LEASE MANAGEMENT

College Name: Kumaraguru College of Liberal Arts And Science
College Code: BRUAX

TEAM ID: **NM2025TMID25588**

TEAM MEMBERS: **4**

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Team Member: JISHNU J

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1.INTRODUCTION

1.1 Project Overview

The Lease Management System is a Salesforce-based application developed to simplify and streamline the end-to-end process of managing real estate leases. It helps organizations handle tenant information, lease agreements, payment schedules, and ongoing communications in one centralized platform. By leveraging automation features like flows, approval processes, and email alerts, the system reduces manual effort, speeds up operations, and improves overall efficiency.

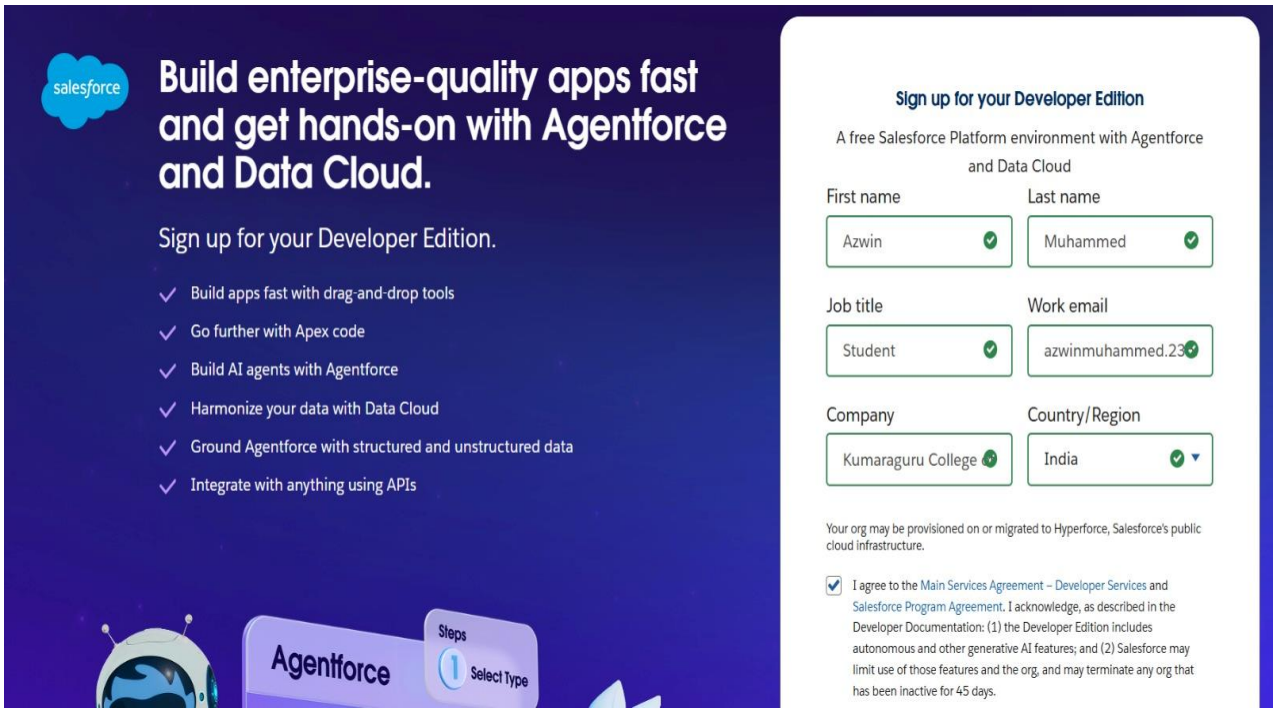
1.2 Purpose

The purpose of this project is to provide organizations with a reliable and efficient way to manage their properties, tenants, and lease-related activities. By minimizing manual tasks and ensuring accurate, up-to-date information, the system supports better compliance, enhances communication, and enables teams to focus on delivering a seamless experience to tenants and stakeholders.

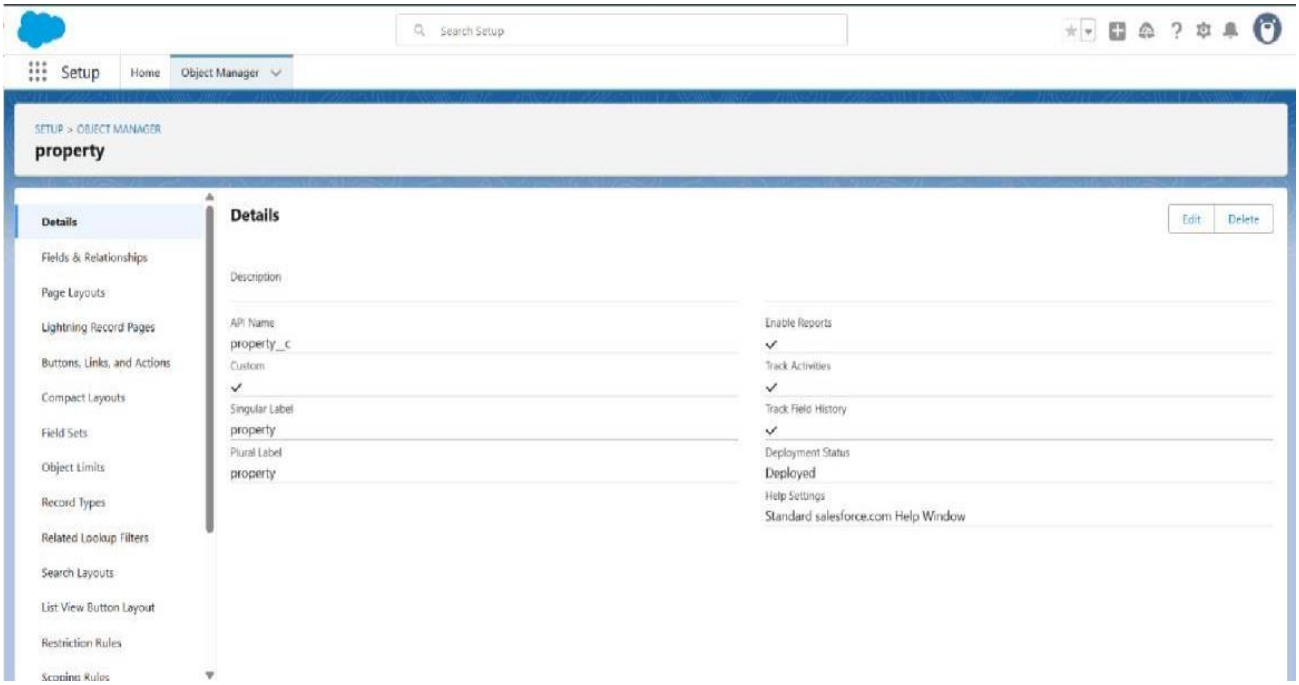
DEVELOPMENT PHASE

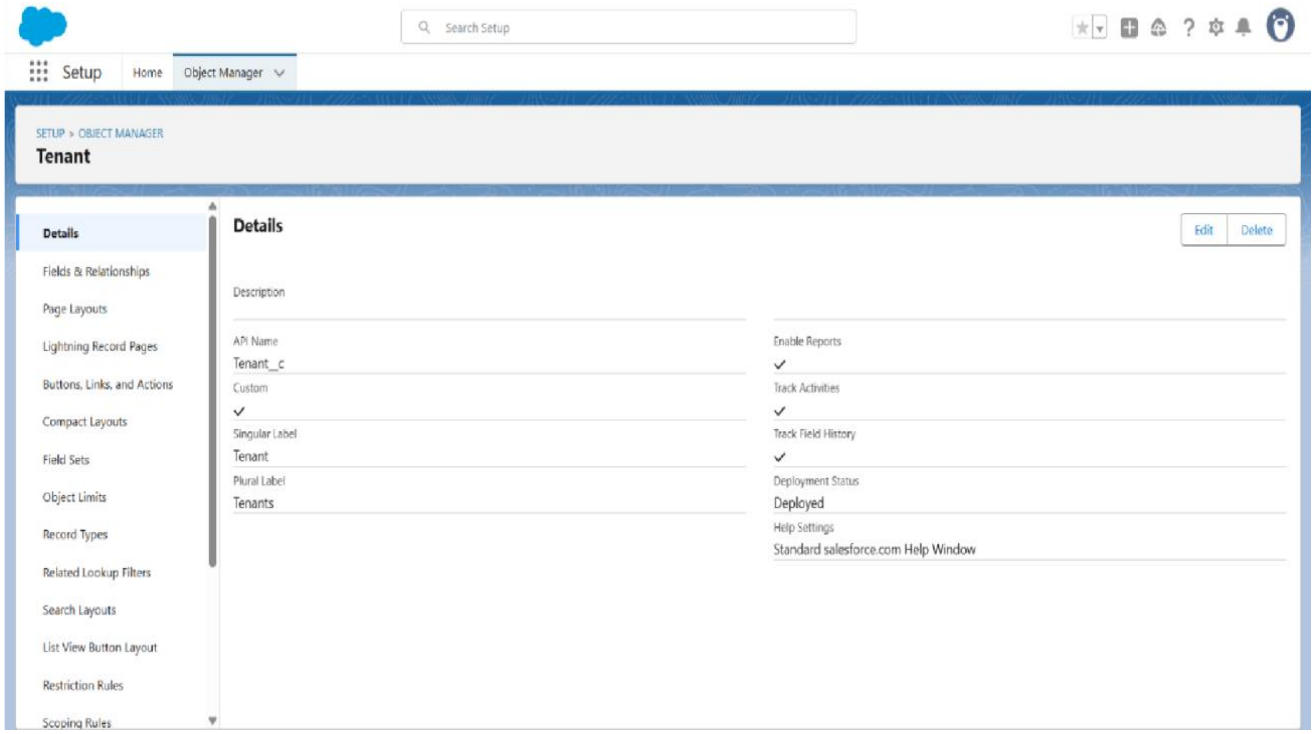
Creating Developer Account:

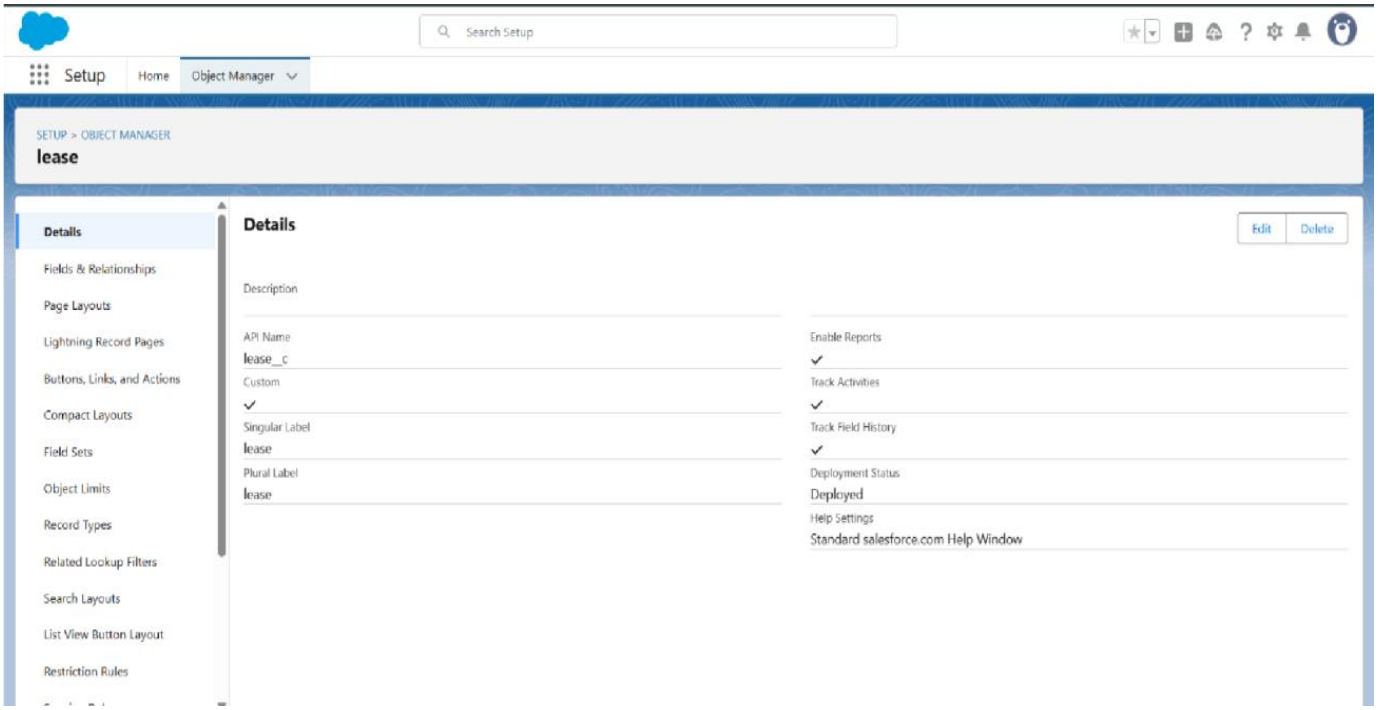
By using this URL - **https://www.salesforce.com/form/developer-signup/?d=pb**



- Created objects: Property, Tenant, Lease, Payment



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Setup
Home
Object 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
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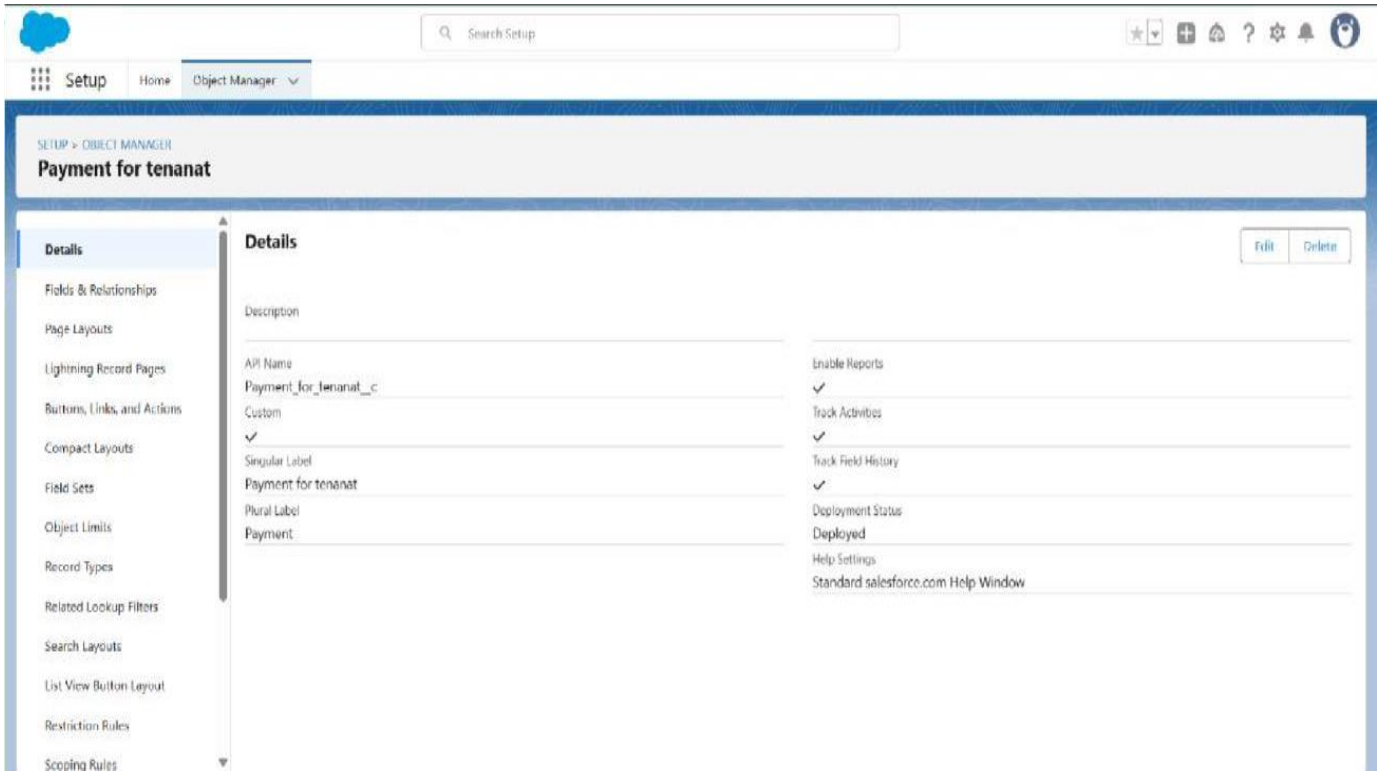
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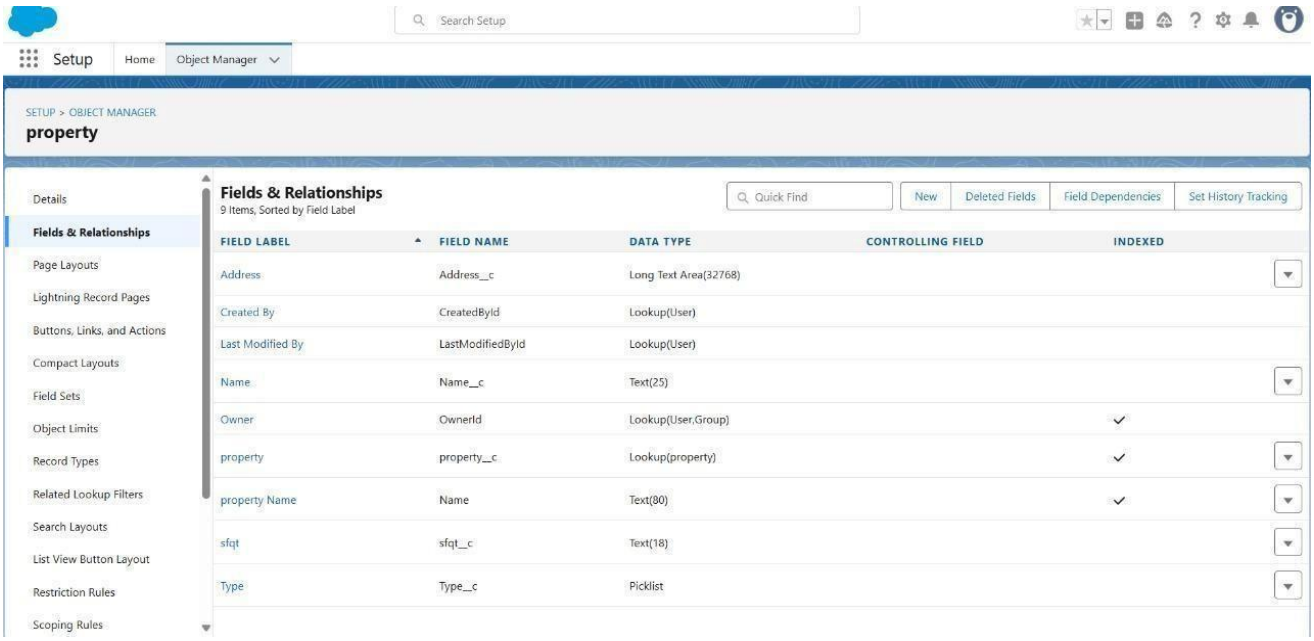
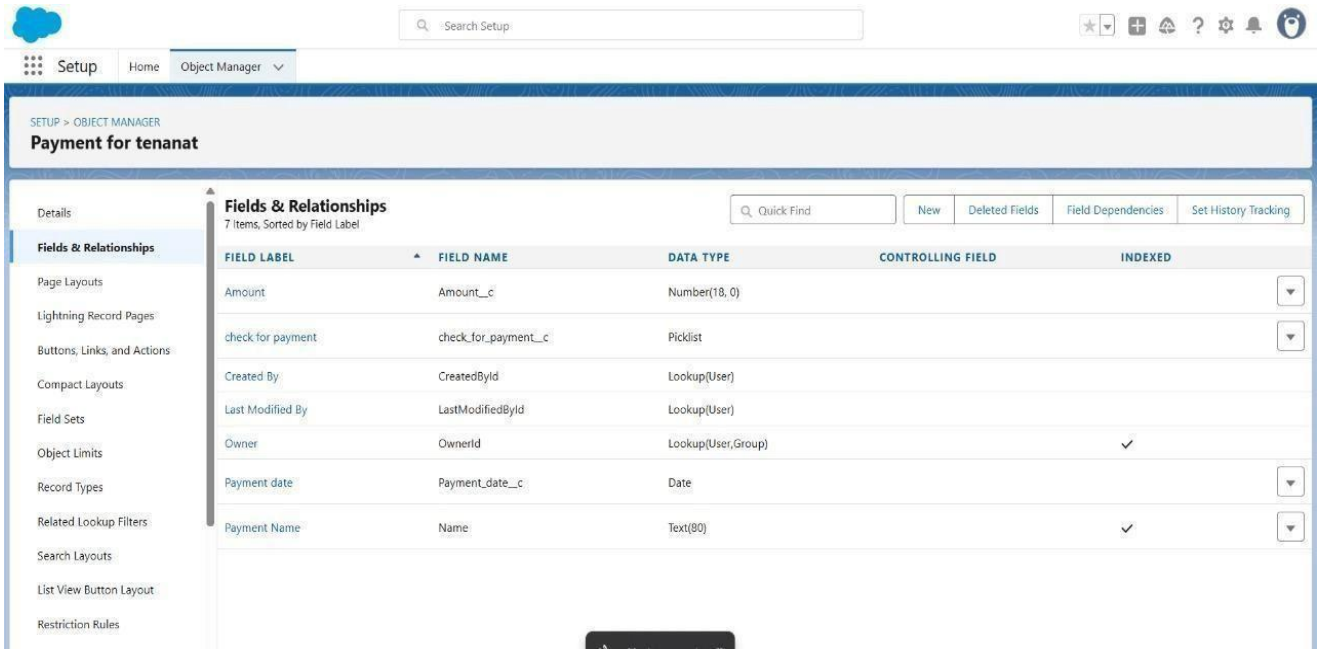
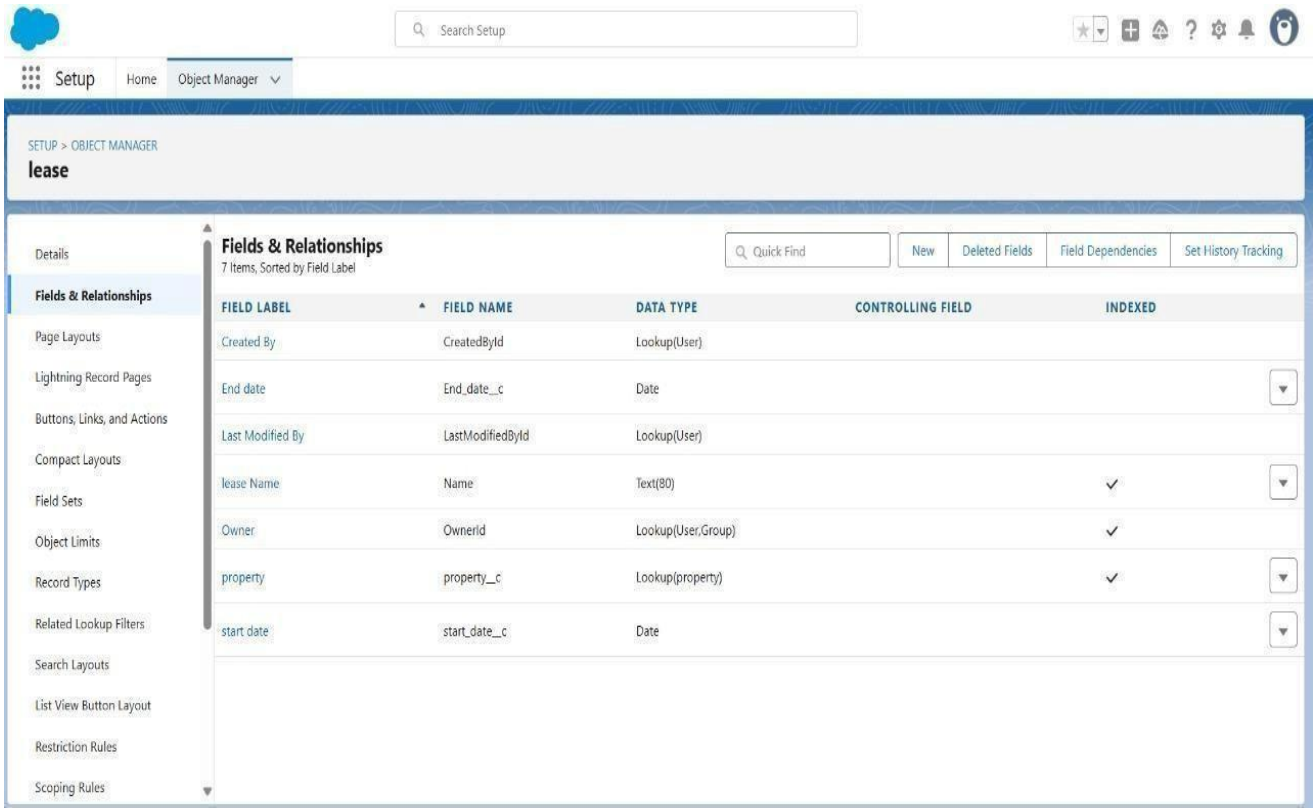
- Configured fields and relationships






Search Setup
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Fields & Relationships
Page Layouts
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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
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CreatedById
Lookup(User)
End date
End_date__c
Date
Last Modified By
LastModifiedById
Lookup(User)
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Lookup(User,Group)
property
property__c
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start date
start_date__c
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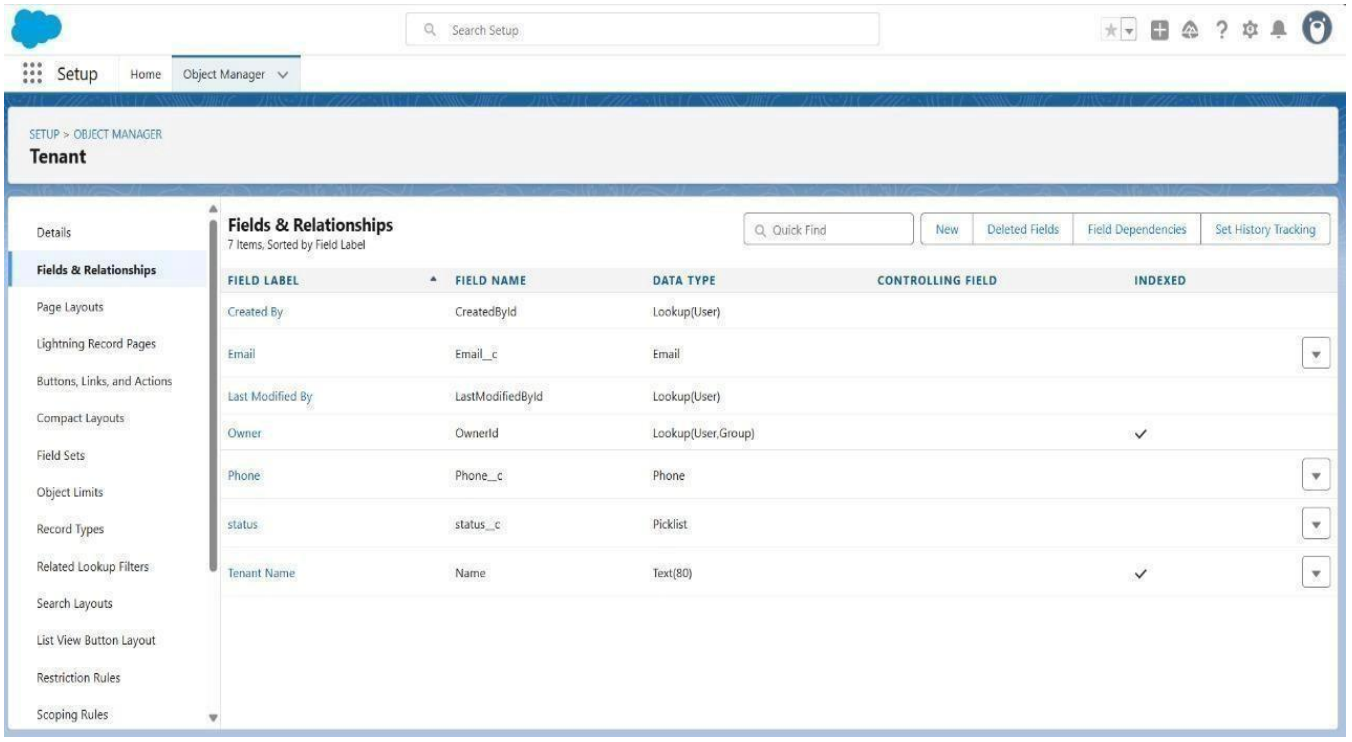
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Record Types
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Restriction Rules
Scoping Rules
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Created By
CreatedById
Lookup(User)
Email
Email__c
Email
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)
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Phone__c
Phone
status
status__c
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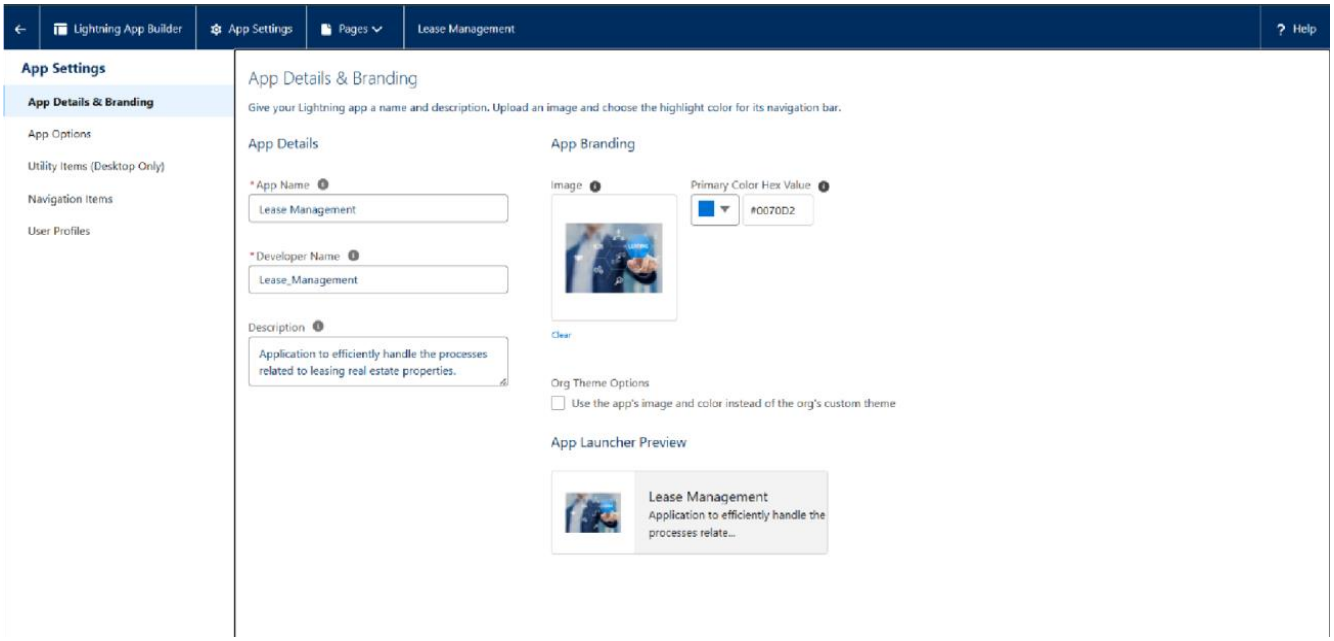
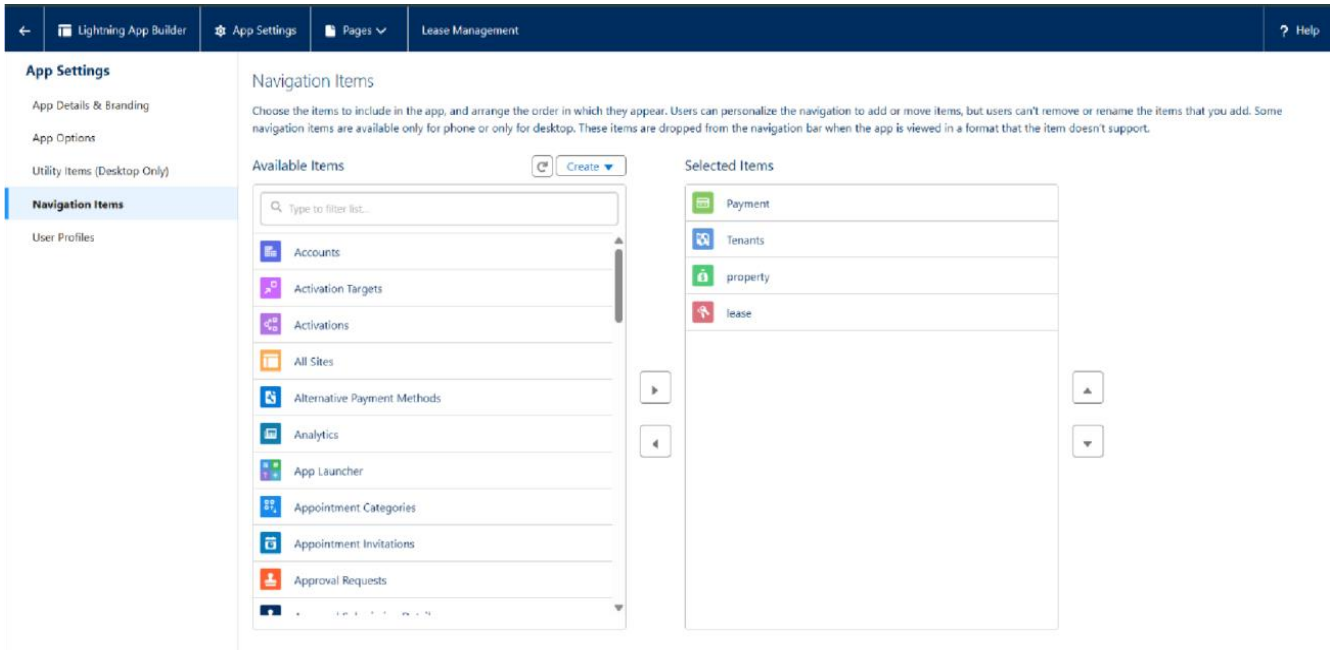
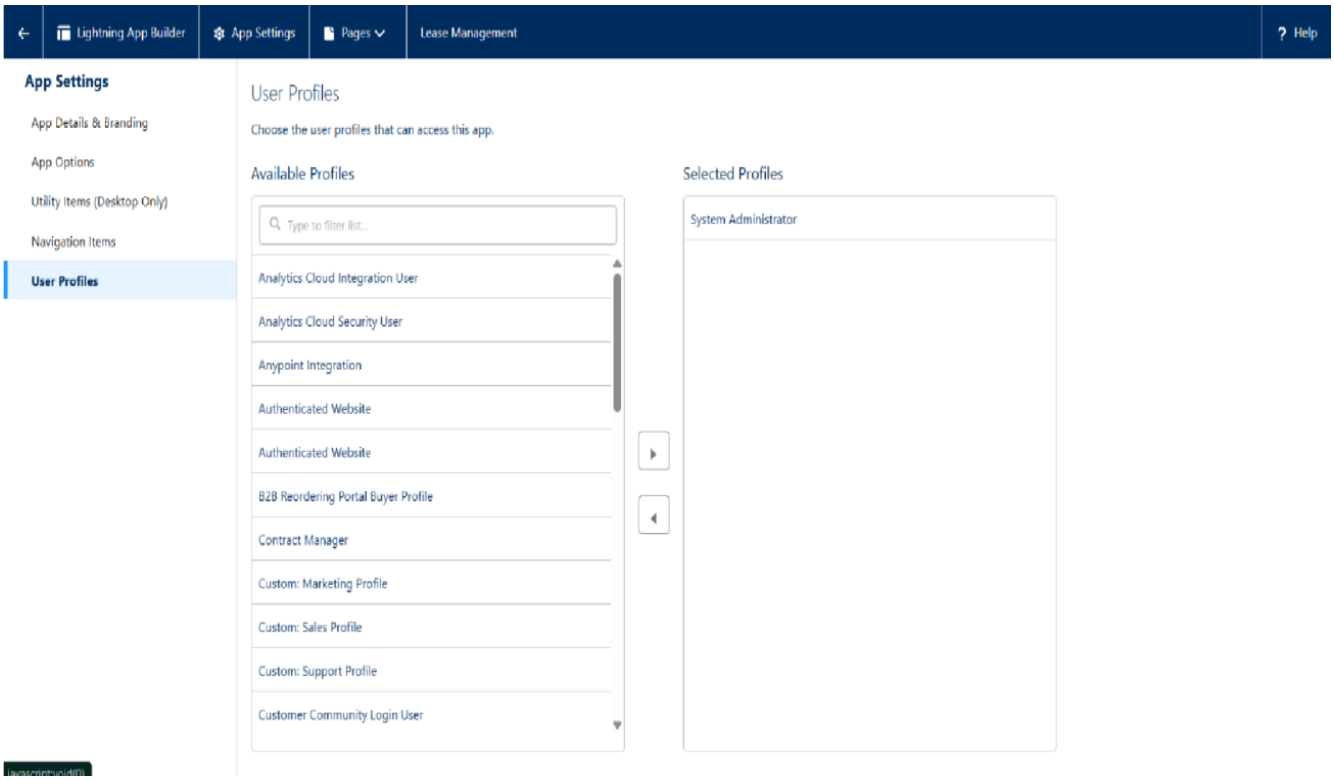
Tenant Name
Name
Text(80)

- Developed Lightning App with relevant tabs






Lightning App Builder
App Settings
Pages
Lease Management
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
User Profiles
Choose the user profiles that can access this app.
Available Profiles
Type to filter list...
Analytics Cloud Integration User
Analytics Cloud Security User
Anypoint Integration
Authenticated Website
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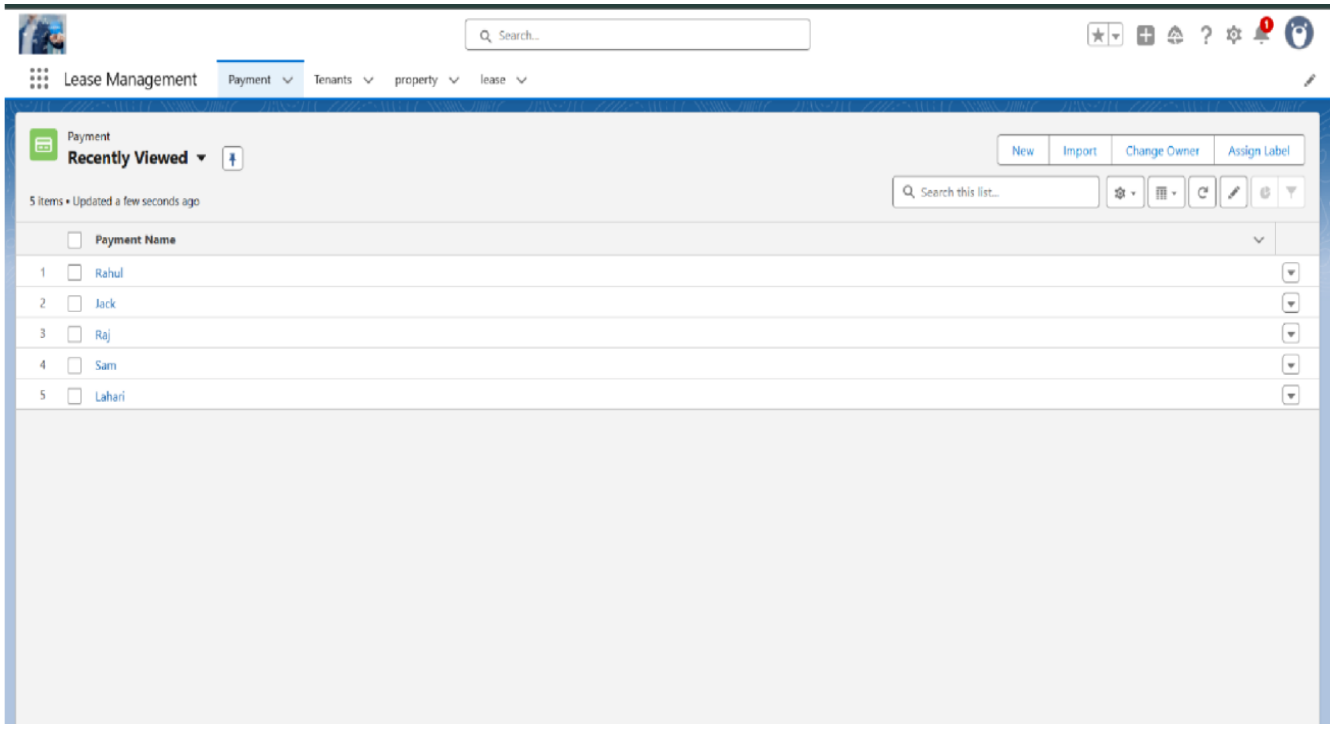
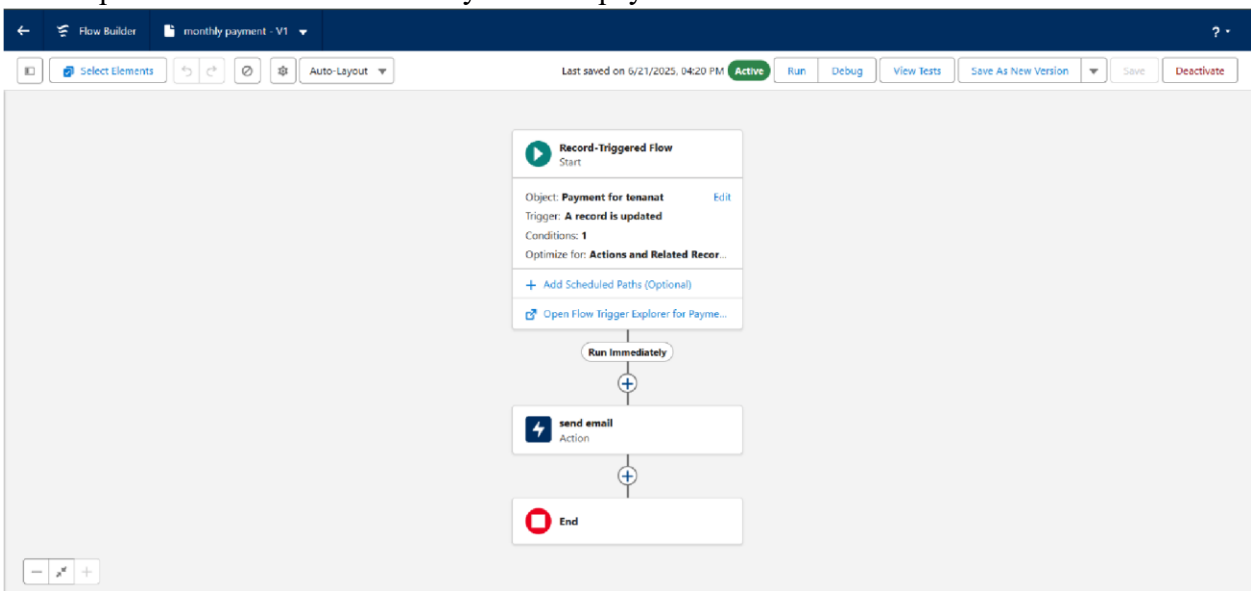
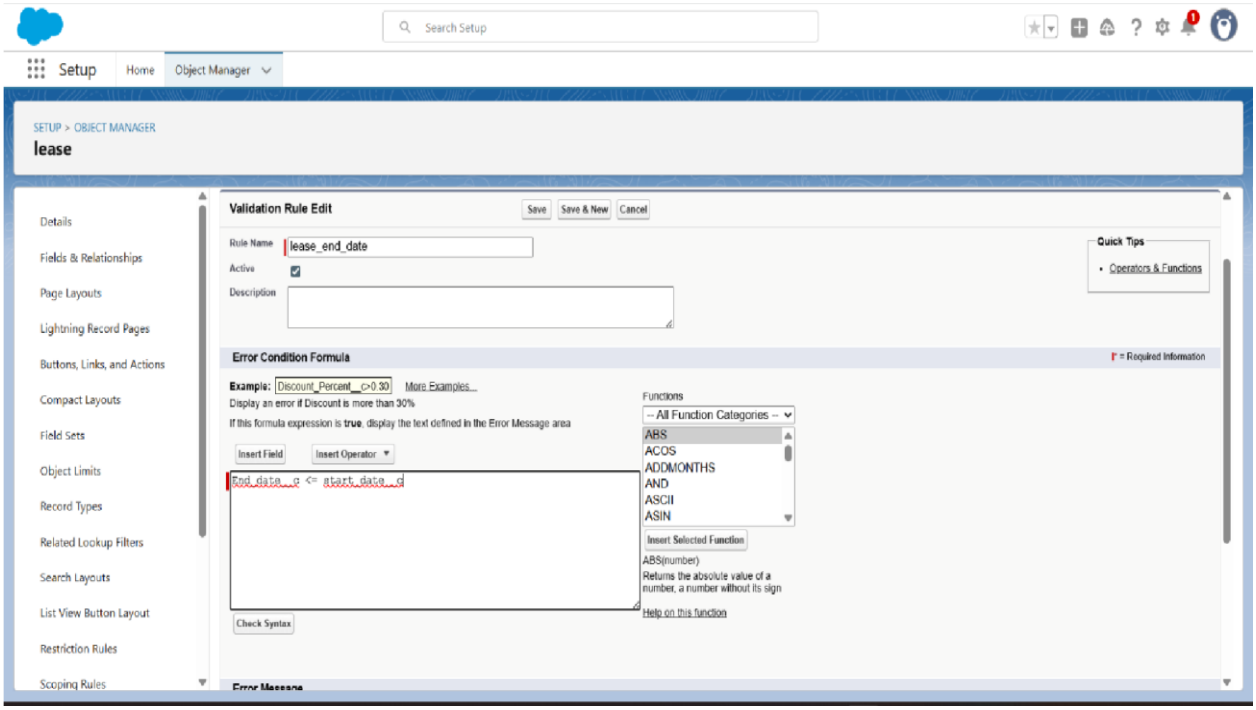
B2B Reordering Portal Buyer Profile
Contract Manager
Custom: Marketing Profile
Custom: Sales Profile
Custom: Support Profile
Customer Community Login User
Selected Profiles
System Administrator

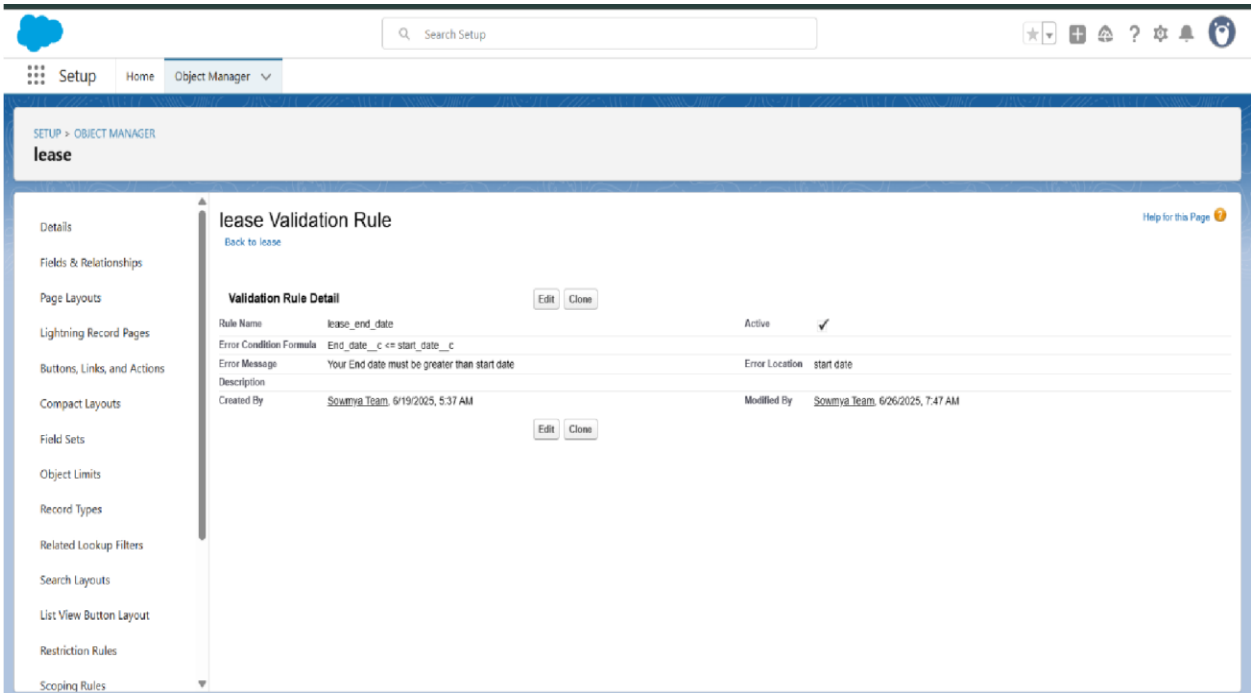

Search...
Lease Management
Payment
Tenants
property
lease
Payment
Recently Viewed
5 items • Updated a few seconds ago
New
Import
Change Owner
Assign Label
Search this list...
Payment Name
1 Rahul
2 Jack
3 Raj
4 Sam
5 Lahari

- Implemented Flows for monthly rent and payment success

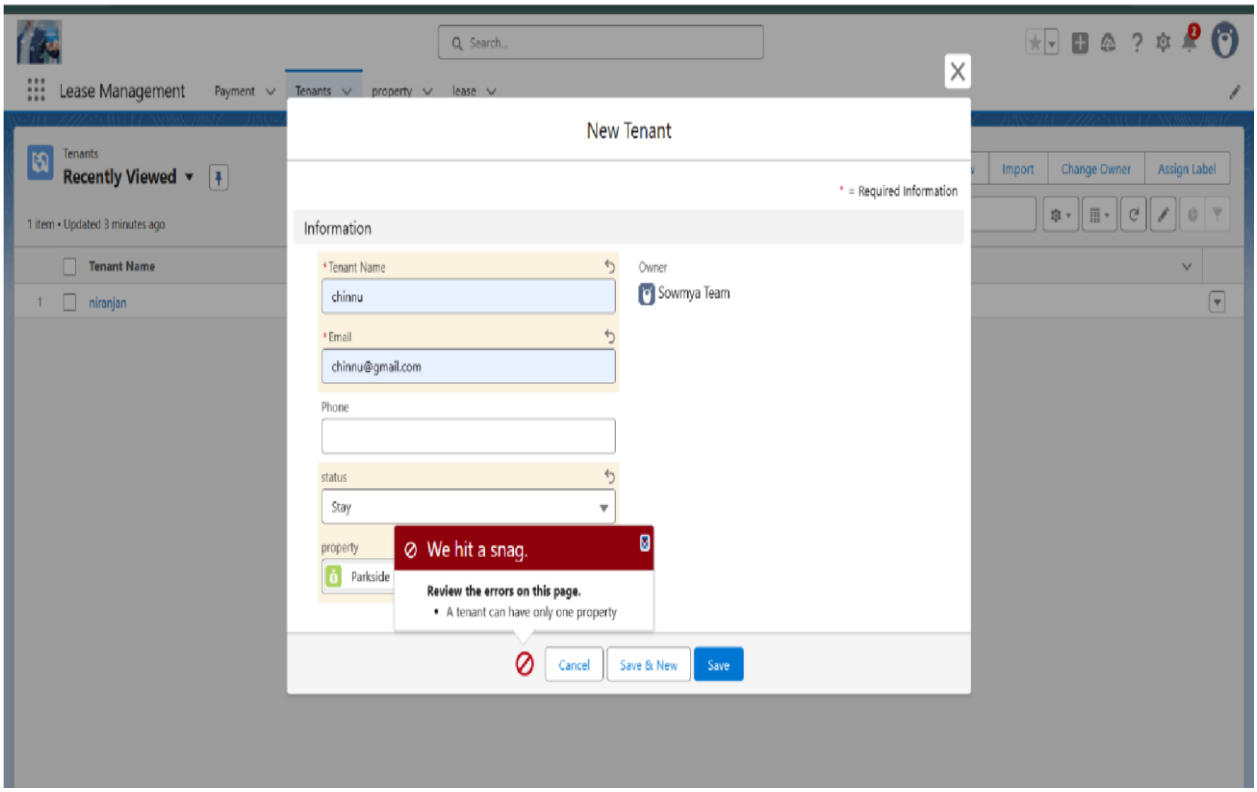


- To create a validation rule to a Lease Object

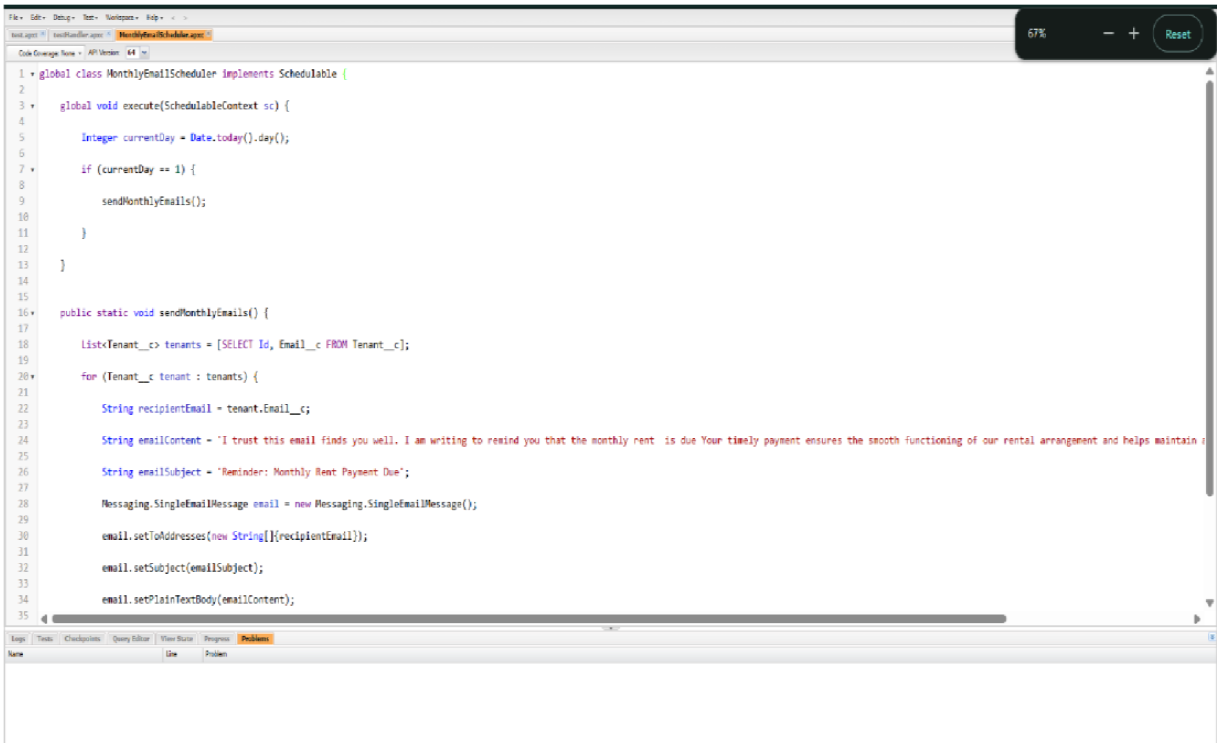




- Added Apex trigger to restrict multiple tenants per property

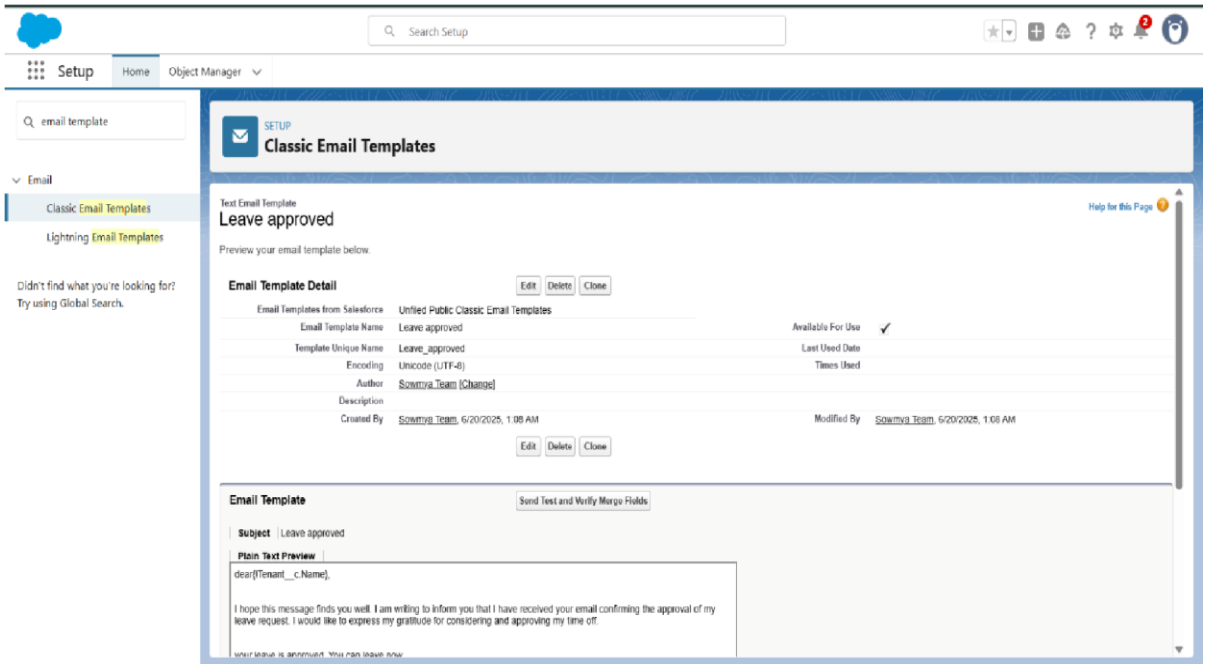


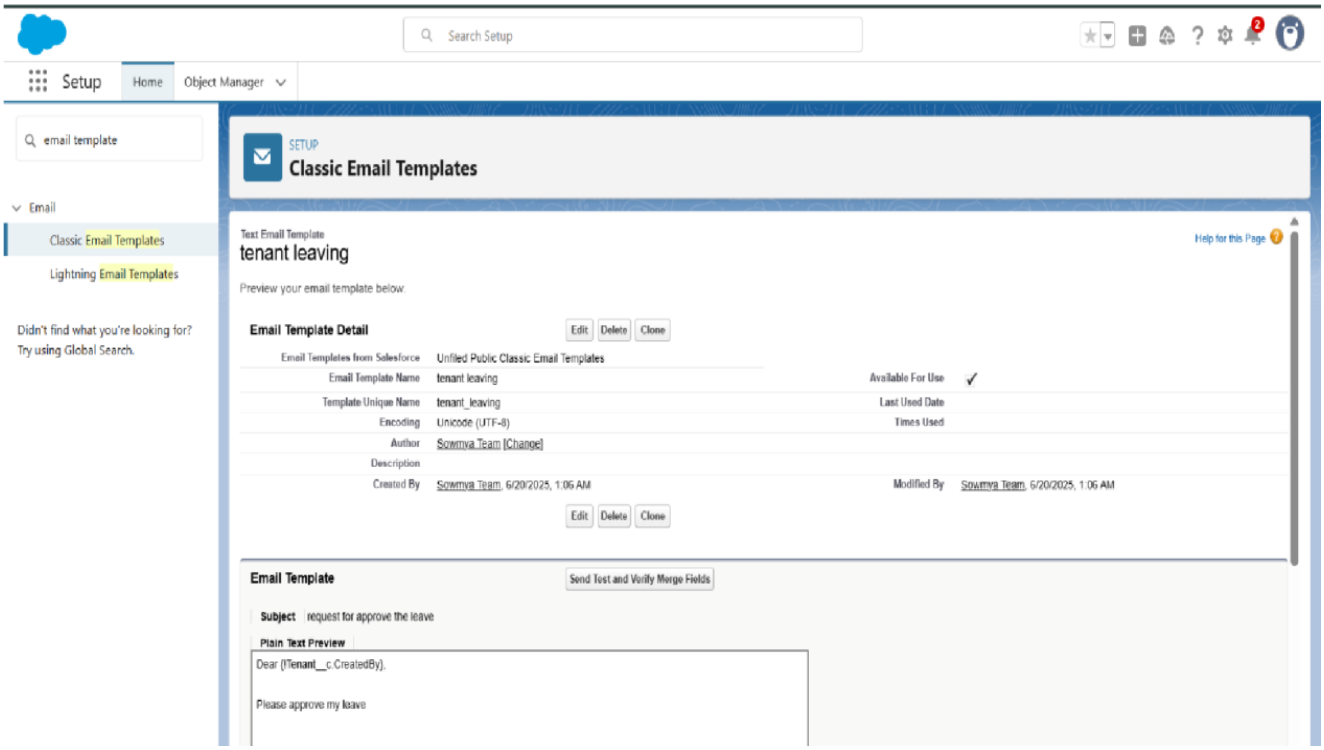
- Scheduled monthly reminder emails using Apex class



```
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
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email template
Email
Classic Email Templates
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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
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Template Unique Name
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Last Used Date
Encoding
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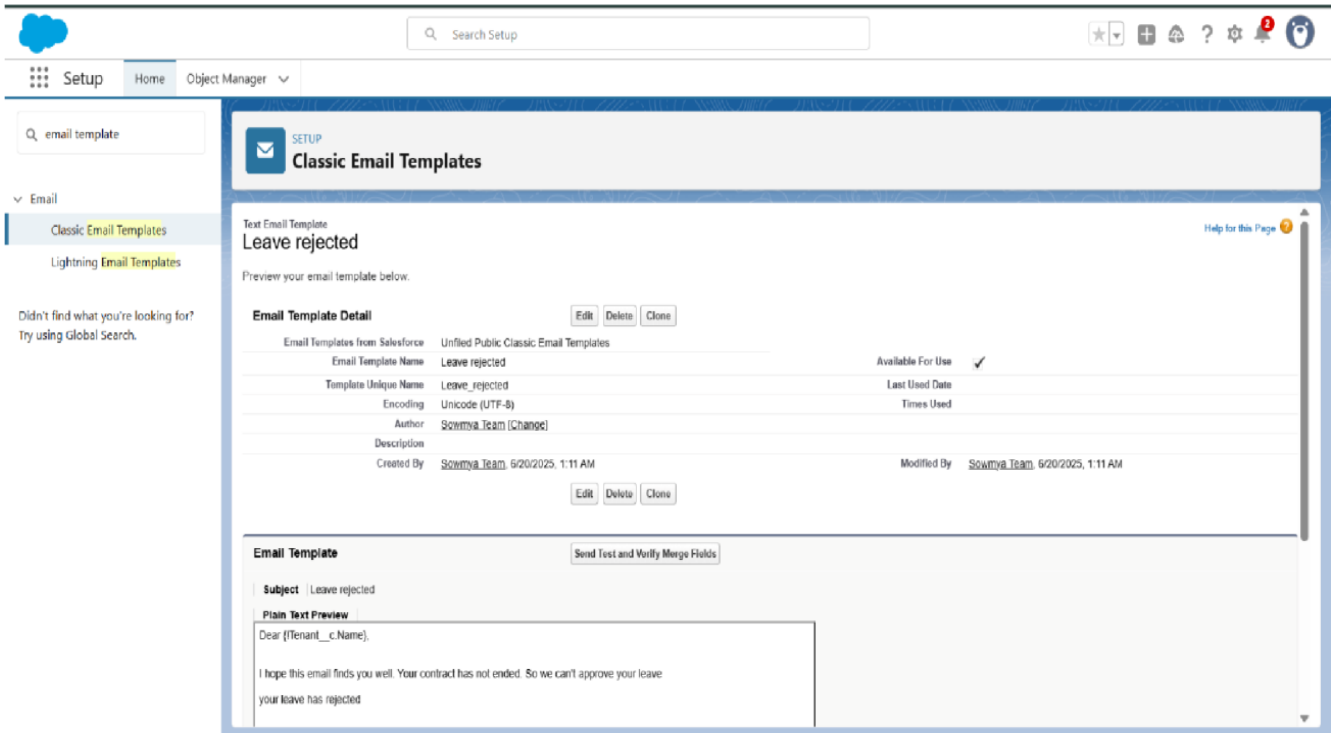
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:06 AM
Modified By
Sowmya Team, 6/20/2025, 1:06 AM
Email Template
Send Test and Verify Merge Fields
Subject
request for approve the leave
Plain Text Preview
Dear {!Tenant__c.CreatedBy},
Please approve my leave


Search Setup
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email template
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Didn't find what you're looking for?
Try using Global Search.
SETUP
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Help for this Page
Preview your email template below.
Email Template Detail
Edit
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Clone
Email Templates from Salesforce
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Leave rejected
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Template Unique Name
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Author
Sowmya Team [Change]
Description
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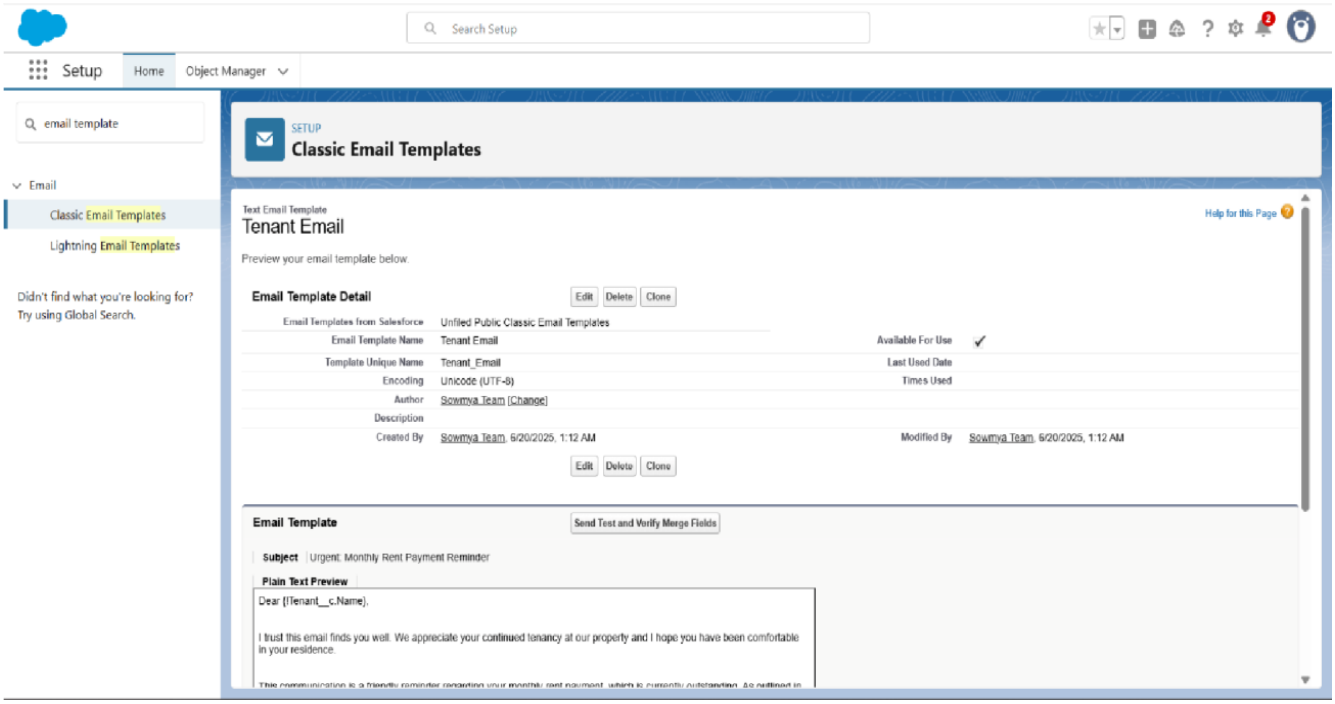
Sowmya Team, 6/20/2025, 1:11 AM
Modified By
Sowmya Team, 6/20/2025, 1:11 AM
Email Template
Send Test and Verify Merge Fields
Subject
Leave rejected
Plain Text Preview
Dear {!Tenant__c.Name},
I hope this email finds you well. Your contract has not ended. So we can't approve your leave
your leave has rejected


Search Setup
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Preview your email template below.
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Clone
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Unfiled Public Classic Email Templates
Email Template Name
Tenant Email
Available For Use
Template Unique Name
Tenant_Email
Last Used Date
Encoding
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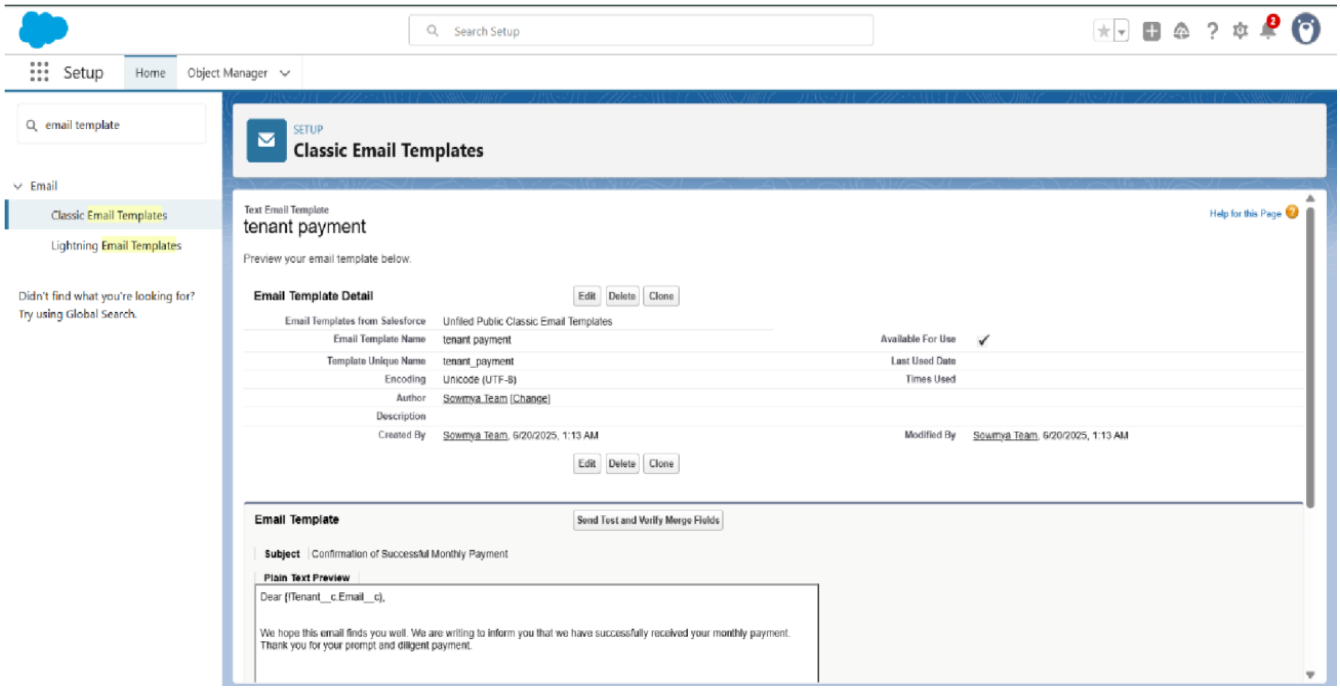
Times Used
Author
Sowmya Team [Change]
Description
Created By
Sowmya Team, 6/20/2025, 1:12 AM
Modified By
Sowmya Team, 6/20/2025, 1:12 AM
Email Template
Send Test and Verify Merge Fields
Subject
Urgent: Monthly Rent Payment Reminder
Plain Text Preview
Dear {!Tenant__c.Name},
I trust this email finds you well. We appreciate your continued tenancy at our property and I hope you have been comfortable in your residence.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Didn't find what you're looking for?
Try using Global Search.
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Help for this Page
Preview your email template below.
Email Template Detail
Edit
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Clone
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Available For Use
Template Unique Name
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Encoding
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Author
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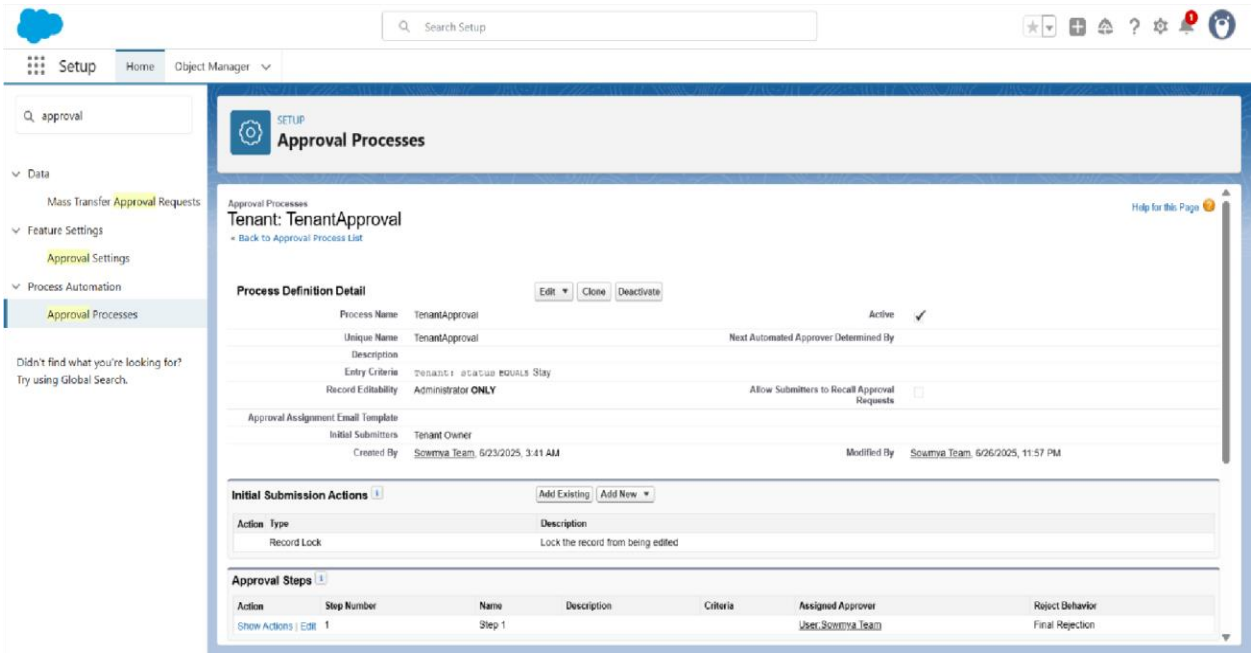
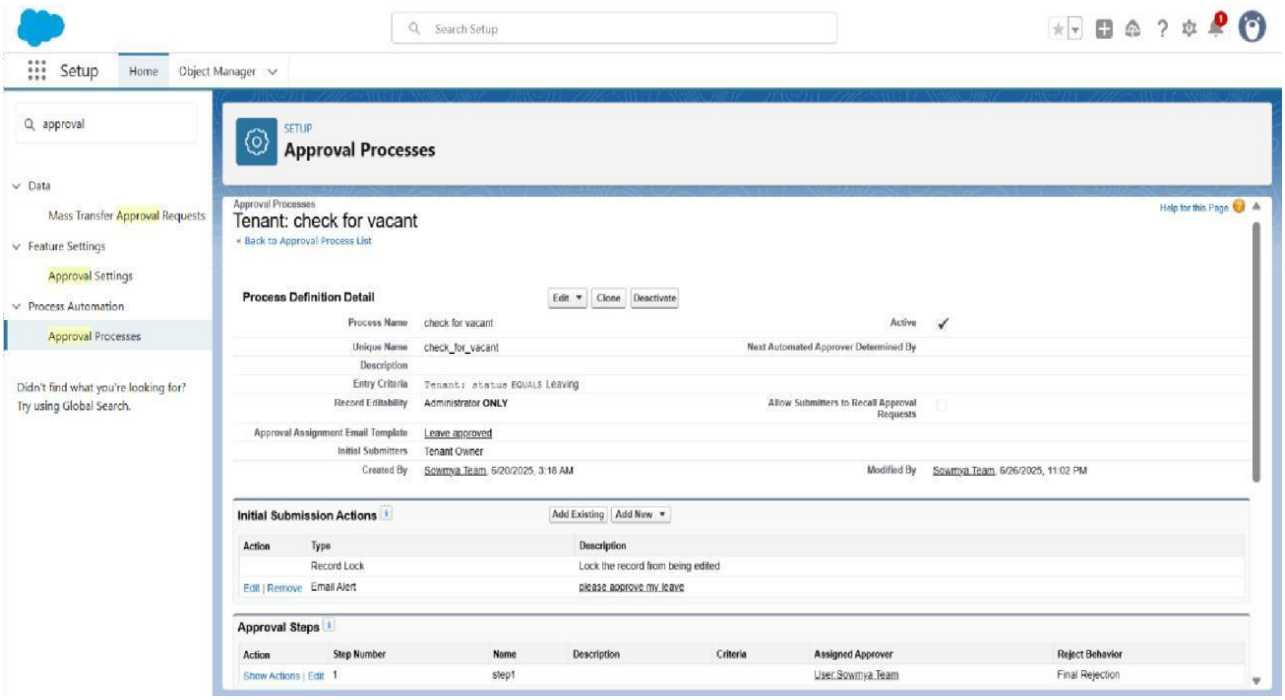
Description
Created By
Sowmya Team, 6/20/2025, 1:13 AM
Modified By
Sowmya Team, 6/20/2025, 1:13 AM
Email Template
Send Test and Verify Merge Fields
Subject
Confirmation of Successful Monthly Payment
Plain Text Preview
Dear {!Tenant__c.Email__c},
We hope this email finds you well. We are writing to inform you that we have successfully received your monthly payment.
Thank you for your prompt and diligent payment.

- Approval Process creation

For Tenant Leaving:

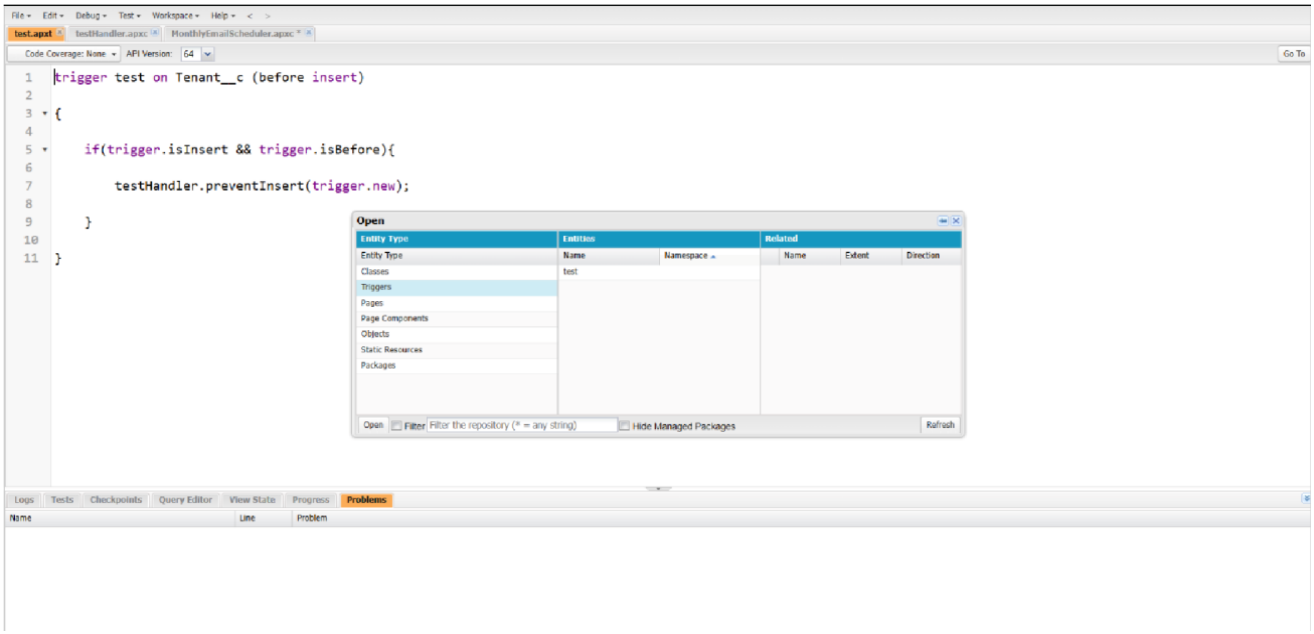


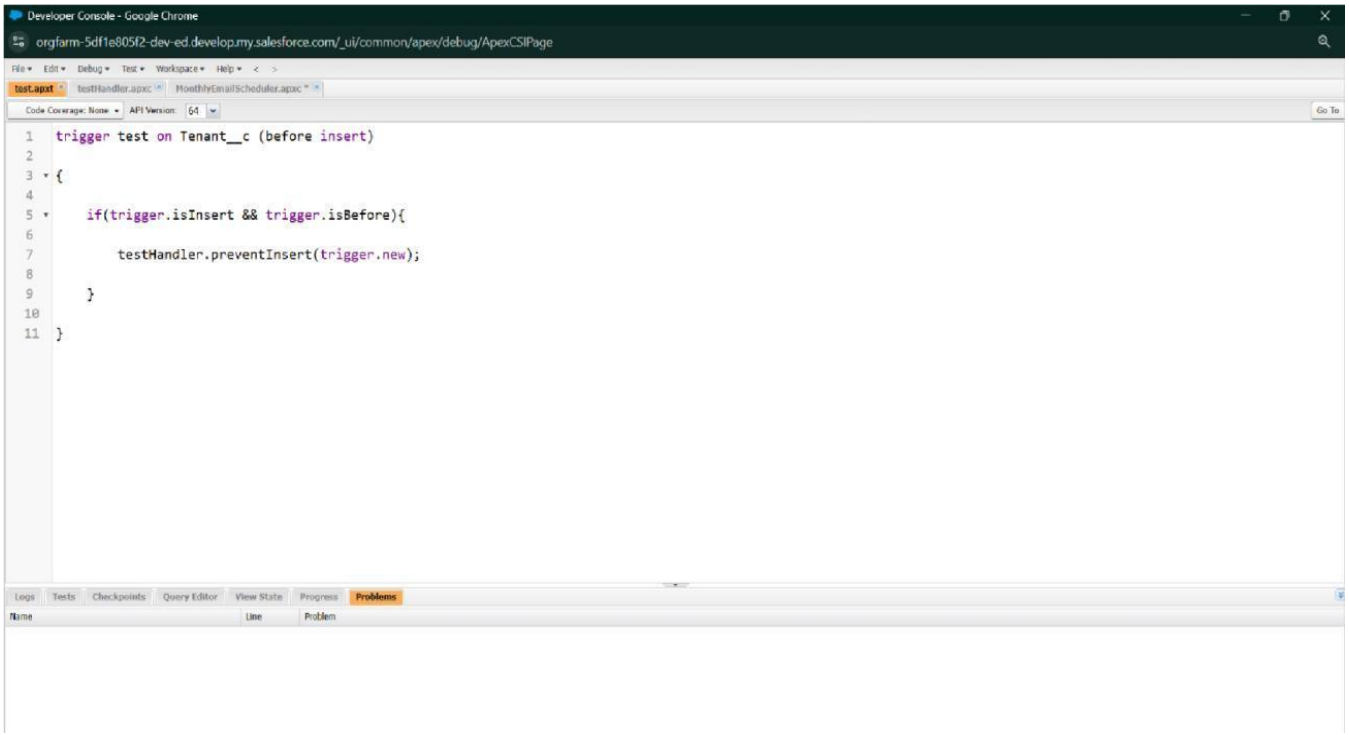
For Check for Vacant:



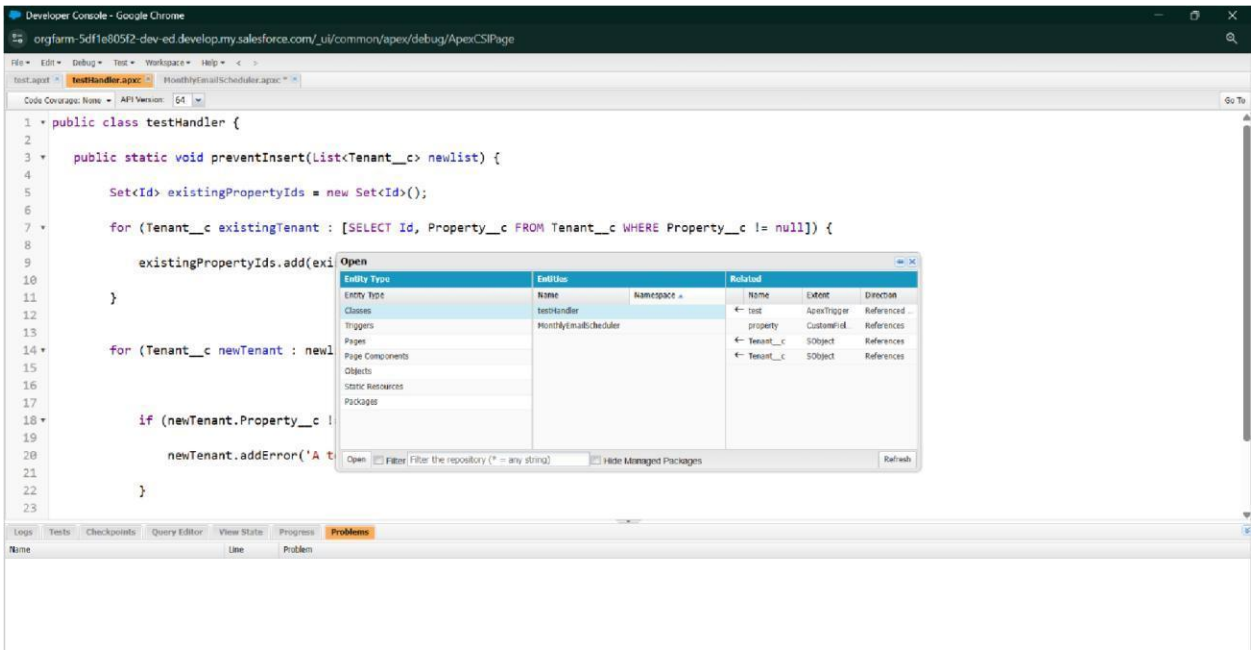
- Apex Trigger

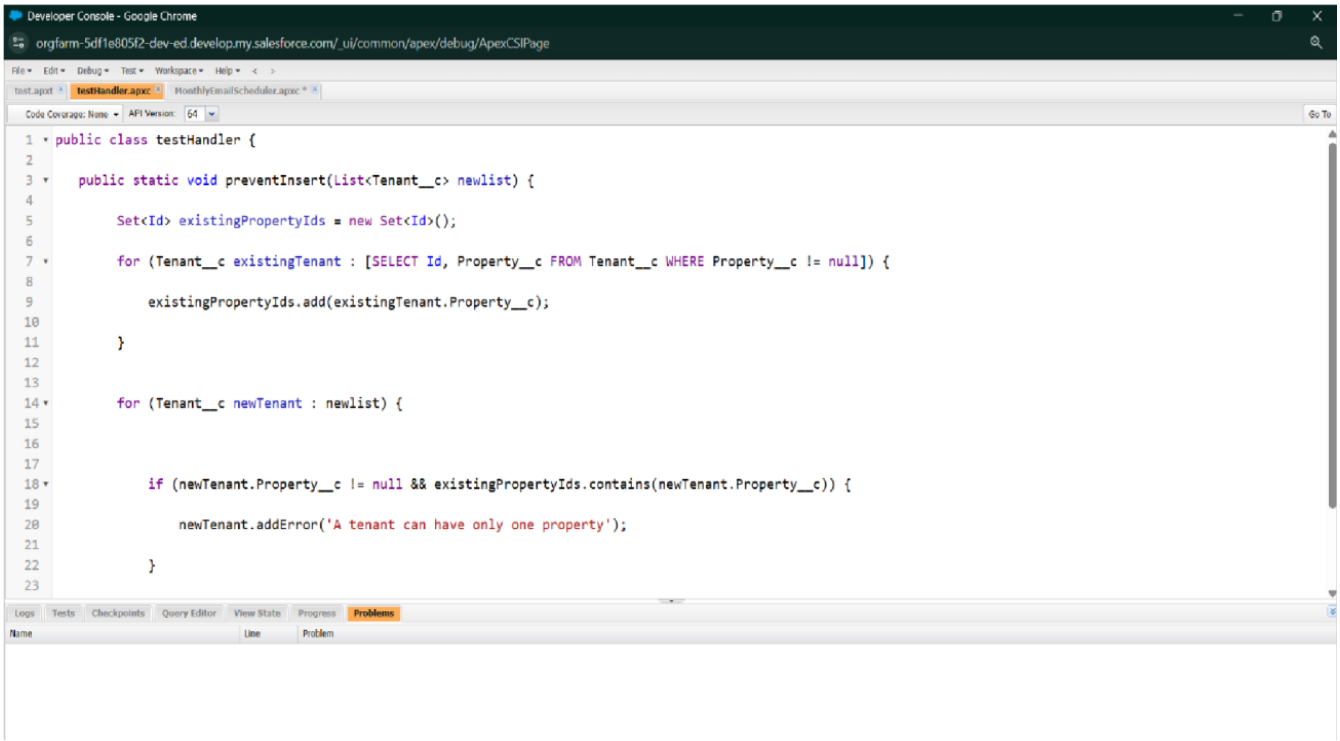
  Create an Apex Trigger



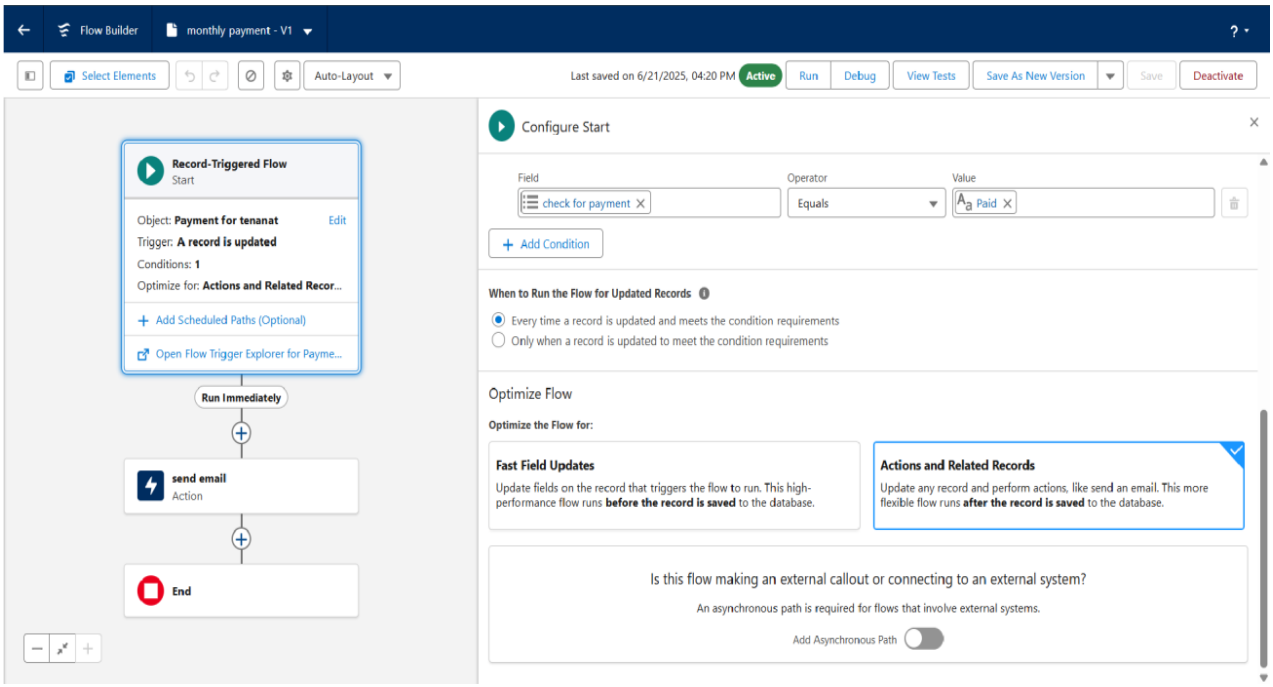


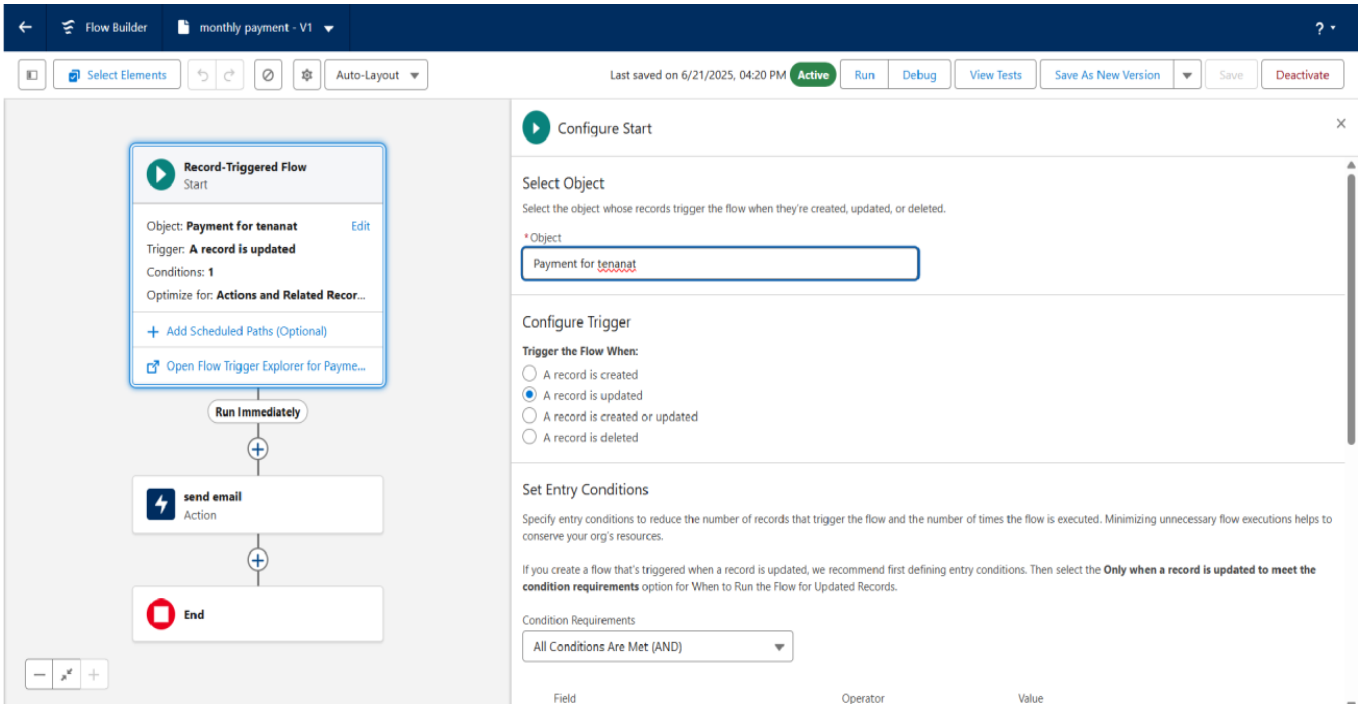
Create an Apex Handler class



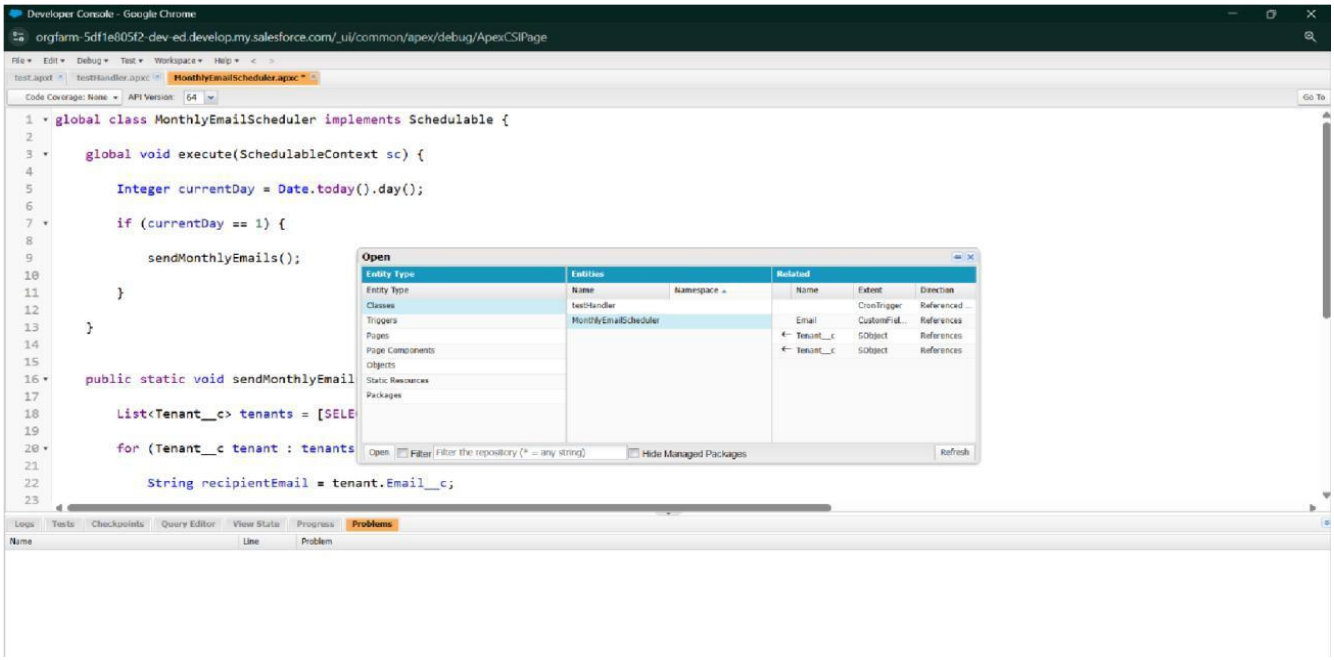


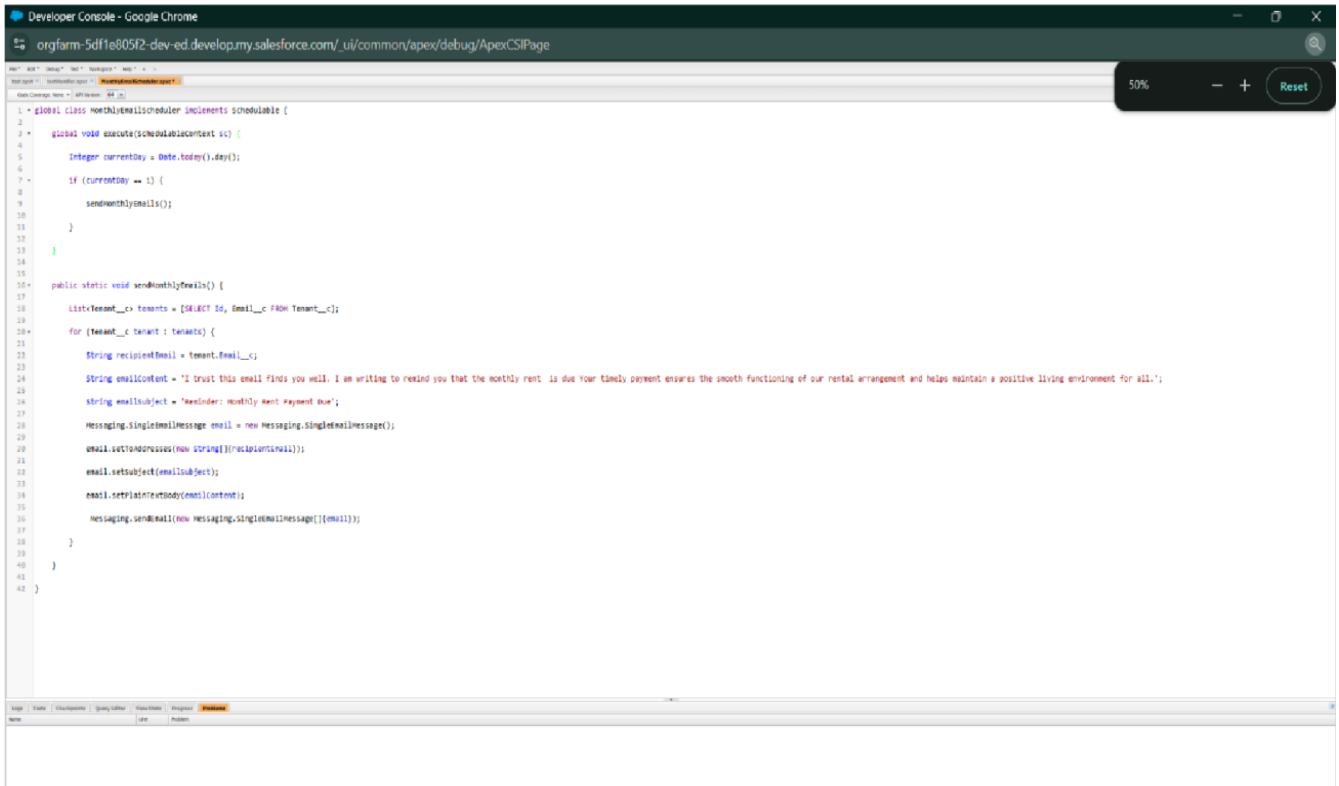
- FLOWS


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

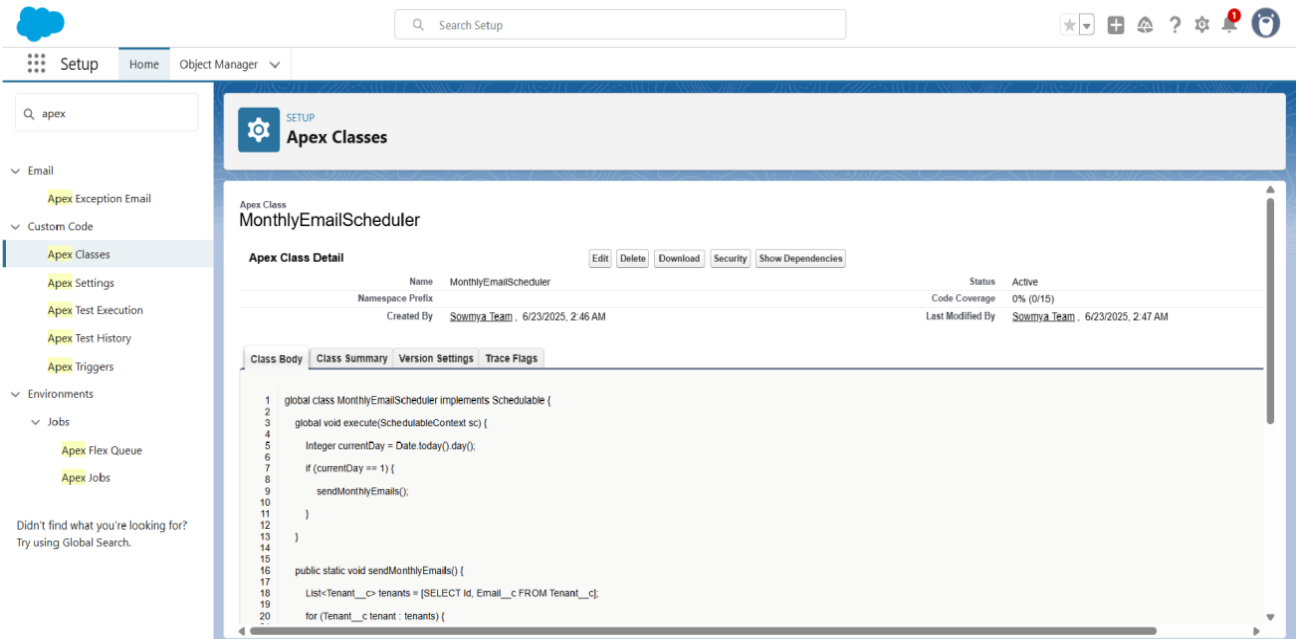

Flow Builder
monthly payment - V1
Select Elements
Auto-Layout
Last saved on 6/21/2025, 04:20 PM
Active
Run
Debug
View Tests
Save As New Version
Save
Deactivate
Record-Triggered Flow
Start
Object: Payment for tenanat
Edit
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...
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)
Field
Operator
Value

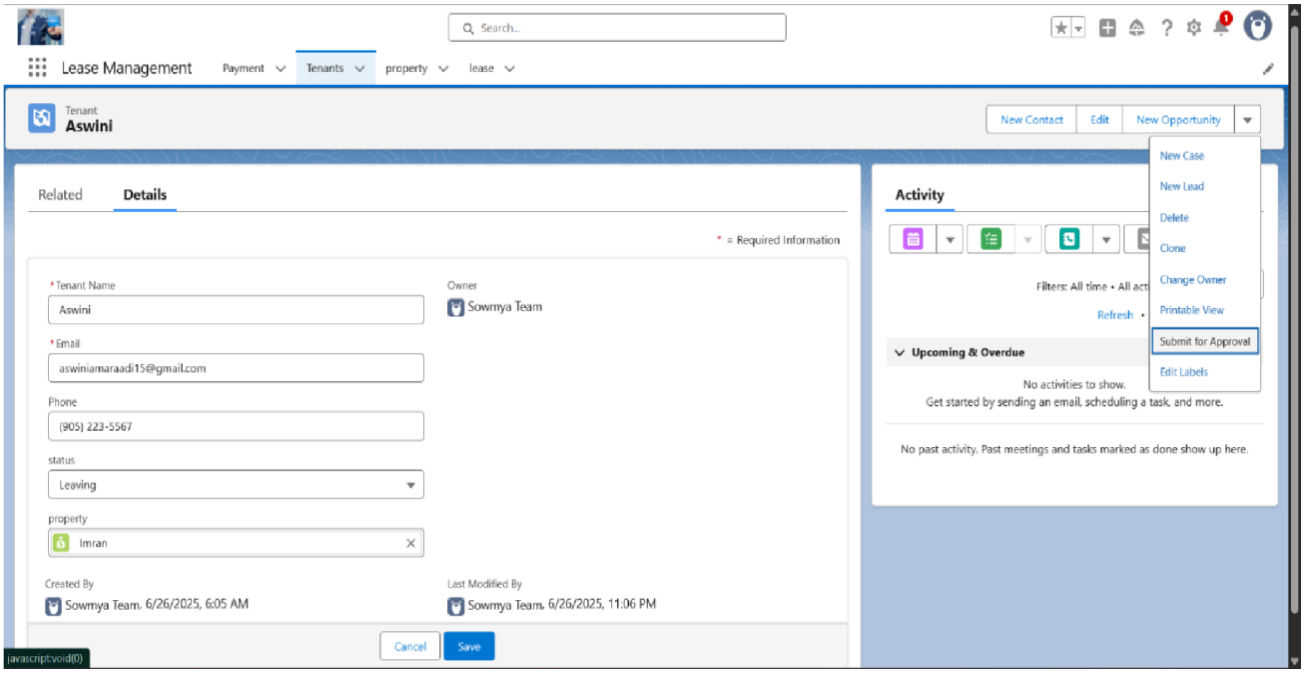
- Schedule class:
  Create an Apex Class

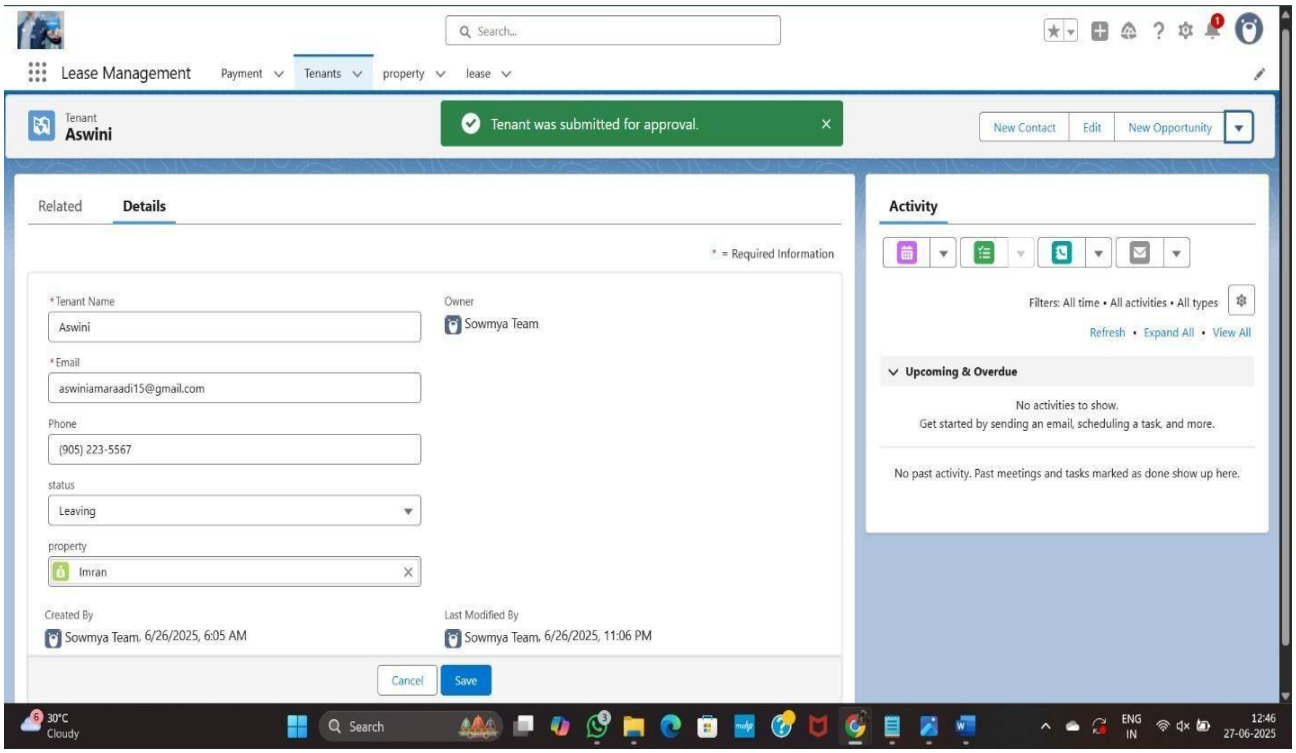


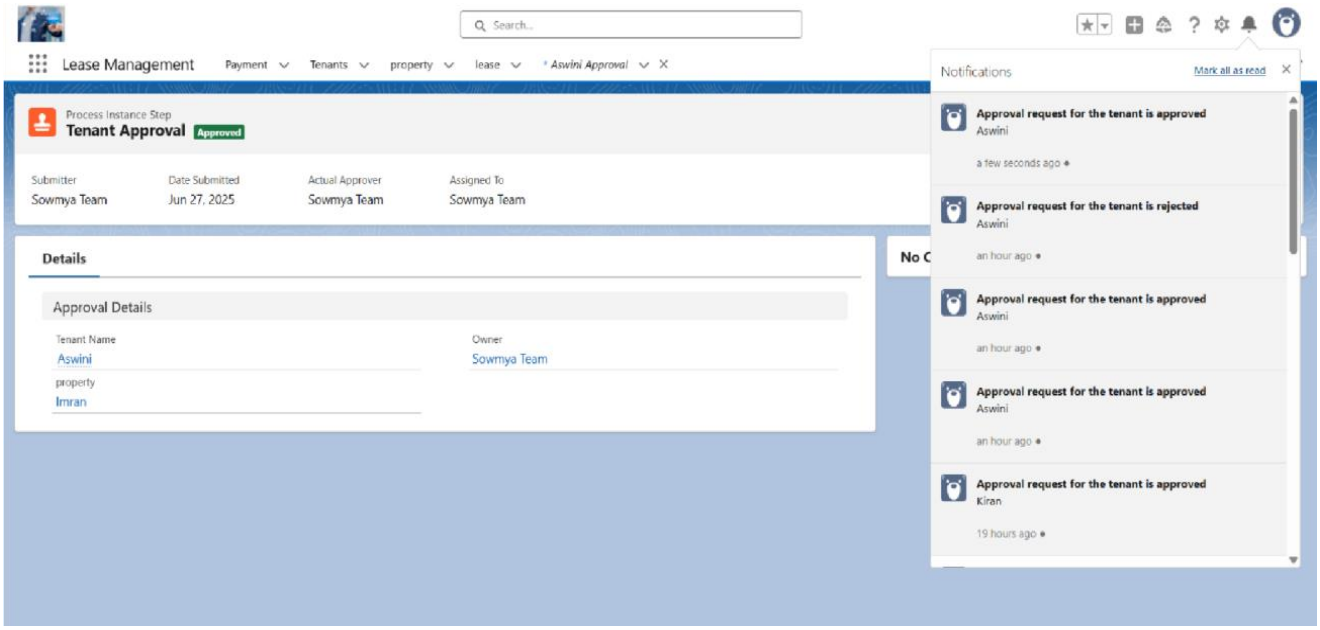


Schedule Apex class





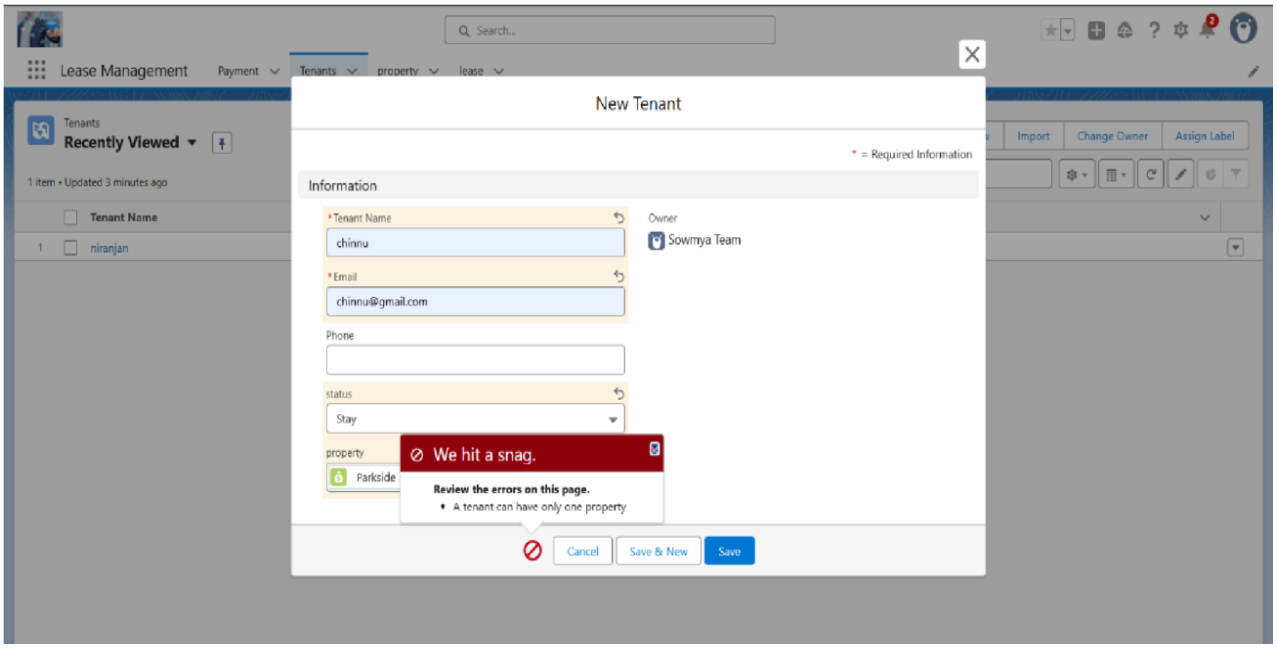

Search...
Lease Management
Payment
Tenants
property
lease
Tenant
Aswini
Tenant was submitted for approval.
New Contact
Edit
New Opportunity
Related
Details
* = Required Information
*Tenant Name
Aswini
Owner
Sowmya Team
*Email
aswiniamaraadi15@gmail.com
Phone
(905) 223-5567
status
Leaving
property
Imran
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


Search...
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

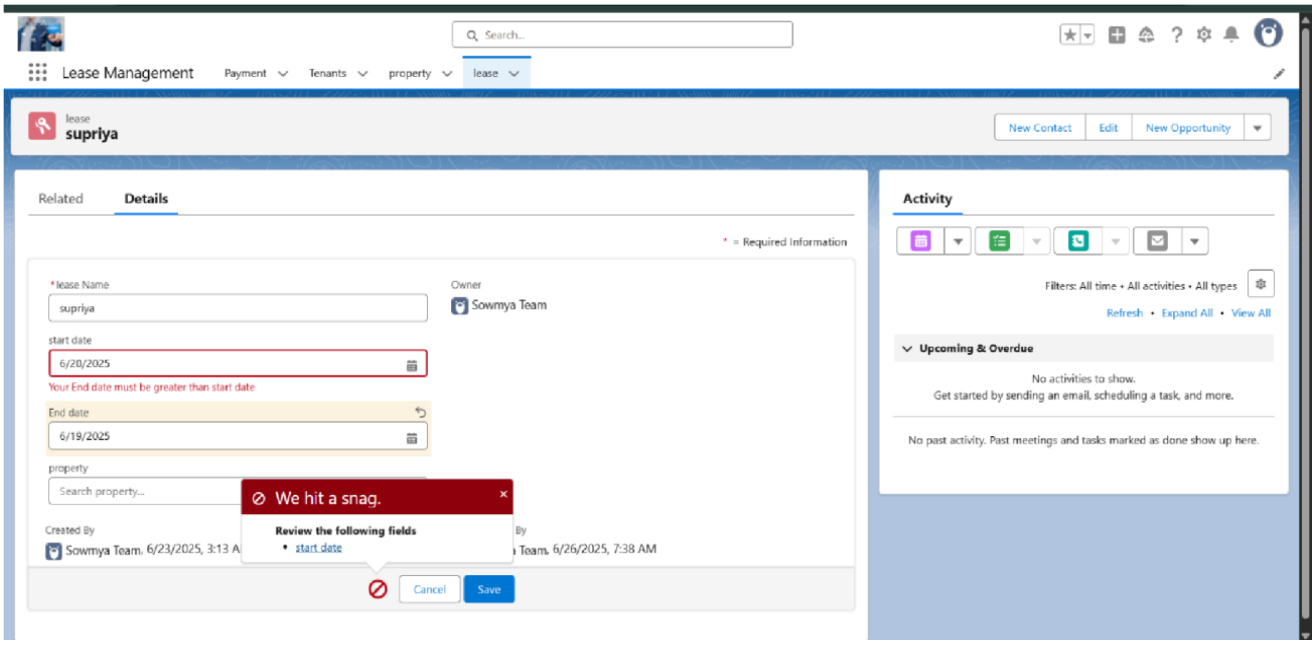
FUNCTIONAL AND PERFORMANCE TESTING

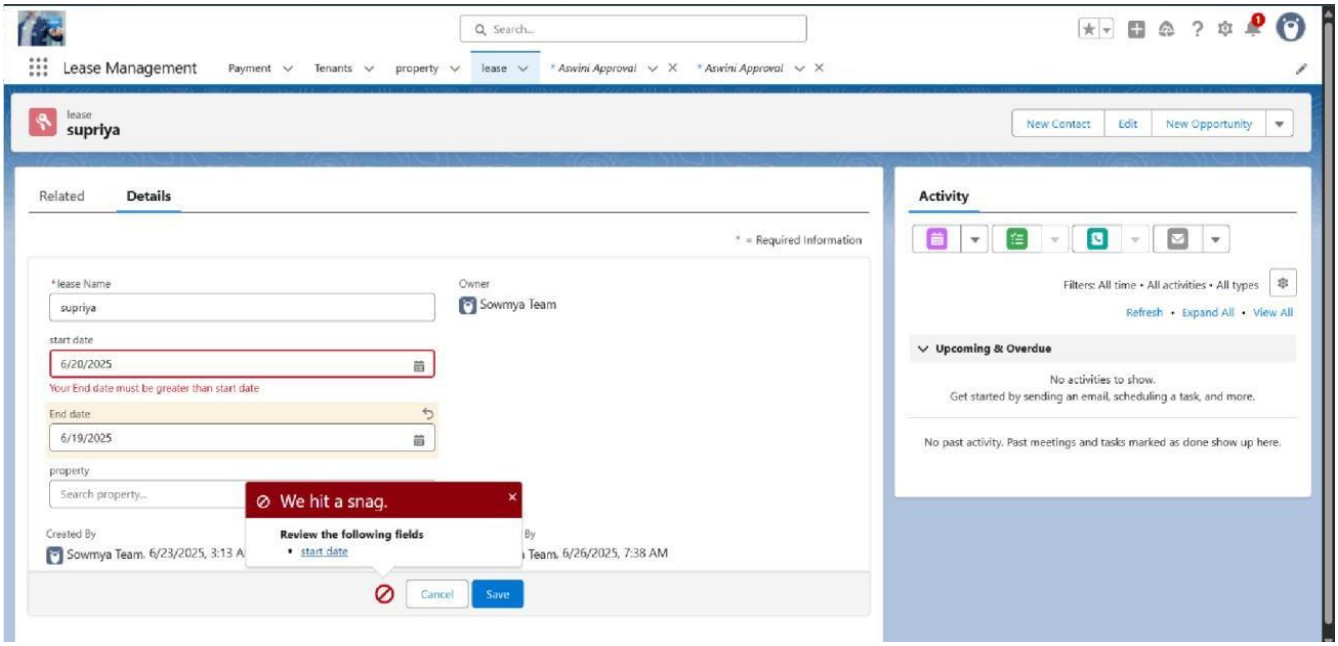
Performance Testing

- Trigger validation by entering duplicate tenant-property records

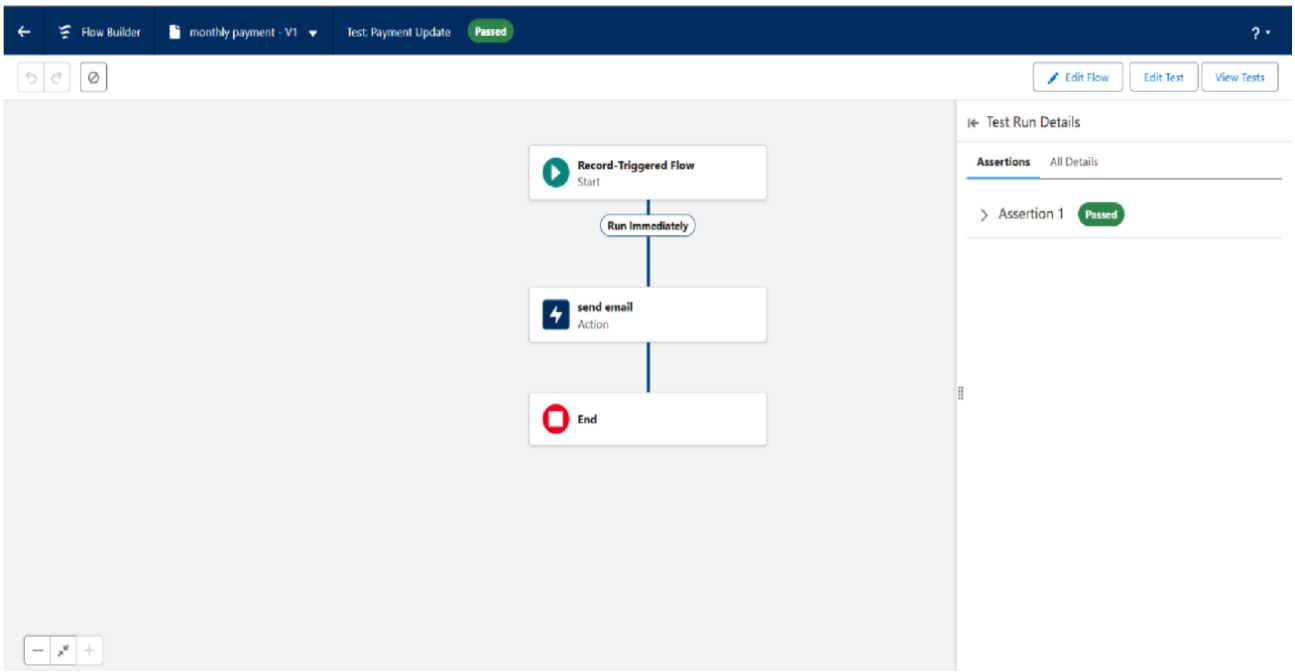


- Validation Rule checking

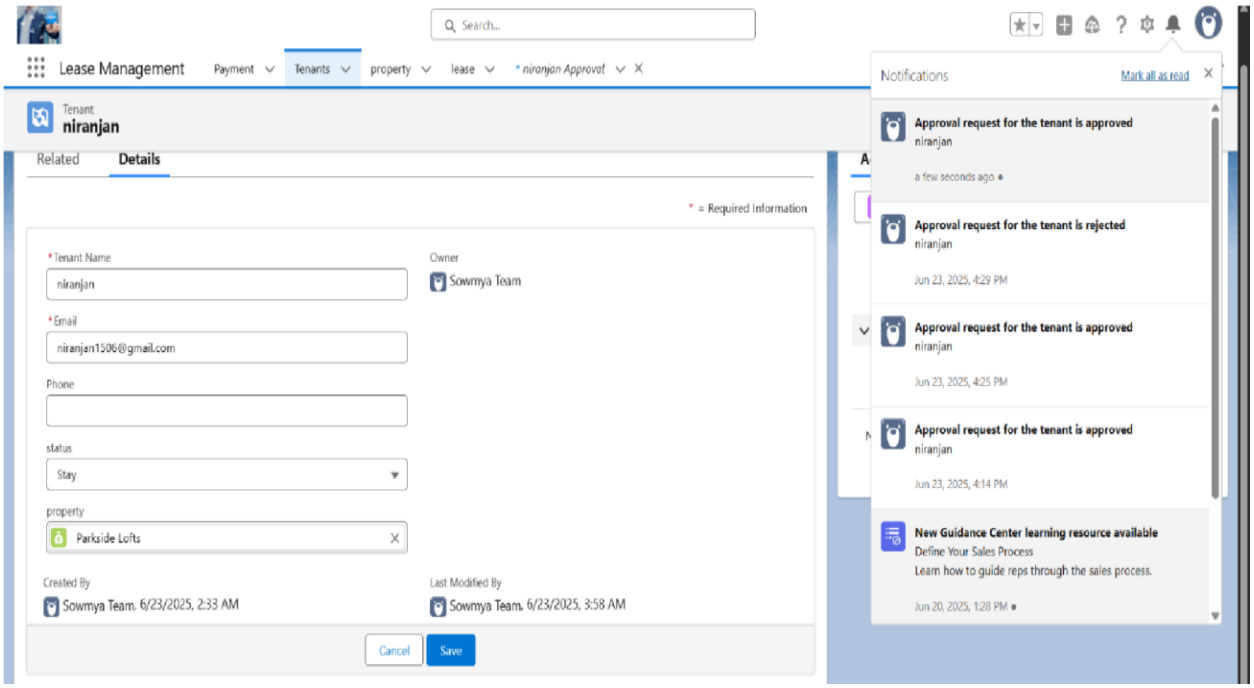


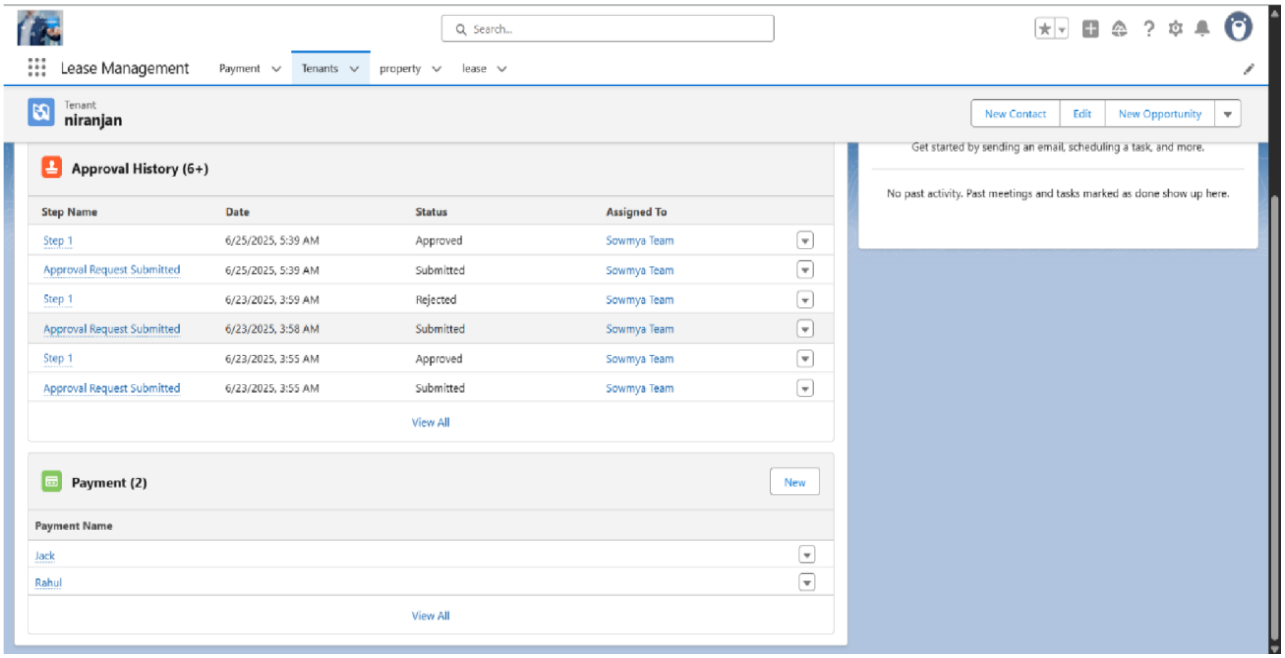


- Test flows on payment update



- Approval process validated through email alerts and status updates

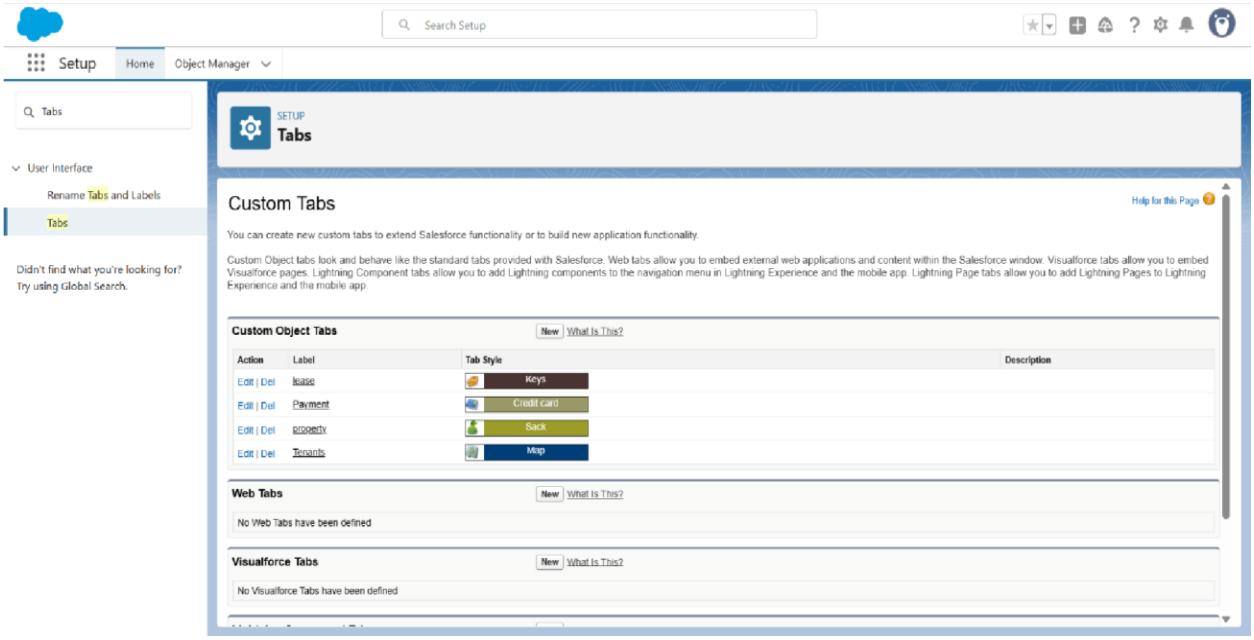




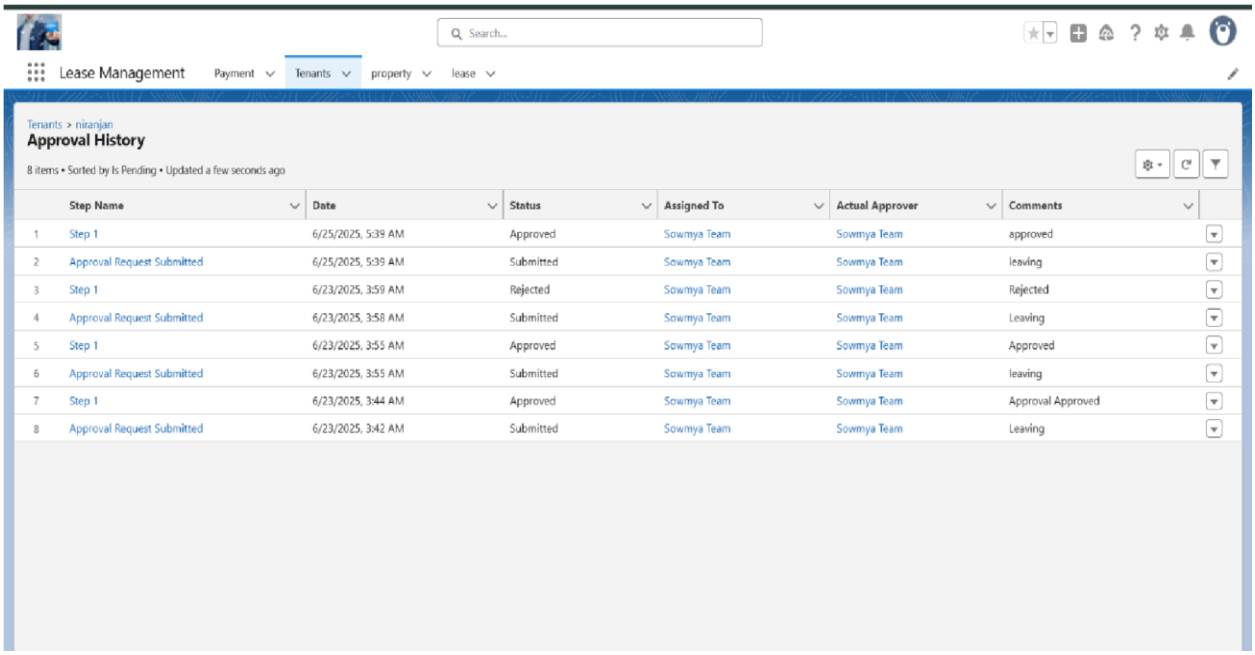
RESULTS

Output Screenshots

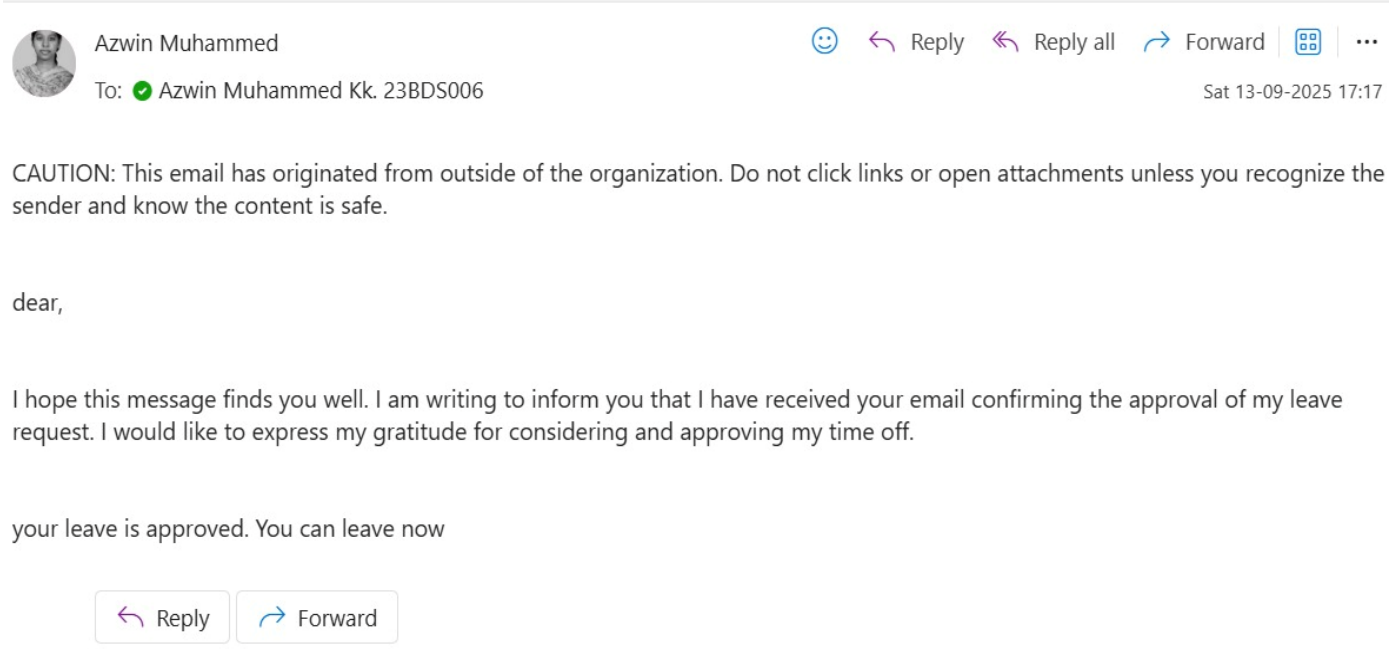
- Tabs for Property, Tenant, Lease, Payment



- Email alerts



- Leave approved



Azwin Muhammed

To: Azwin Muhammed Kk. 23BDS006

Reply Reply all Forward

Sat 13-09-2025 17:17

CAUTION: This email has originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

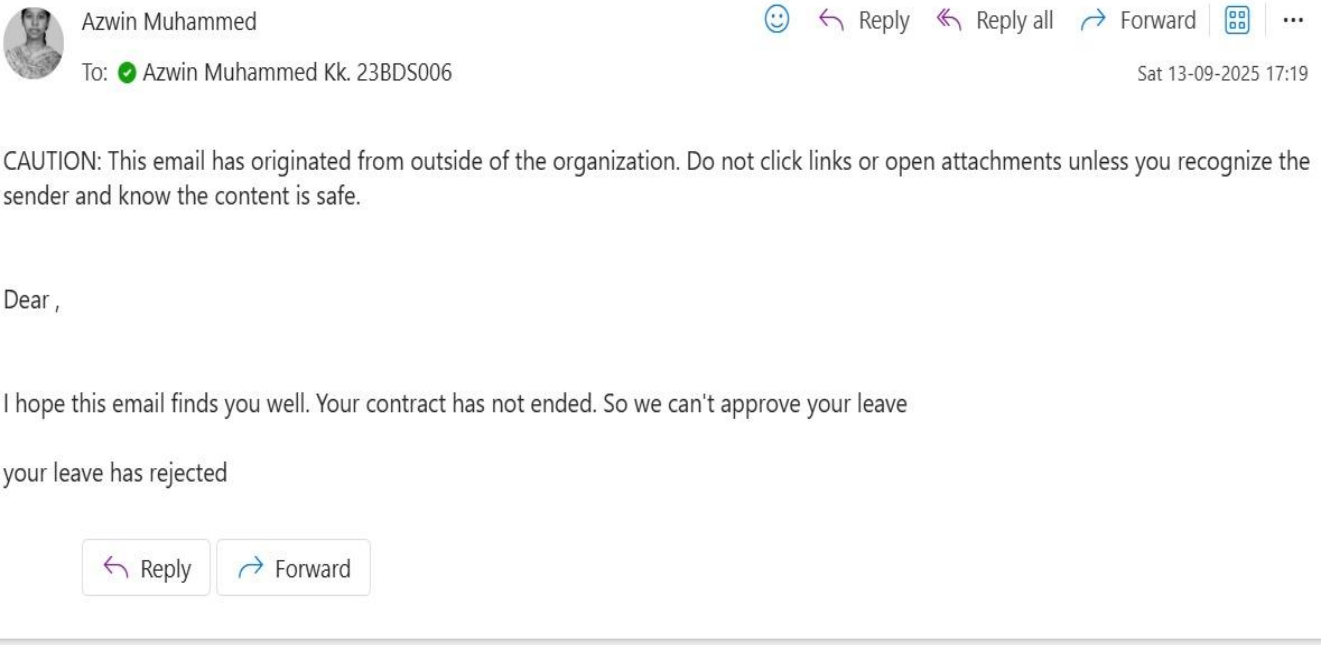
dear,

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 leave is approved. You can leave now

Reply Forward

- Leave rejected



Azwin Muhammed

To: Azwin Muhammed Kk. 23BDS006

Reply Reply all Forward

Sat 13-09-2025 17:19

CAUTION: This email has originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

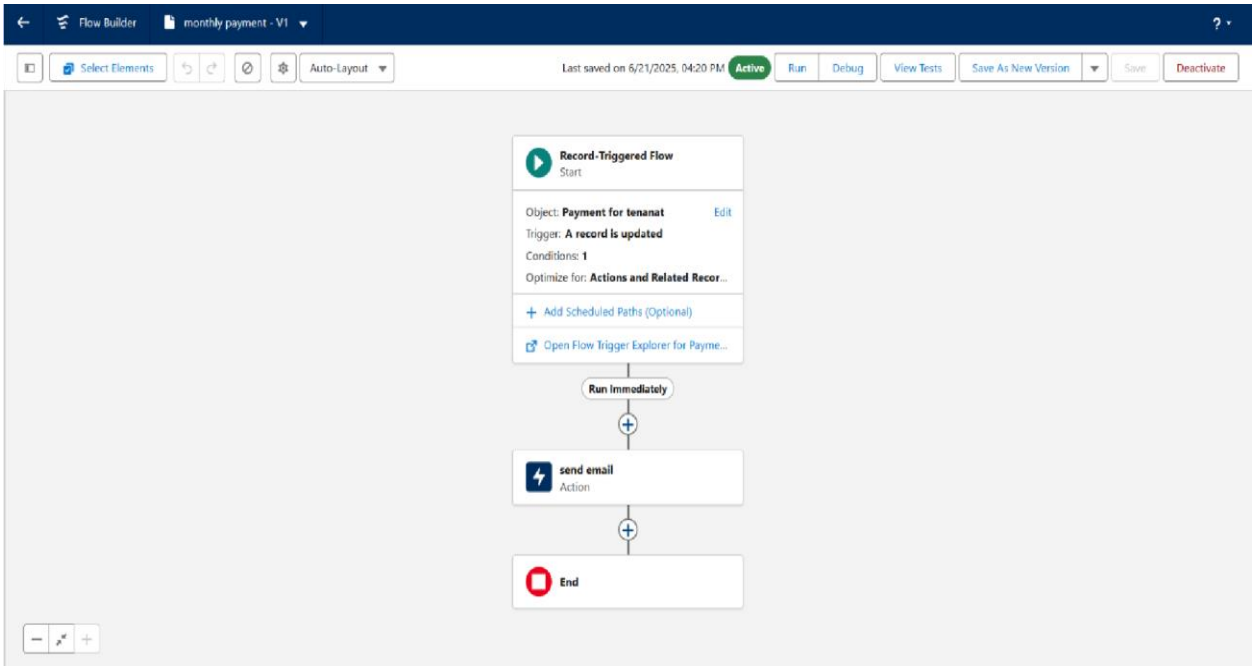
Dear ,

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

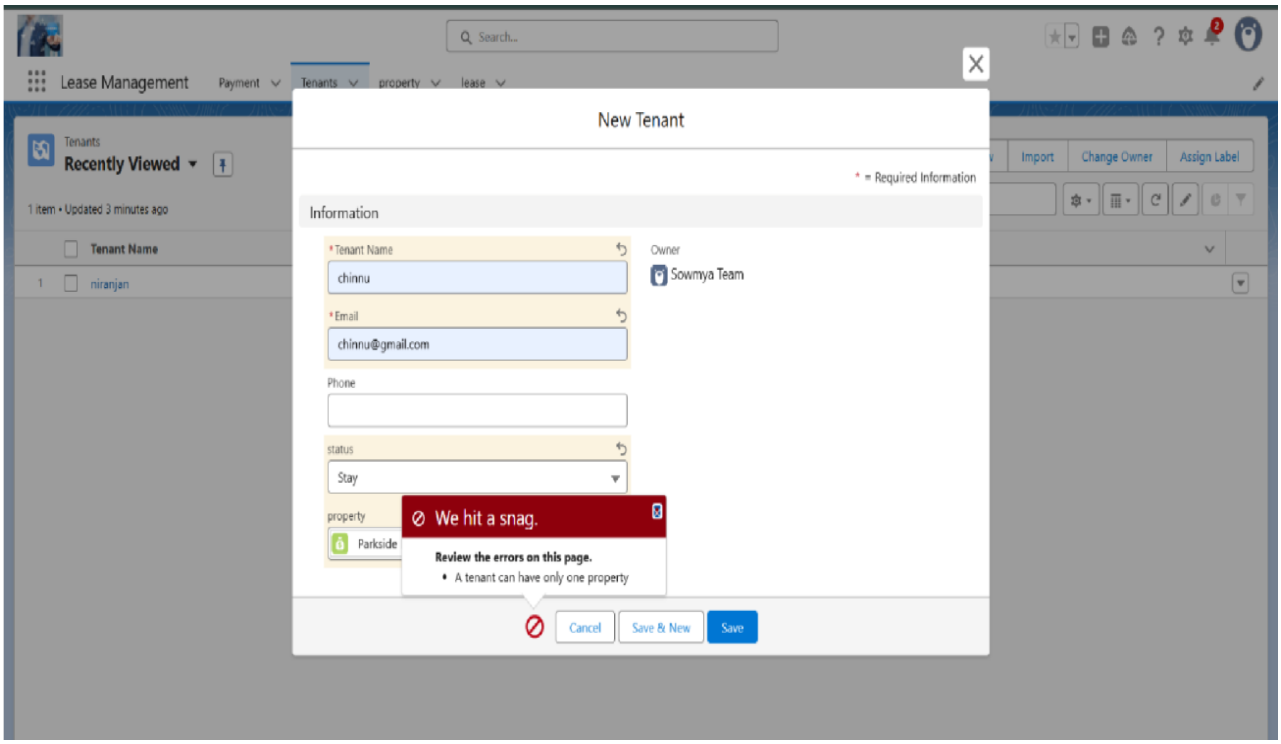
your leave has rejected

Reply Forward

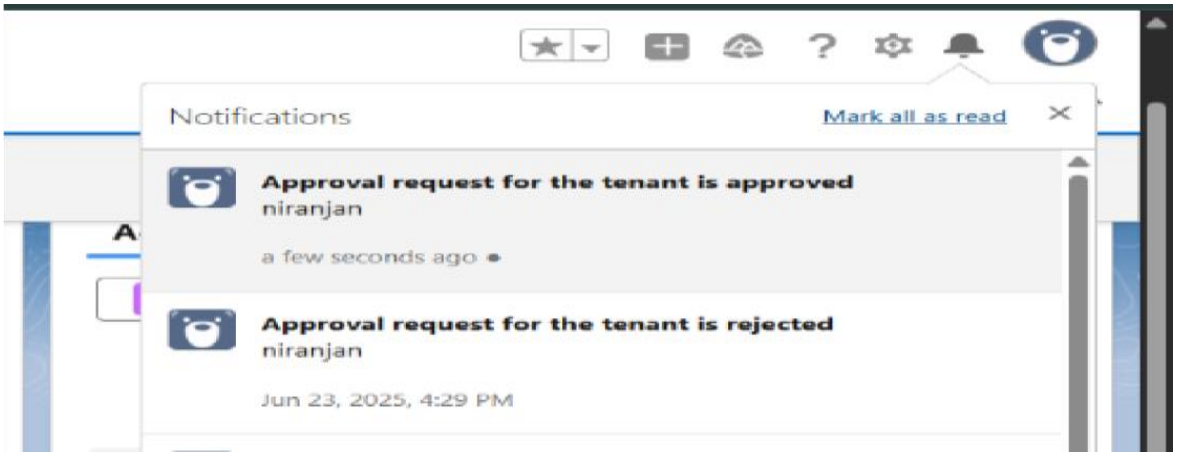
- Flow runs



- Trigger error messages



- Approval process notifications



ADVANTAGES & DISADVANTAGES

ADVANTAGES

- **Centralized Management** – Combines property, tenant, lease, and payment details in one platform, reducing duplication and errors.
- **Process Automation** – Automates approvals, reminders, and notifications, saving time and reducing manual effort.
- **Better Decision-Making** – Provides real-time reports and dashboards to track leases, payments, and occupancy status effectively.

DISADVANTAGES

- **High Initial Costs** – Requires investment in Salesforce licensing, customization, and user training.
- **Learning Curve** – Users may need time and training to become familiar with the system's features.
- **Internet Dependency** – Being cloud-based, it requires reliable internet connectivity for uninterrupted access.

CONCLUSION

The Lease Management System effectively streamlines leasing operations through a structured and automated Salesforce application. It enhances efficiency, ensures accurate data management, and improves communication between 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});
        }
    }
}
```