm-5df1e805f2-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
testHandler.apxc
MonthlyEmailScheduler.apxc
public class testHandler {
public static void preventInsert(List<Tenant__c> newlist) {
Set<Id> existingPropertyIds = new Set<Id>();
for (Tenant__c 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');
}
Open
Entity Type
Name
Namespace
Classes
Triggers
Pages
Page Components
Objects
Static Resources
Packages
testHandler
MonthlyEmailScheduler
Related
Extent
Direction
ApexTrigger
CustomFiel...
SObject
References
Open
Filter
Filter the repository (* = any string)
Hide Managed Packages
Refresh
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems
Name
Line
Problem

- FLOWS

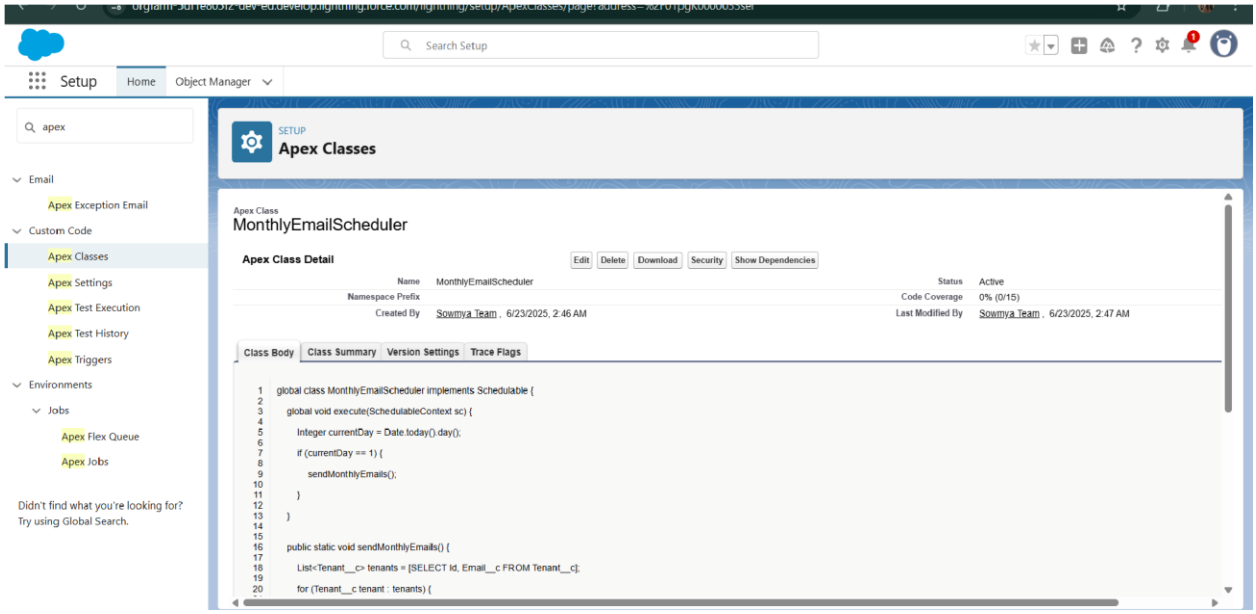




- Schedule class:
  Create an Apex Class



Schedule Apex class


Search Setup
Setup
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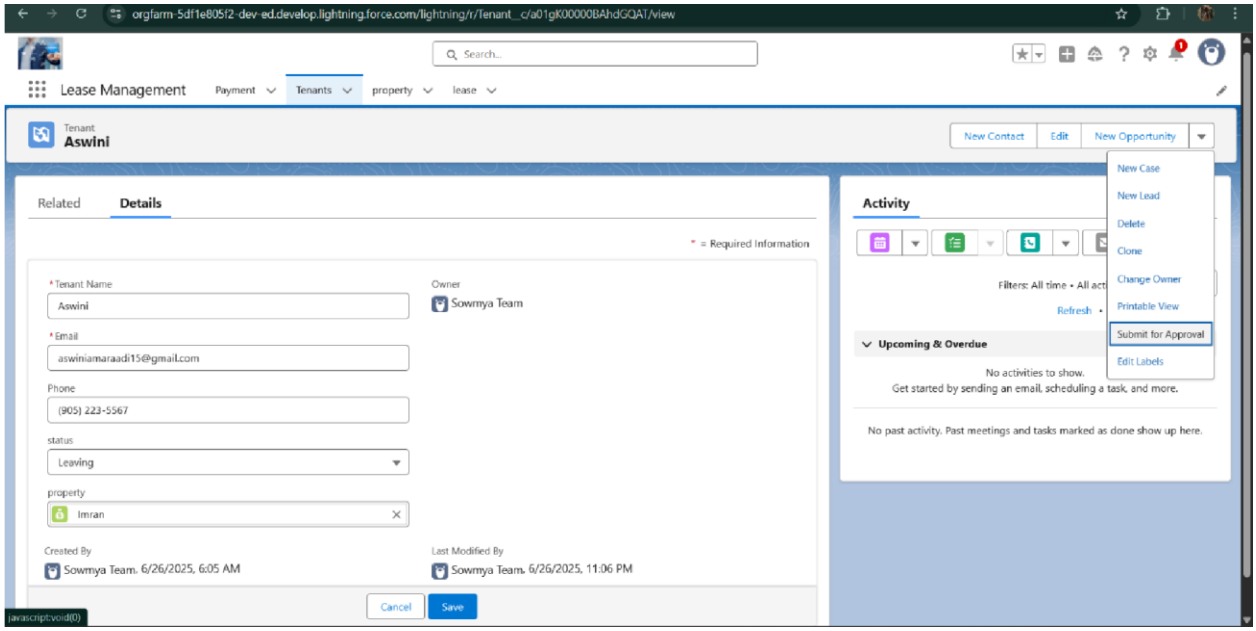
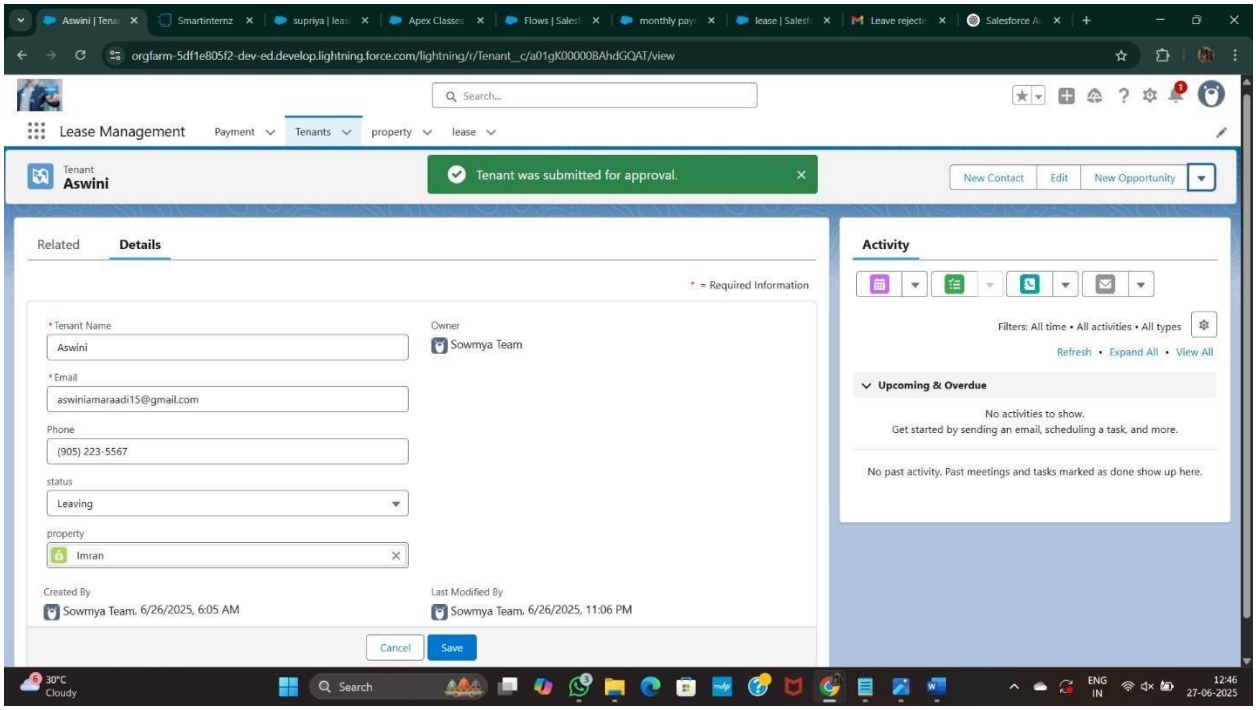
Email
Apex Exception Email
Custom Code
Apex Classes
Apex Settings
Apex Test Execution
Apex Test History
Apex Triggers
Environments
Jobs
Apex Flex Queue
Apex Jobs
Didn't find what you're looking for?
Try using Global Search.
SETUP
Apex Classes
Apex Class
MonthlyEmailScheduler
Apex Class Detail
Edit
Delete
Download
Security
Show Dependencies
Name MonthlyEmailScheduler
Namespace Prefix
Created By Sowmya Team , 6/23/2025, 2:46 AM
Status Active
Code Coverage 0% (0/15)
Last Modified By Sowmya Team , 6/23/2025, 2:47 AM
Class Body
Class Summary
Version Settings
Trace Flags
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) {


orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/lightning/r/Tenant__c/a01gK00000BAhdGQAT/view
Search...
Lease Management
Payment
Tenants
property
lease
Tenant
Aswini
New Contact
Edit
New Opportunity
New Case
New Lead
Delete
Clone
Change Owner
Printable View
Submit for Approval
Edit Labels
Related
Details
* = Required Information
*Tenant Name
Aswini
Owner
Sowmya Team
*Email
aswiniamaraadi15@gmail.com
Phone
(905) 223-5567
status
Leaving
property
Imran
Created By
Sowmya Team, 6/26/2025, 6:05 AM
Last Modified By
Sowmya Team, 6/26/2025, 11:06 PM
Cancel
Save
Activity
Filters: All time • All act
Refresh
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.
javascript:void(0)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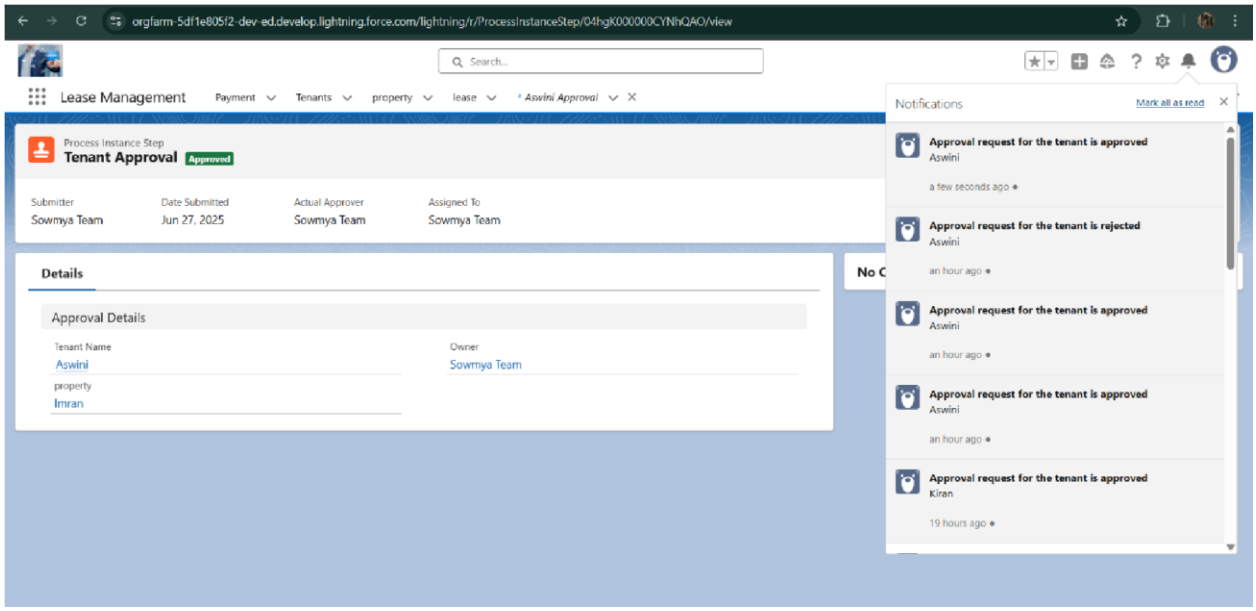
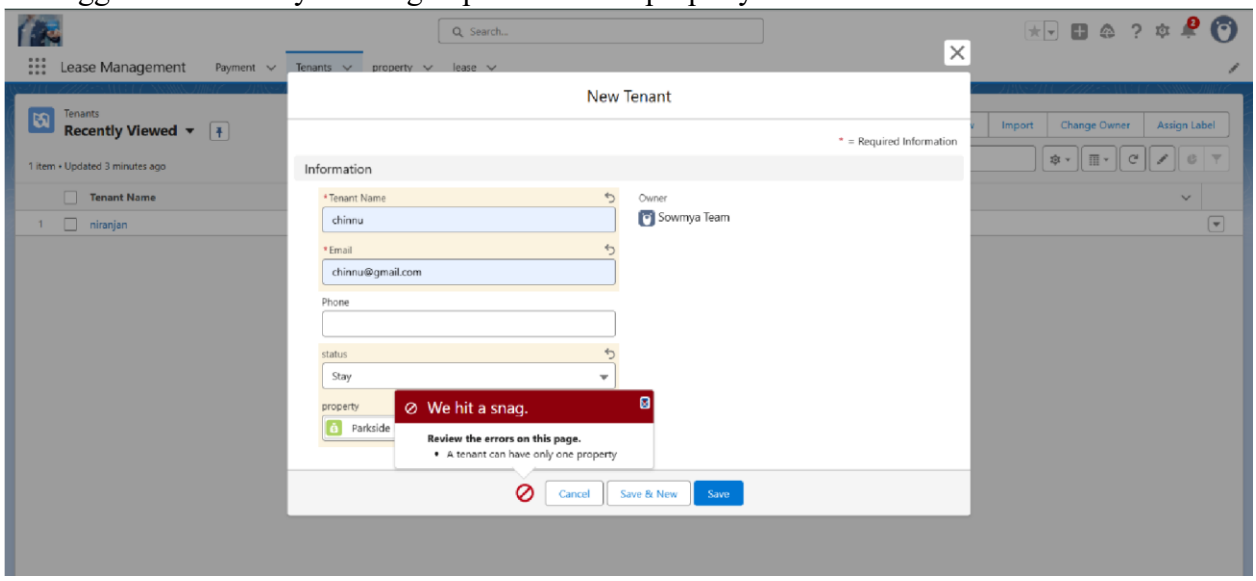
Lease Management
Payment
Tenants
property
lease
Tenant
Aswini
Tenant was submitted for approval.
New Contact
Edit
New Opportunity
Related
Details
* = Required Information
*Tenant Name
Aswini
Owner
Sowmya Team
*Email
aswiniamaraadi15@gmail.com
Phone
(905) 223-5567
status
Leaving
property
Imran
Created By
Sowmya Team, 6/26/2025, 6:05 AM
Last Modified By
Sowmya Team, 6/26/2025, 11:06 PM
Cancel
Save
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.
30°C
Cloudy
Search
ENG
IN
12:46
27-06-2025


orgfarm-5df1e805f2-dev-ed.develop.lightning.force.com/lightning/r/ProcessInstanceStep/04hgK000000CYNhQAO/view
Lease Management
Payment
Tenants
property
lease
Aswini Approval
Process Instance Step
Tenant Approval
Approved
Submitter
Sowmya Team
Date Submitted
Jun 27, 2025
Actual Approver
Sowmya Team
Assigned To
Sowmya Team
Details
Approval Details
Tenant Name
Aswini
Owner
Sowmya Team
property
Imran
Notifications
Mark all as read
Approval request for the tenant is approved
Aswini
a few seconds ago
Approval request for the tenant is rejected
Aswini
an hour ago
Approval request for the tenant is approved
Aswini
an hour ago
Approval request for the tenant is approved
Aswini
an hour ago
Approval request for the tenant is approved
Kiran
19 hours ago

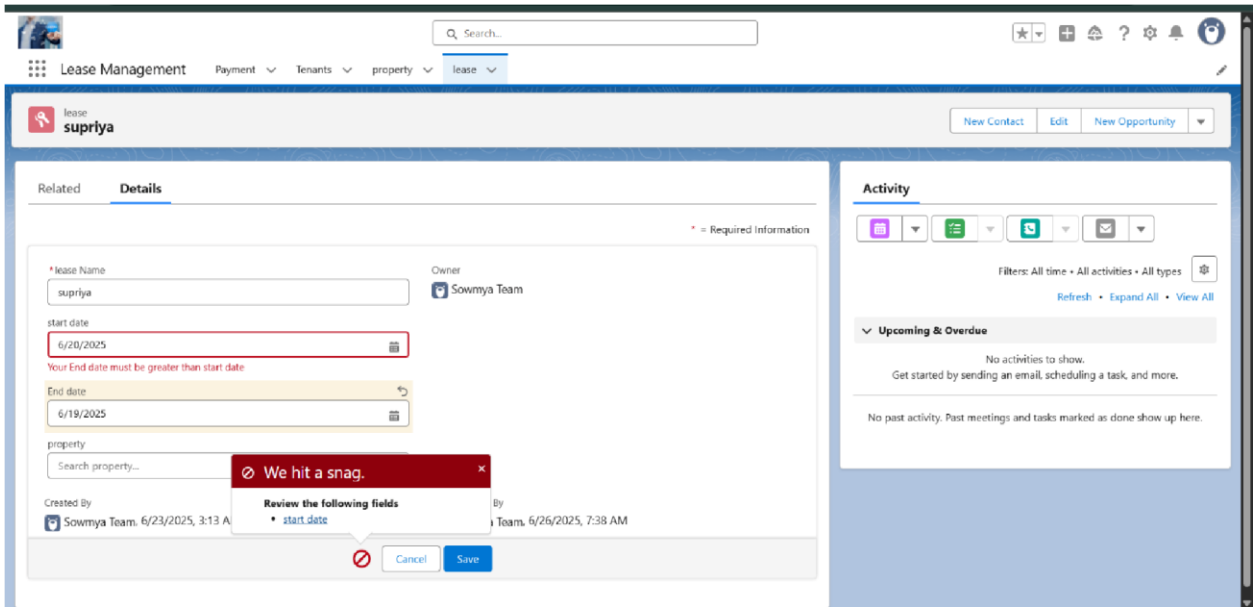
FUNCTIONAL AND PERFORMANCE TESTING

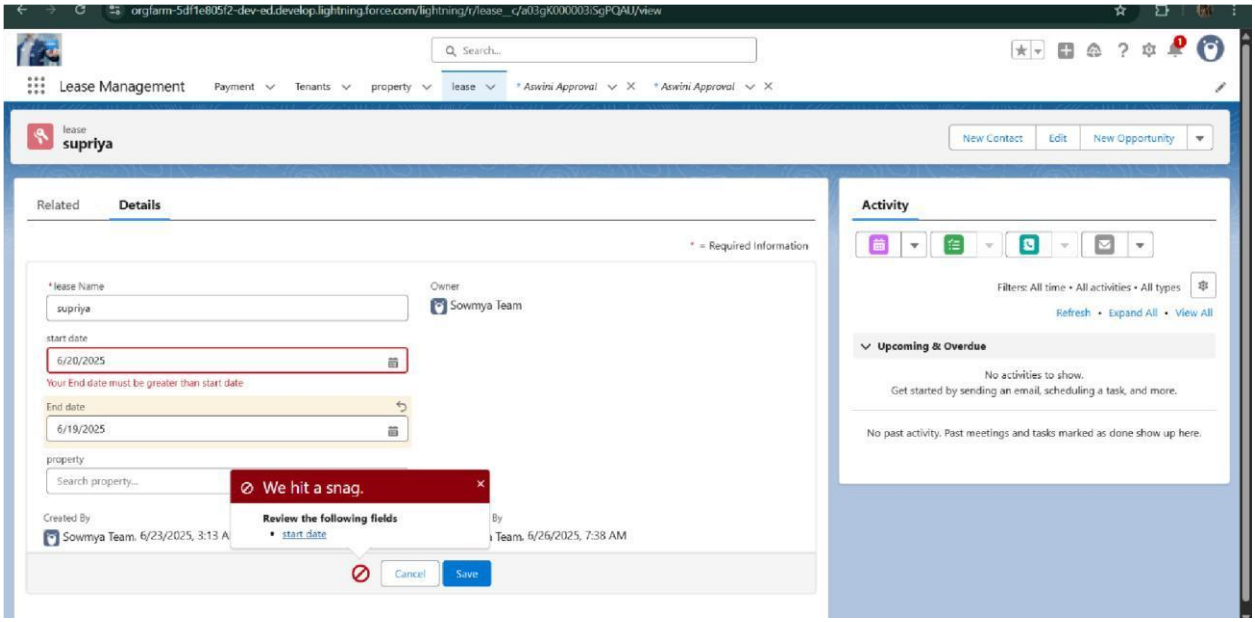
Performance Testing

- Trigger validation by entering duplicate tenant-property records

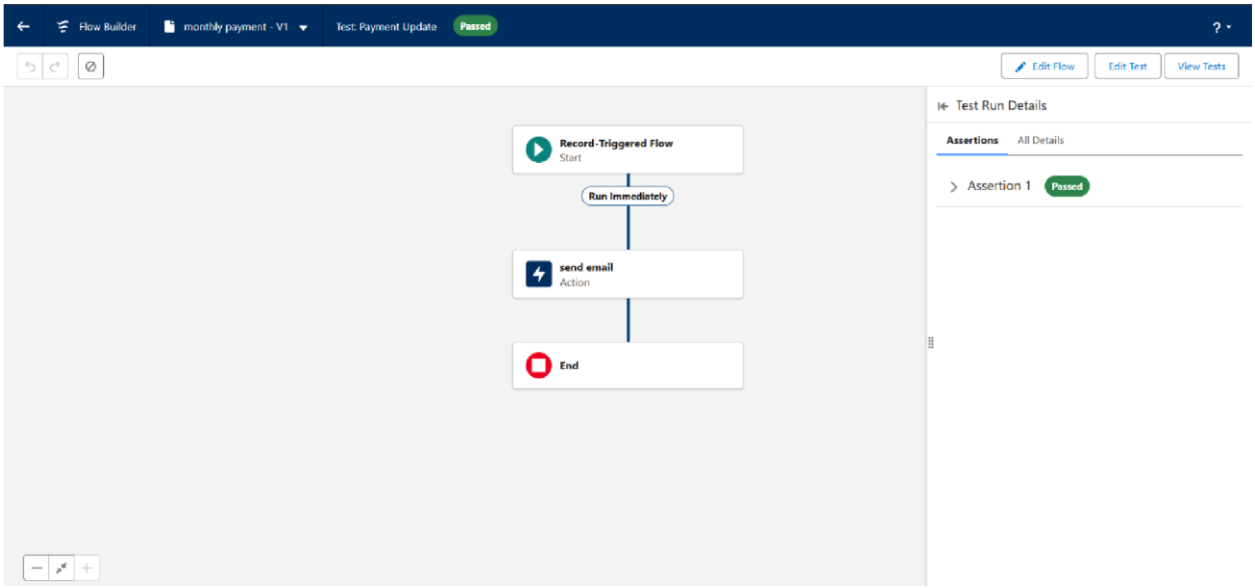


- Validation Rule checking

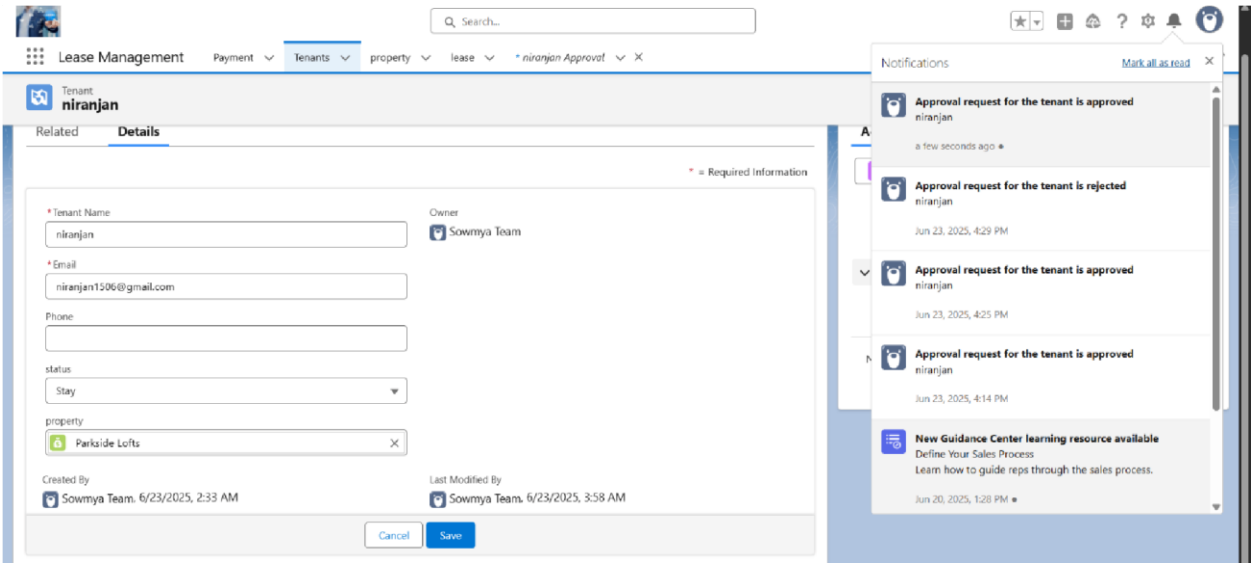


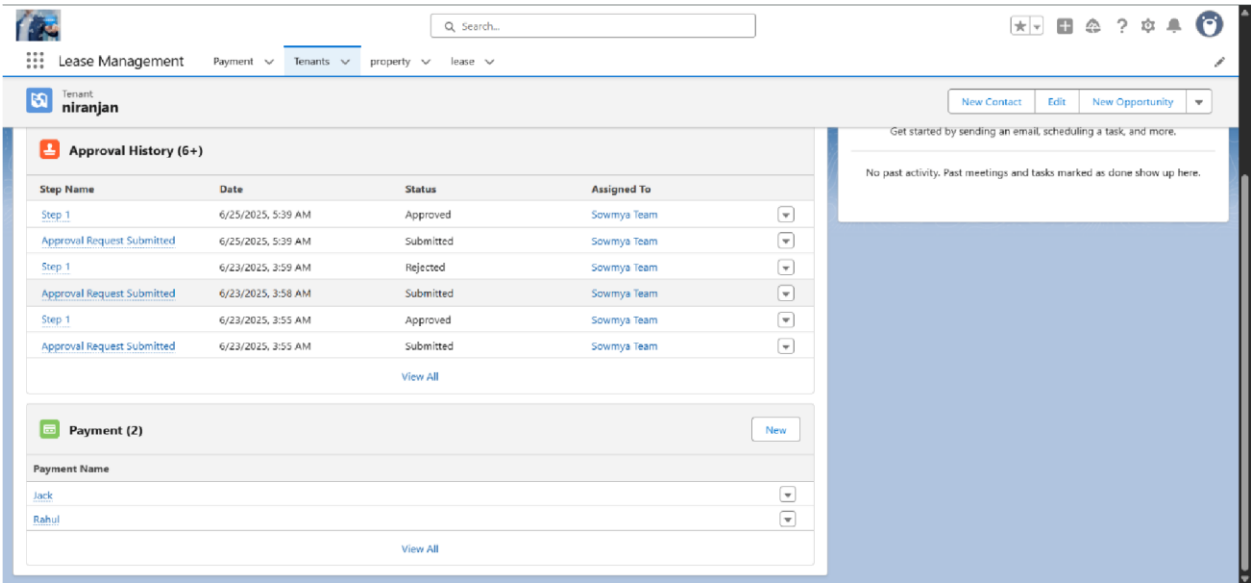


- Test flows on payment update



- Approval process validated through email alerts and status updates

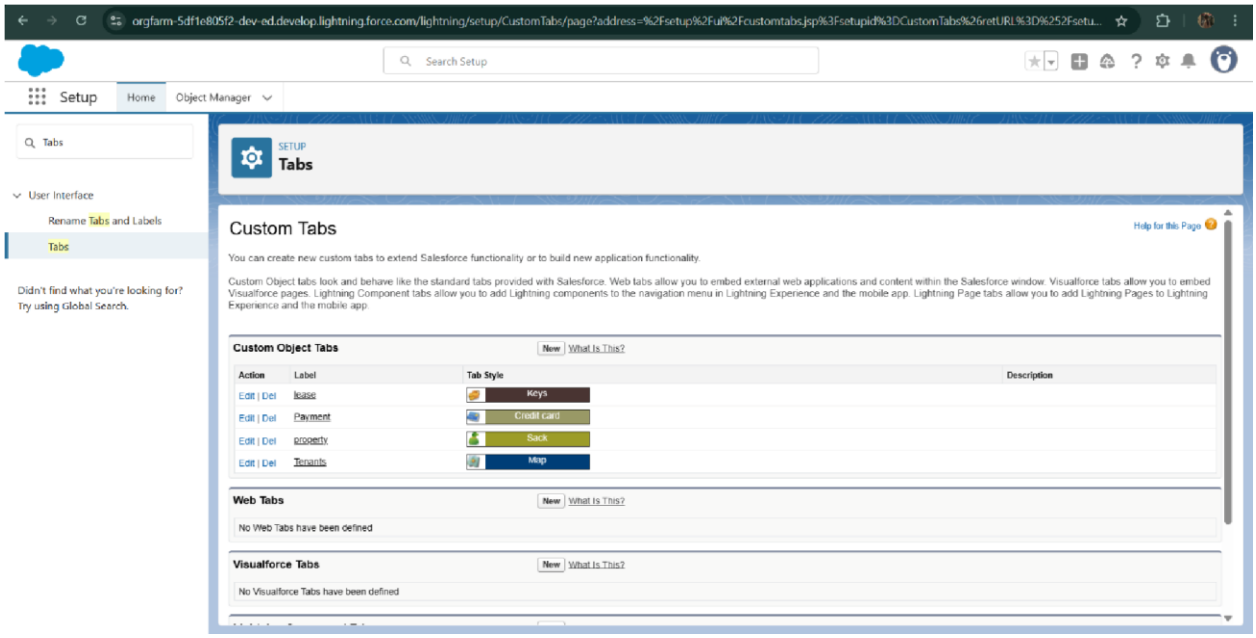




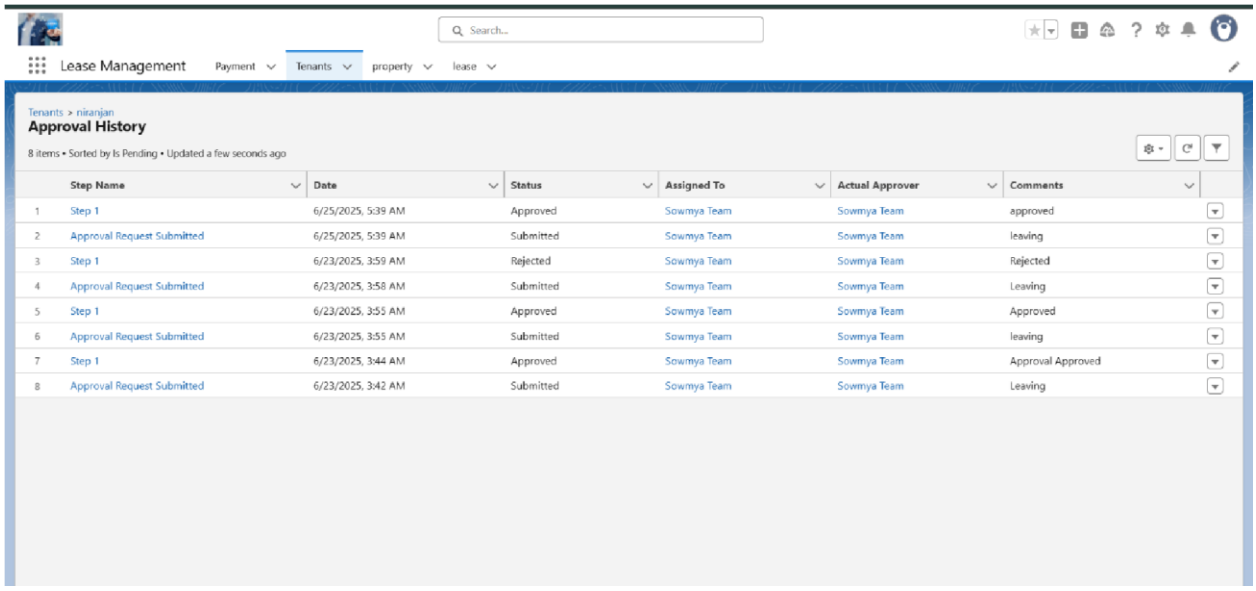
RESULTS

Output Screenshots

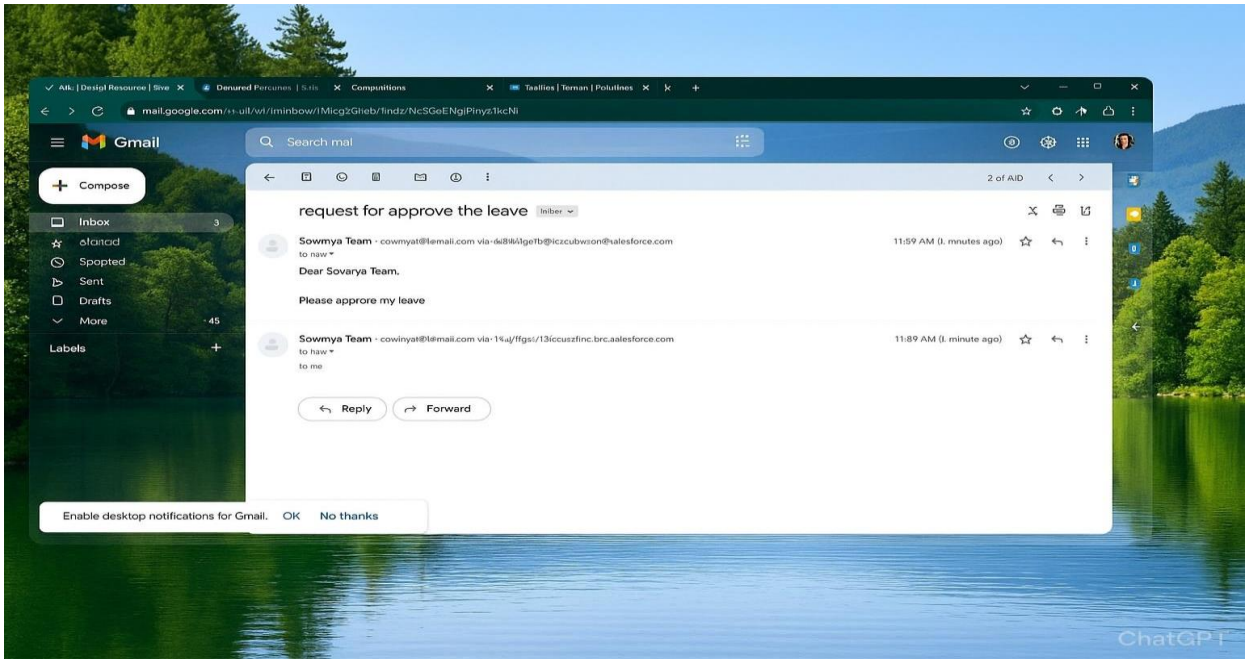
- Tabs for Property, Tenant, Lease, Payment



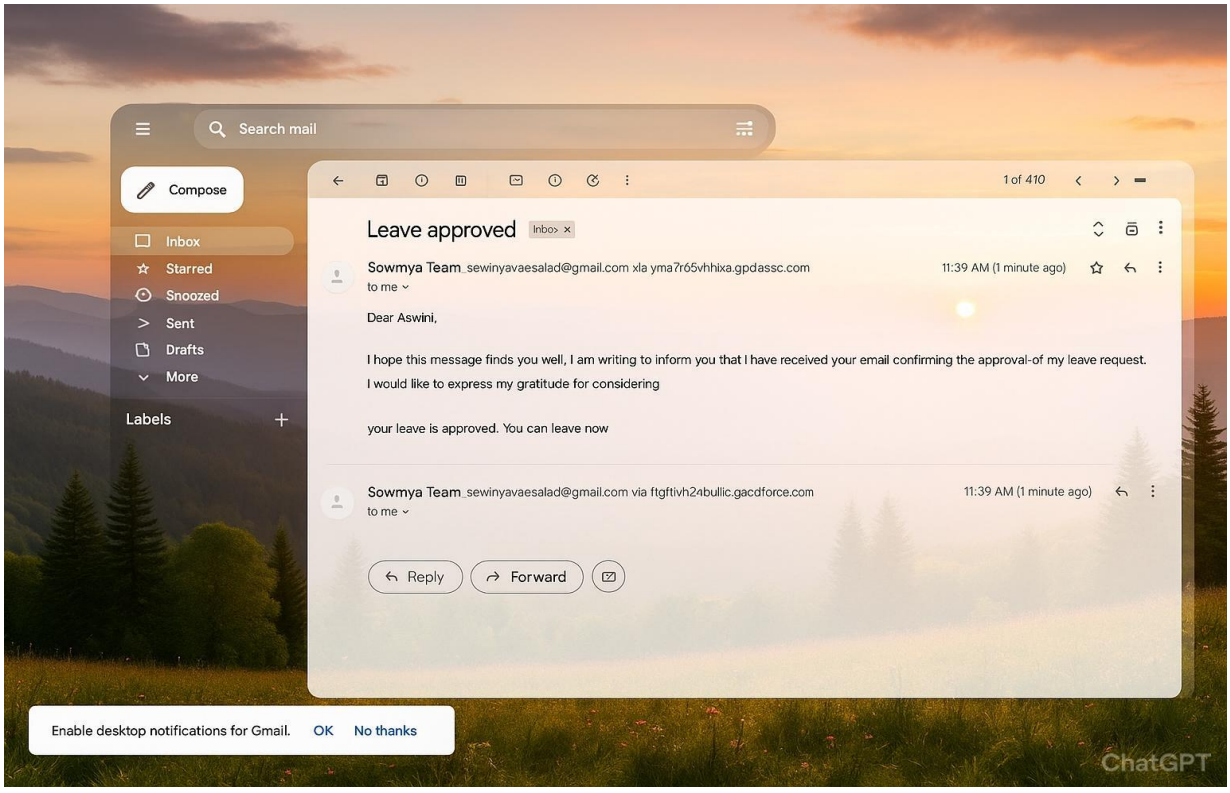
- Email alerts



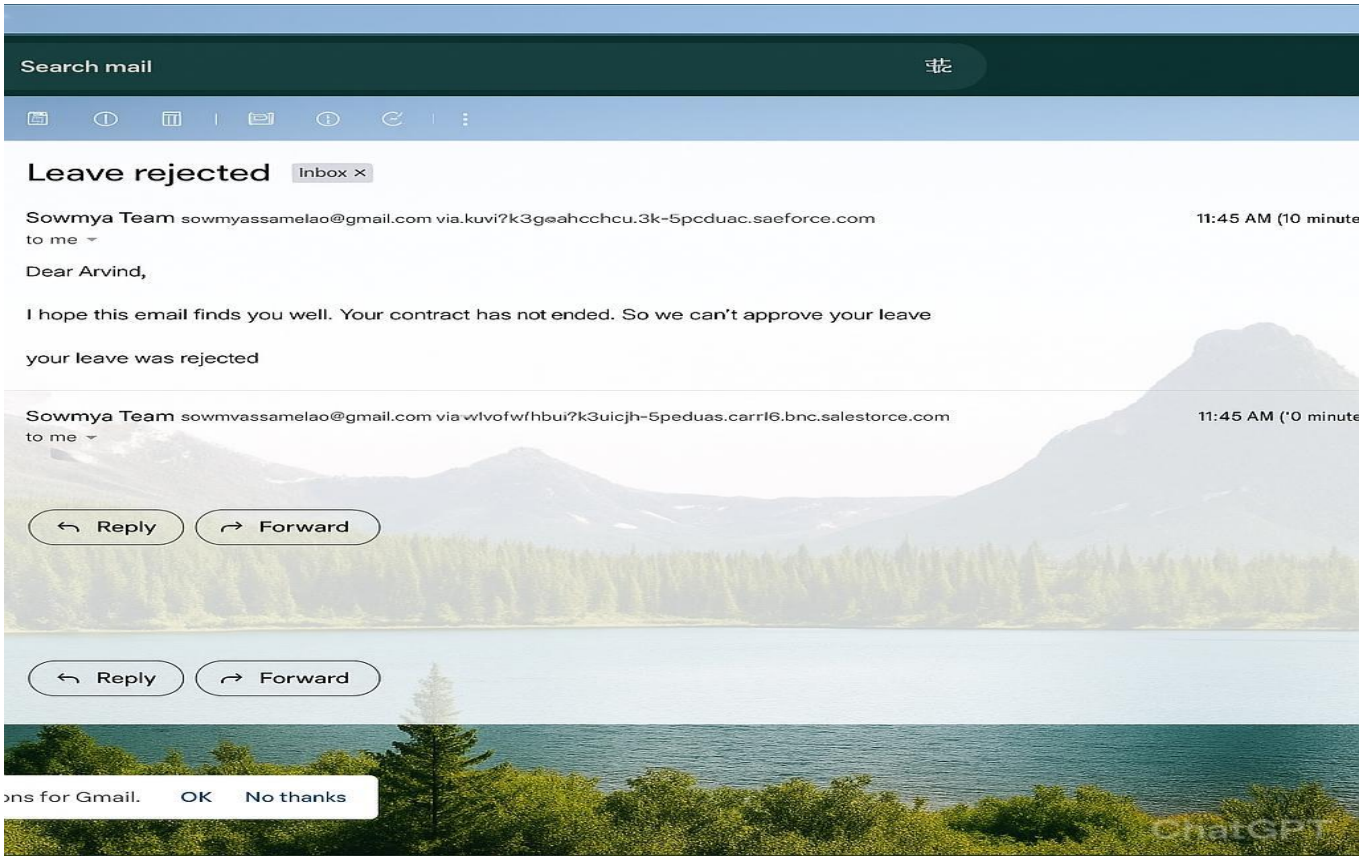
- Request for approve the leave



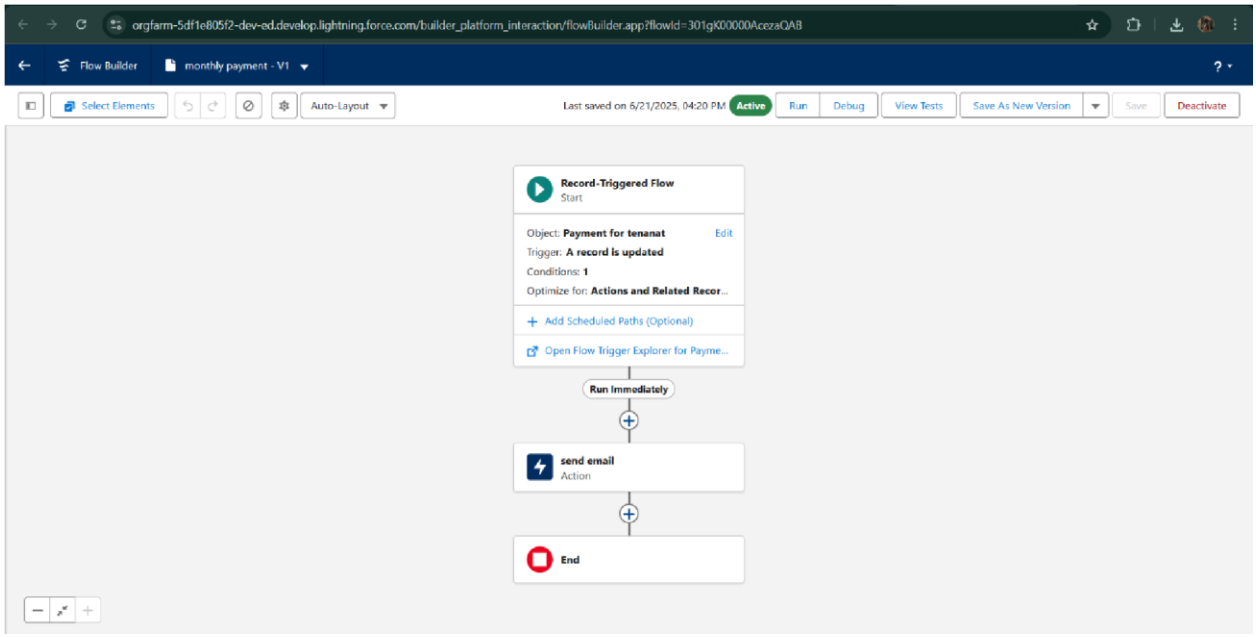
- Leave approved



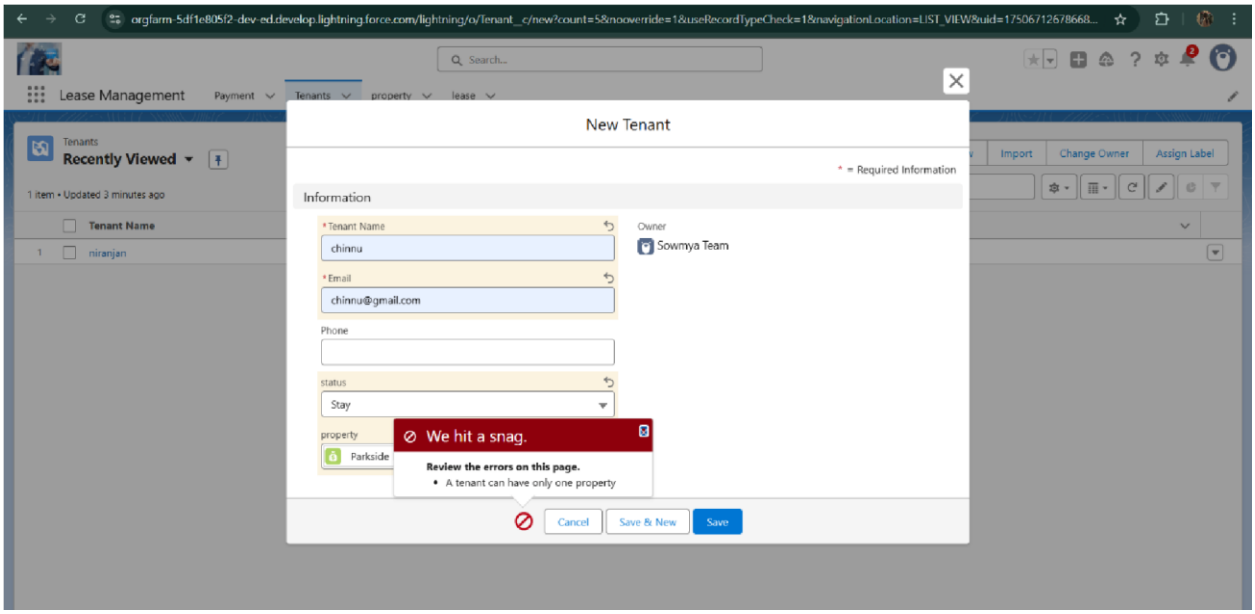
- Leave rejected



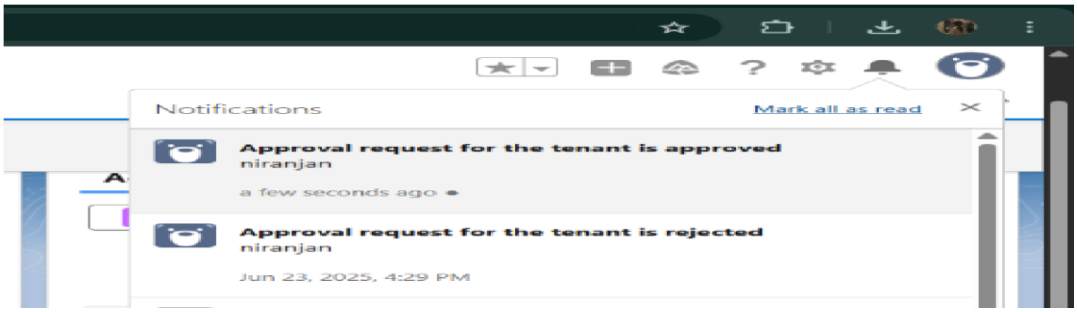
- Flow runs



- Trigger error messages



- Approval process notifications



ADVANTAGES & DISADVANTAGES

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CONCLUSION

The Lease Management System enhances leasing operations by leveraging a structured Salesforce application with automation, ensuring better efficiency, seamless communication, and accurate data management for both administrators 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});
            }
        }
}
```