LEASE MANAGEMENT

COLLEGE NAME: CHIKKANNA GOVERMENT ARTS COLLEGE

COLLEGE CODE: BRU06

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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.



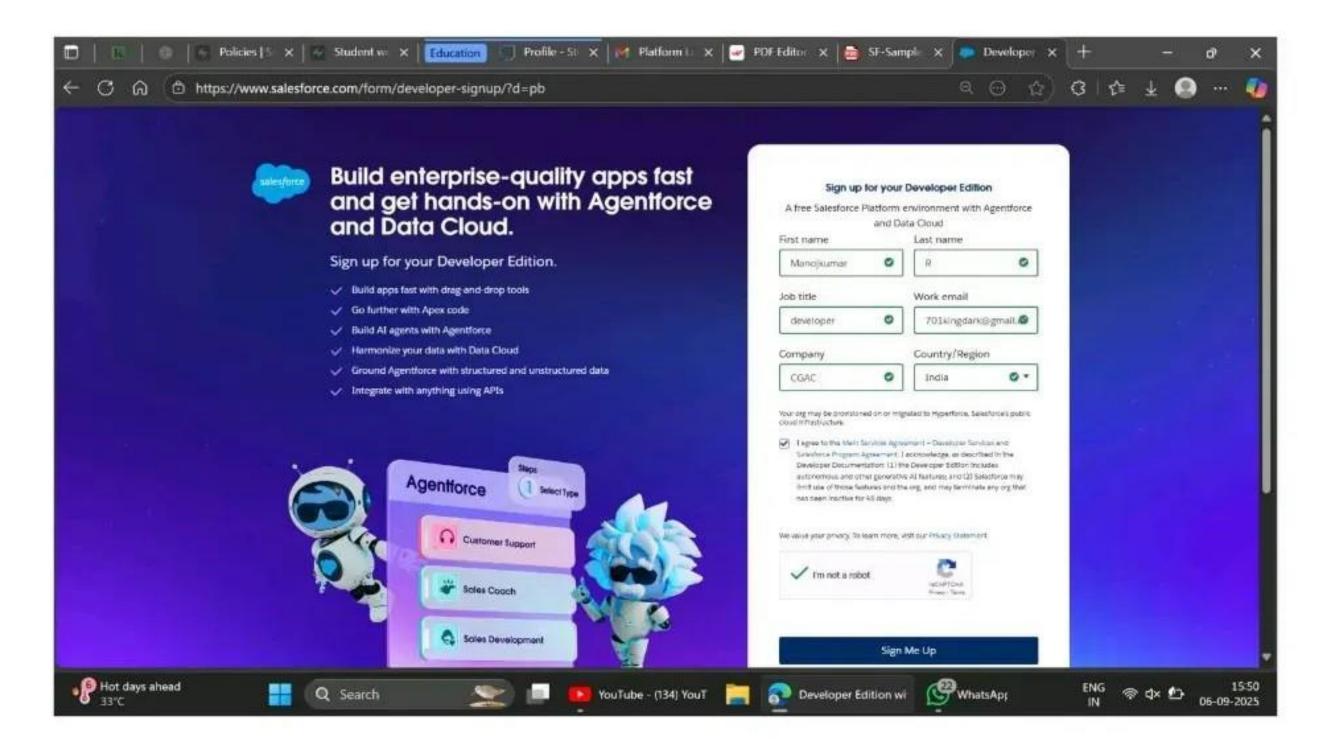
1.2 Purpose

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.

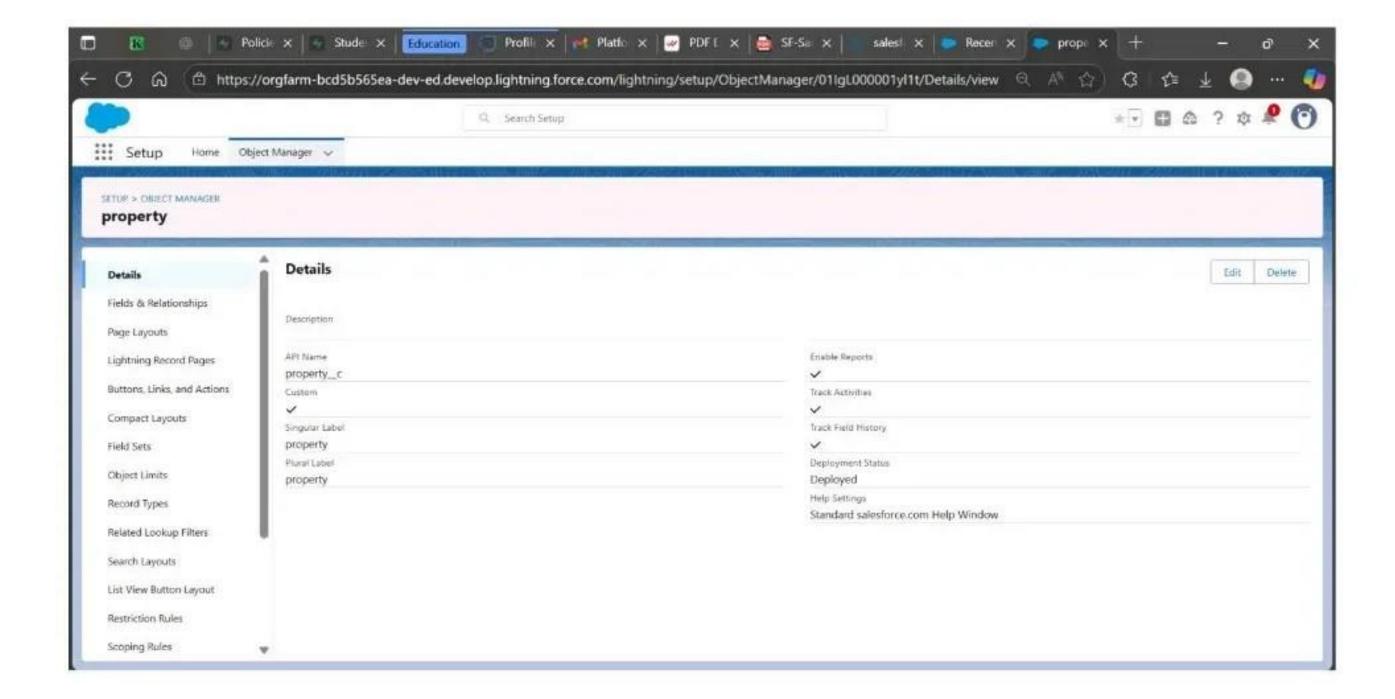
DEVELOPMENT PHASE

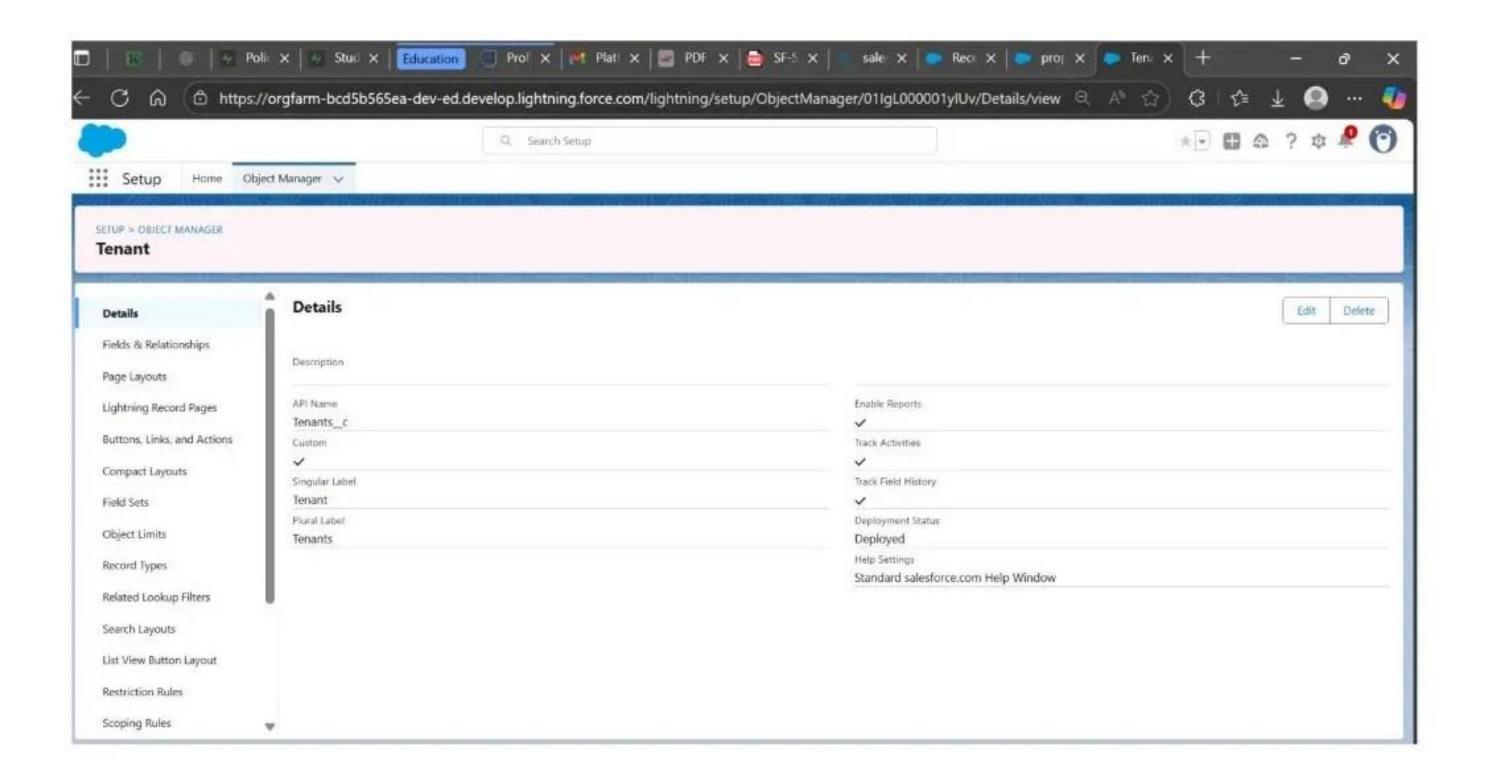
Creating Developer Account:

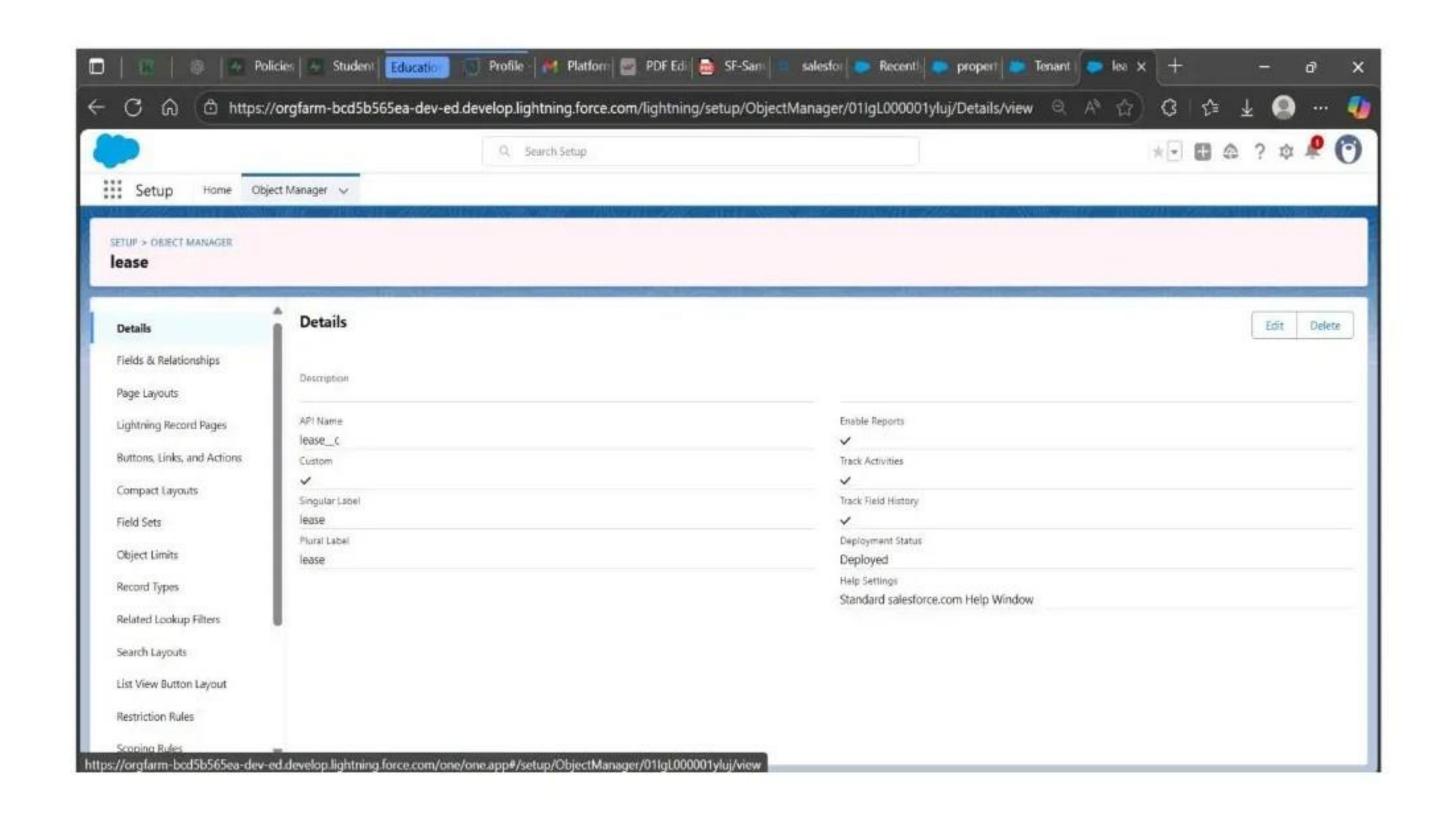
By using this URL - https://www.salesforce.com/form/developer-signup/?d=pb

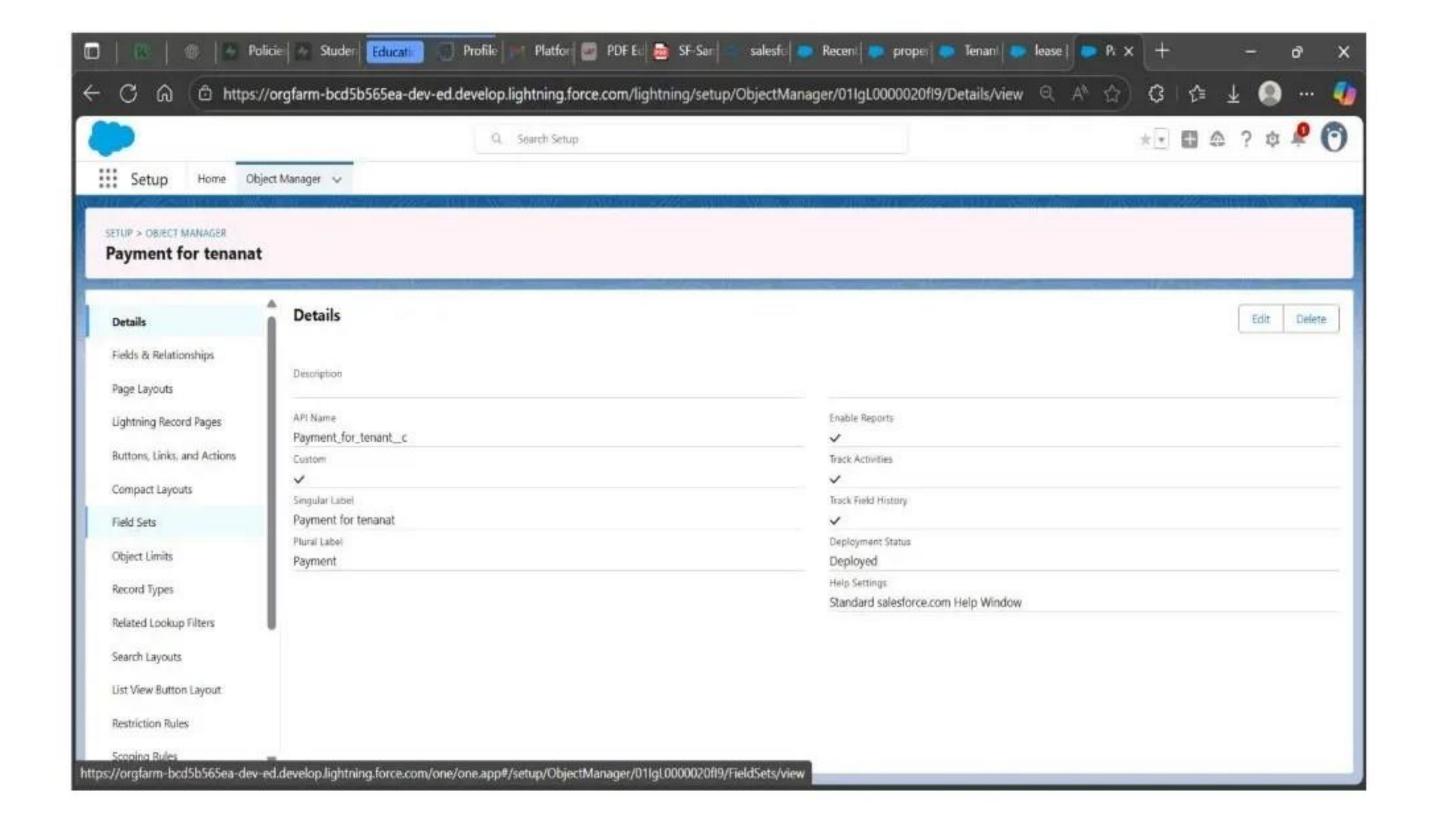


Created objects: Property, Tenant, Lease, Payment

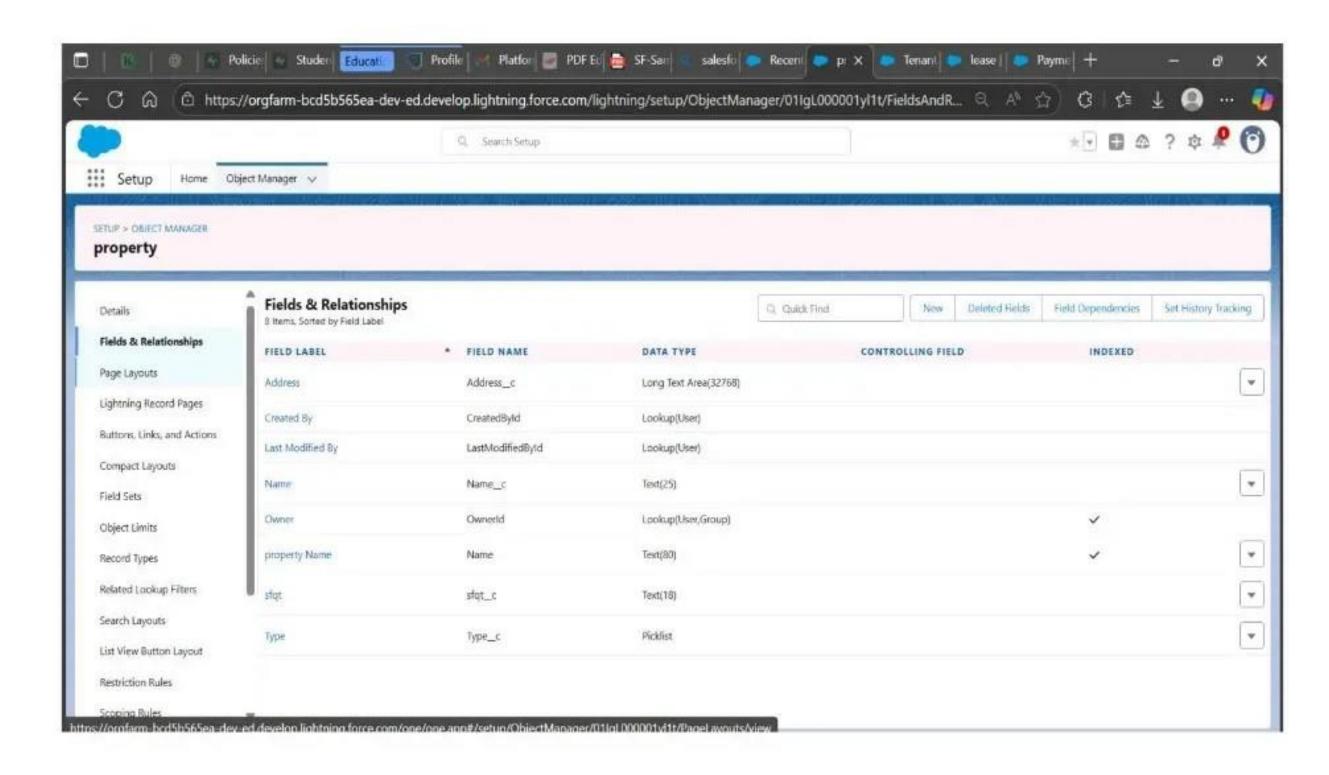


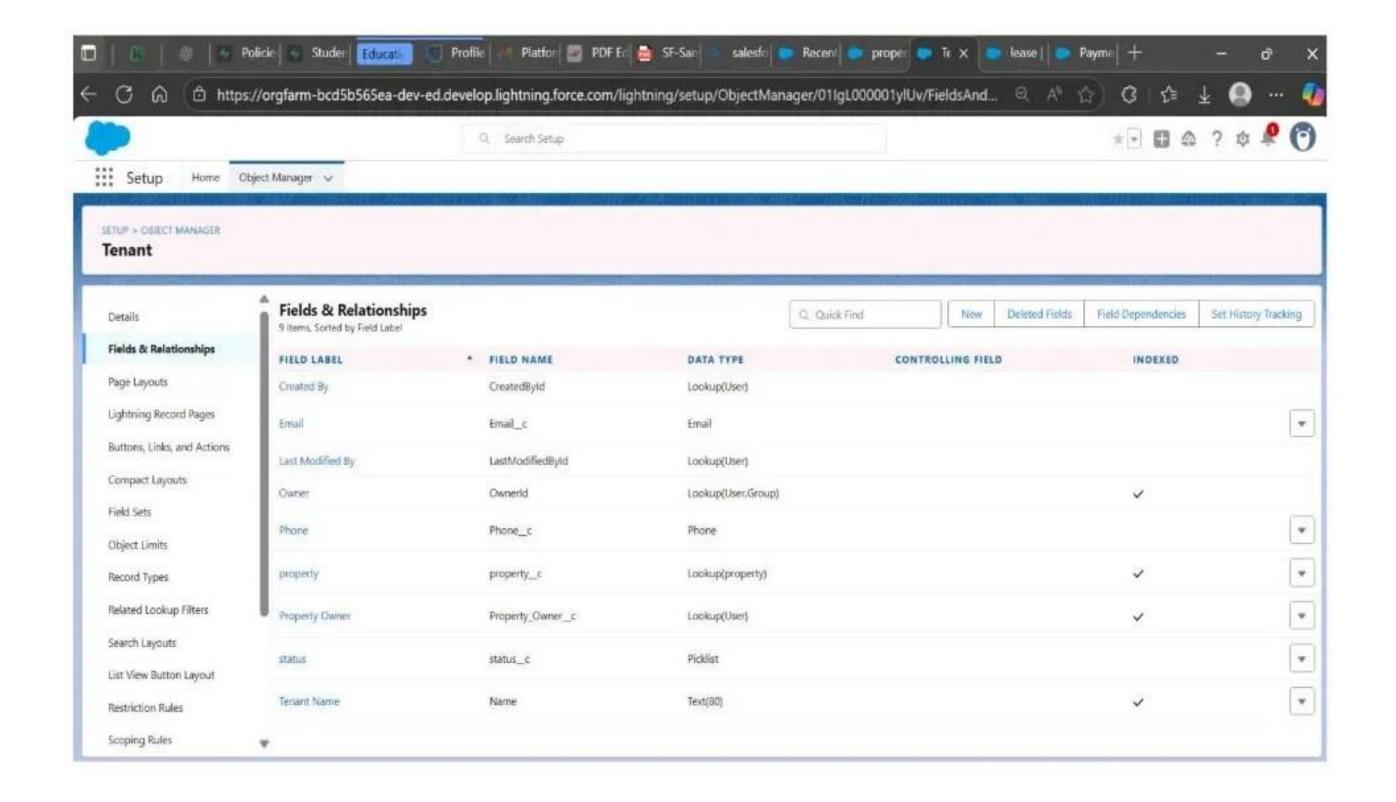


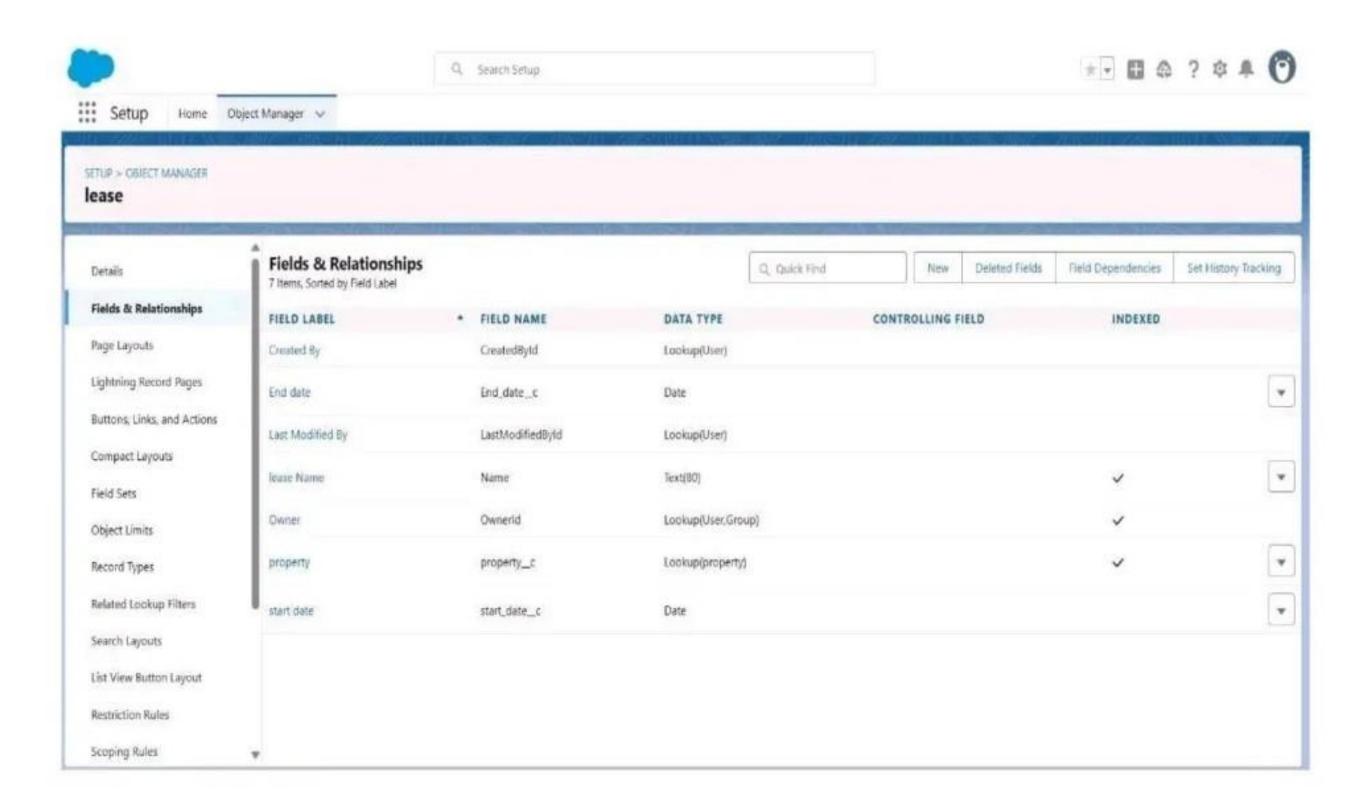


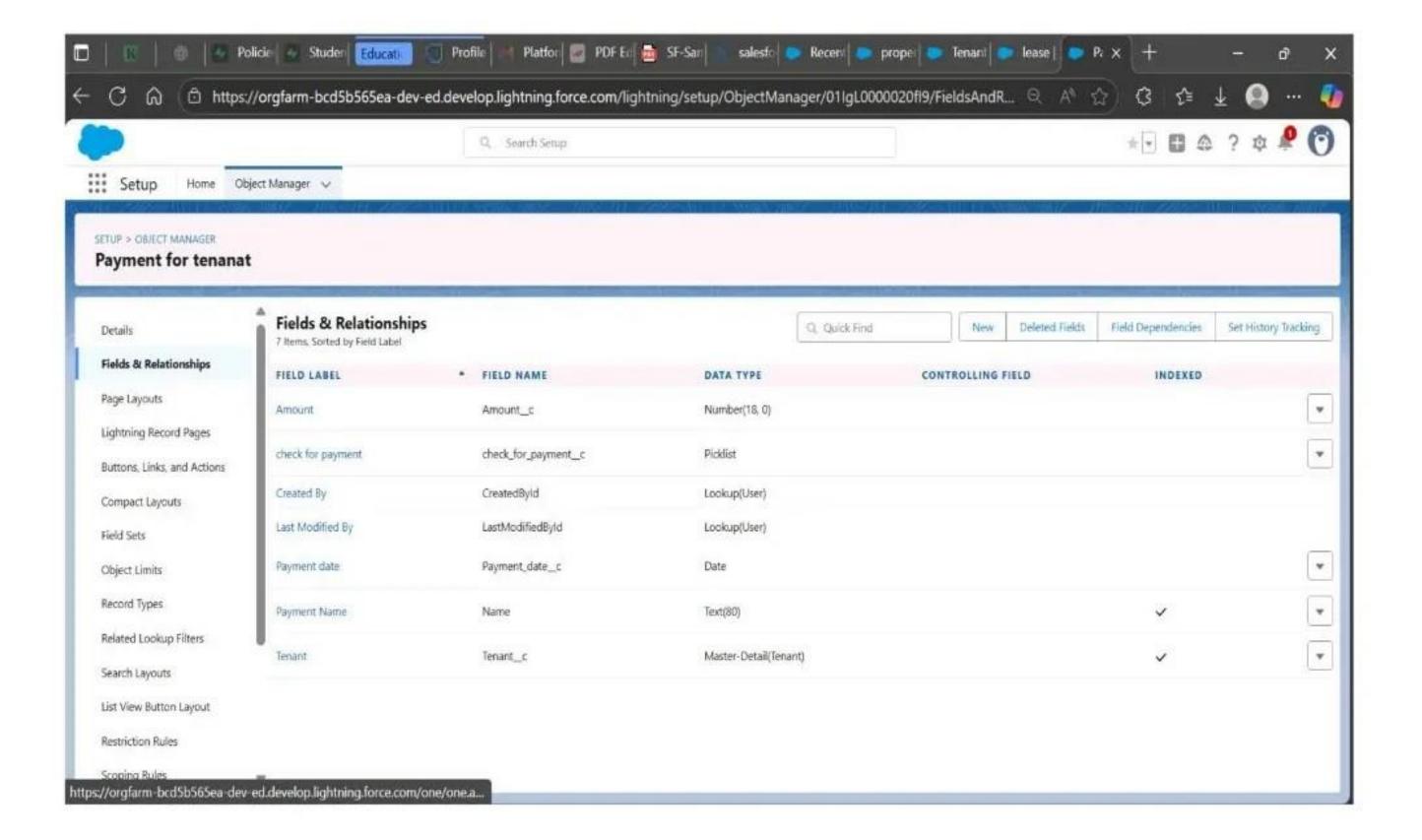


Configured fields and relationships

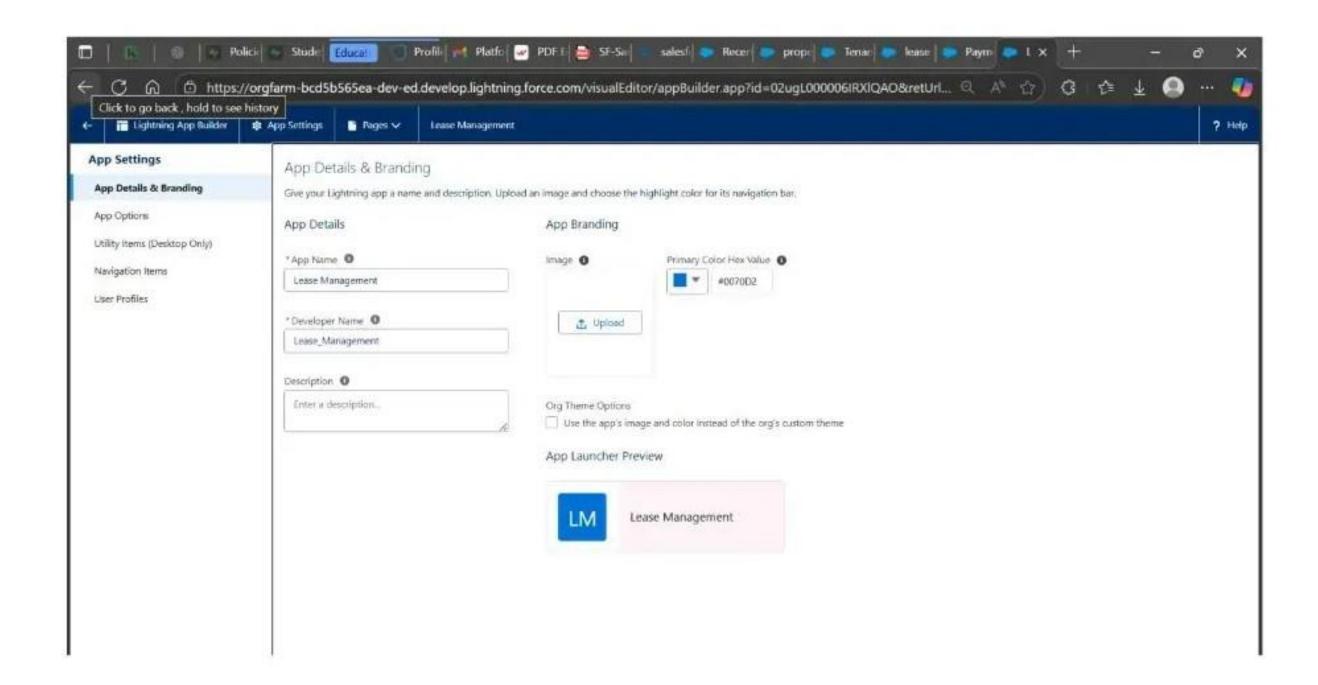


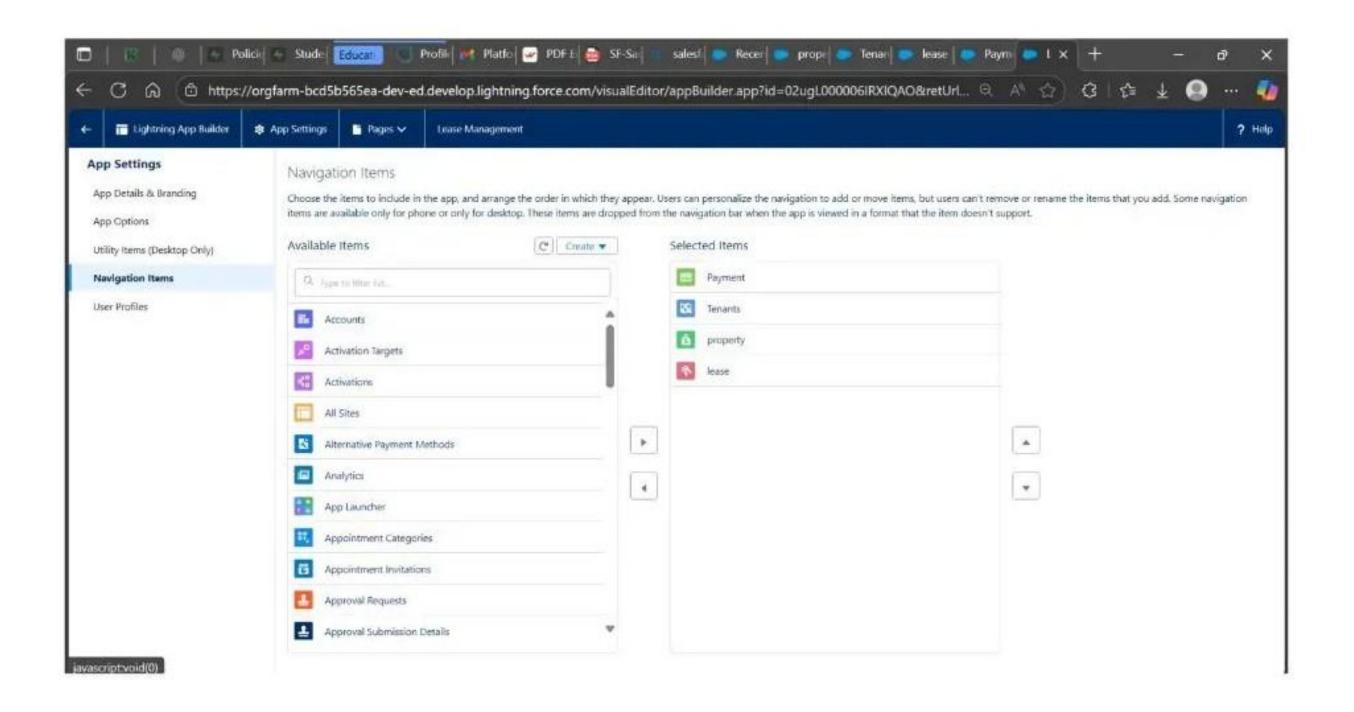


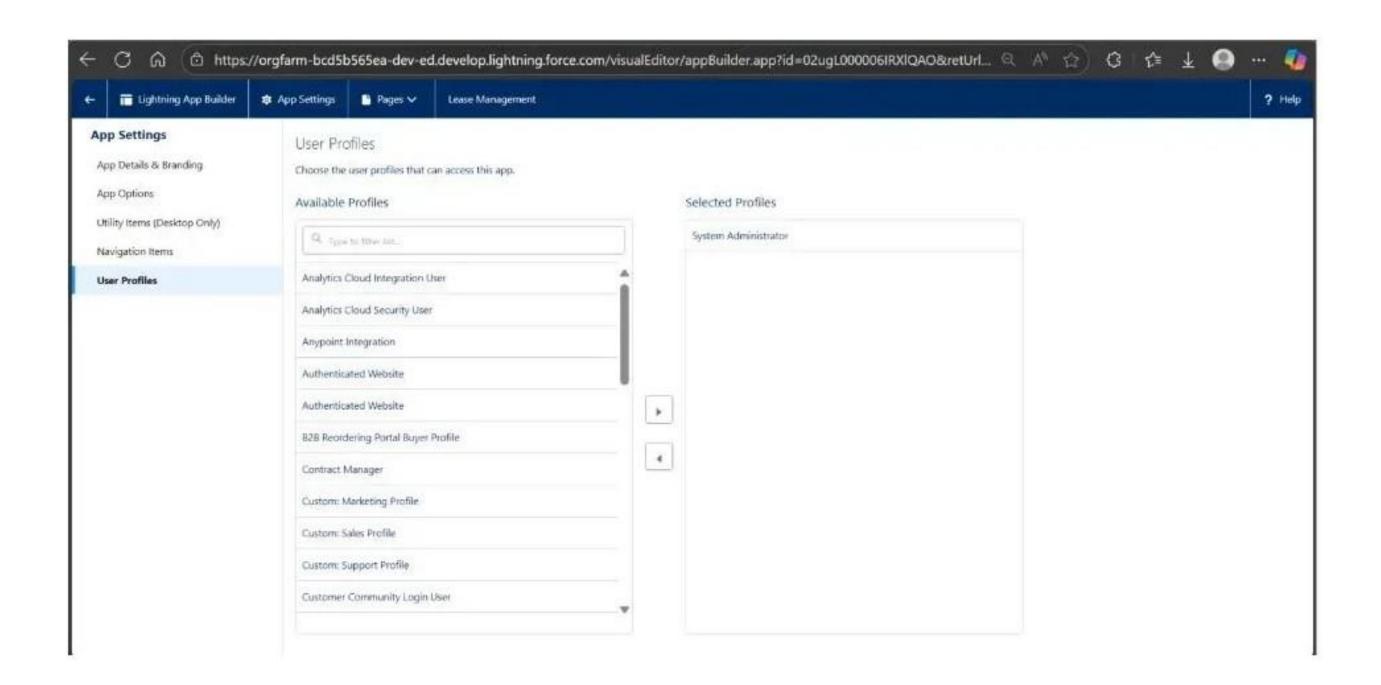


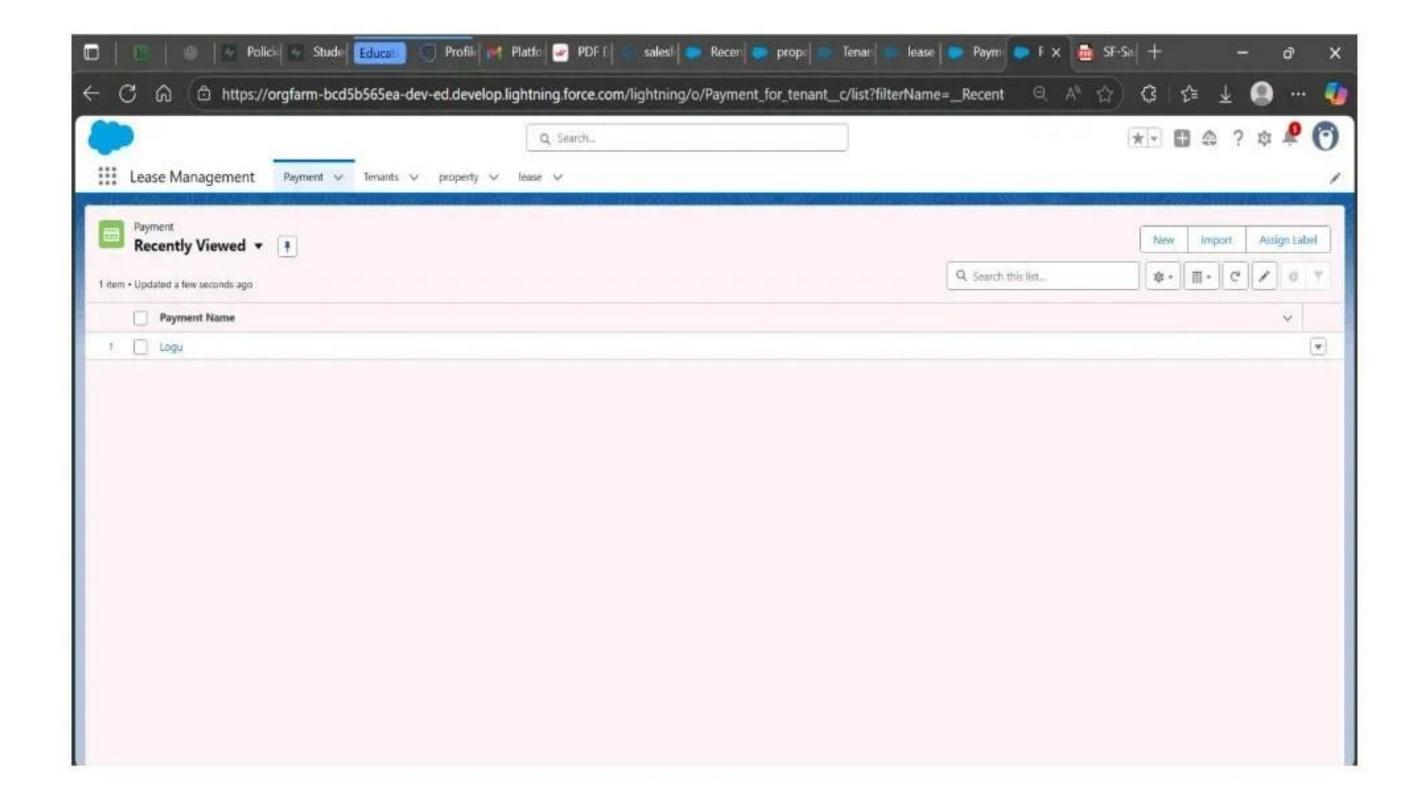


Developed Lightning App with relevant tabs

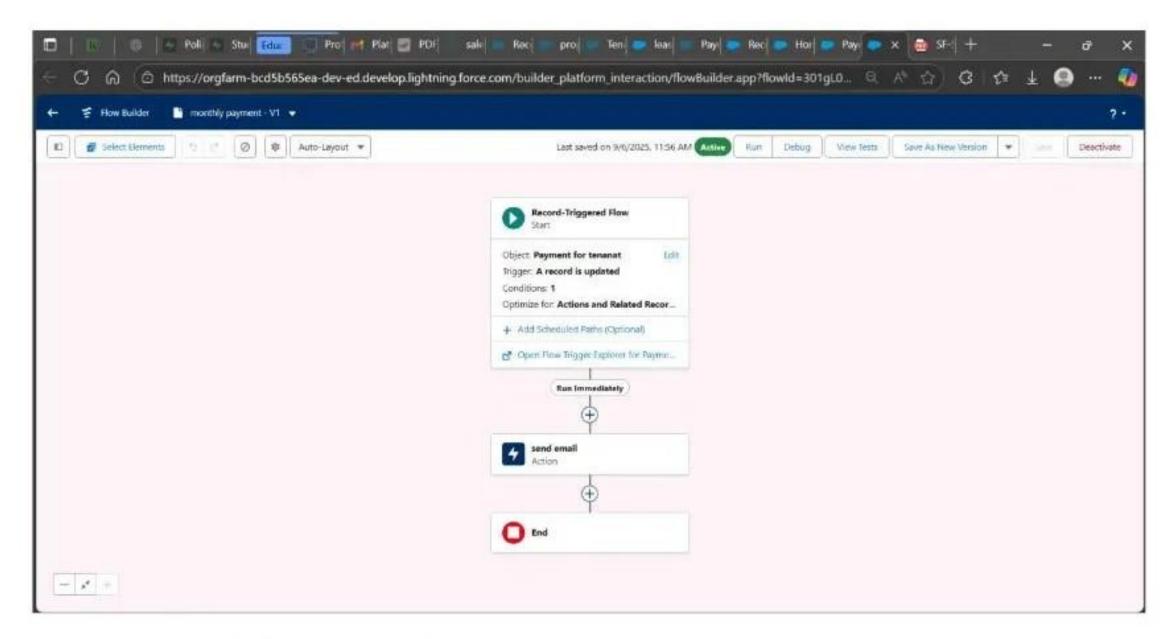




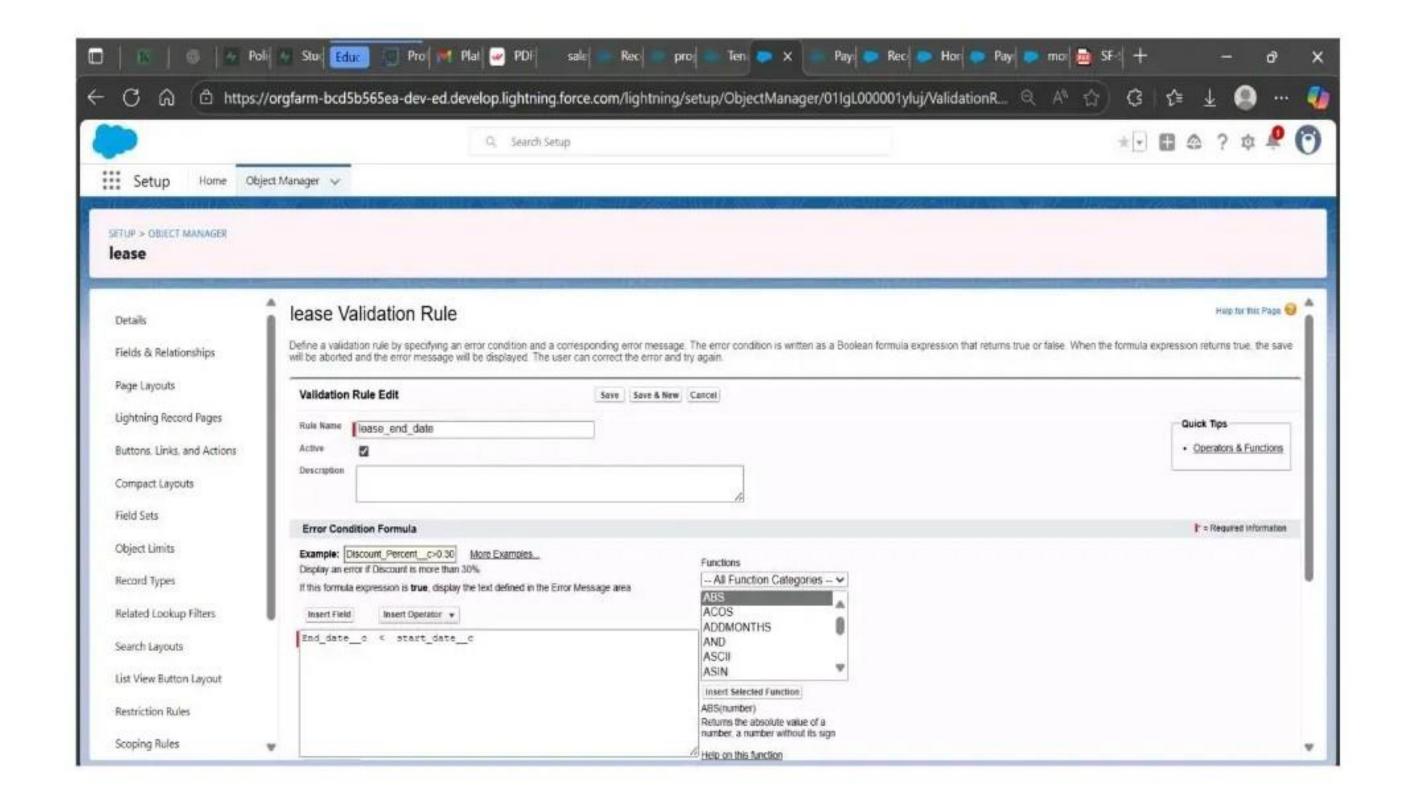


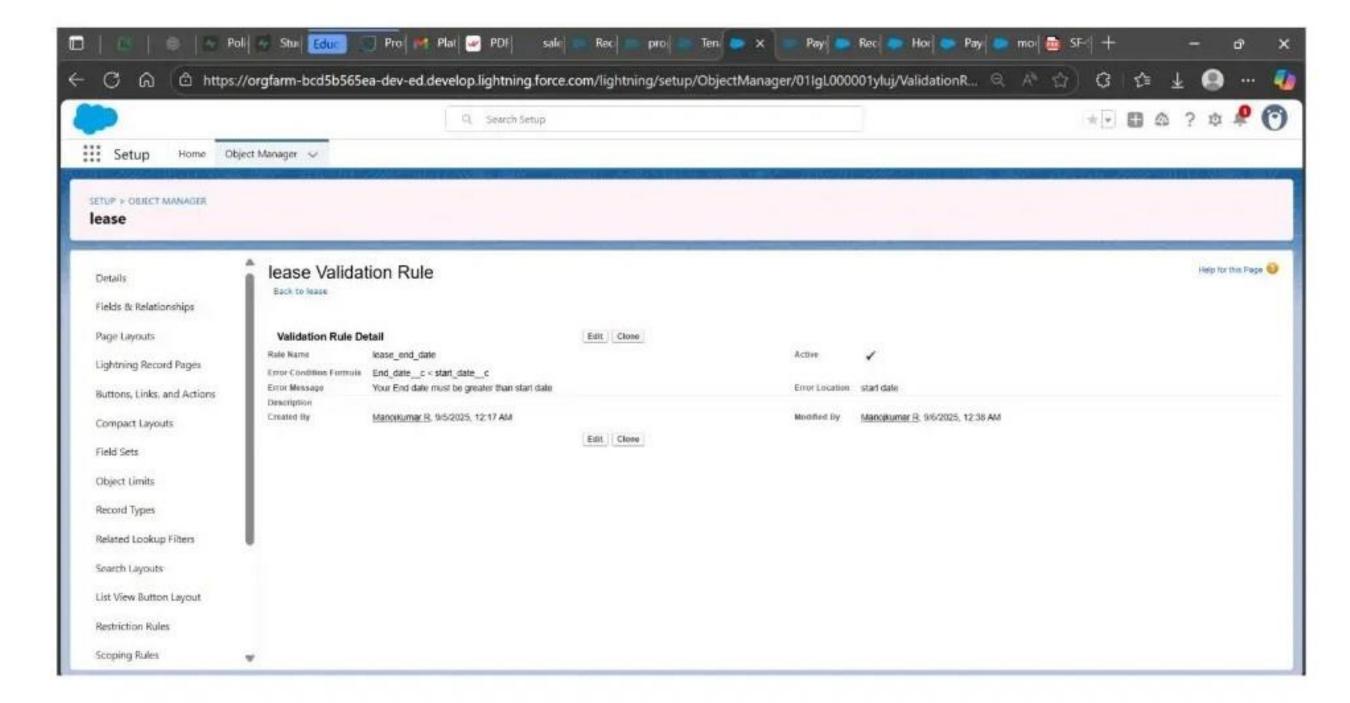


Implemented Flows for monthly rent and payment success

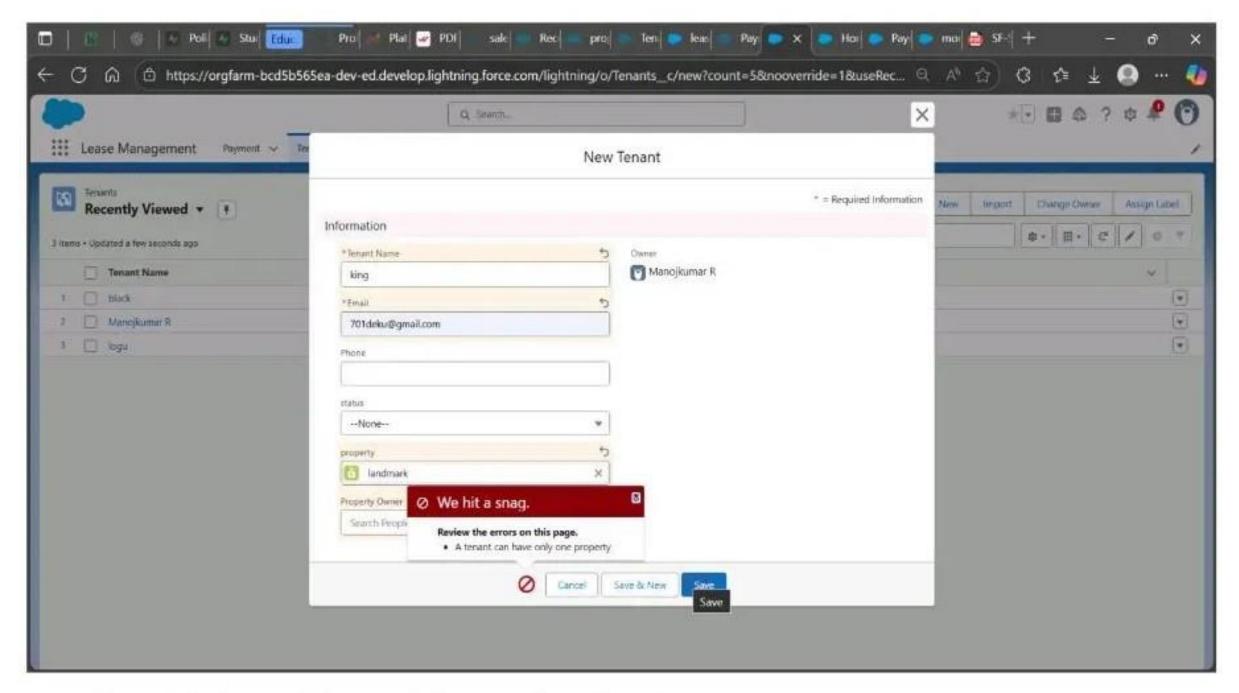


• To create a validation rule to a Lease Object





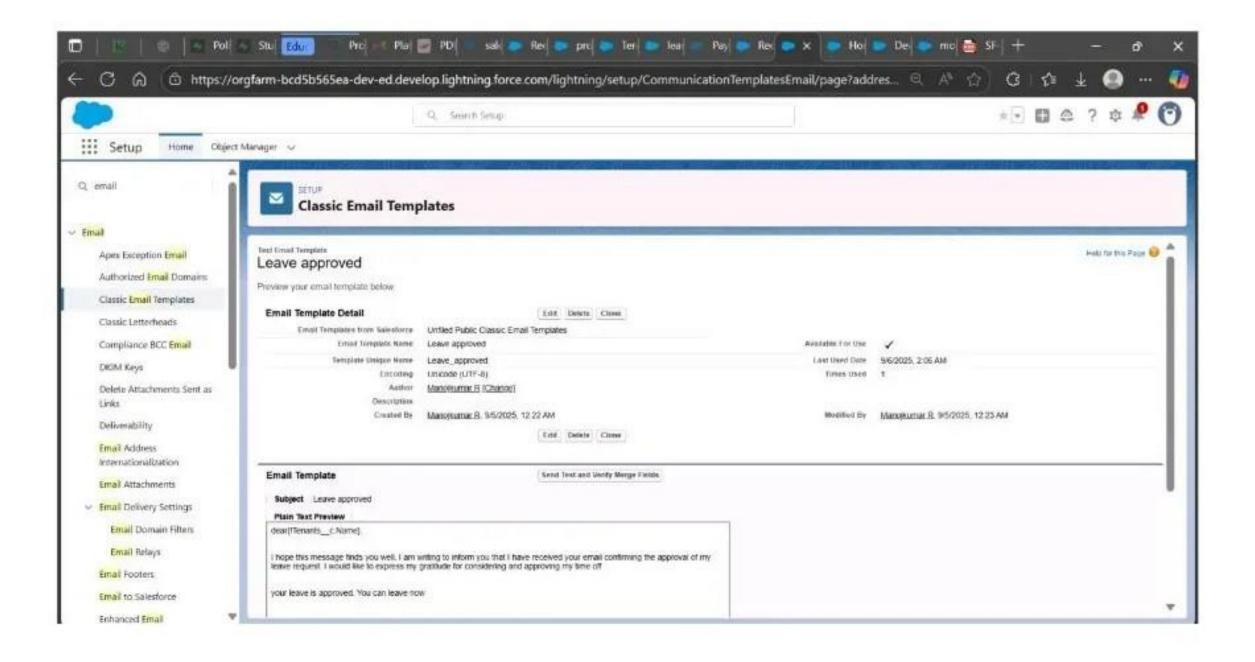
Added Apex trigger to restrict multiple tenants per property

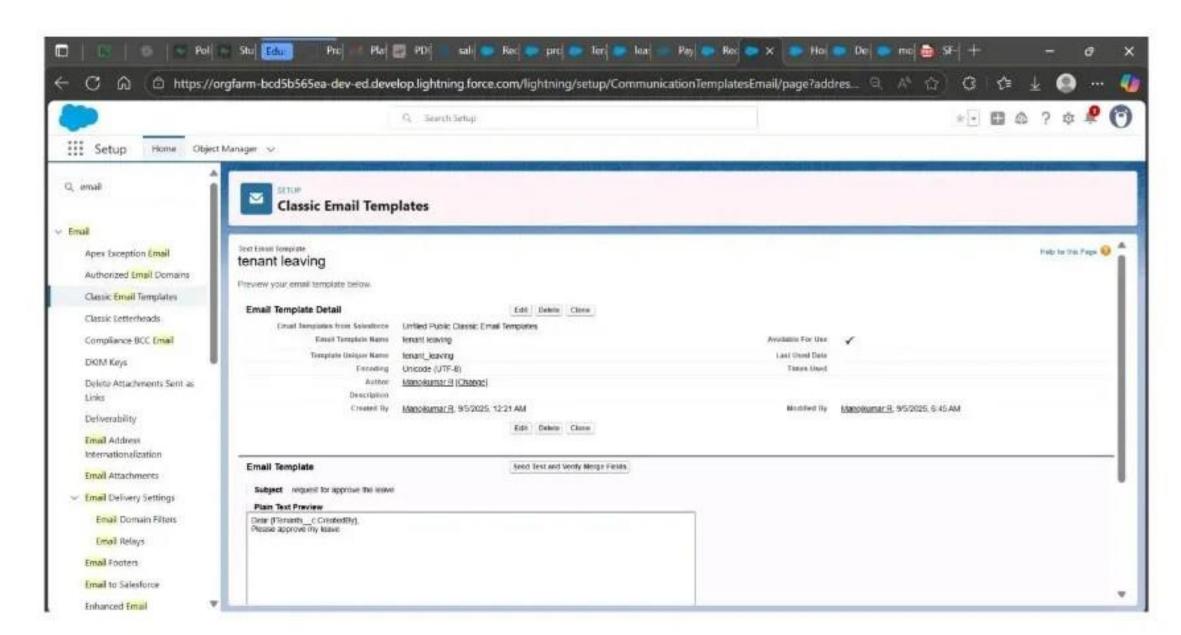


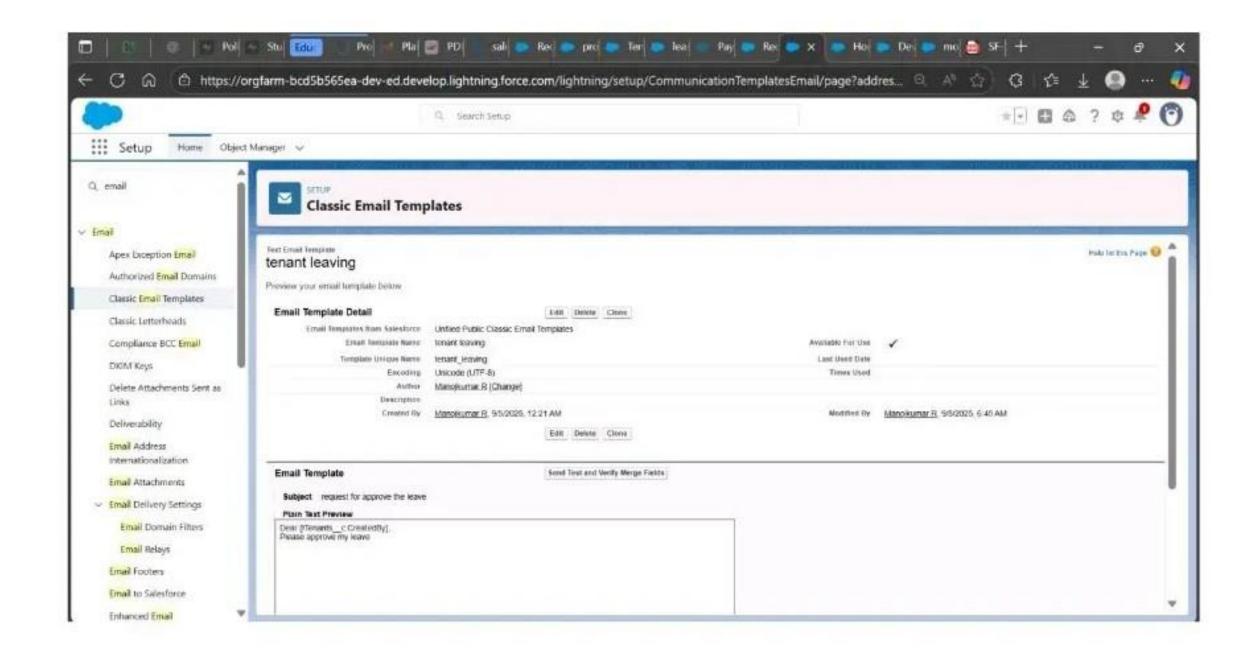
Scheduled monthly reminder emails using Apex class

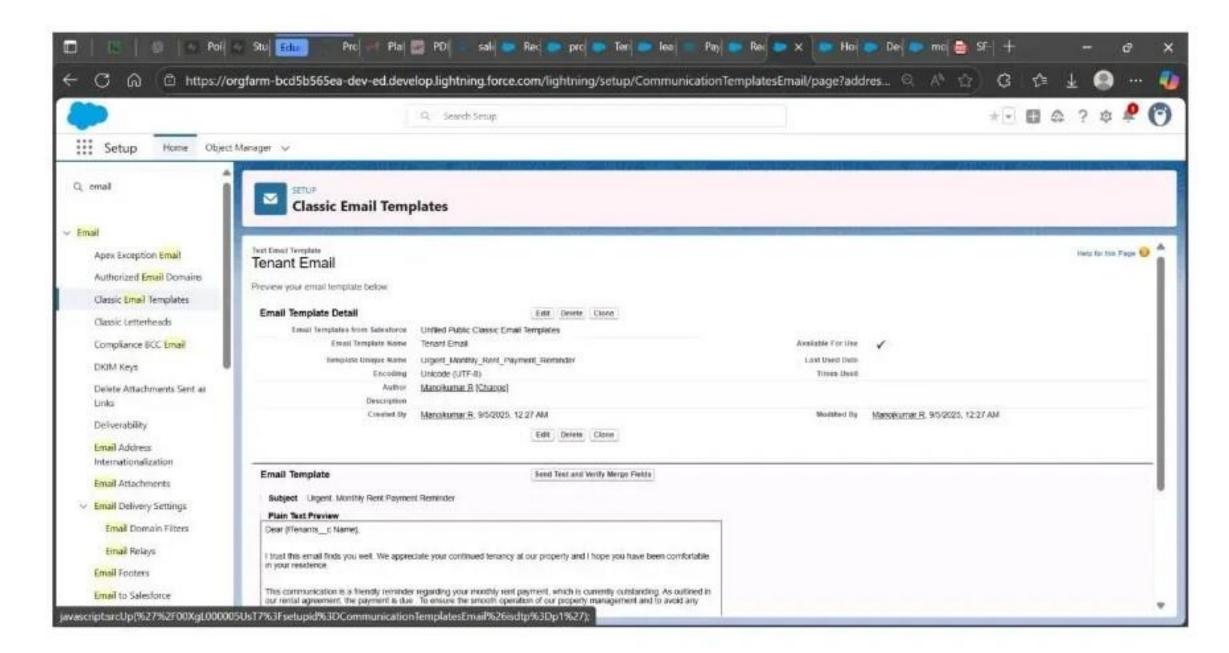
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File • Edit • Debug • Test • Workspace • Help • < >
test.apxt * testHandler.apxc * MonthlyEmailScheduler.apxc *
  Code Coverage: None ▼ API Version: 64 ▼
                                                                                                                                                 Go To
  1 • global class MonthlyEmailScheduler implements Schedulable {
          global void execute(SchedulableContext sc) {
              Integer currentDay = Date.today().day();
              if (currentDay == 1) {
                  sendMonthlyEmails();
          public static void sendMonthlyEmails() {
  8 +
              List<Tenants_c> tenants = [SELECT Id, Email_c FROM Tenants_c];
  9
              for (Tenants_c tenant : tenants) {
  10 .
                  String recipientEmail = tenant.Email_c;
  11
                  String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent is due Your time
  12
                  String emailSubject = 'Reminder: Monthly Rent Payment Due';
  13
                  Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
  14
                  email.setToAddresses(new String[]{recipientEmail});
  15
                   email.setSubject(emailSubject);
  16
                   email.setPlainTextBody(emailContent);
  17
                   Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});
  18
  19
  20
  21
Logs, Tests, and Problems 1
```

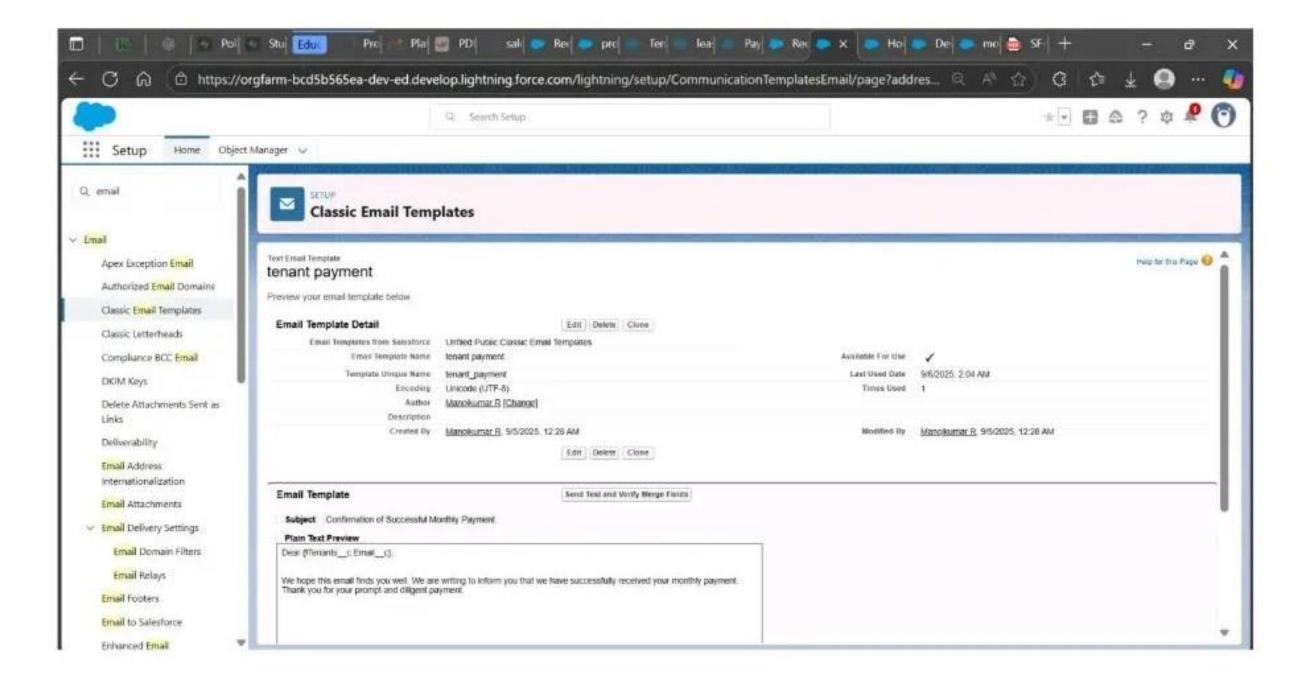
 Built and tested email templates for leave request, approval, rejection, payment, and reminders





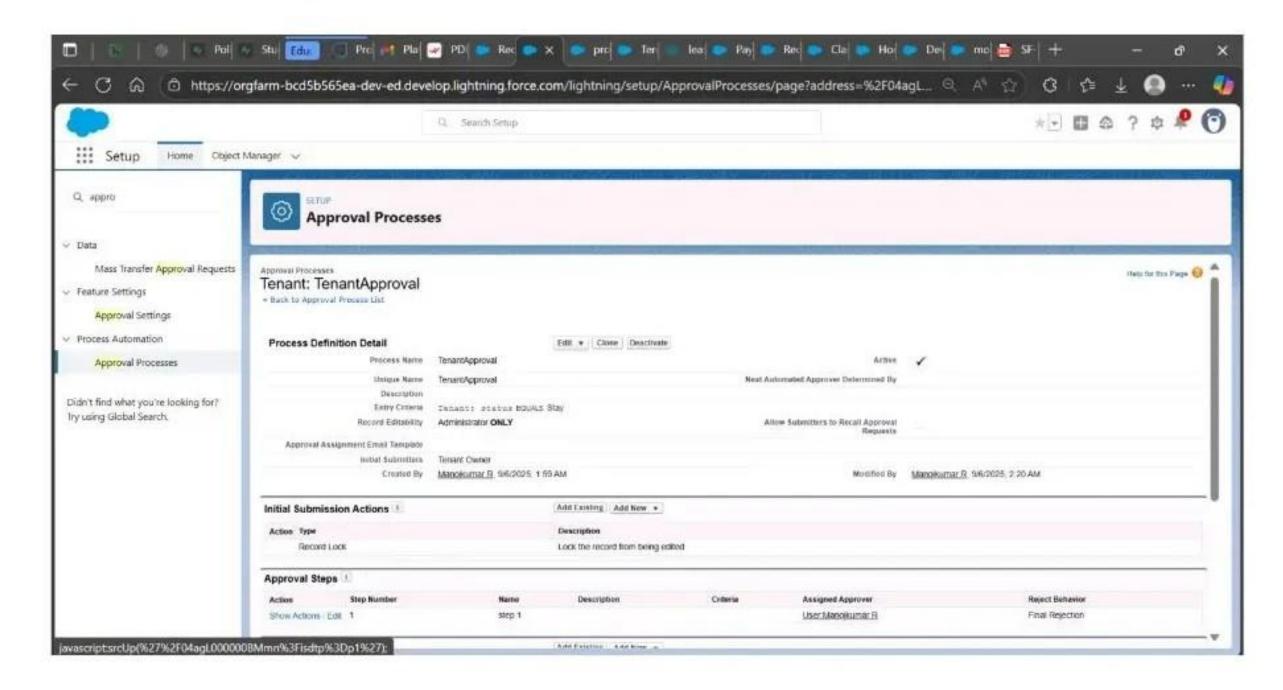




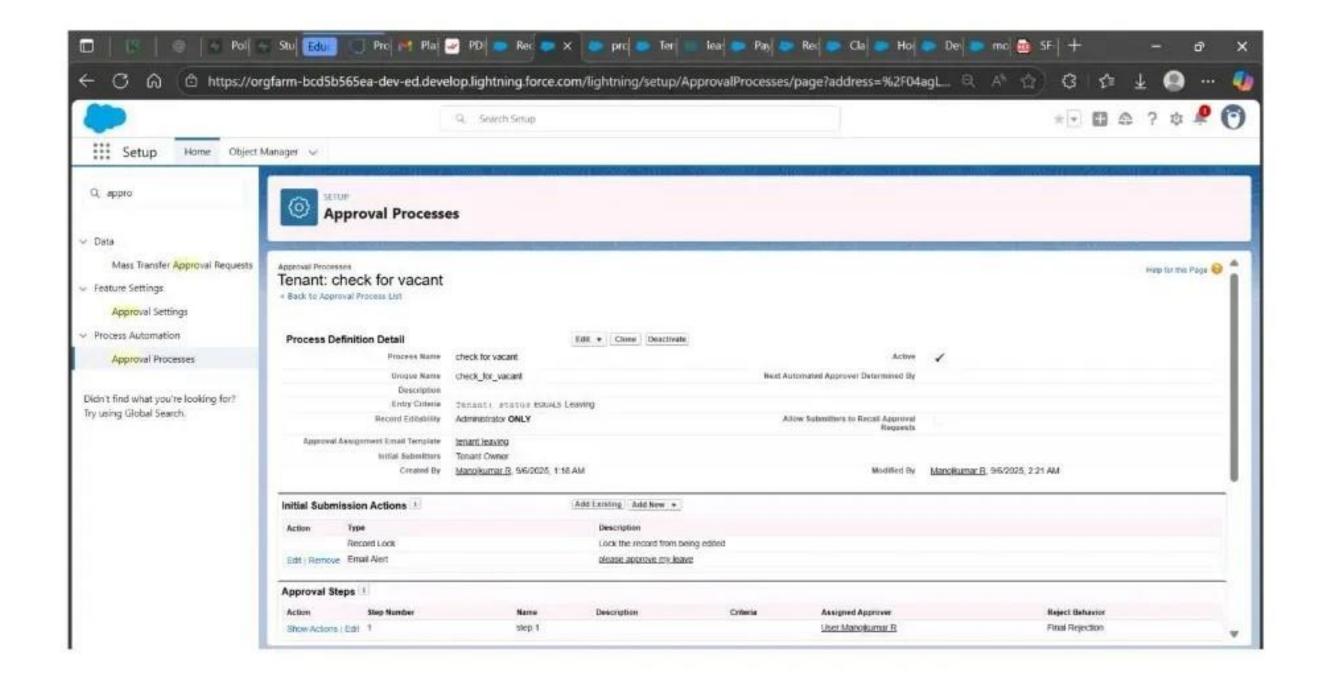


Approval Process creation

For Tenant Leaving:

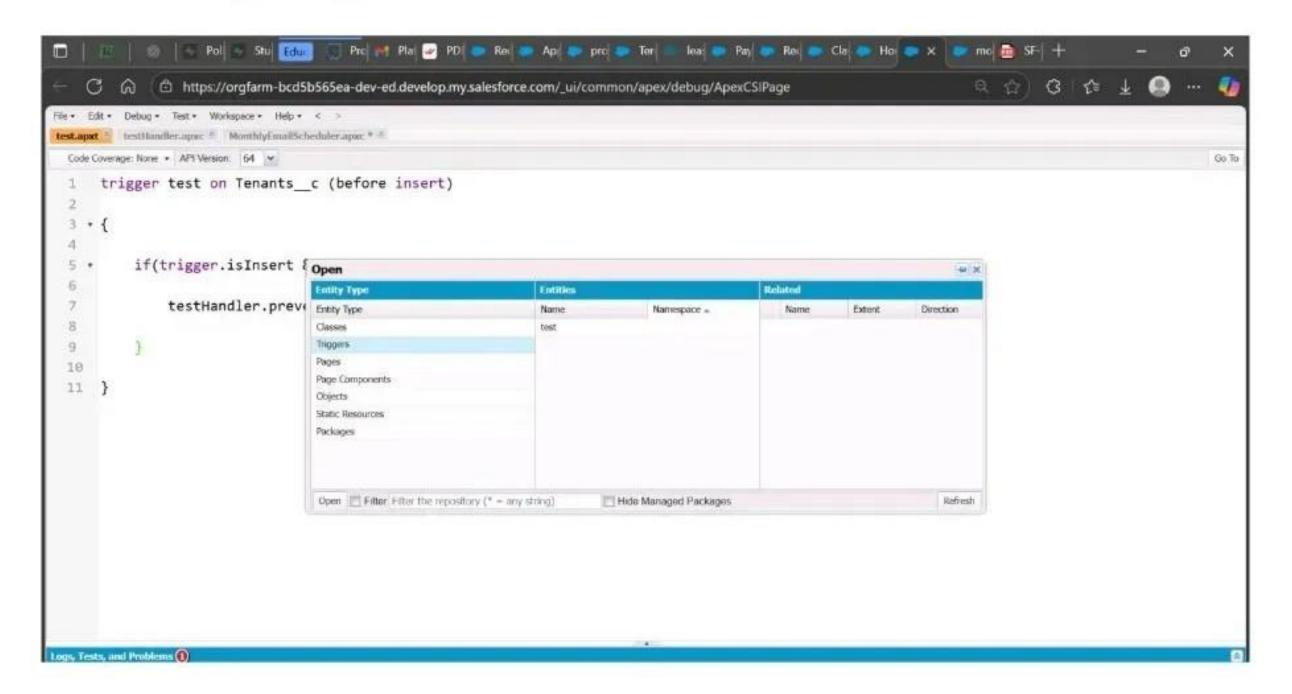


For Check for Vacant:

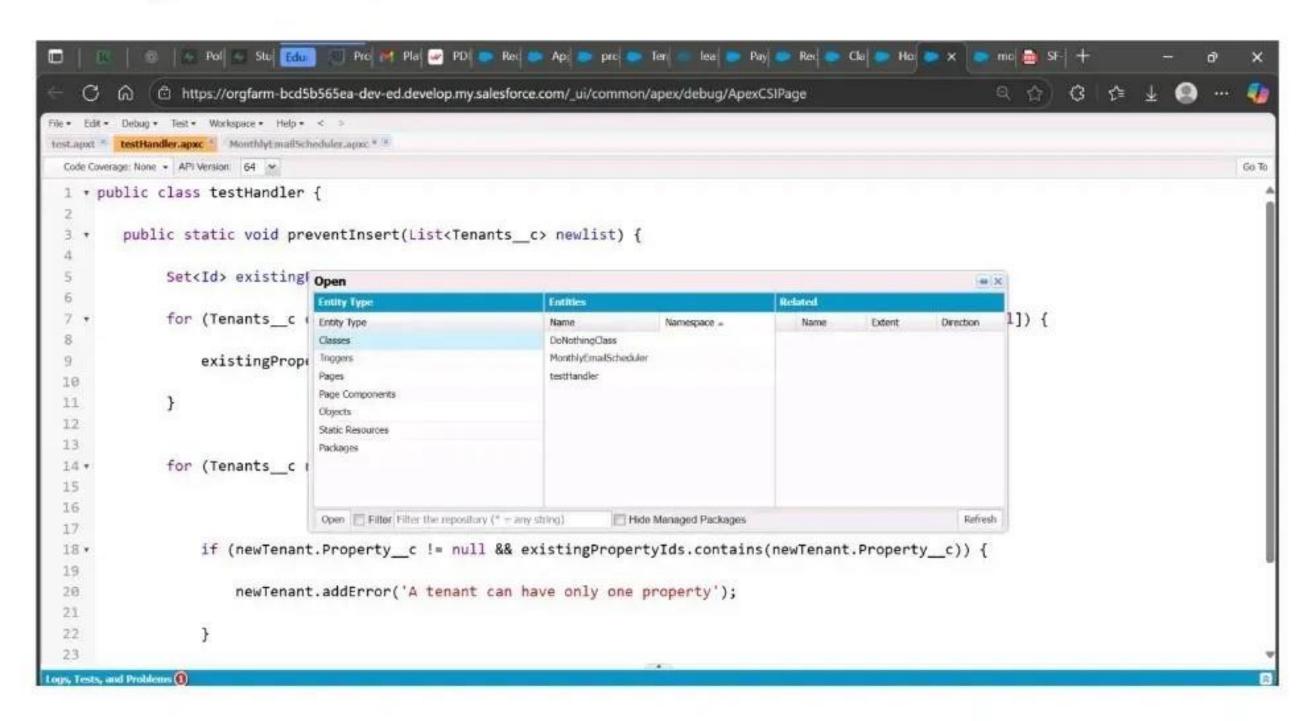


Apex Trigger

Create an Apex Trigger

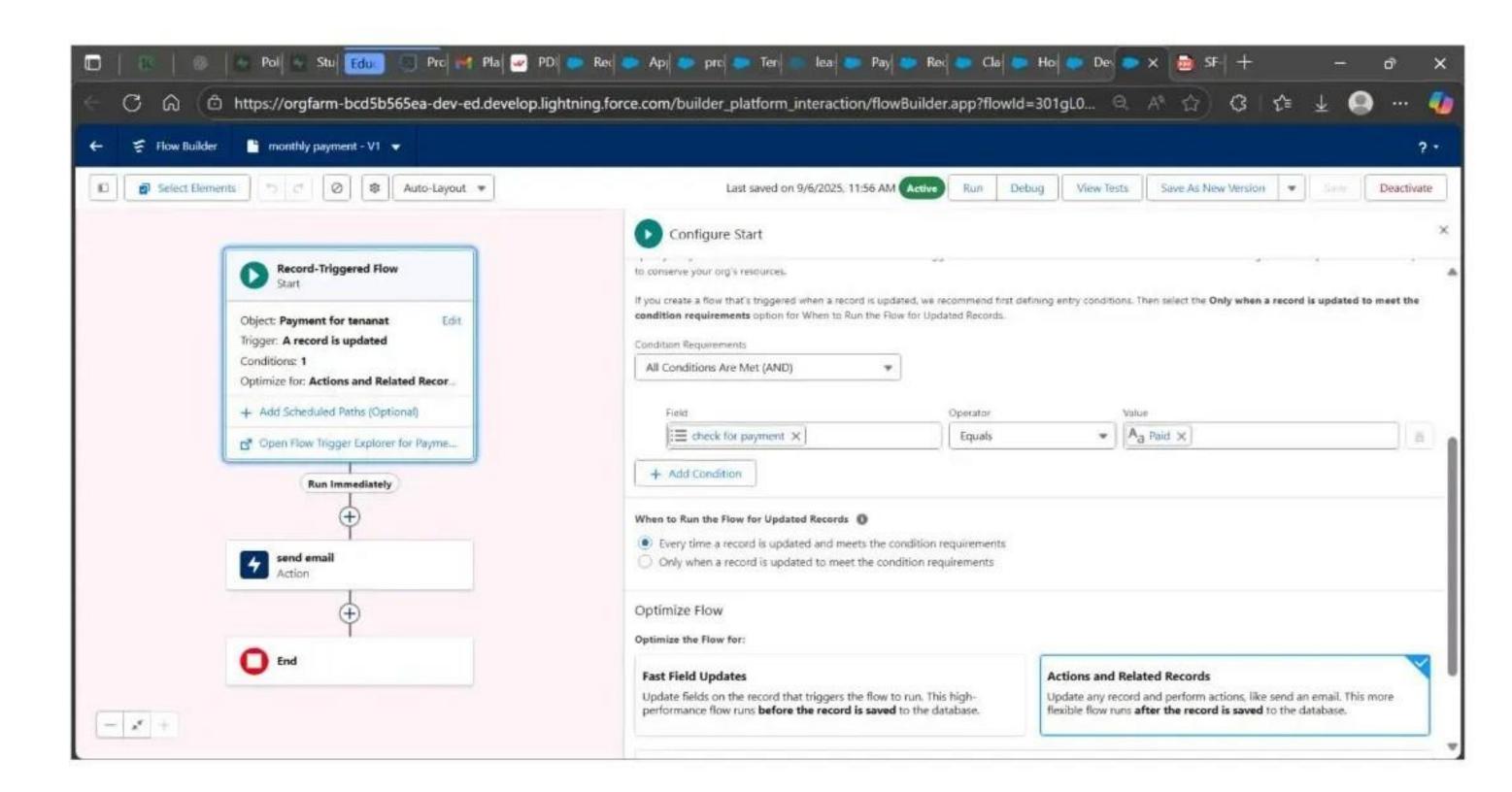


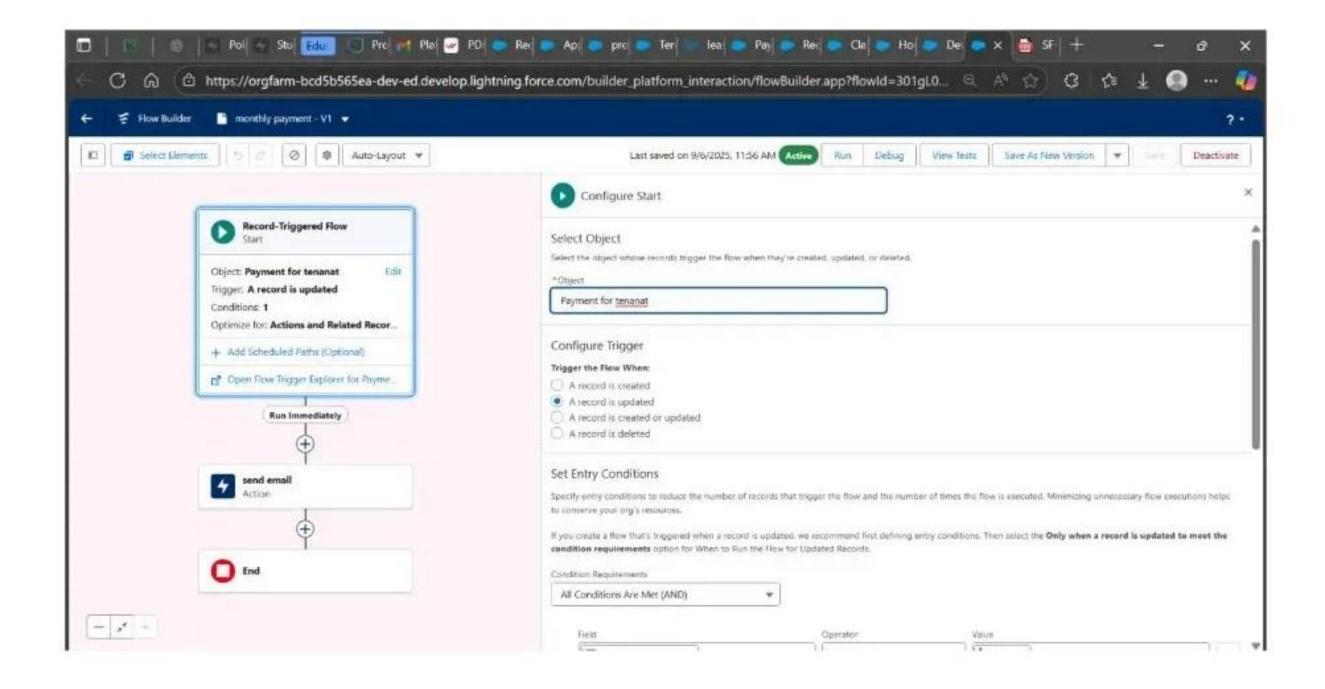
Create an Apex Handler class



```
Pro M Pla 🐷 PD 🧆 Rec 🤛 Apr 🤛 pro 🐌 Ten
    ↑  https://orgfarm-bcd5b565ea-dev-ed.develop.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
File . Edit . Debug . Test . Workspace . Help . <
test.apxt * testHandler.apxc * MonthlyEmailScheduler.apxc * *
 Code Coverage: None . API Version 64 .w.
 1 * public class testHandler {
         public static void preventInsert(List<Tenants_c> newlist) {
 3 *
 4
 5
              Set<Id> existingPropertyIds = new Set<Id>();
 6
              for (Tenants_c existingTenant : [SELECT Id, Property_c FROM Tenants_c WHERE Property_c != null]) {
 8
 9
                   existingPropertyIds.add(existingTenant.Property_c);
 18
 11
 12
 13
 14 +
              for (Tenants_c newTenant : newlist) {
 15
 16
 17
                  if (newTenant.Property_c != null && existingPropertyIds.contains(newTenant.Property_c)) {
 18 v
 19
 20
                       newTenant.addError('A tenant can have only one property');
 21
 22
 23
Logs, Tests, and Problems 🕦
```

FLOWS



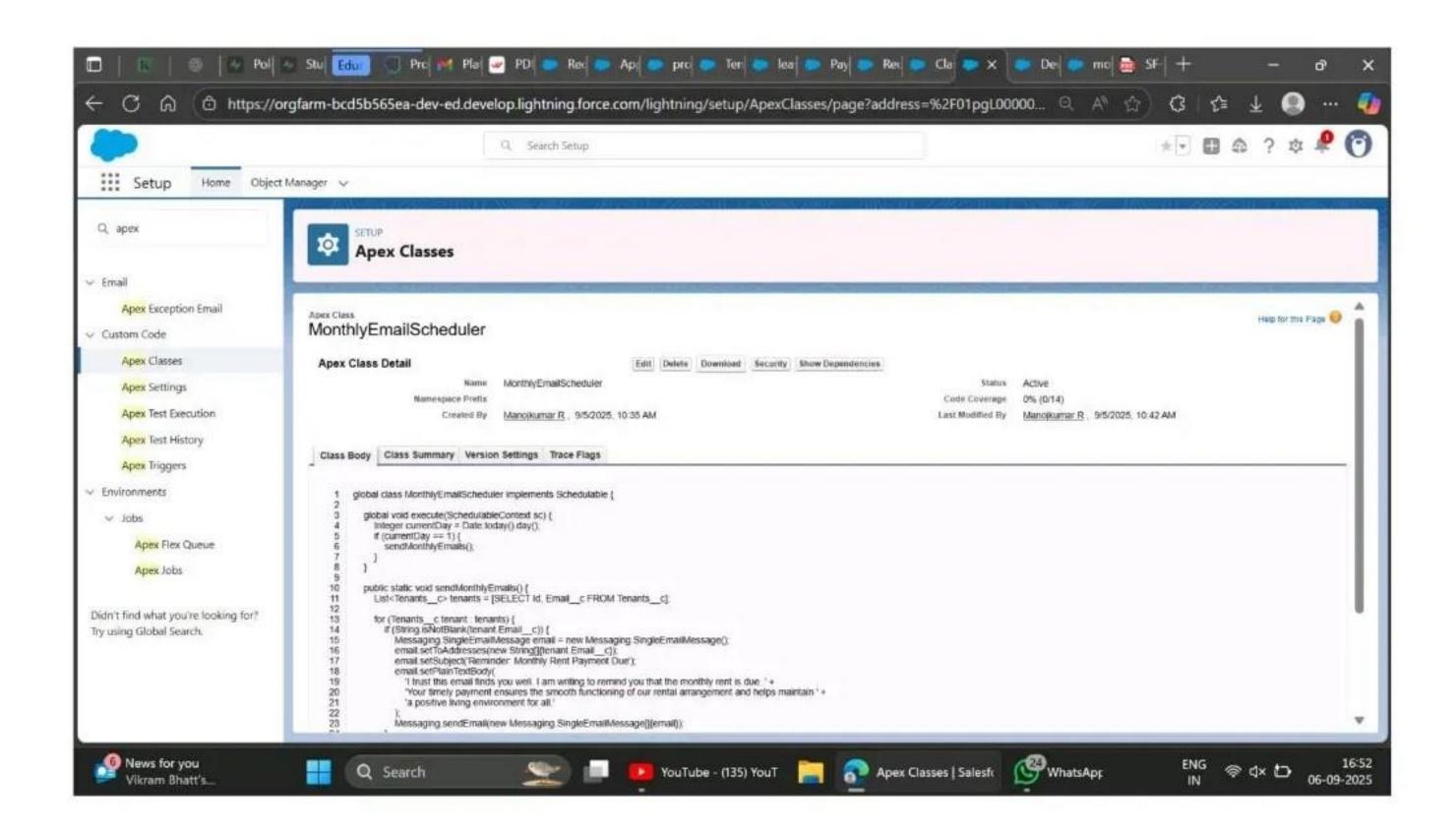


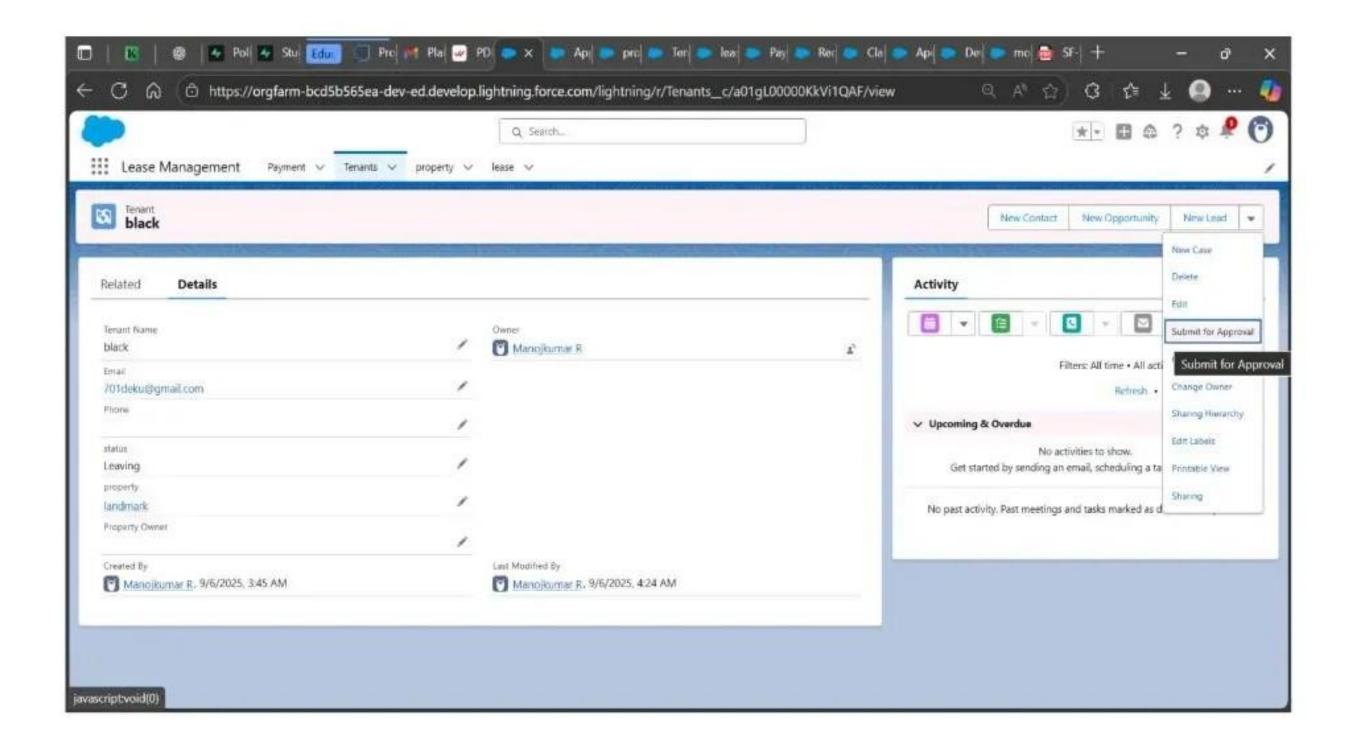
Schedule class:
 Create an Apex Class

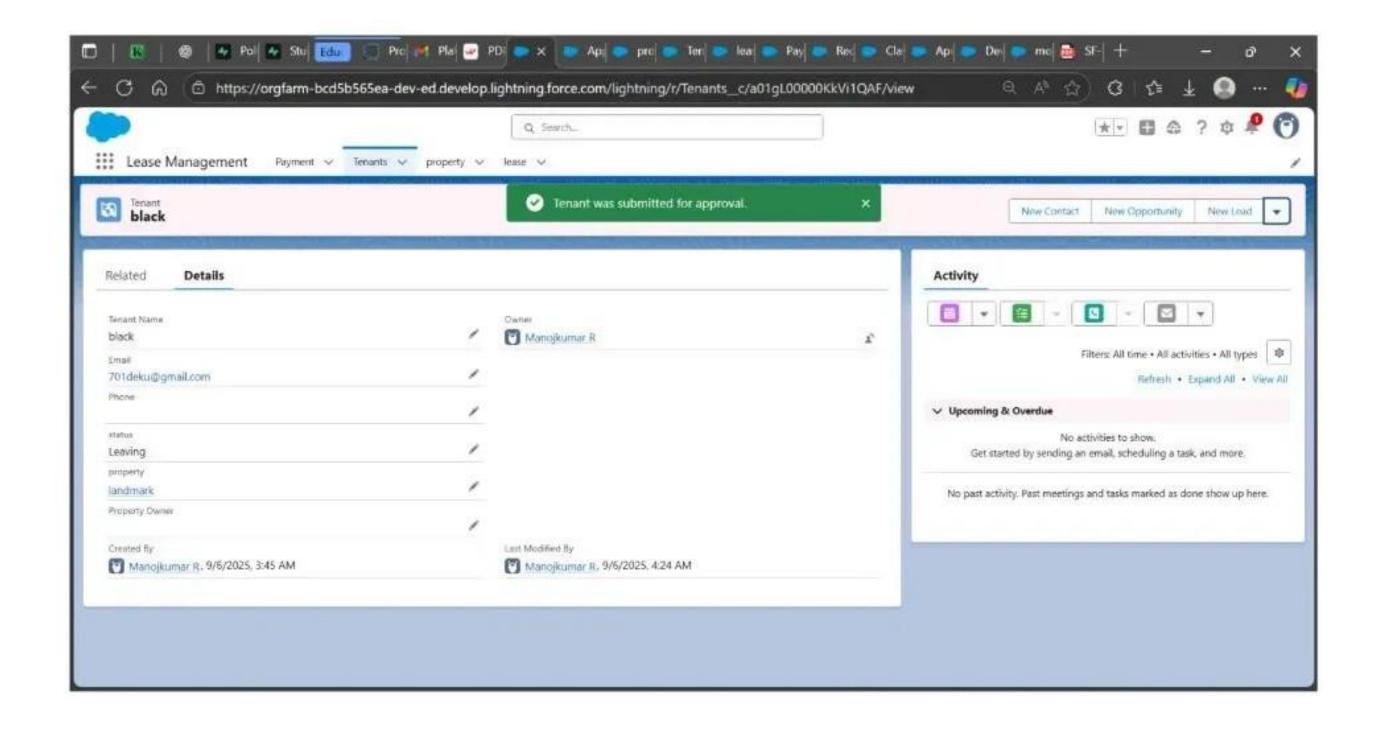
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   File * Edit * Debug * Test * Workspace * Help * <
test.apxt * testHandler.apxc * MonthlyEmaRScheduler.apxc * *
 Code Coverage: None + API Version: 64 ₩
                                                                                                                                     Go To
 1 * global class MonthlyEmailScheduler implements Schedulable {
         global void execute(SchedulableContext sc) {
             Integer currentDay = Date.today().day();
             if (currentDay == 1) {
 4 +
 5
                 sendMonthlyEmails();
 6
 8 +
         public static void sendMonthlyEmails() {
             List<Tenants_c> tenants = [SELECT Id, Email_c FROM Tenants_c];
 9
 10 +
             for (Tenants_c tenant : tenants) {
                String recipientEmail = tenant.Email_c;
 11
 12
                String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent is due Your time
                 String emailSubject = 'Reminder: Monthly Rent Payment Due';
 13
 14
                Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
 15
                 email.setToAddresses(new String[]{recipientEmail});
 16
                 email.setSubject(emailSubject);
                 email.setPlainTextBody(emailContent);
                 Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});
 18
 19
 20
 21 }
Logs, Tests, and Problems 📵
```

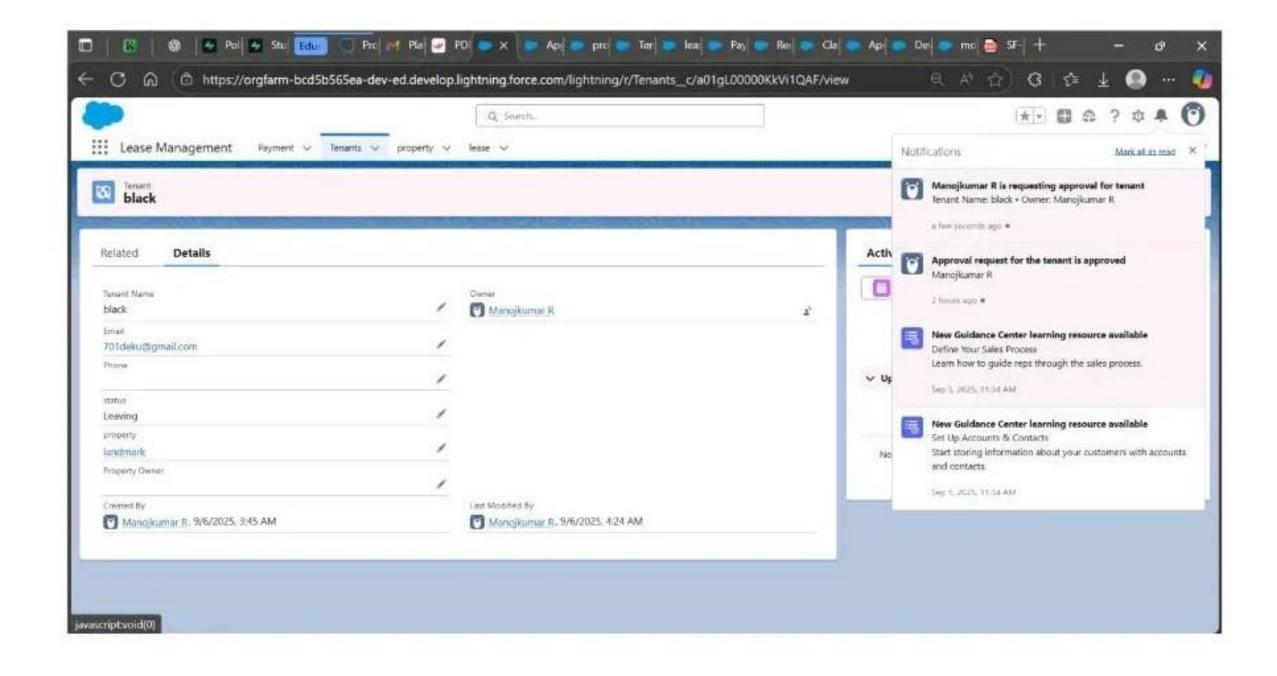
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test.apid * testHandler.apic * MonthlyEmailScheduler.apic * *
 Code Coverage: None • API Version: 64 💌
 1 . global class MonthlyEmailScheduler implements Schedulable {
          global void execute(SchedulableContext sc) {
              Integer currentDay = Date.today().day();
 4 +
              if (currentDay == 1) {
                  sendMonthlyEmails();
          public static void sendMonthlyEmails() {
 8 *
 9
              List<Tenants_c> tenants = [SELECT Id, Email_c FROM Tenants_c];
 10 +
              for (Tenants_c tenant : tenants) {
 11
                  String recipientEmail = tenant.Email_c;
 12
                  String emailContent = 'I trust this email finds you well. I am writing to remind you that the monthly rent is due Your time
 13
                  String emailSubject = 'Reminder: Monthly Rent Payment Due';
 14
                  Messaging.SingleEmailMessage email = new Messaging.SingleEmailMessage();
                  email.setToAddresses(new String[]{recipientEmail});
 15
                  email.setSubject(emailSubject);
 16
                  email.setPlainTextBody(emailContent);
 17
                   Messaging.sendEmail(new Messaging.SingleEmailMessage[]{email});
 18
 19
 20
 21 }
```

Schedule Apex class





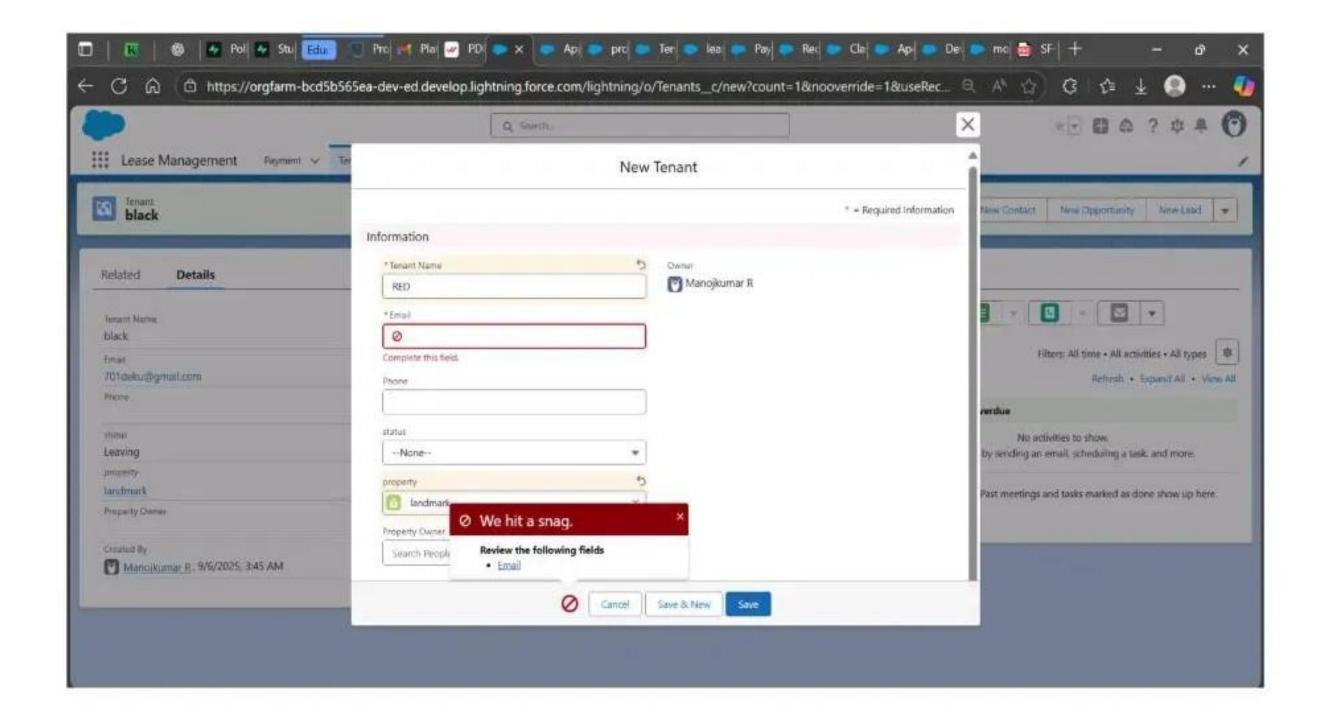




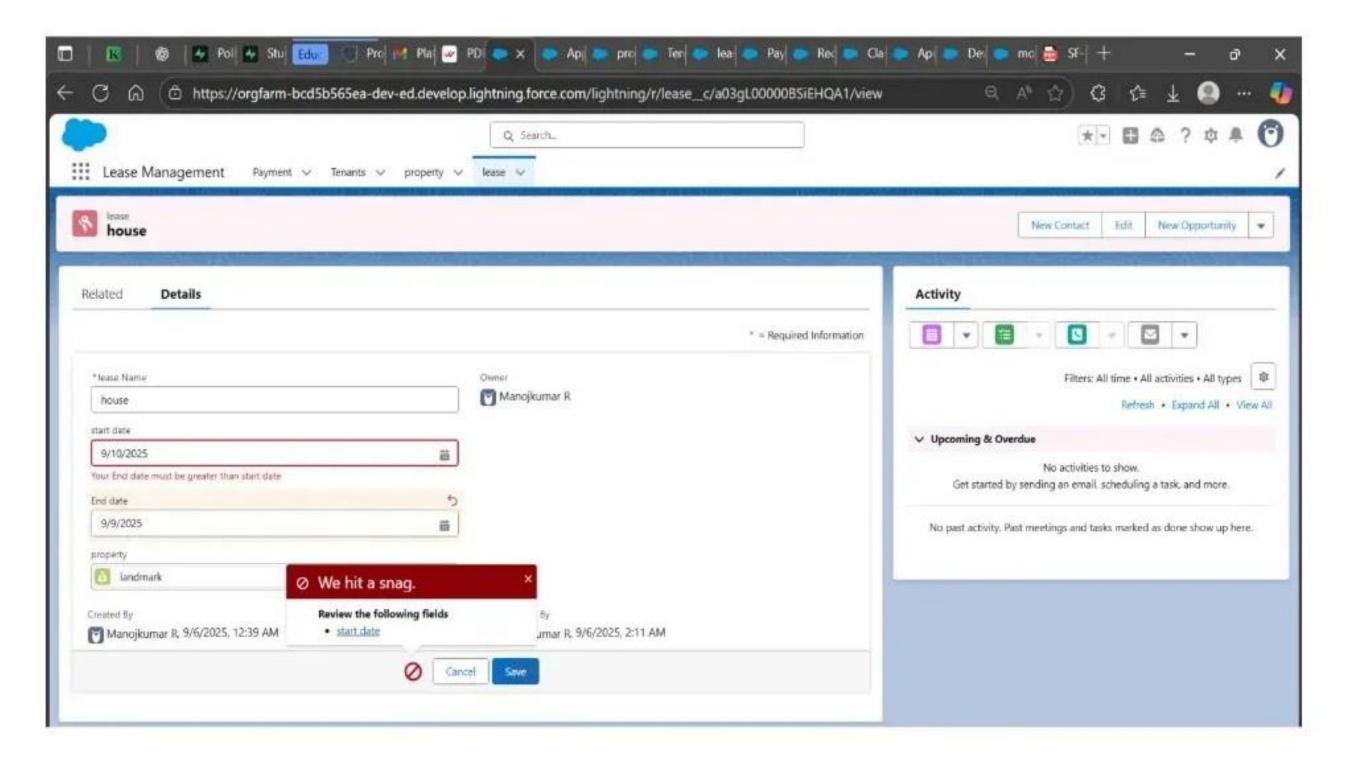
FUNCTIONAL AND PERFORMANCE TESTING

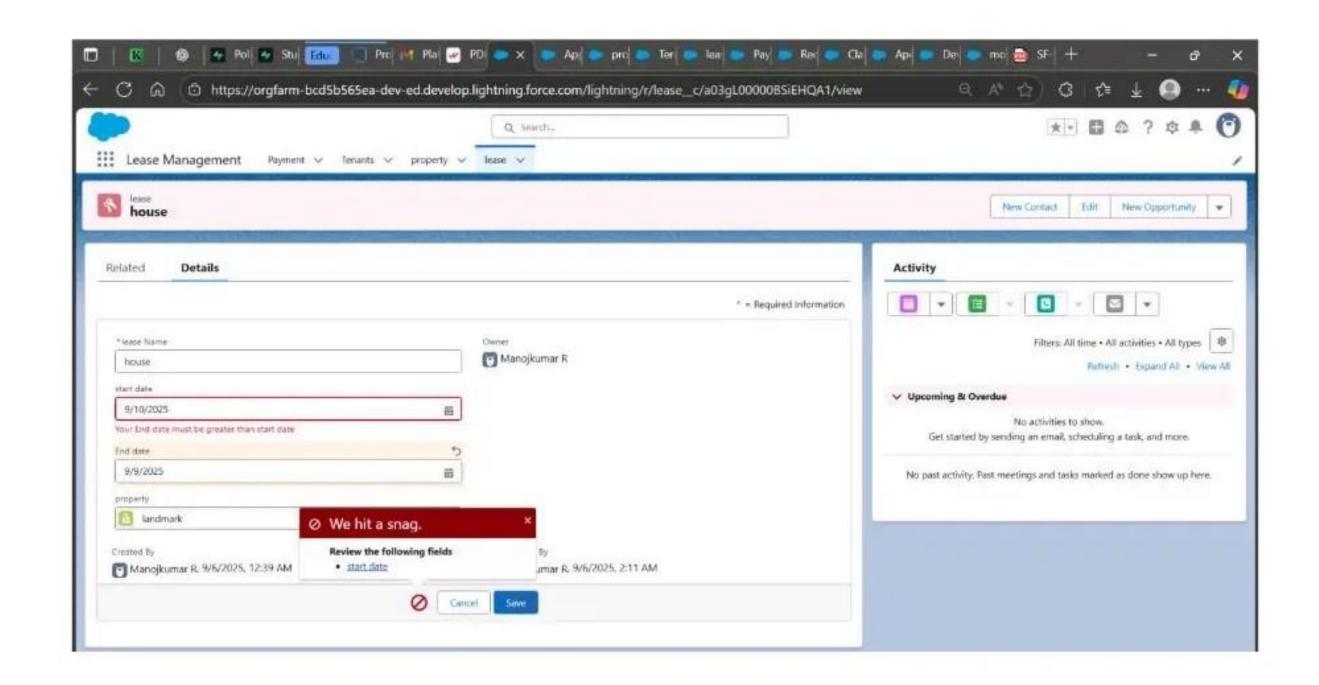
Performance Testing

• Trigger validation by entering duplicate tenant-property records

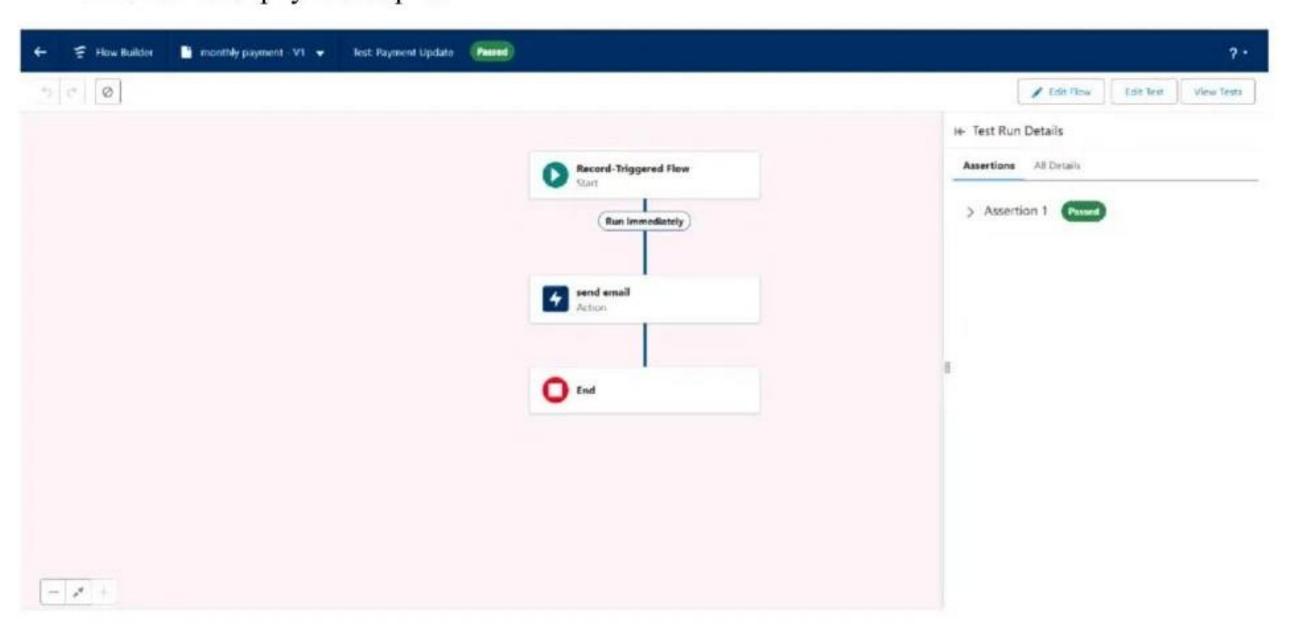


Validation Rule checking

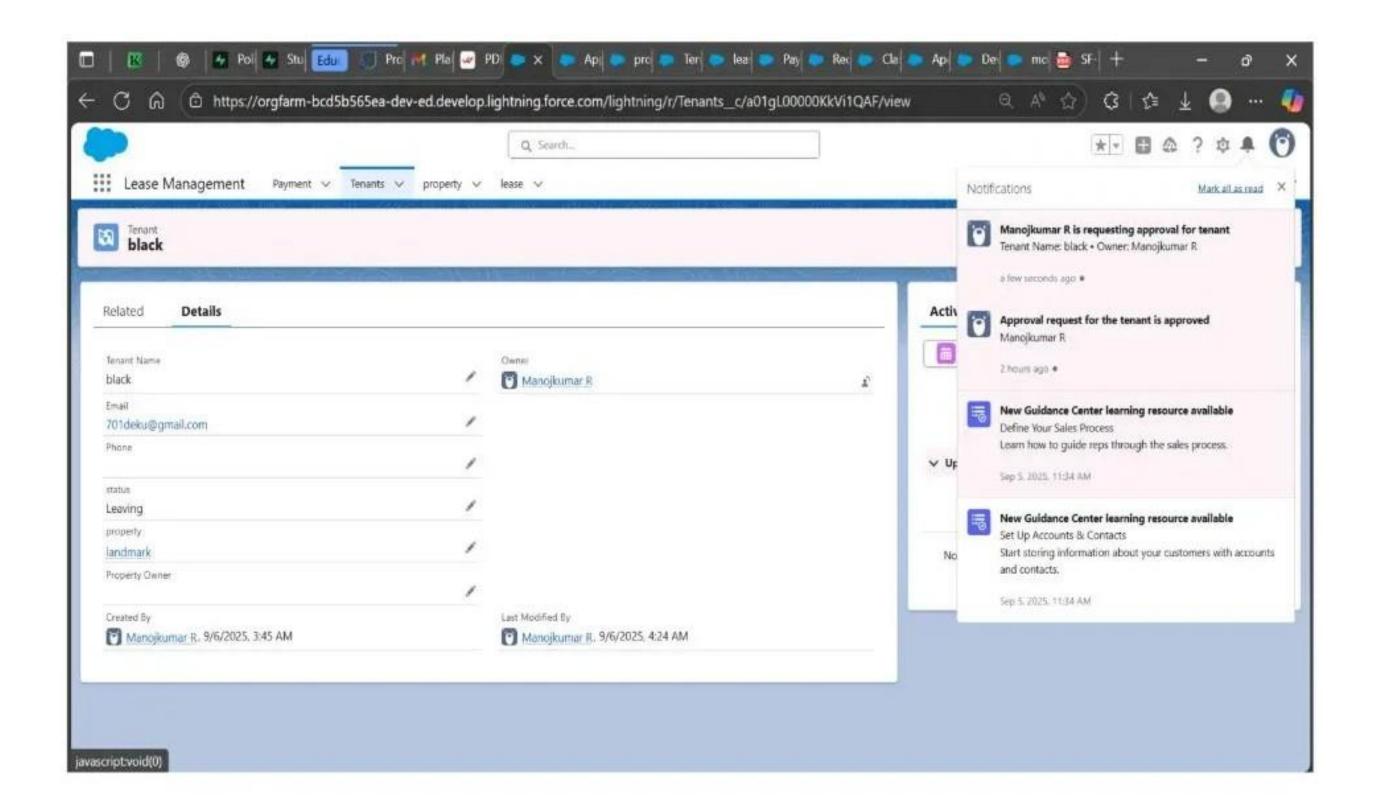


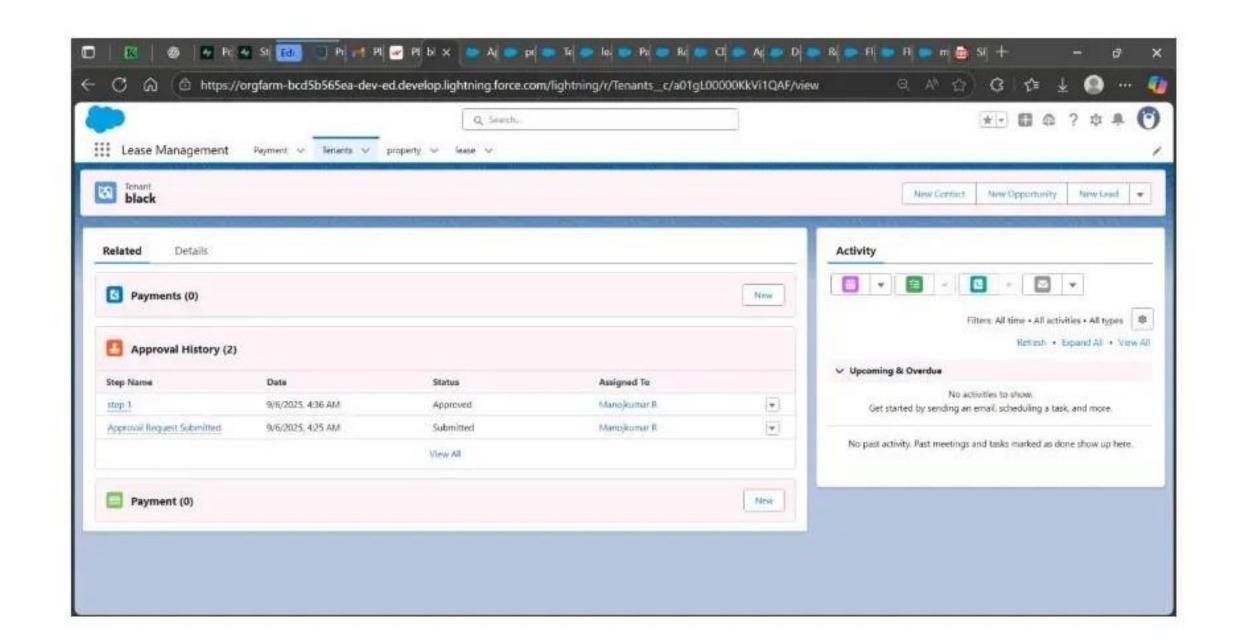


Test flows on payment update



Approval process validated through email alerts and status updates





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});

}
```