LEASE MANAGEMENT

College Name: Chikkanna Goverment Arts College

College Code: bru06

TEAM ID:

TEAM MEMBERS:

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Email: dhanushdhanush2644@gmail.com

1.INTRODUCTION

1.1 Project Overview

The Lease Management System is a Salesforce-based application designed to streamline the processes associated with leasing real estate properties. It handles tenant management, lease

contracts, payments, and communication with automation features such as flows, approval processes, and email alerts.

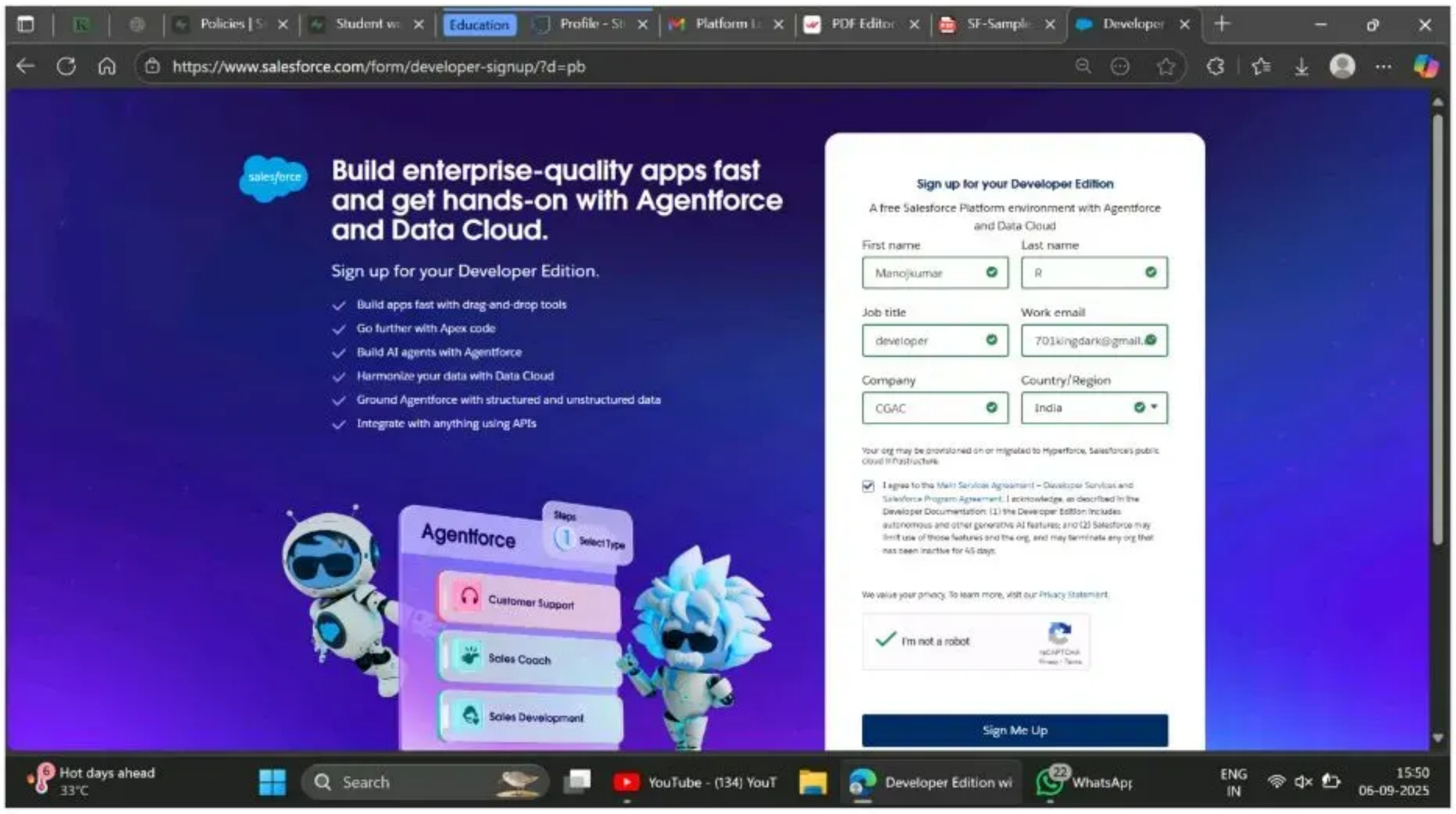
1.2 Purpose

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

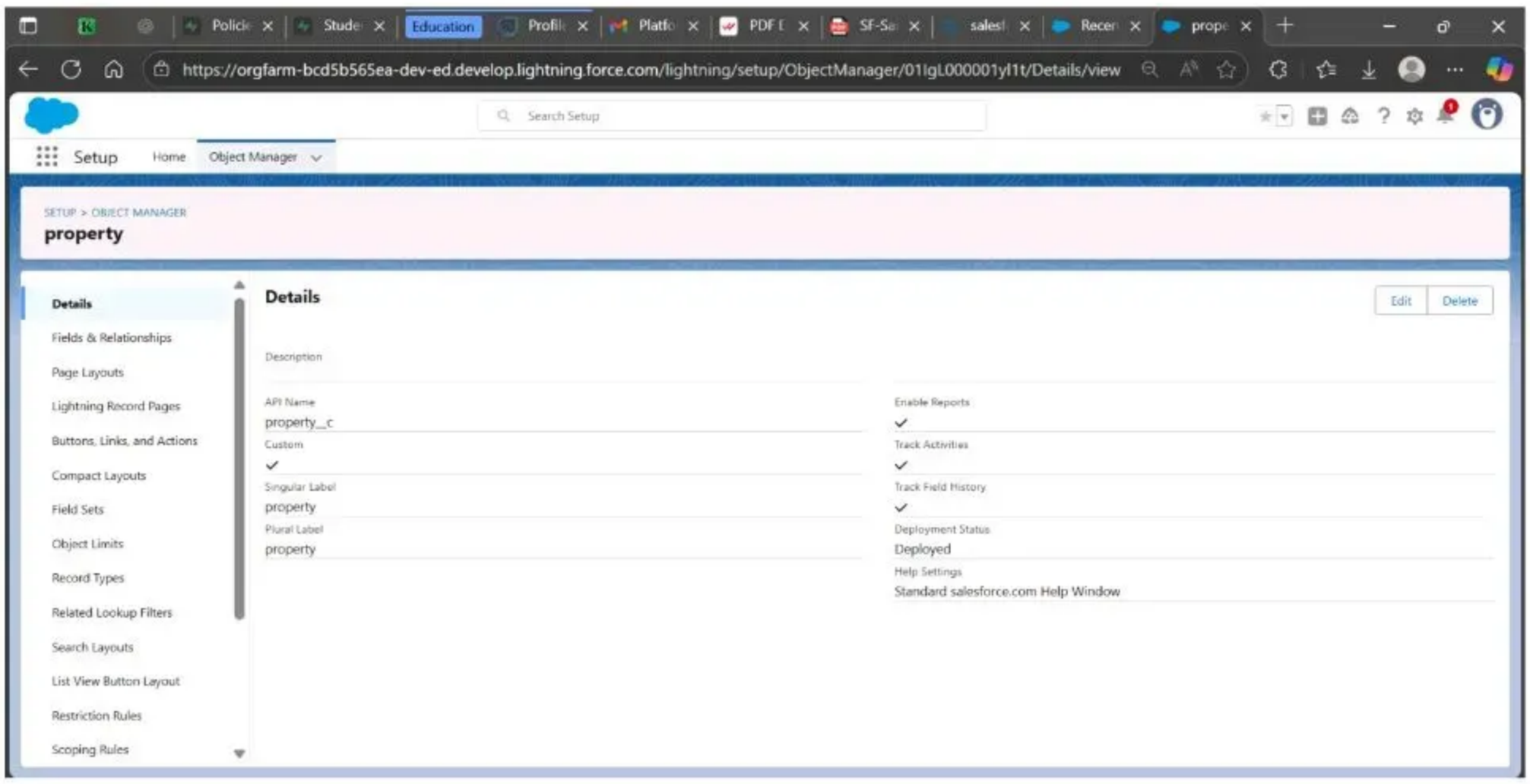
DEVELOPMENT PHASE

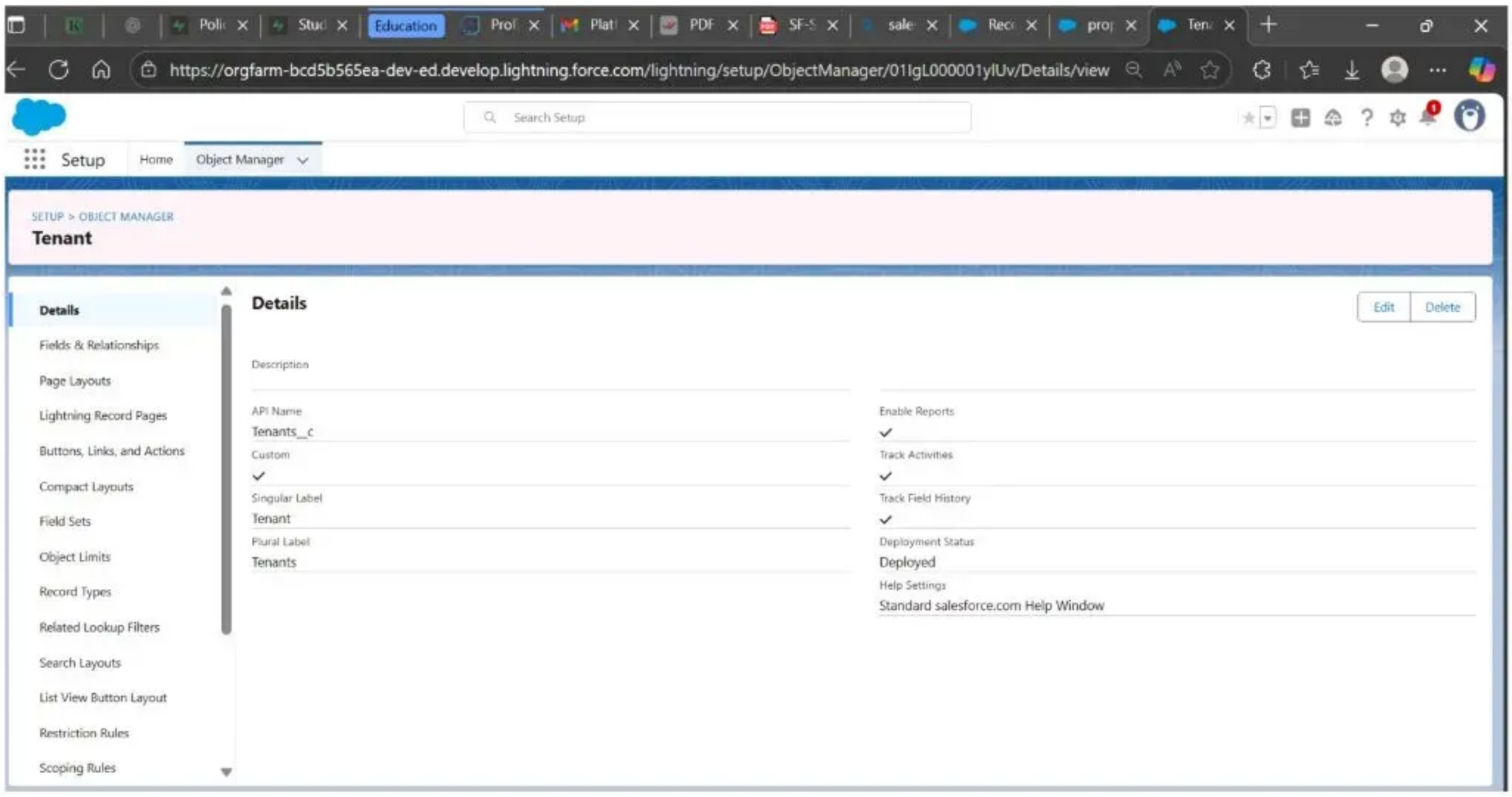
Creating Developer Account:

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



- Created objects: Property, Tenant, Lease, Payment

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Search Setup
Setup
Home
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
Details
Edit
Delete
Description
API Name
Tenants__c
Custom
Singular Label
Tenant
Plural Label
Tenants
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
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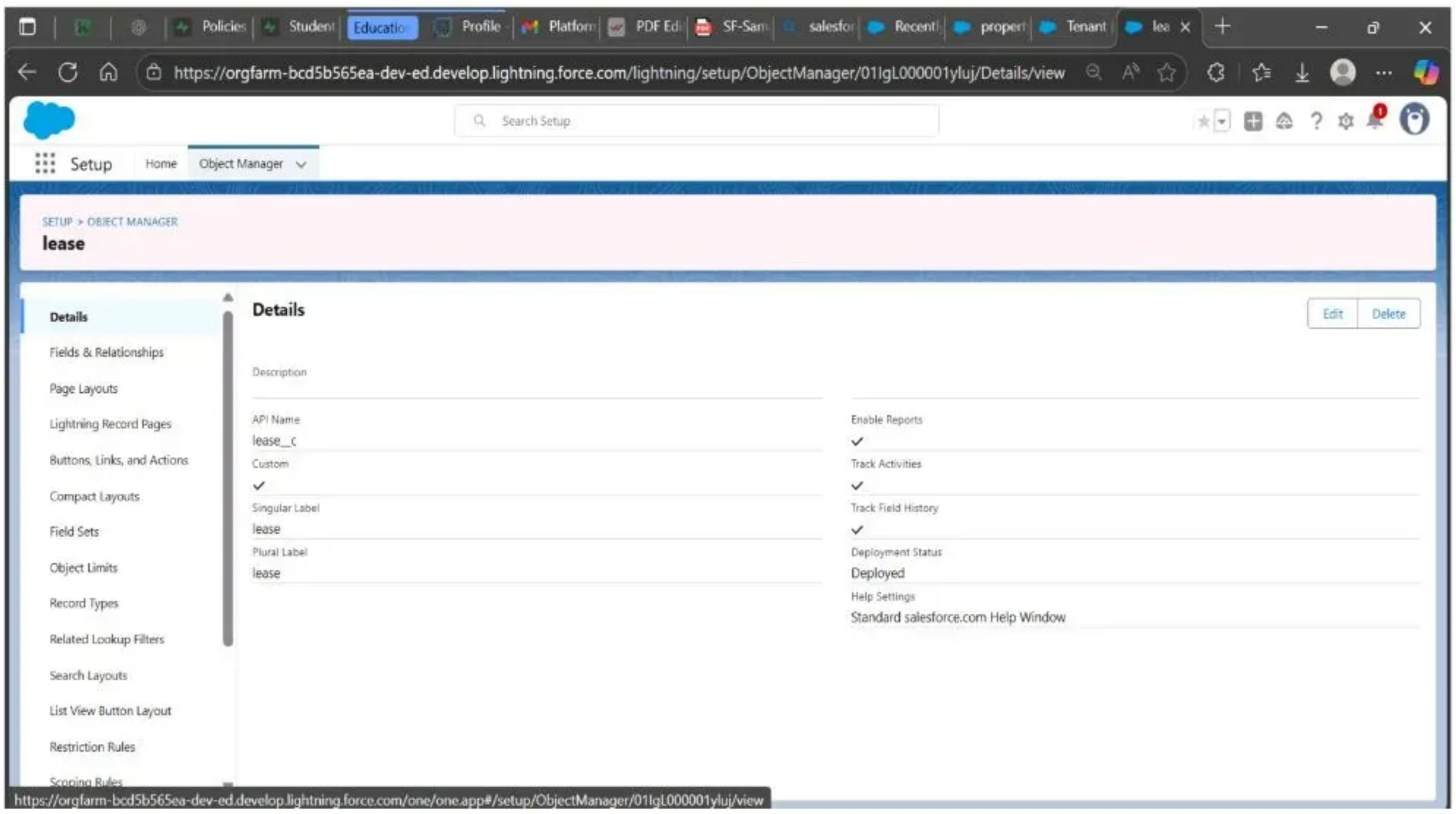
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Search Setup
Setup
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SETUP > OBJECT MANAGER
lease
Details
Fields & Relationships
Page Layouts
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Buttons, Links, and Actions
Compact Layouts
Field Sets
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Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Details
Edit
Delete
Description
API Name
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Custom
Singular Label
lease
Plural Label
lease
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
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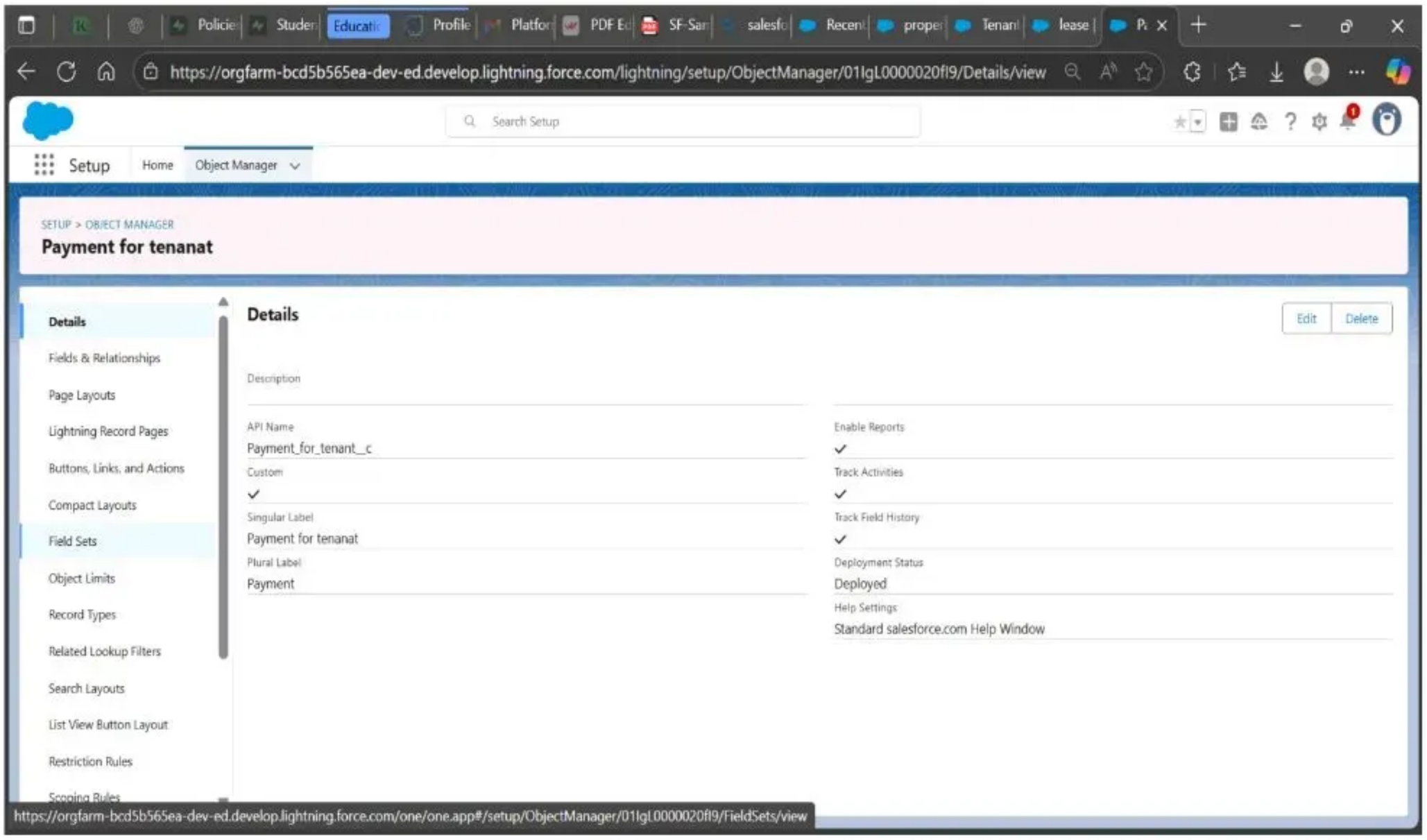
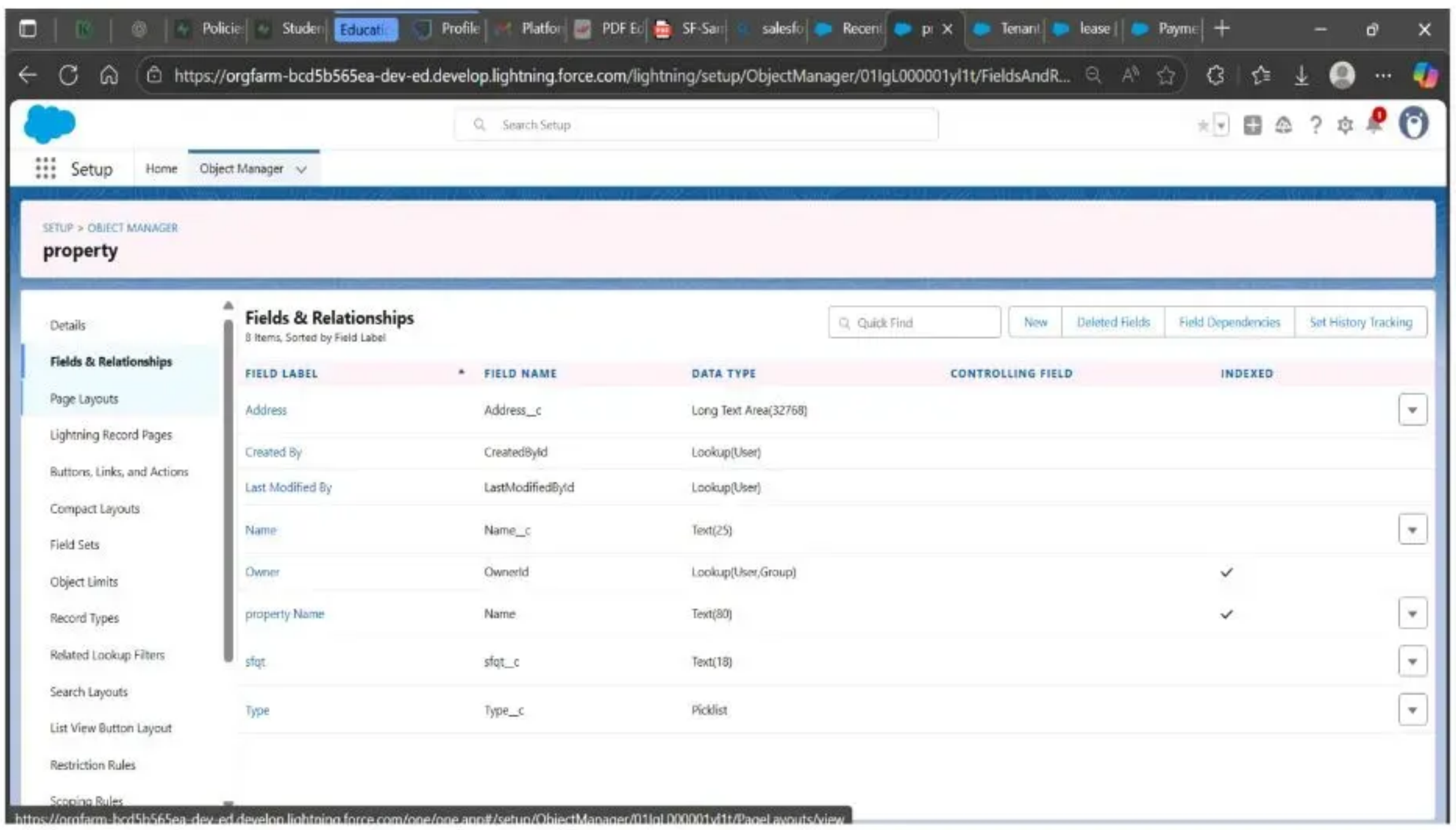


- Configured fields and relationships



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Search Setup

Setup | Home | 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

9 Items, Sorted by Field Label

Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

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

Search Setup

Setup | Home | Object Manager

SETUP > OBJECT MANAGER

lease

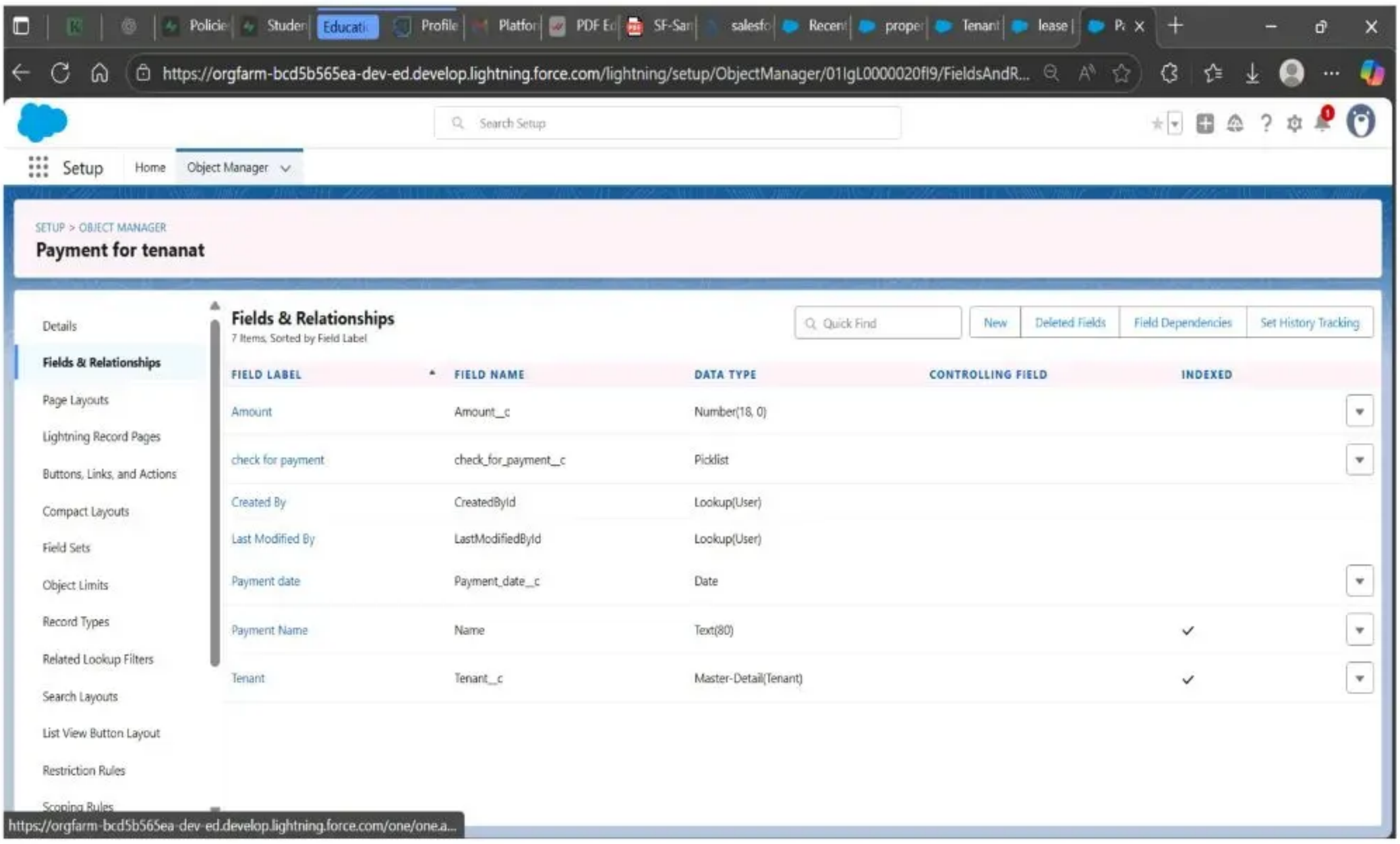
- Details
- **Fields & Relationships**
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules
- Scoping Rules

Fields & Relationships

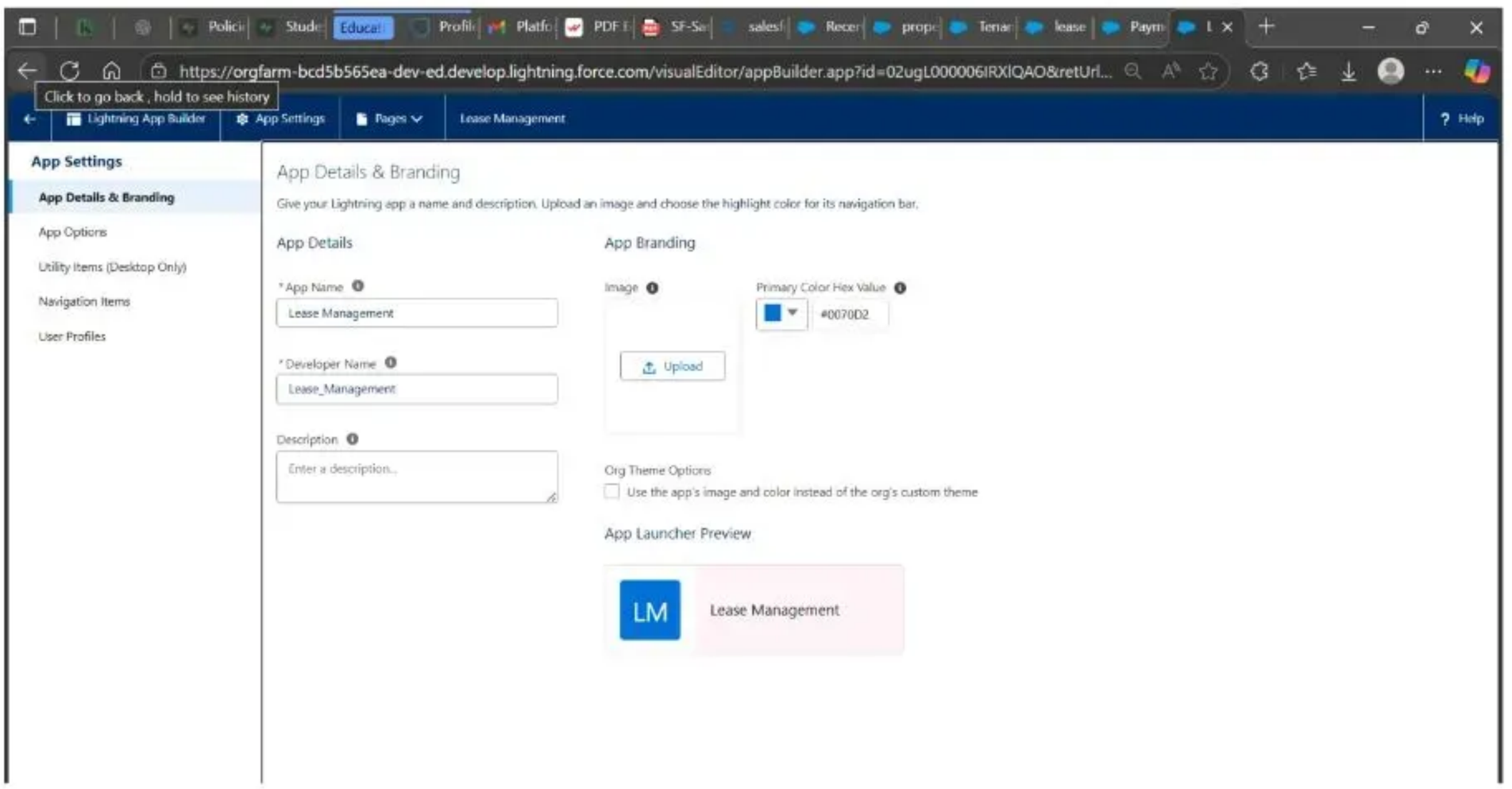
7 Items, Sorted by Field Label

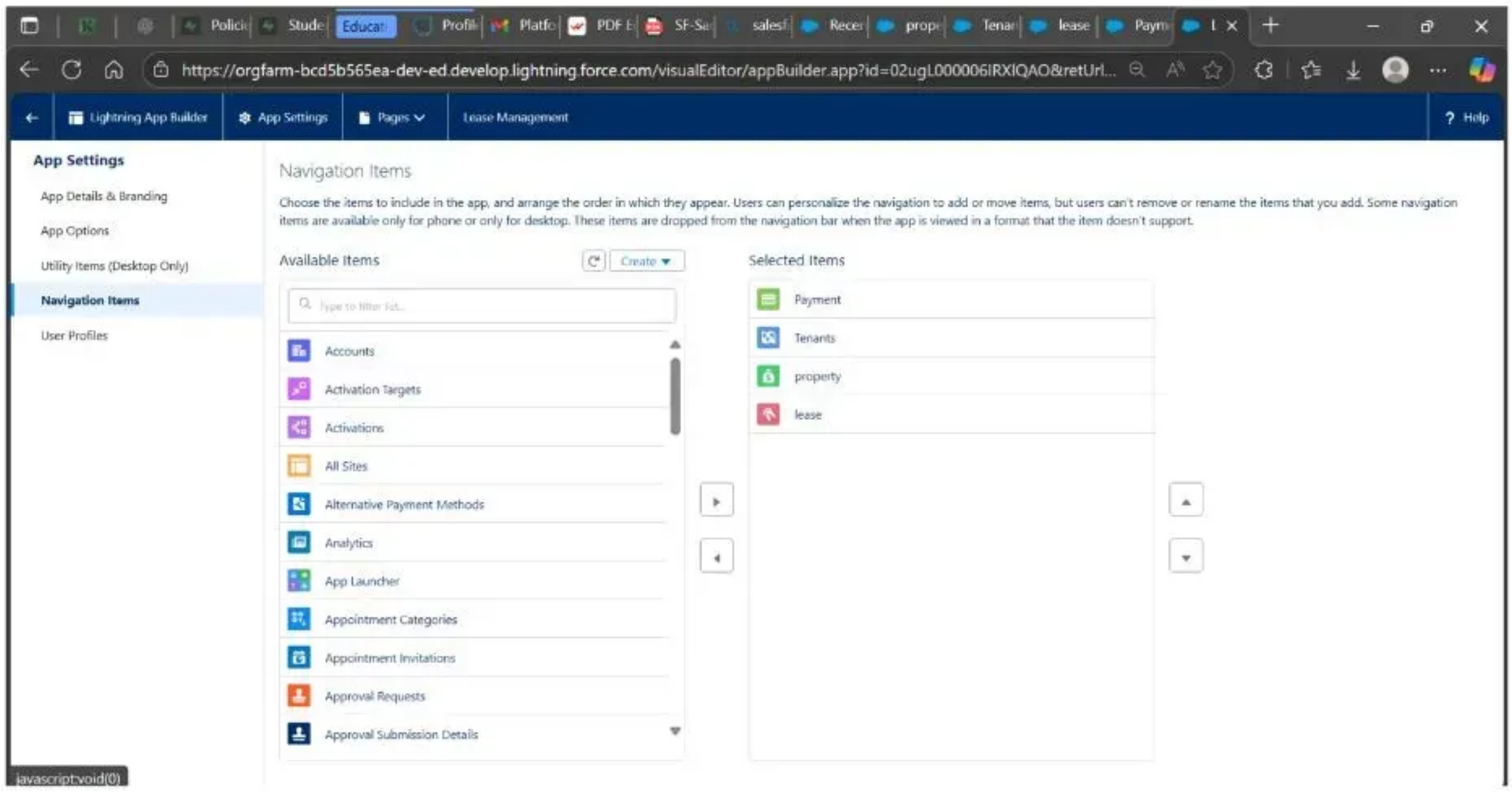
Quick Find | New | Deleted Fields | Field Dependencies | Set History Tracking

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		



- Developed Lightning App with relevant tabs

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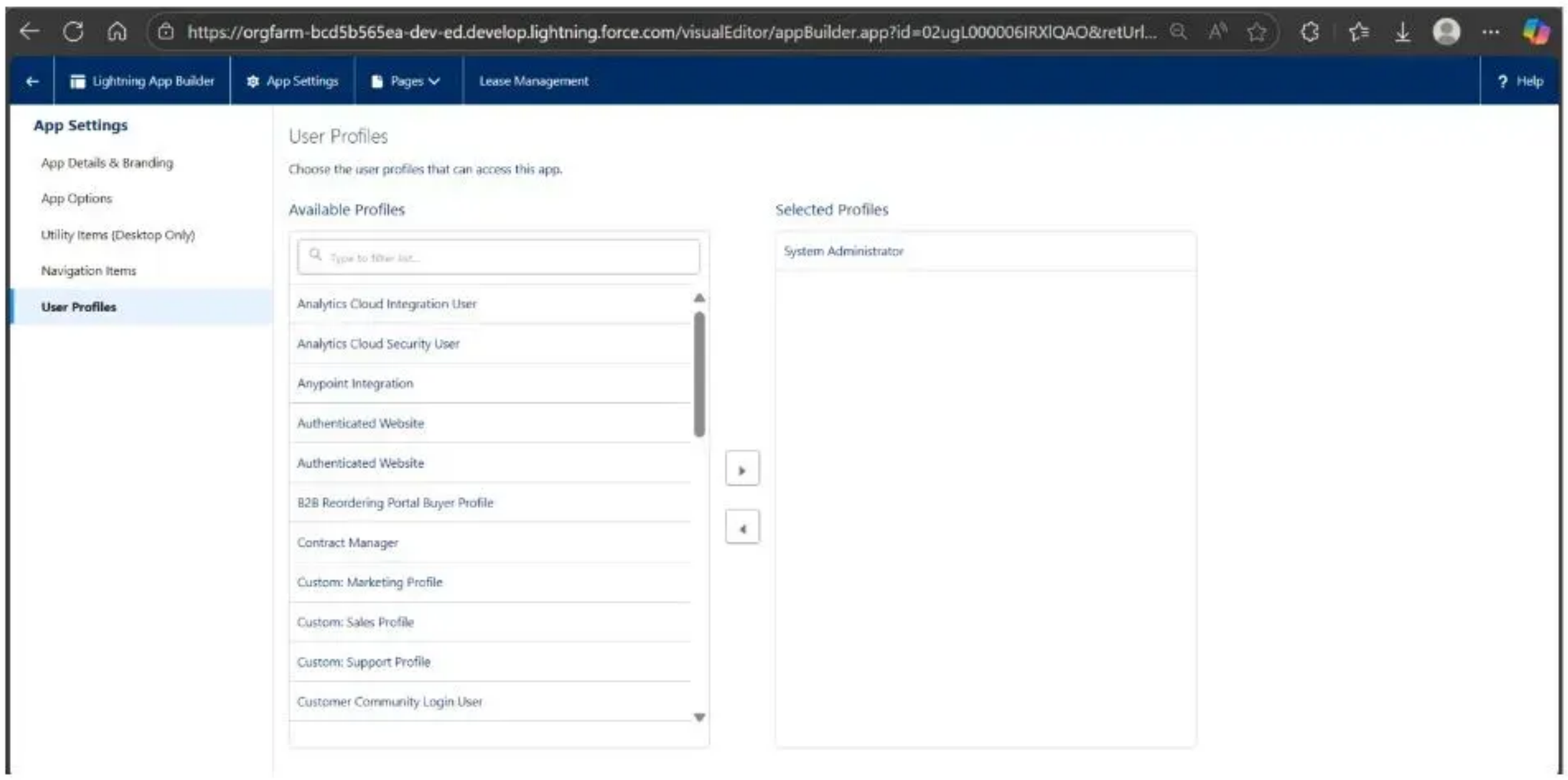
Lightning App Builder
App Settings
Pages
Lease Management
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
Navigation Items
Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.
Available Items
Create
Selected Items
Payment
Tenants
property
lease
Accounts
Activation Targets
Activations
All Sites
Alternative Payment Methods
Analytics
App Launcher
Appointment Categories
Appointment Invitations
Approval Requests
Approval Submission Details
javascript:void(0)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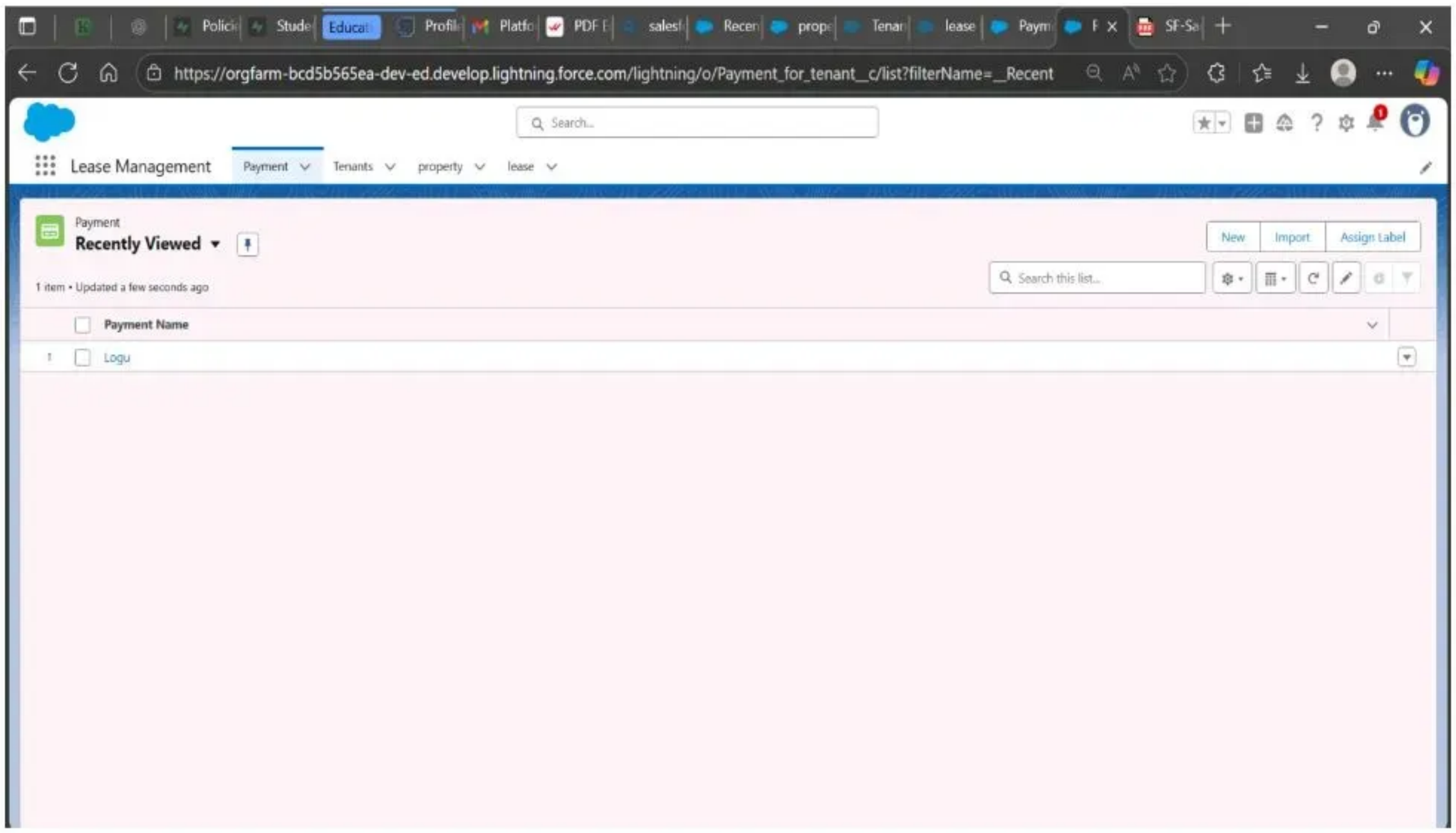
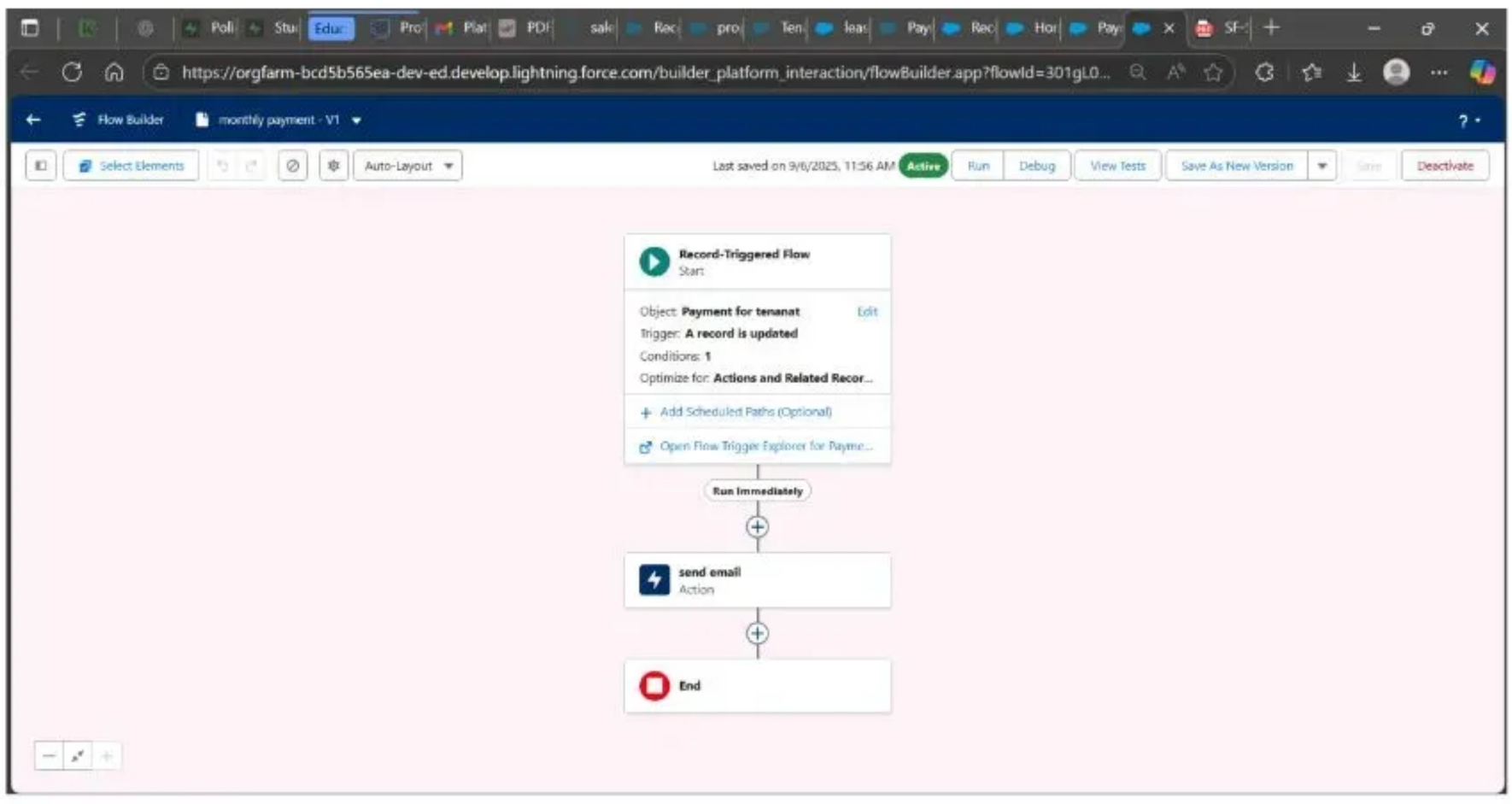
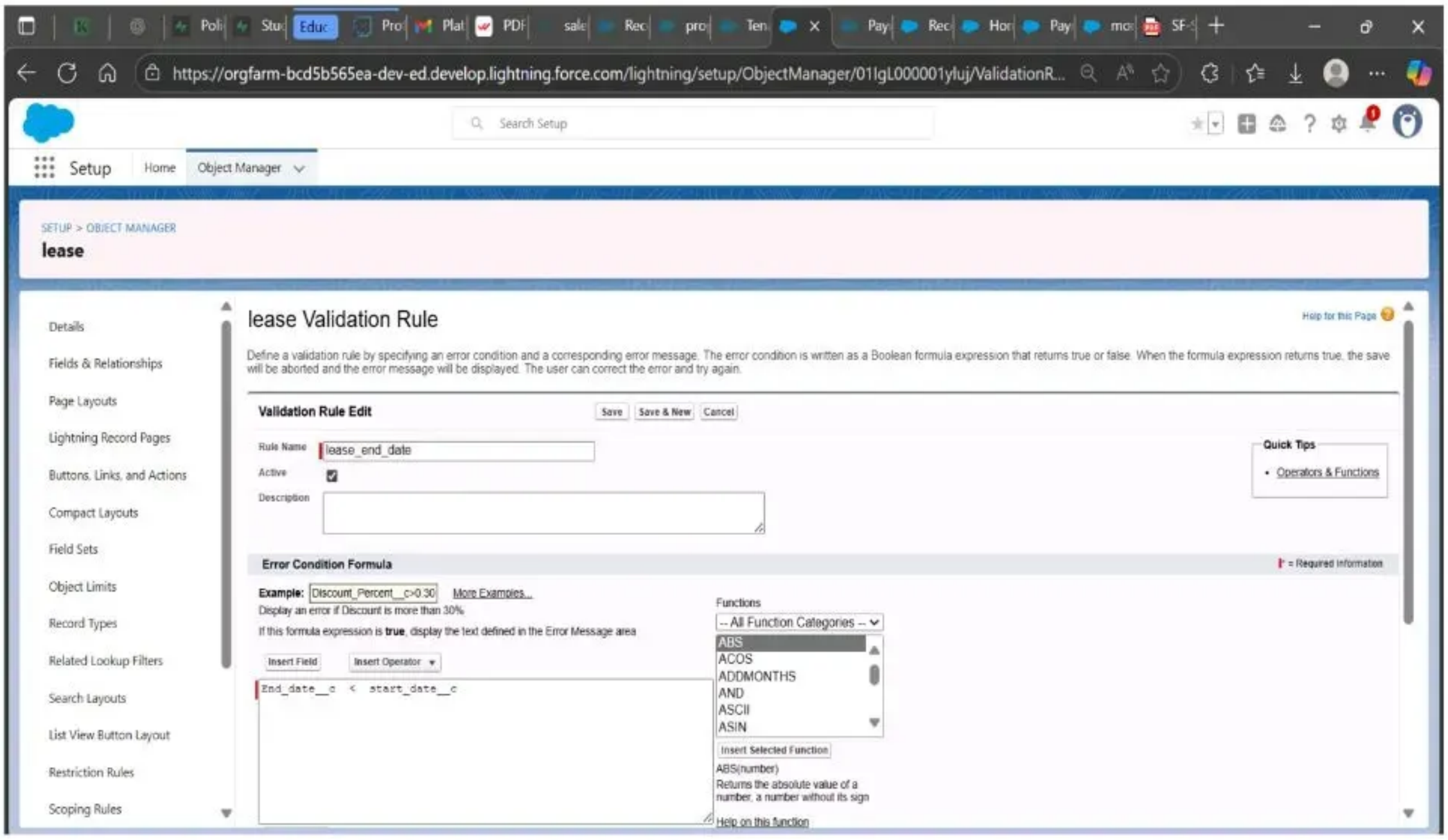
Lightning App Builder
App Settings
Pages
Lease Management
Help
App Settings
App Details & Branding
App Options
Utility Items (Desktop Only)
Navigation Items
User Profiles
User Profiles
Choose the user profiles that can access this app.
Available Profiles
Selected Profiles
System Administrator
Analytics Cloud Integration User
Analytics Cloud Security User
Anypoint Integration
Authenticated Website
Authenticated Website
B2B Reordering Portal Buyer Profile
Contract Manager
Custom: Marketing Profile
Custom: Sales Profile
Custom: Support Profile
Customer Community Login User

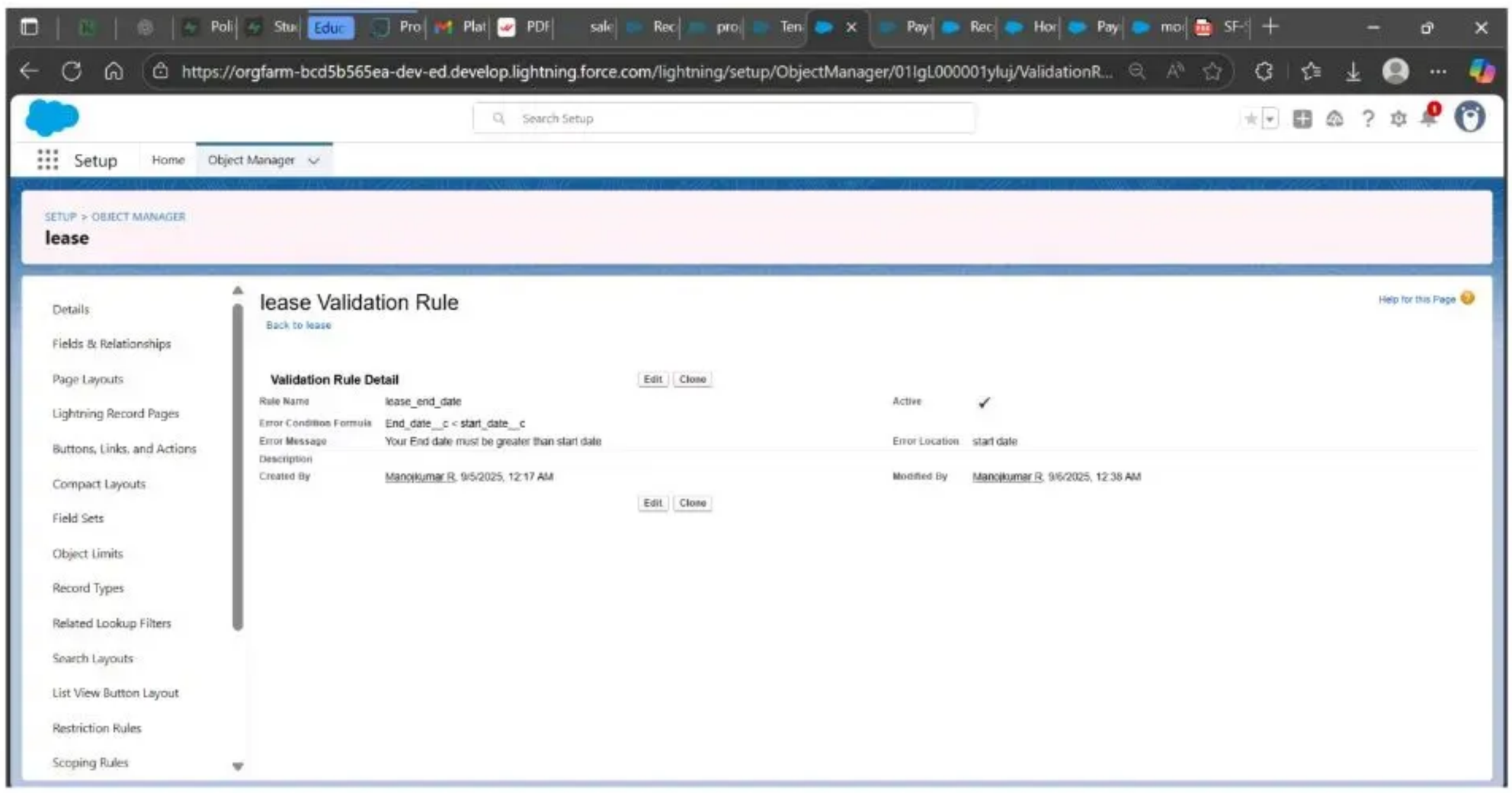


- Implemented Flows for monthly rent and payment success

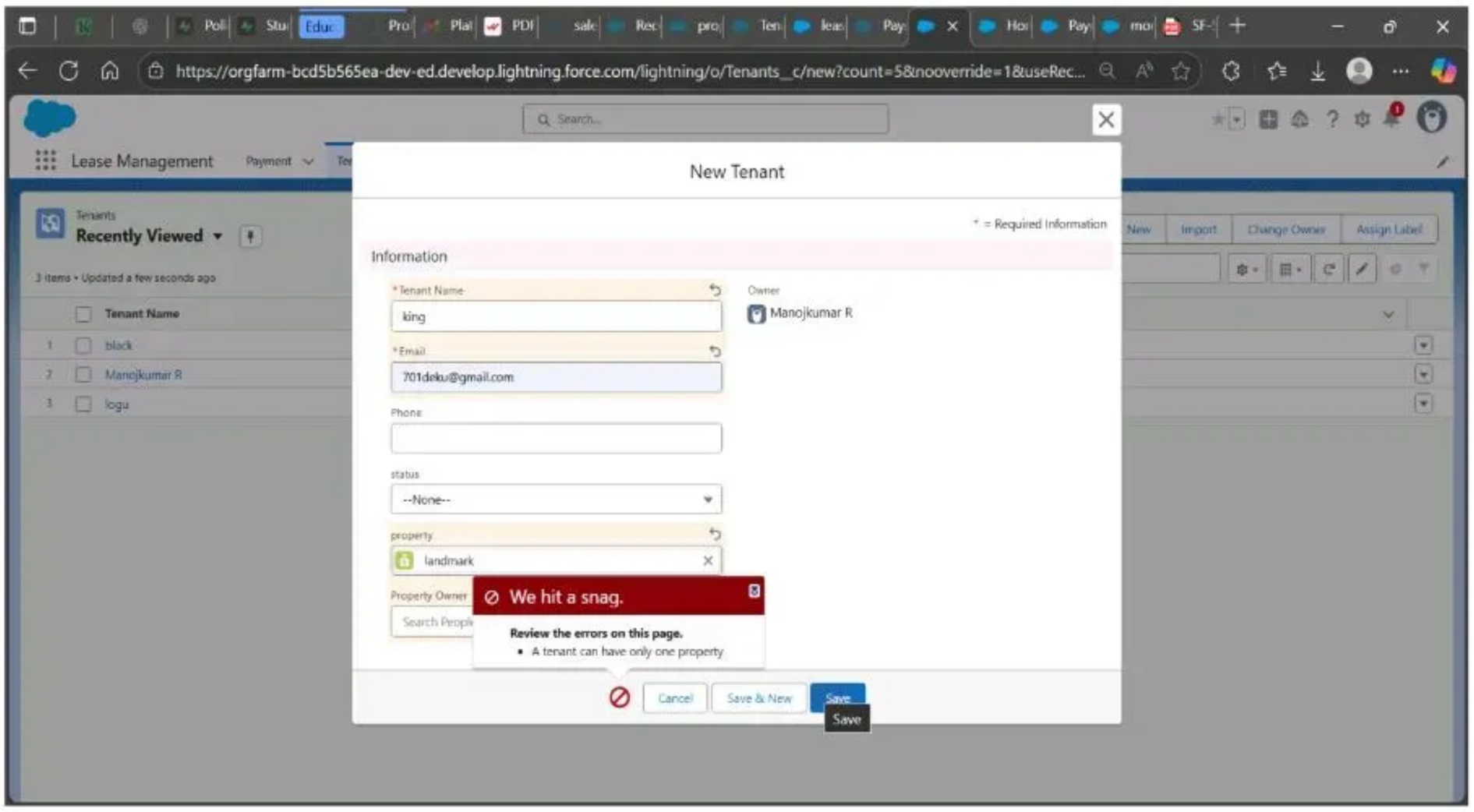


- To create a validation rule to a Lease Object

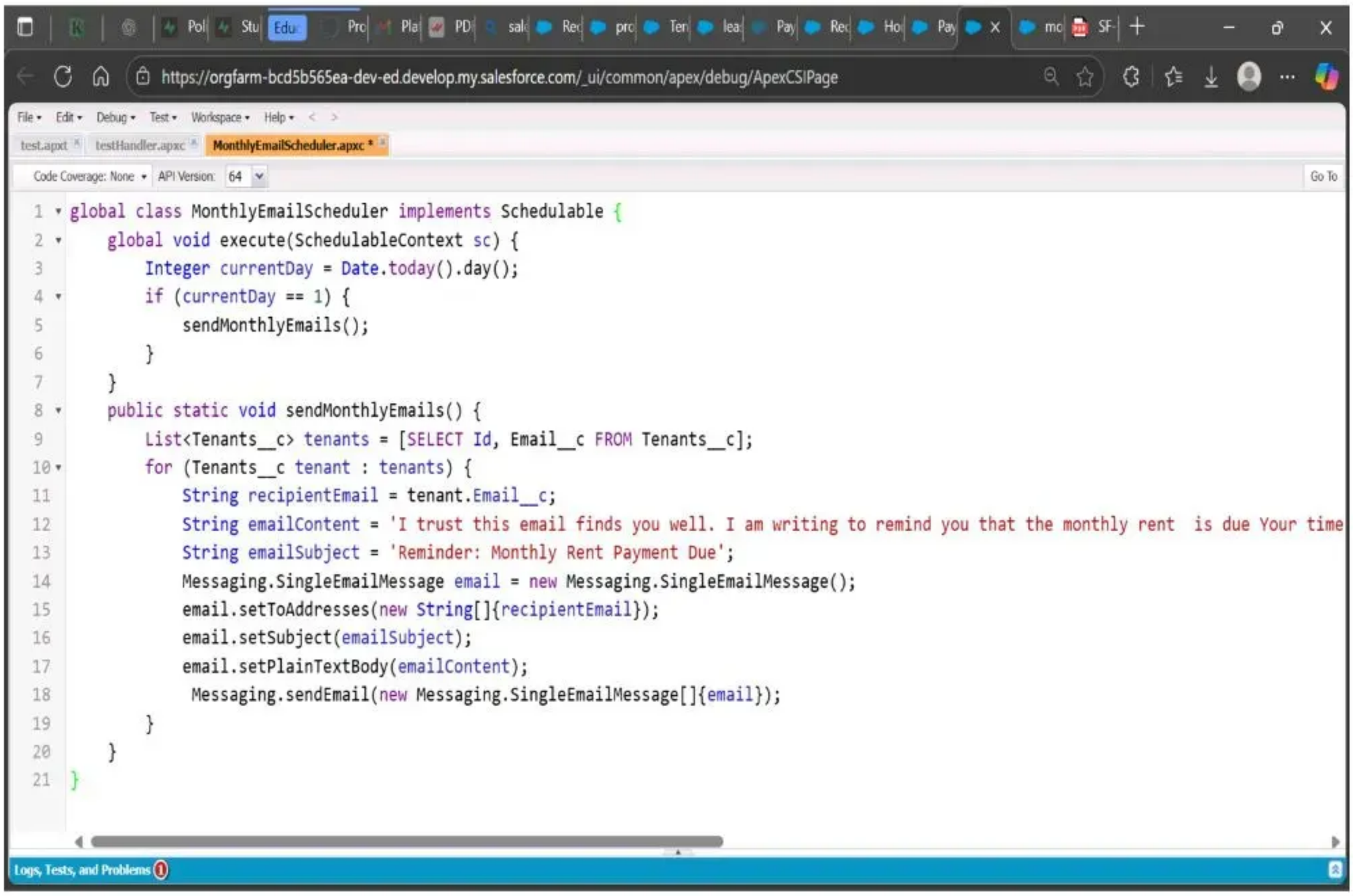




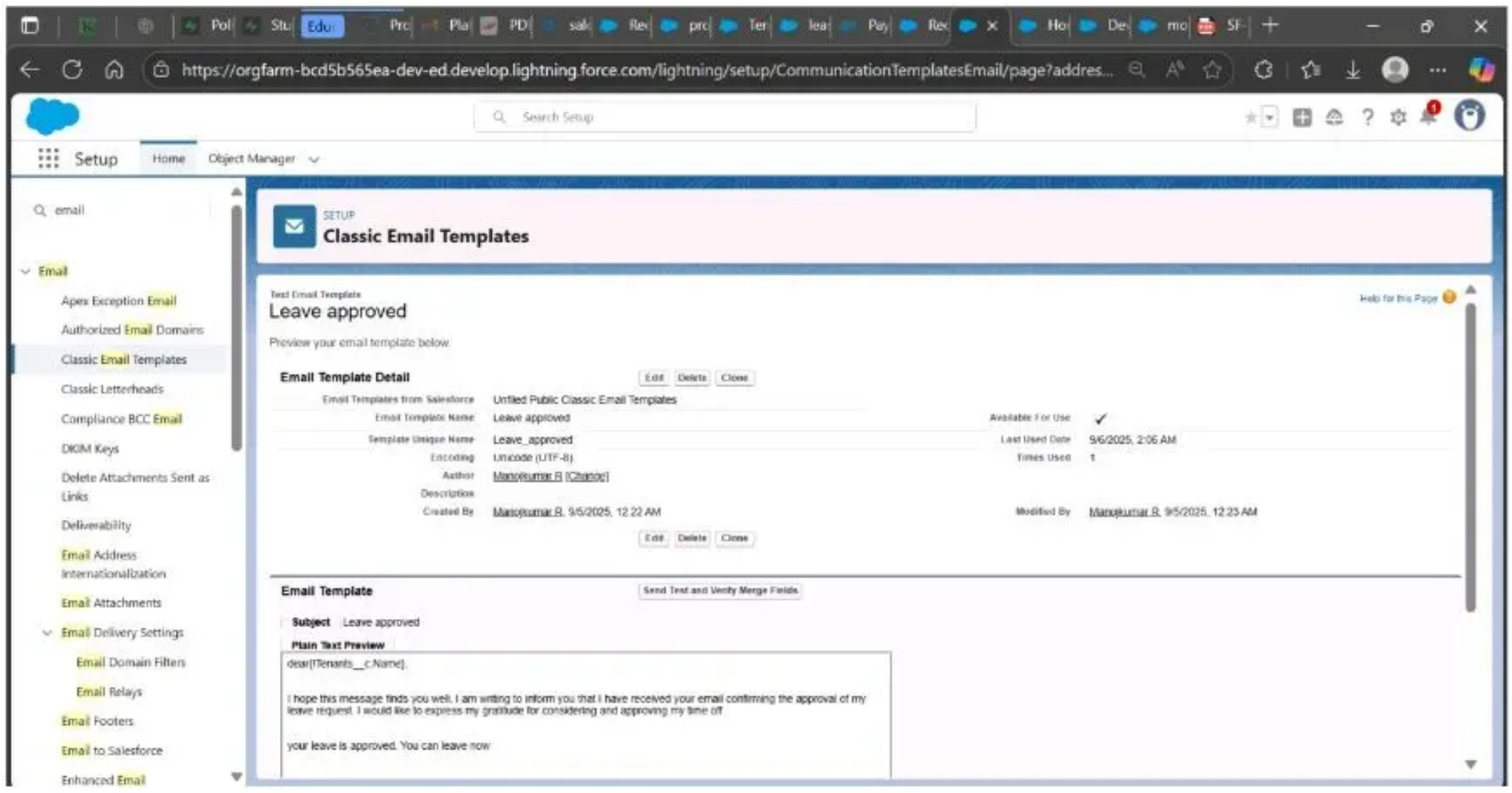
- Added Apex trigger to restrict multiple tenants per property

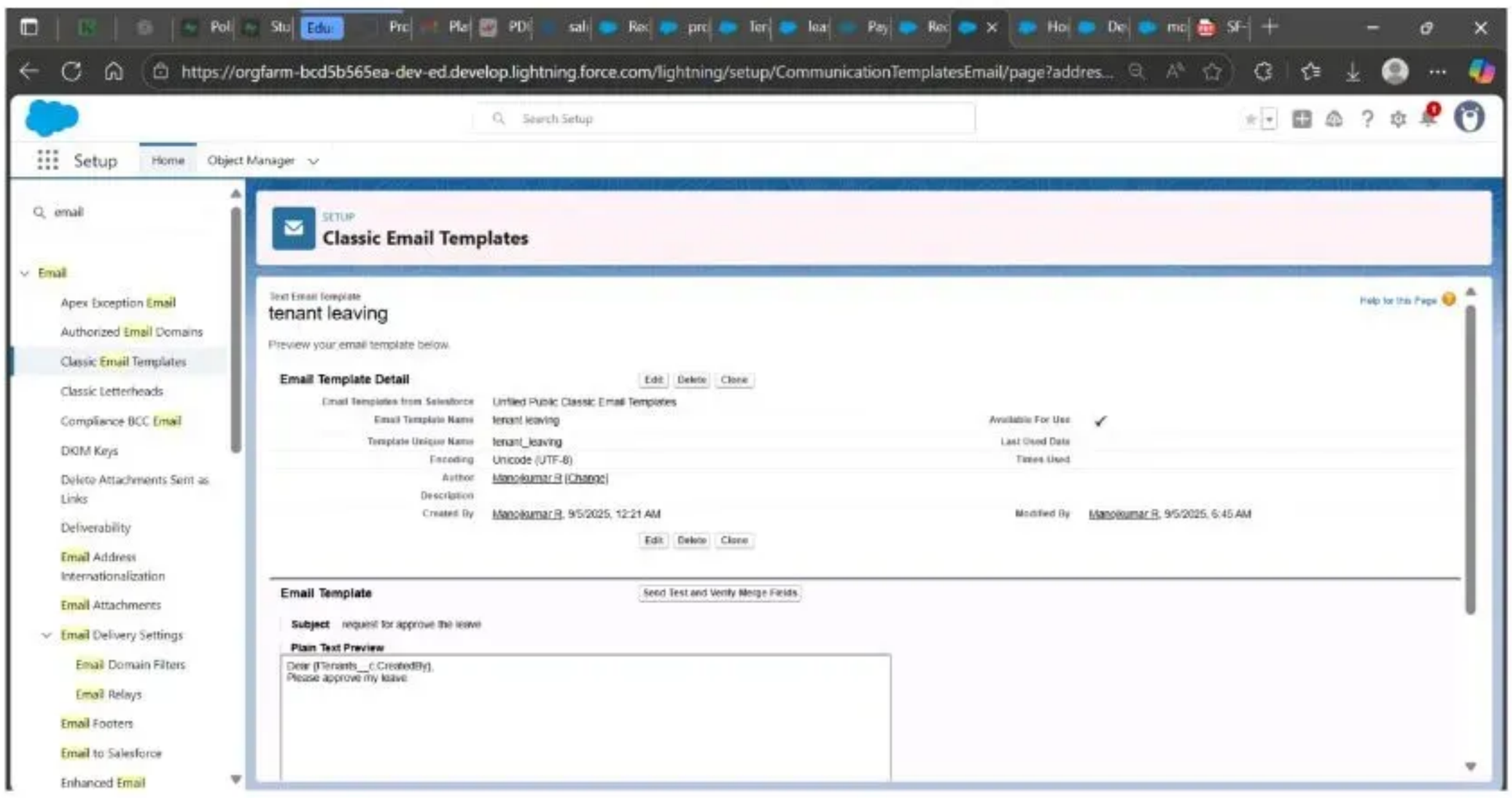


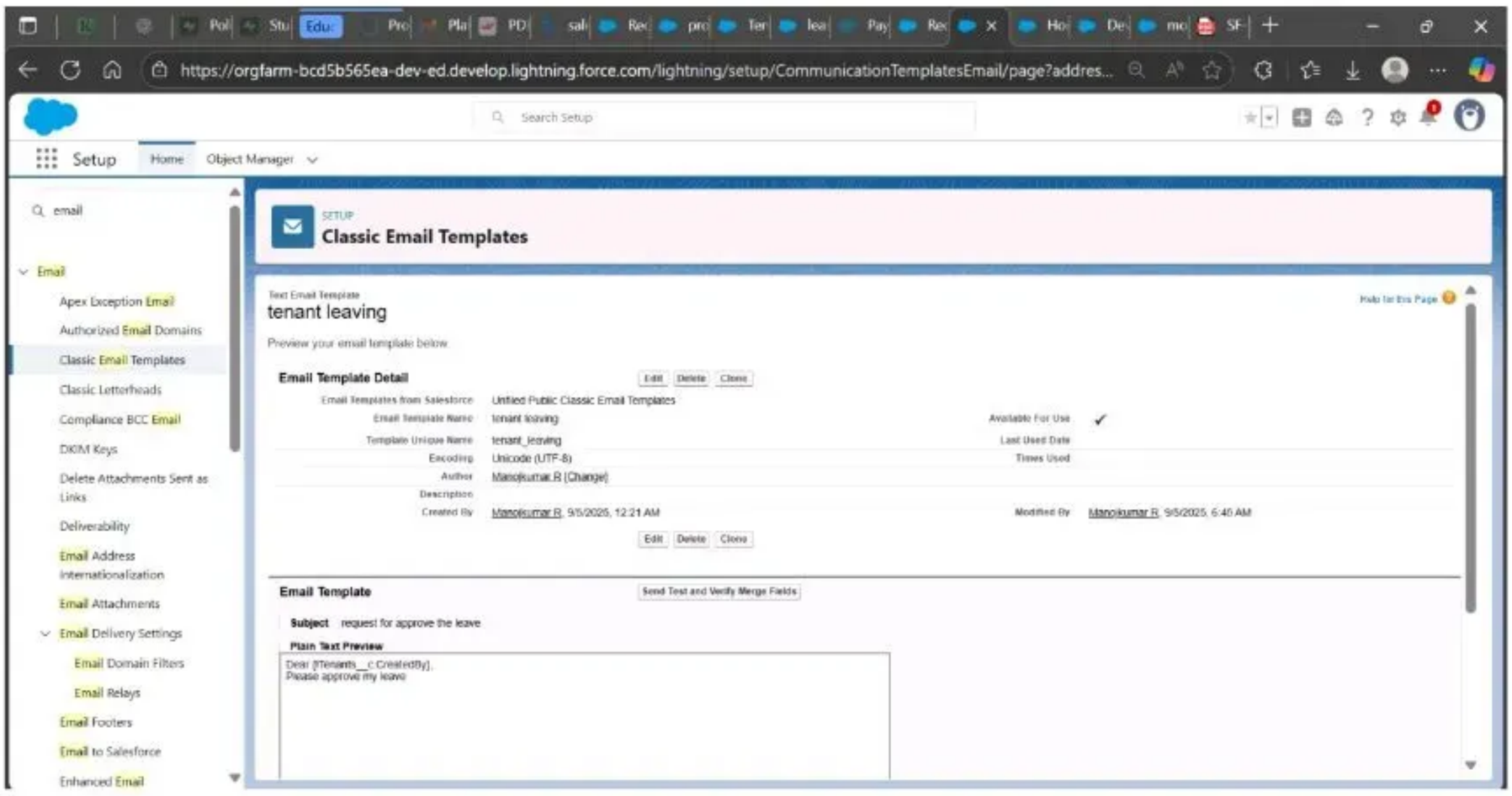
- Scheduled monthly reminder emails using Apex class



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



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Classic Email Templates
Classic Letterheads
Compliance BCC Email
DKIM Keys
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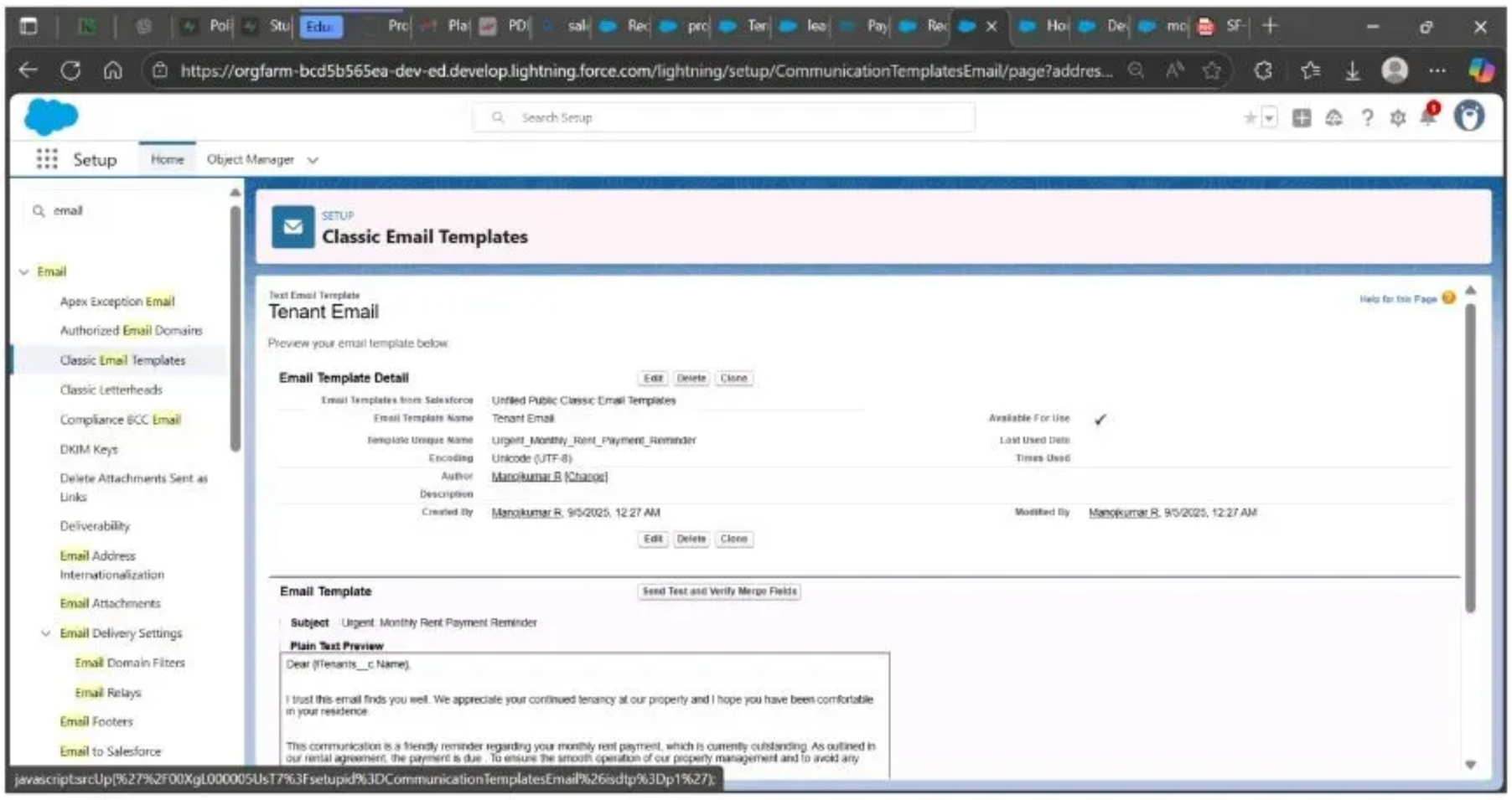
Deliverability
Email Address Internationalization
Email Attachments
Email Delivery Settings
Email Domain Filters
Email Relays
Email Footers
Email to Salesforce
Enhanced Email
SETUP
Classic Email Templates
Text Email Template
tenant leaving
Help for this Page
Preview your email template below
Email Template 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
Manojkumar R [Change]
Description
Created By
Manojkumar R, 9/5/2025, 12:21 AM
Modified By
Manojkumar R, 9/5/2025, 6:40 AM
Email Template
Send Test and Verify Merge Fields
Subject
request for approve the leave
Plain Text Preview
Dear {!Tenants__c.CreatedBy},
Please approve my leave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Authorized Email Domains
Classic Email Templates
Classic Letterheads
Compliance BCC Email
DKIM Keys
Delete Attachments Sent as Links
Deliverability
Email Address Internationalization
Email Attachments
Email Delivery Settings
Email Domain Filters
Email Relays
Email Footers
Email to Salesforce
SETUP
Classic Email Templates
Text Email Template
Tenant Email
Help for this Page
Preview your email template below
Email Template Detail
Edit
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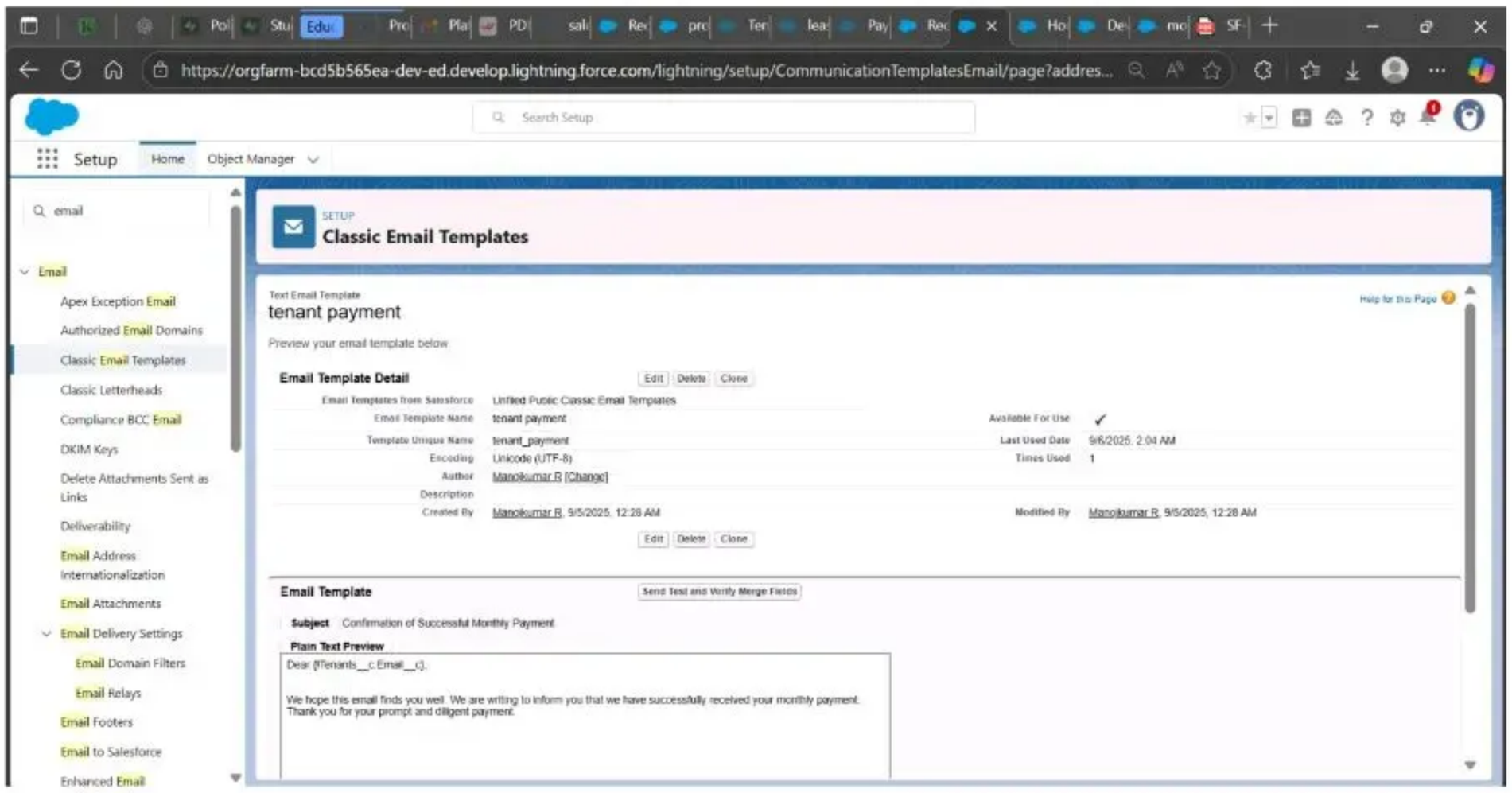
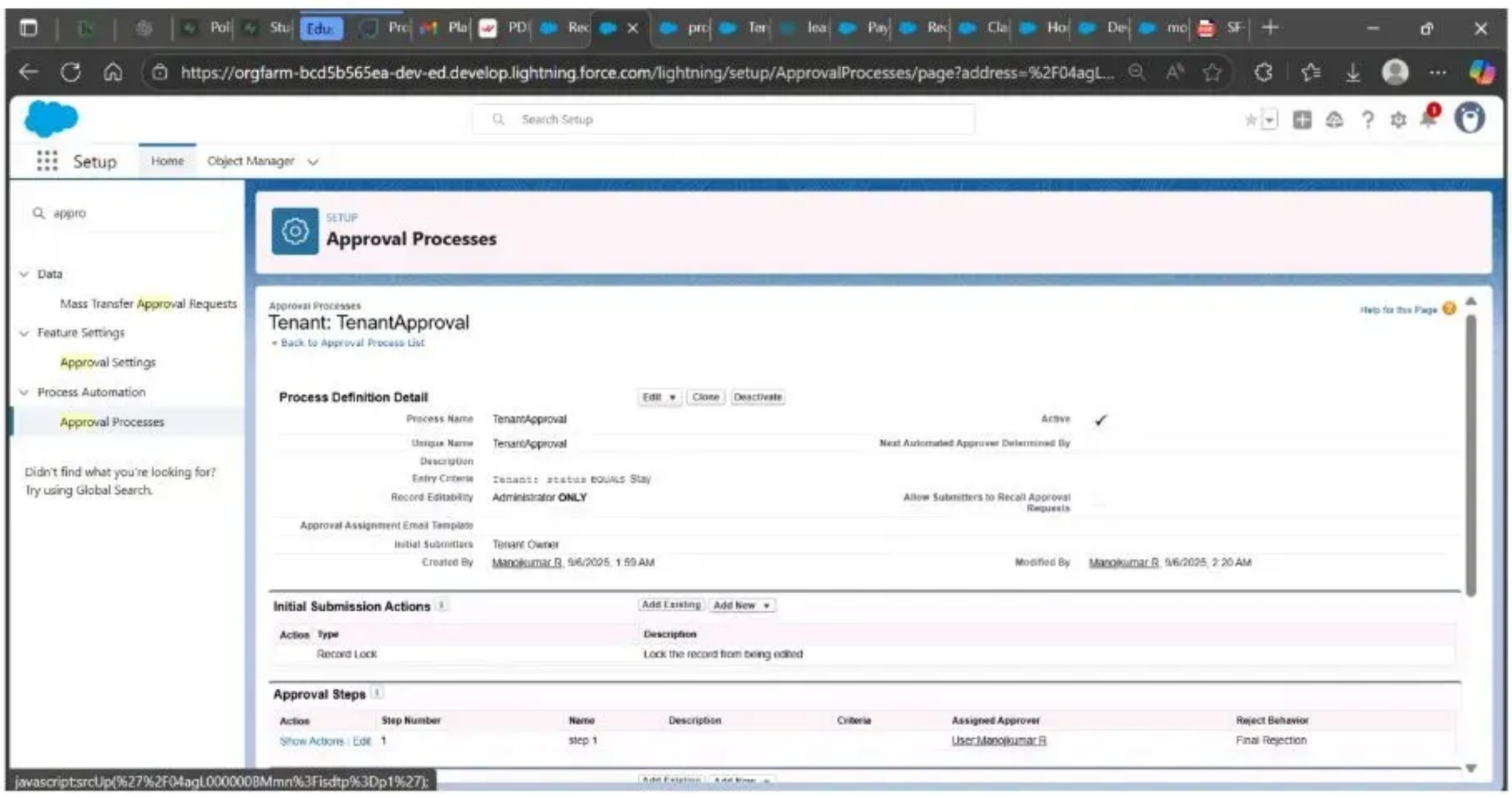
Email Templates from Salesforce
Unfiled Public Classic Email Templates
Email Template Name
Tenant Email
Available For Use
Template Unique Name
Urgent_Monthly_Rent_Payment_Reminder
Last Used Date
Encoding
Unicode (UTF-8)
Times Used
Author
Manojkumar R [Change]
Description
Created By
Manojkumar R, 9/5/2025, 12:27 AM
Modified By
Manojkumar R, 9/5/2025, 12:27 AM
Email Template
Send Test and Verify Merge Fields
Subject
Urgent: Monthly Rent Payment Reminder
Plain Text Preview
Dear {!Tenants__c.Name},
I trust this email finds you well. We appreciate your continued tenancy at our property and I hope you have been comfortable in your residence.
This communication is a friendly reminder regarding your monthly rent payment, which is currently outstanding. As outlined in our rental agreement, the payment is due . To ensure the smooth operation of our property management and to avoid any
javascript:srcUp('%27%2F00XgL000005UsT7%3Fsetupid%3DCommunicationTemplatesEmail%26isdtp%3Dp1%27');

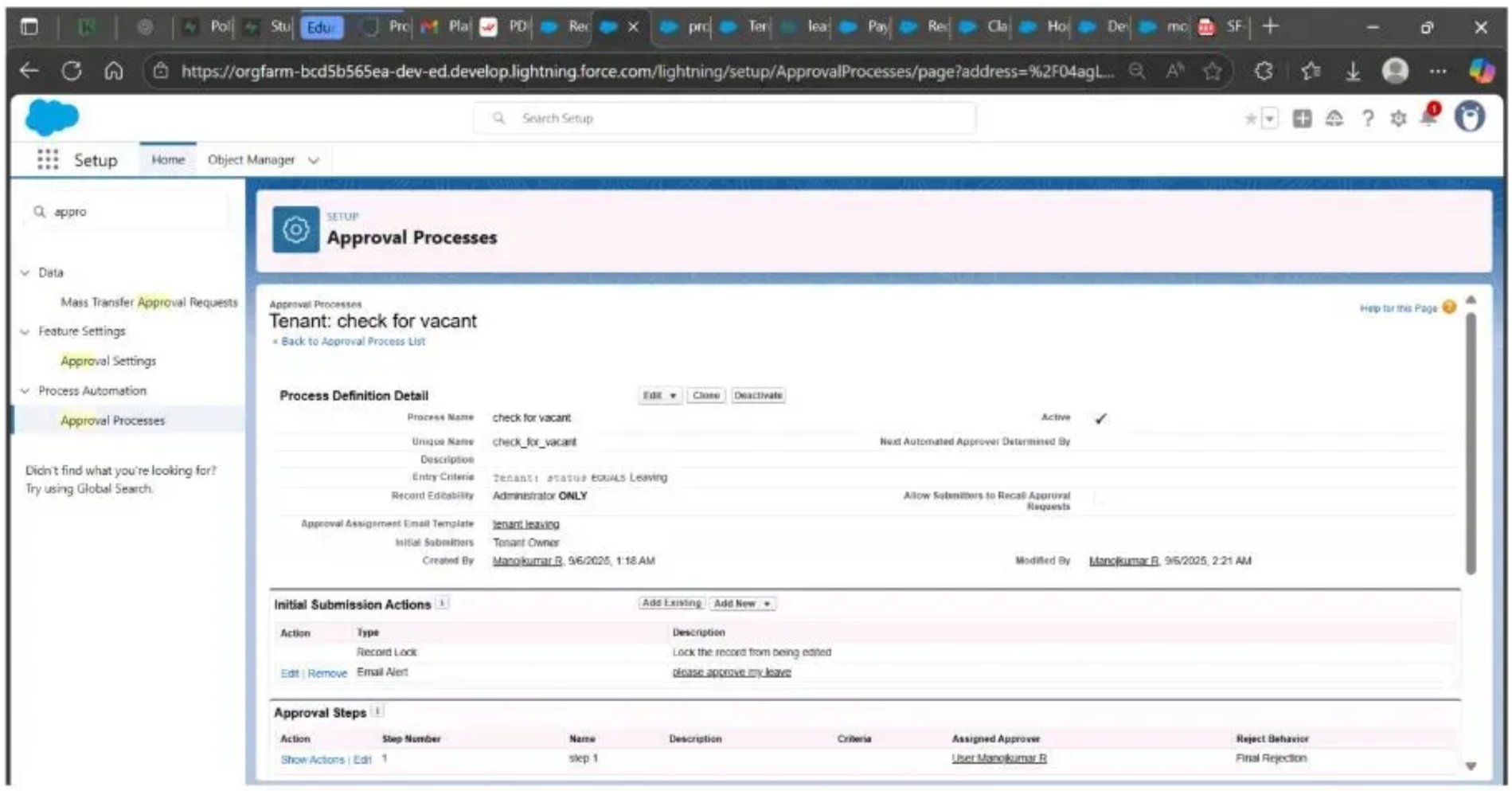


- Approval Process creation

For Tenant Leaving:

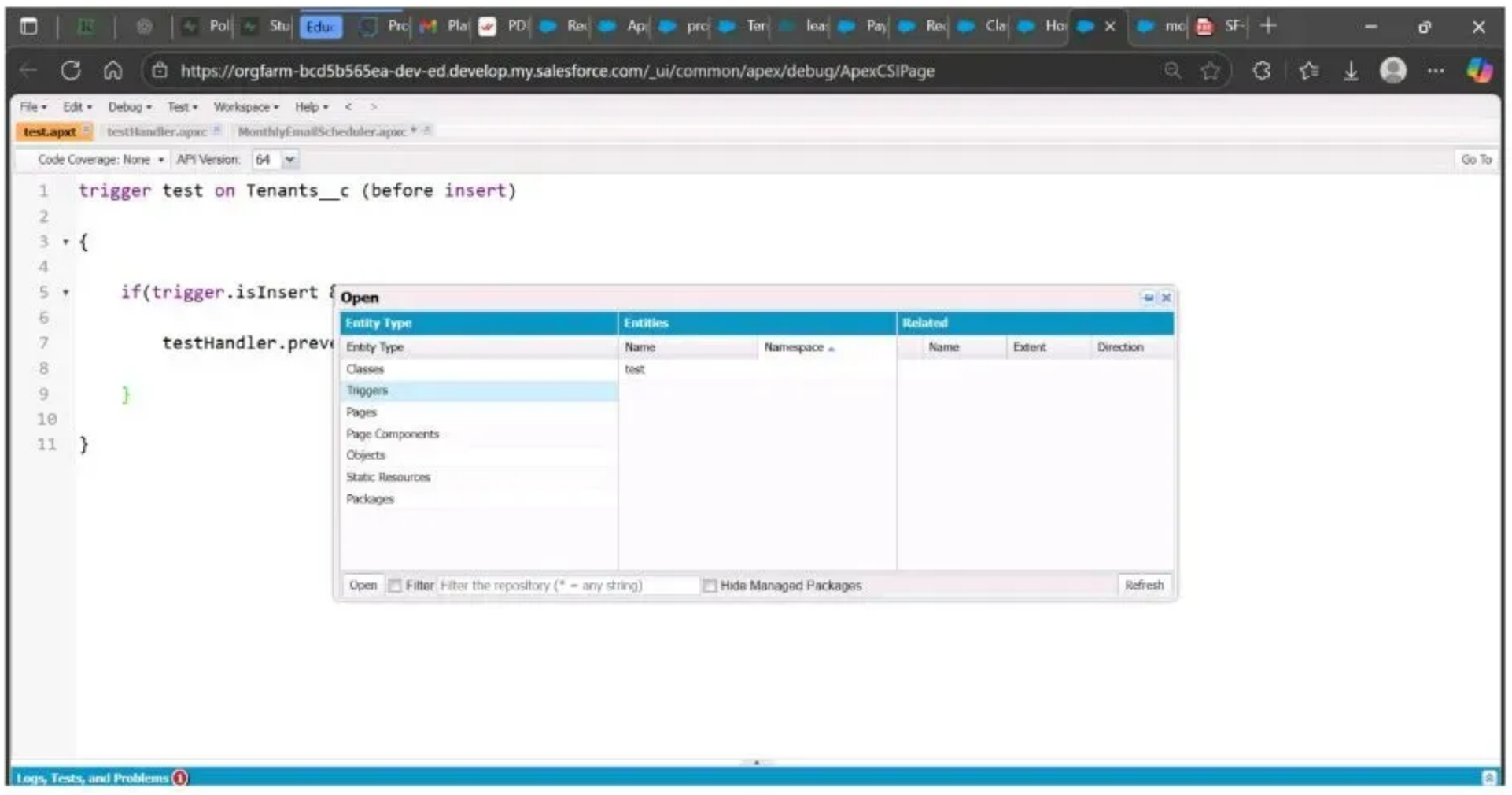


For Check for Vacant:



- Apex Trigger

  Create an Apex Trigger



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File Edit Debug Test Workspace Help

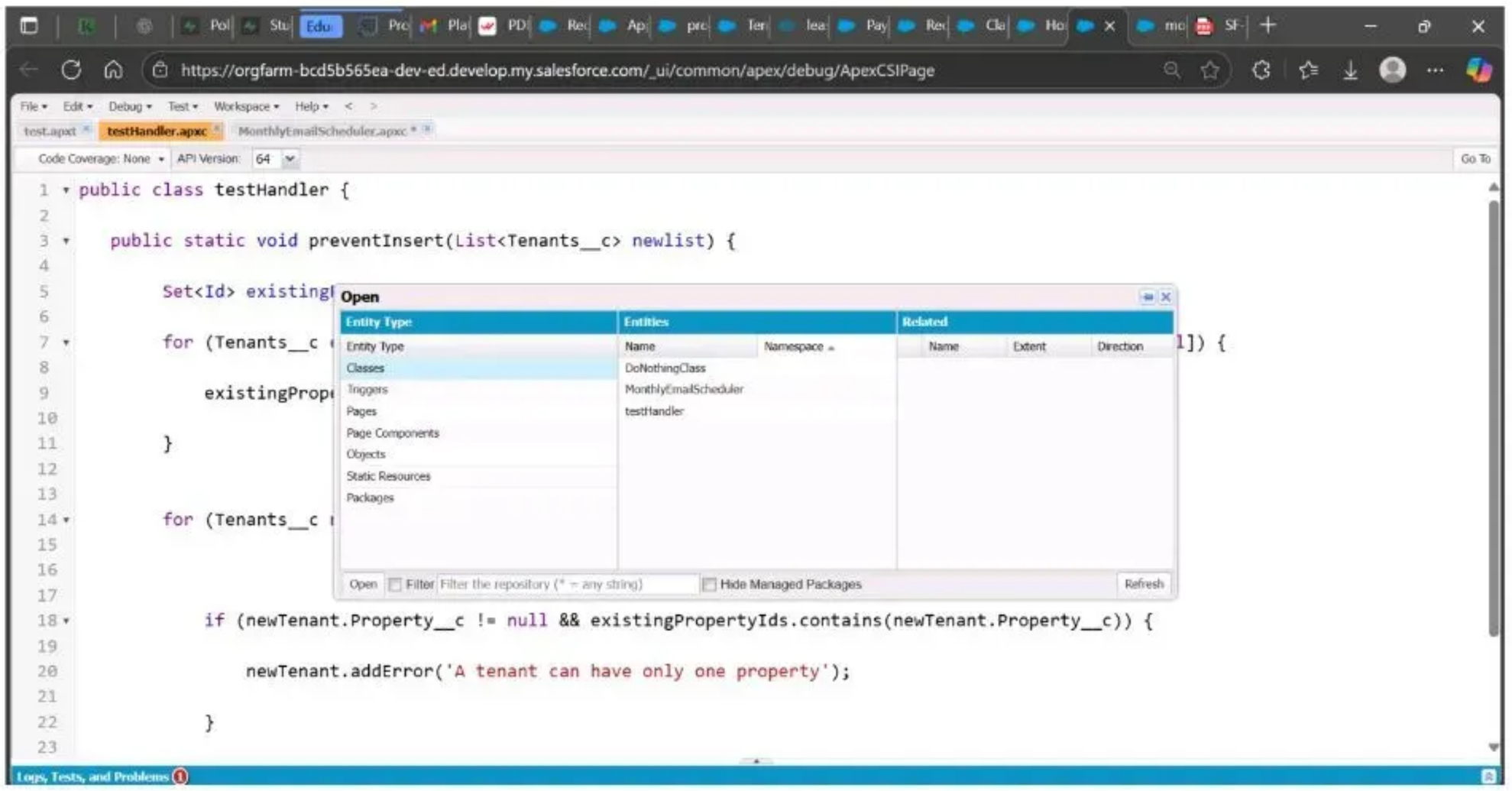
test.apxt | testHandler.apxc | MonthlyEmailScheduler.apxc *

Code Coverage: None | API Version: 64 | Go To

```
1  trigger test on Tenants__c (before insert)
2
3  {
4
5      if(trigger.isInsert && trigger.isBefore){
6
7          testHandler.preventInsert(trigger.new);
8
9      }
10
11 }
```

Logs, Tests, and Problems 1

Create an Apex Handler class



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File Edit Debug Test Workspace Help

testHandler.apxc

Code Coverage: None API Version: 64 Go To

```apex
public class testHandler {

    public static void preventInsert(List<Tenants__c> newlist) {

        Set<Id> existingPropertyIds = new Set<Id>();

        for (Tenants__c existingTenant : [SELECT Id, Property__c FROM Tenants__c WHERE Property__c != null]) {

            existingPropertyIds.add(existingTenant.Property__c);

        }


        for (Tenants__c newTenant : newlist) {



            if (newTenant.Property__c != null && existingPropertyIds.contains(newTenant.Property__c)) {

                newTenant.addError('A tenant can have only one property');

            }

```

Logs, Tests, and Problems 1

- FLOWS

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Flow Builder | monthly payment - V1

Select Elements | Auto-Layout | Last saved on 9/6/2025, 11:56 AM | Active | Run | Debug | View Tests | Save As New Version | 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

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
check for payment	Equals	Paid

+ Add Condition

When to Run the Flow for Updated Records

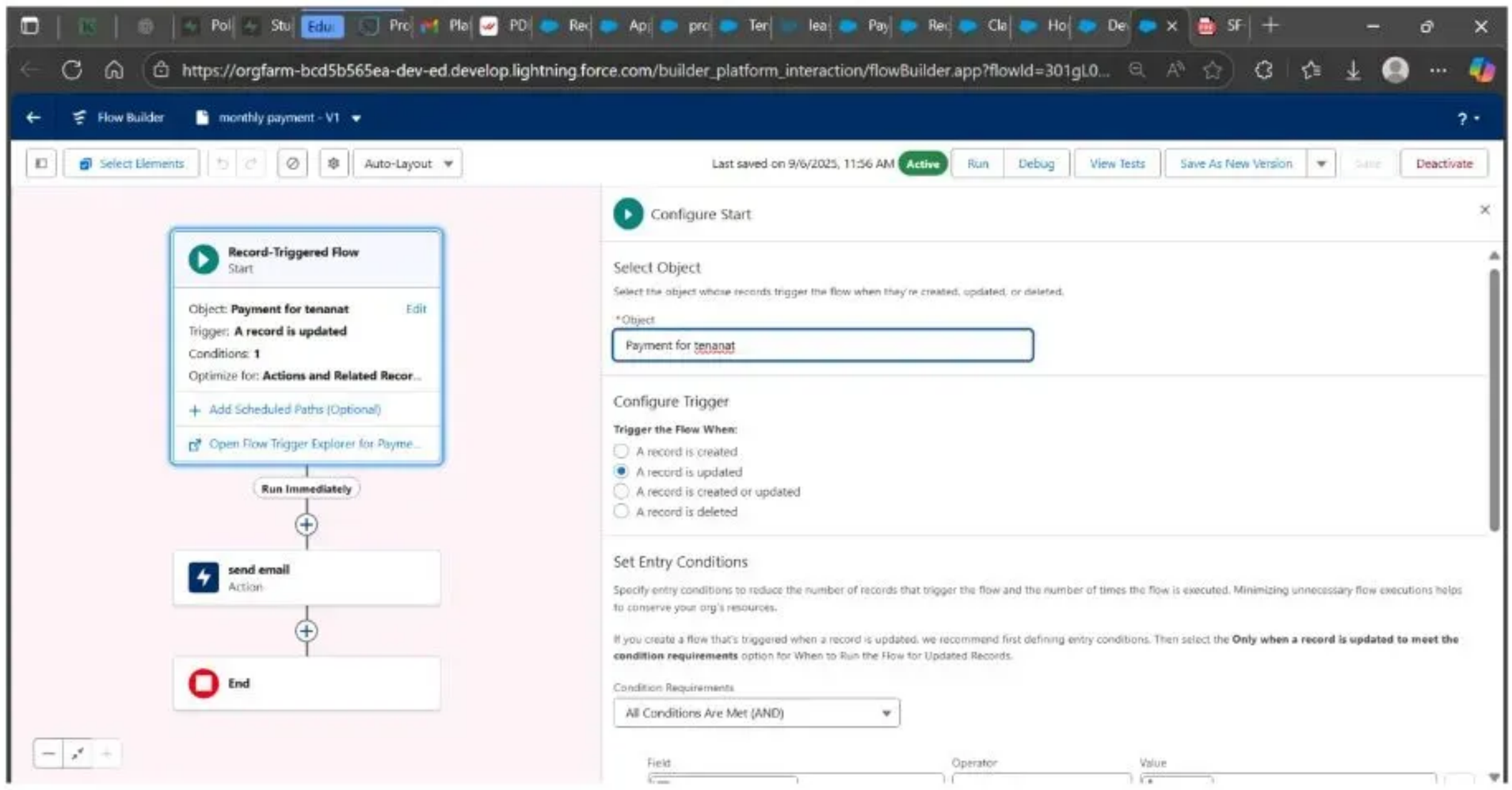
- (•) Every time a record is updated and meets the condition requirements
- ( ) Only when a record is updated to meet the condition requirements

Optimize Flow

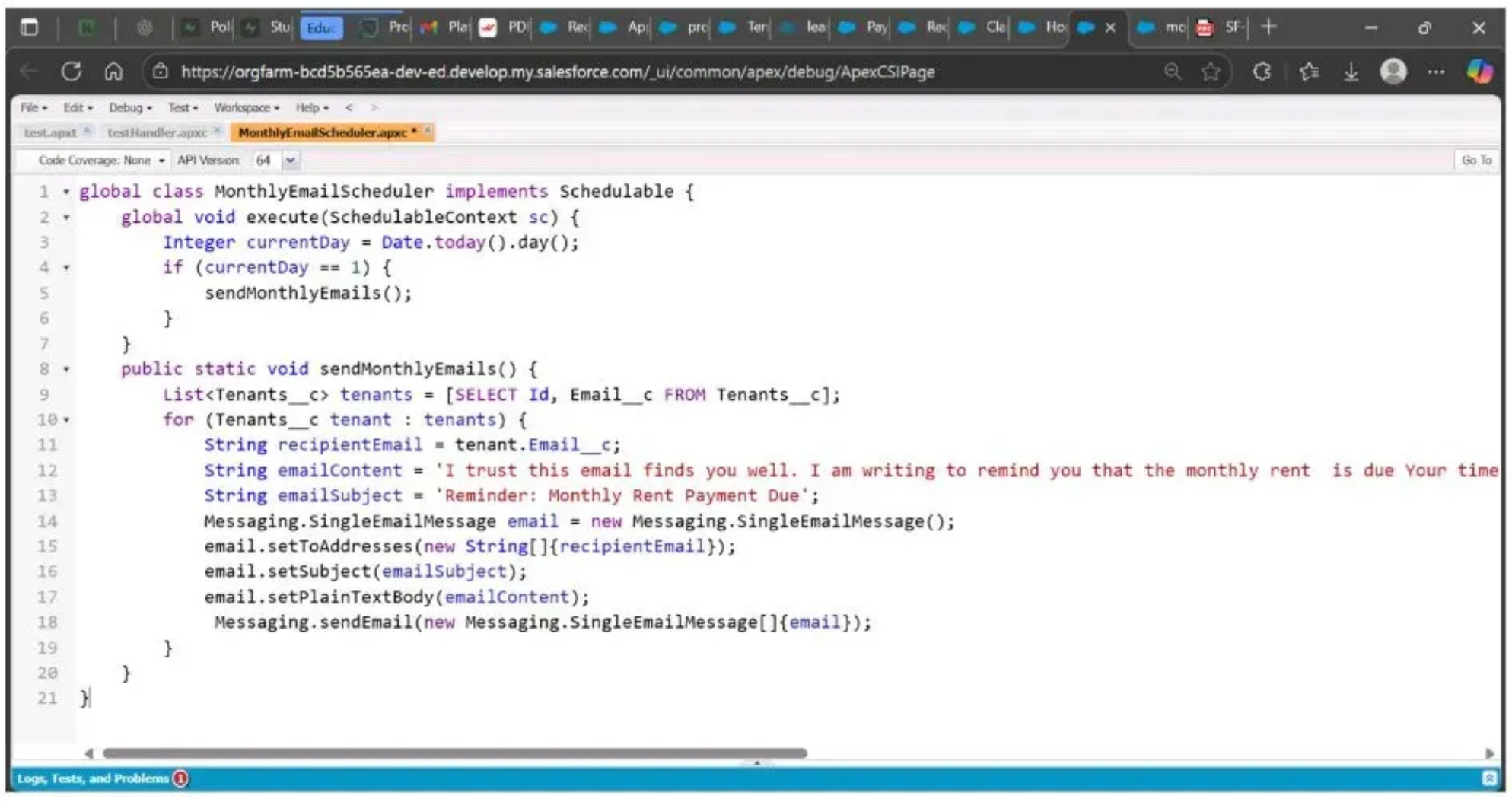
Optimize the Flow for:

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.



- Schedule class:
  Create an Apex Class



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File Edit Debug Test Workspace Help

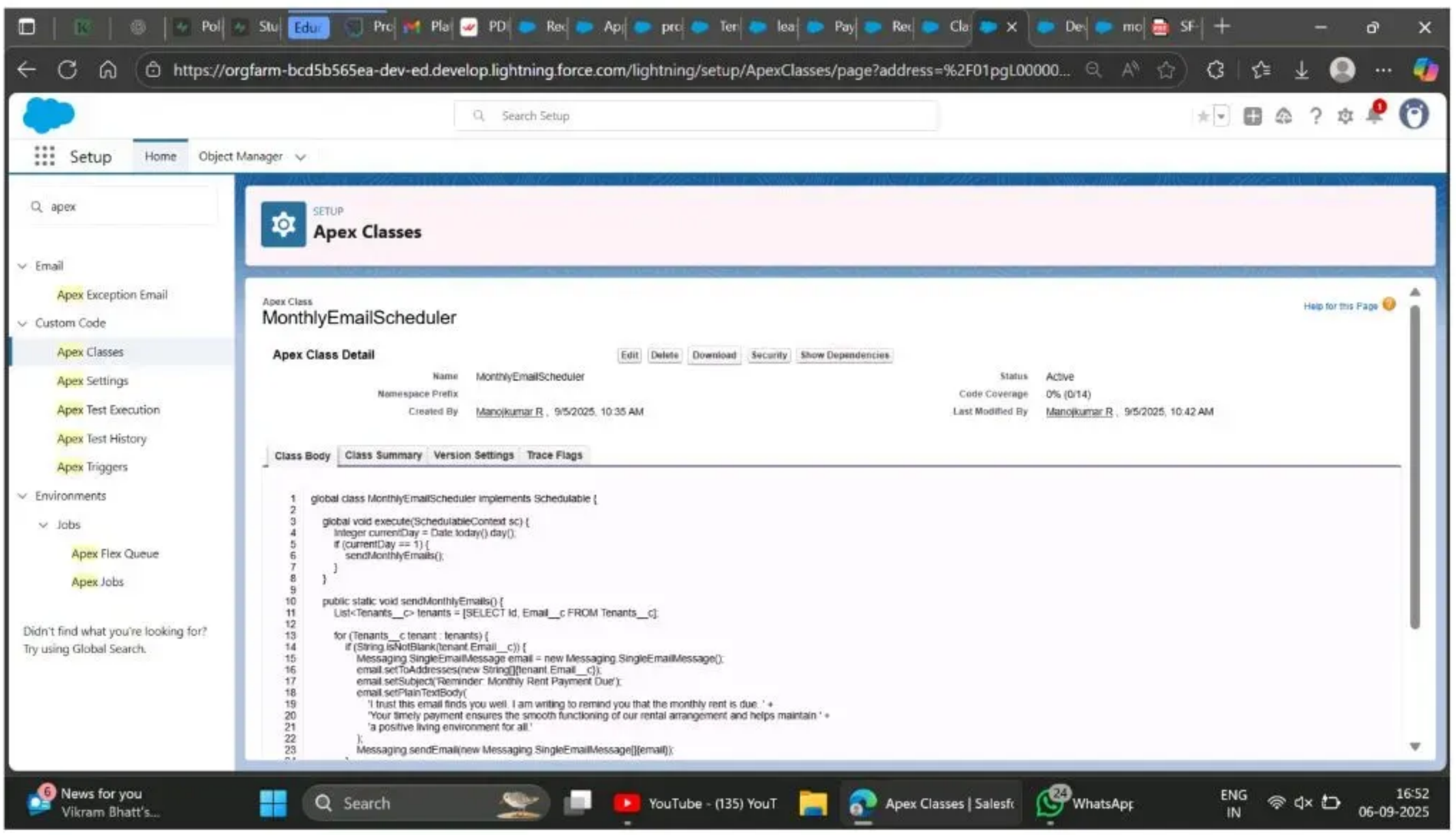
test.apxt testHandler.apxc MonthlyEmailScheduler.apxc *

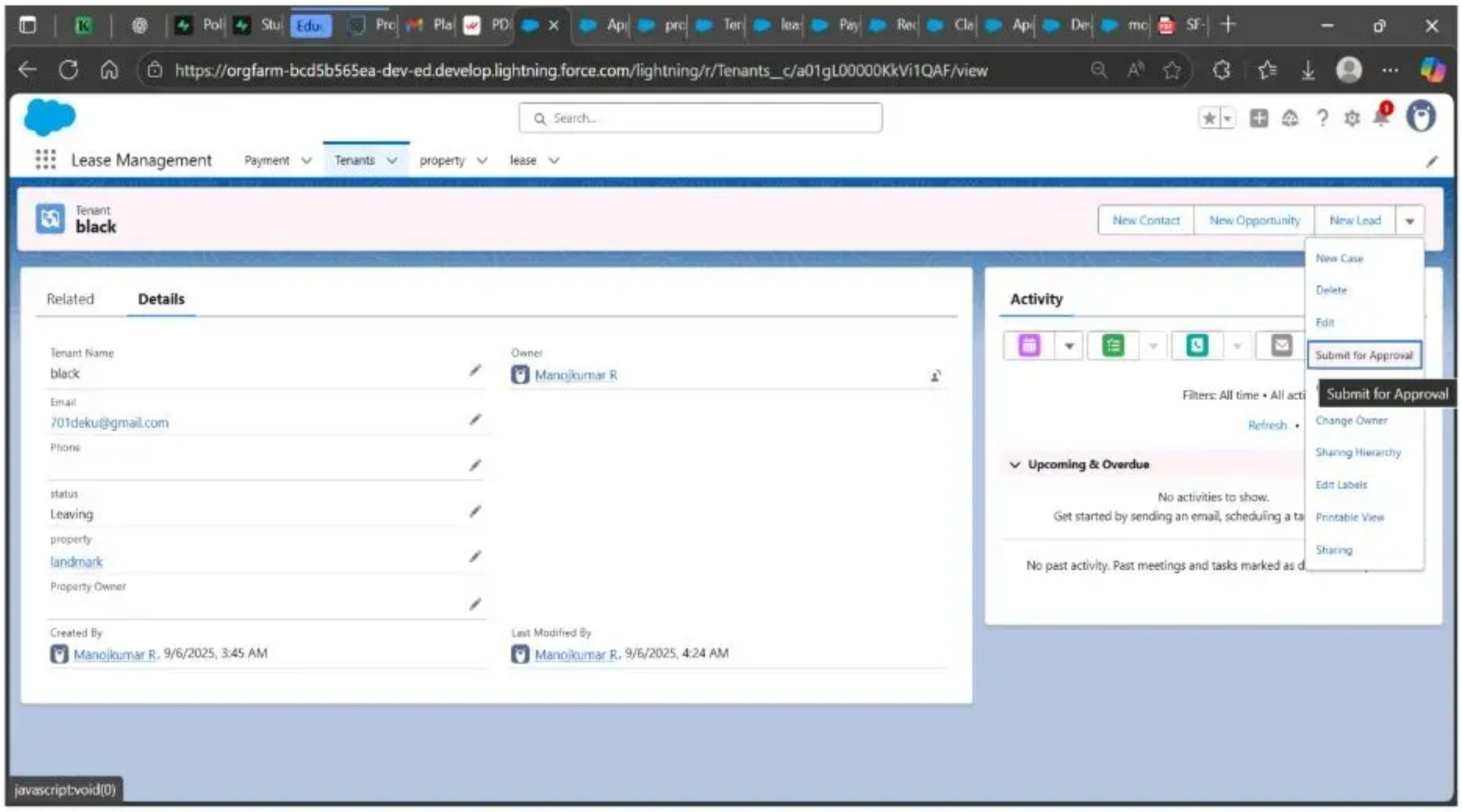
Code Coverage: None API Version: 64 Go To

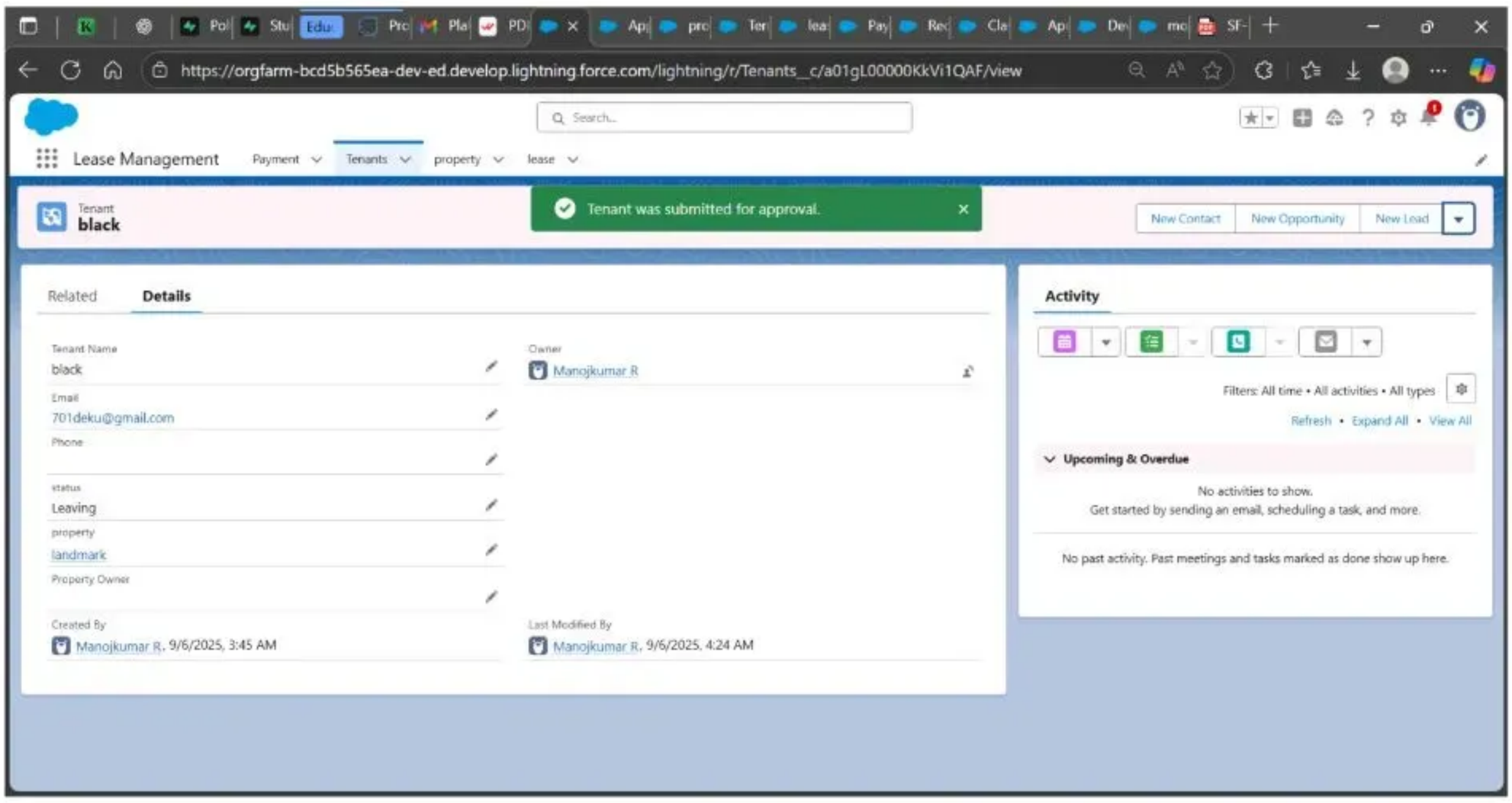
```apex
global class MonthlyEmailScheduler implements Schedulable {
    global void execute(SchedulableContext sc) {
        Integer currentDay = Date.today().day();
        if (currentDay == 1) {
            sendMonthlyEmails();
        }
    }
    public static void sendMonthlyEmails() {
        List<Tenants__c> tenants = [SELECT Id, Email__c FROM Tenants__c];
        for (Tenants__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 time
            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});
        }
    }
}
```

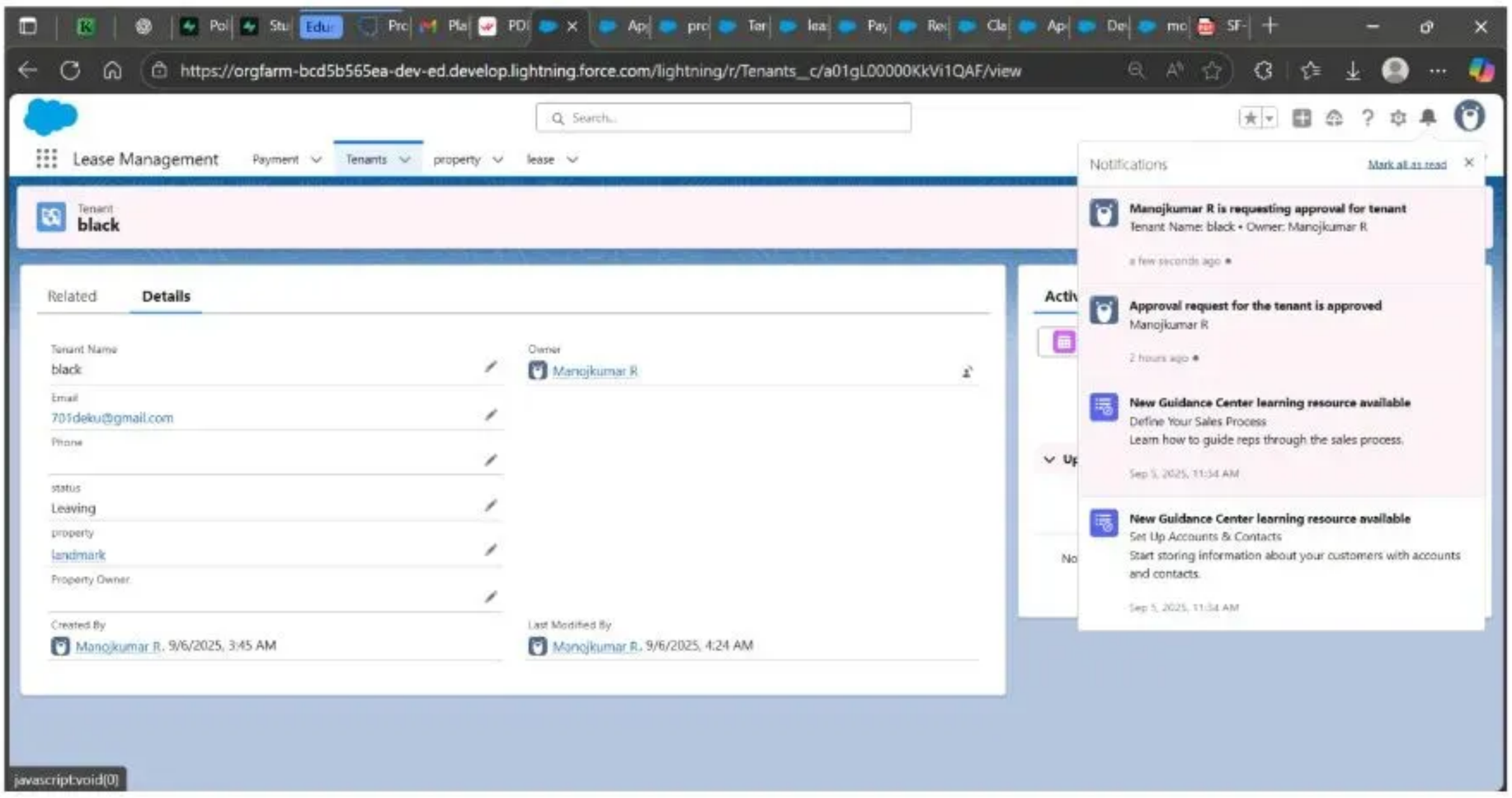
Logs, Tests, and Problems

Schedule Apex class




https://orgfarm-bcd5b565ea-dev-ed.develop.lightning.force.com/lightning/r/Tenants__c/a01gL00000KkVi1QAF/view
Search...
Lease Management
Payment
Tenants
property
lease
Tenant
black
New Contact
New Opportunity
New Lead
New Case
Delete
Edit
Submit for Approval
Submit for Approval
Change Owner
Sharing Hierarchy
Edit Labels
Printable View
Sharing
Related
Details
Tenant Name
black
Owner
Manojkumar R
Email
701deku@gmail.com
Phone
status
Leaving
property
landmark
Property Owner
Created By
Manojkumar R, 9/6/2025, 3:45 AM
Last Modified By
Manojkumar R, 9/6/2025, 4:24 AM
Activity
Filters: All time • All acti
Refresh
Upcoming & Overdue
No activities to show.
Get started by sending an email, scheduling a ta
No past activity. Past meetings and tasks marked as d
javascript:void(0)

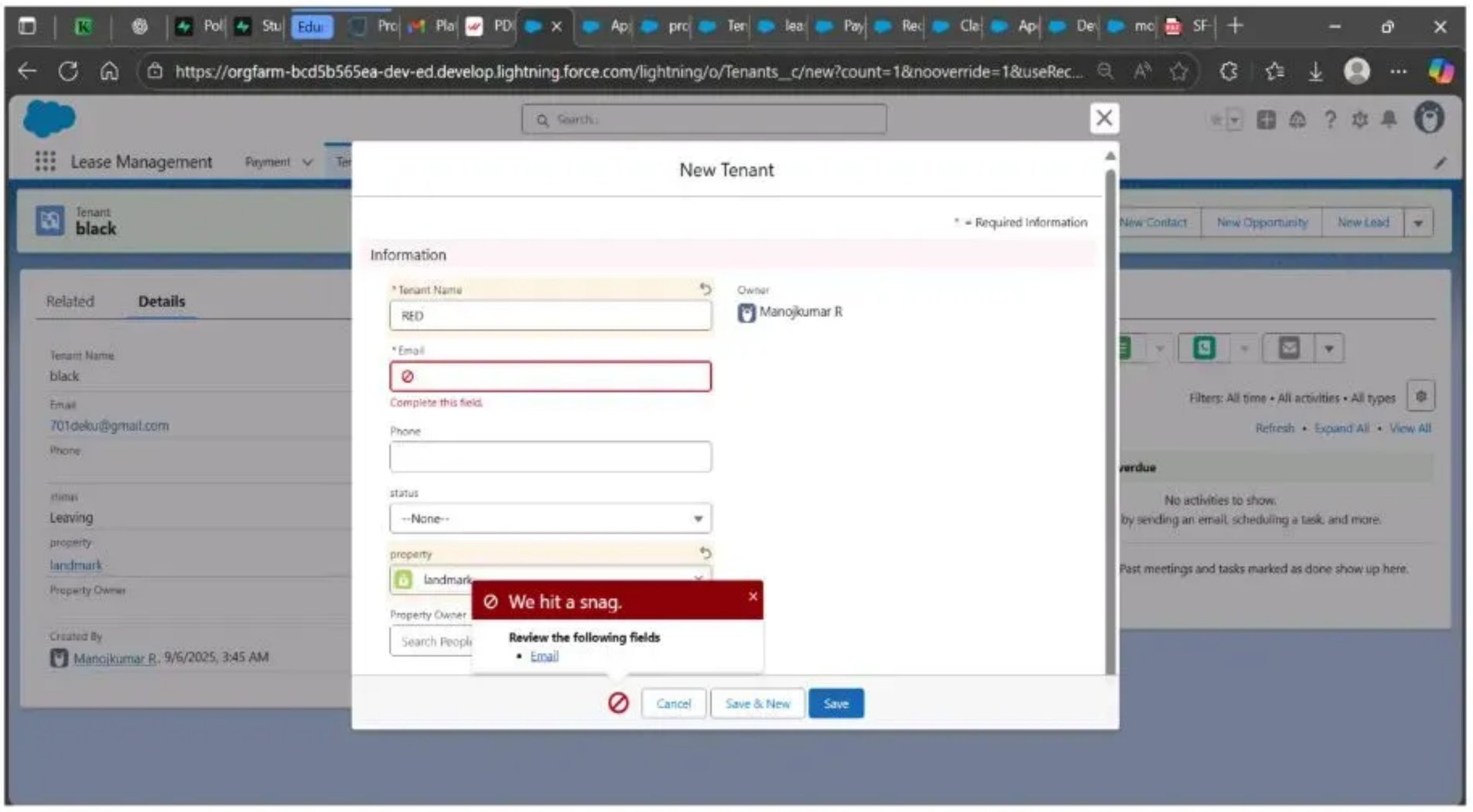

https://orgfarm-bcd5b565ea-dev-ed.develop.lightning.force.com/lightning/r/Tenants__c/a01gL00000KkVi1QAF/view
Search...
Lease Management
Payment
Tenants
property
lease
Tenant
black
Tenant was submitted for approval.
New Contact
New Opportunity
New Lead
Related
Details
Tenant Name
black
Owner
Manojkumar R
Email
701deku@gmail.com
Phone
status
Leaving
property
landmark
Property Owner
Created By
Manojkumar R, 9/6/2025, 3:45 AM
Last Modified By
Manojkumar R, 9/6/2025, 4:24 AM
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.



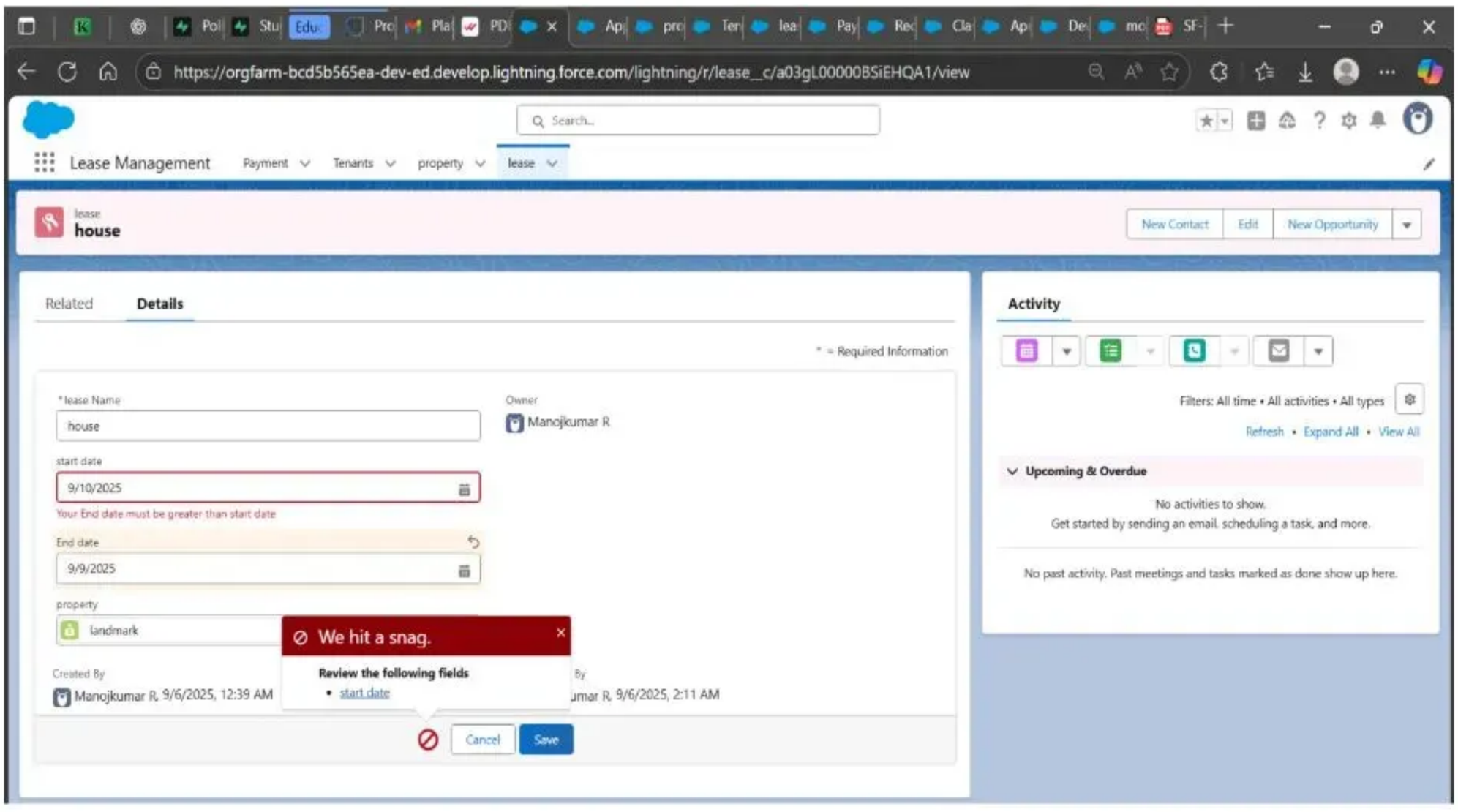
FUNCTIONAL AND PERFORMANCE TESTING

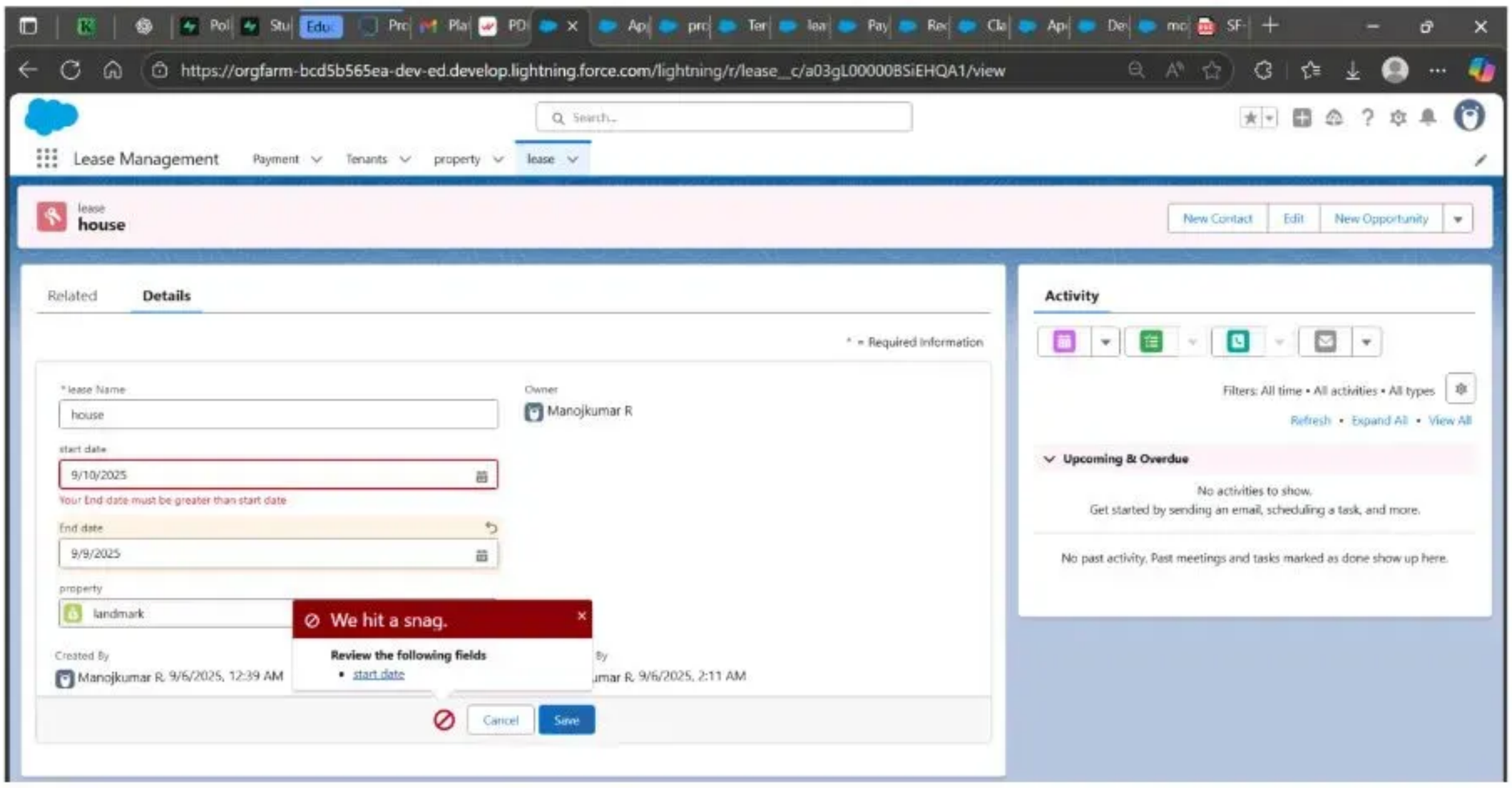
Performance Testing

- Trigger validation by entering duplicate tenant-property records

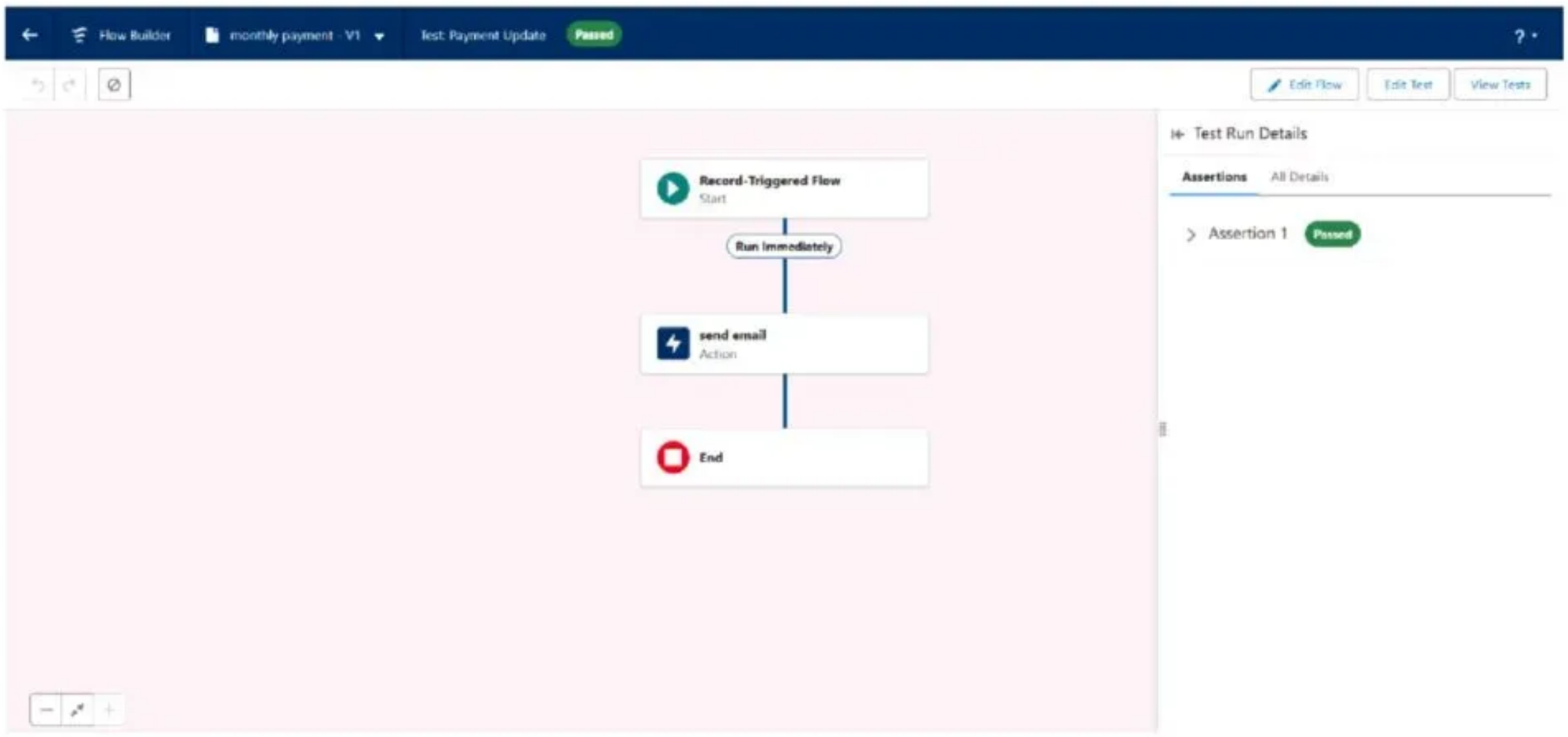


- Validation Rule checking

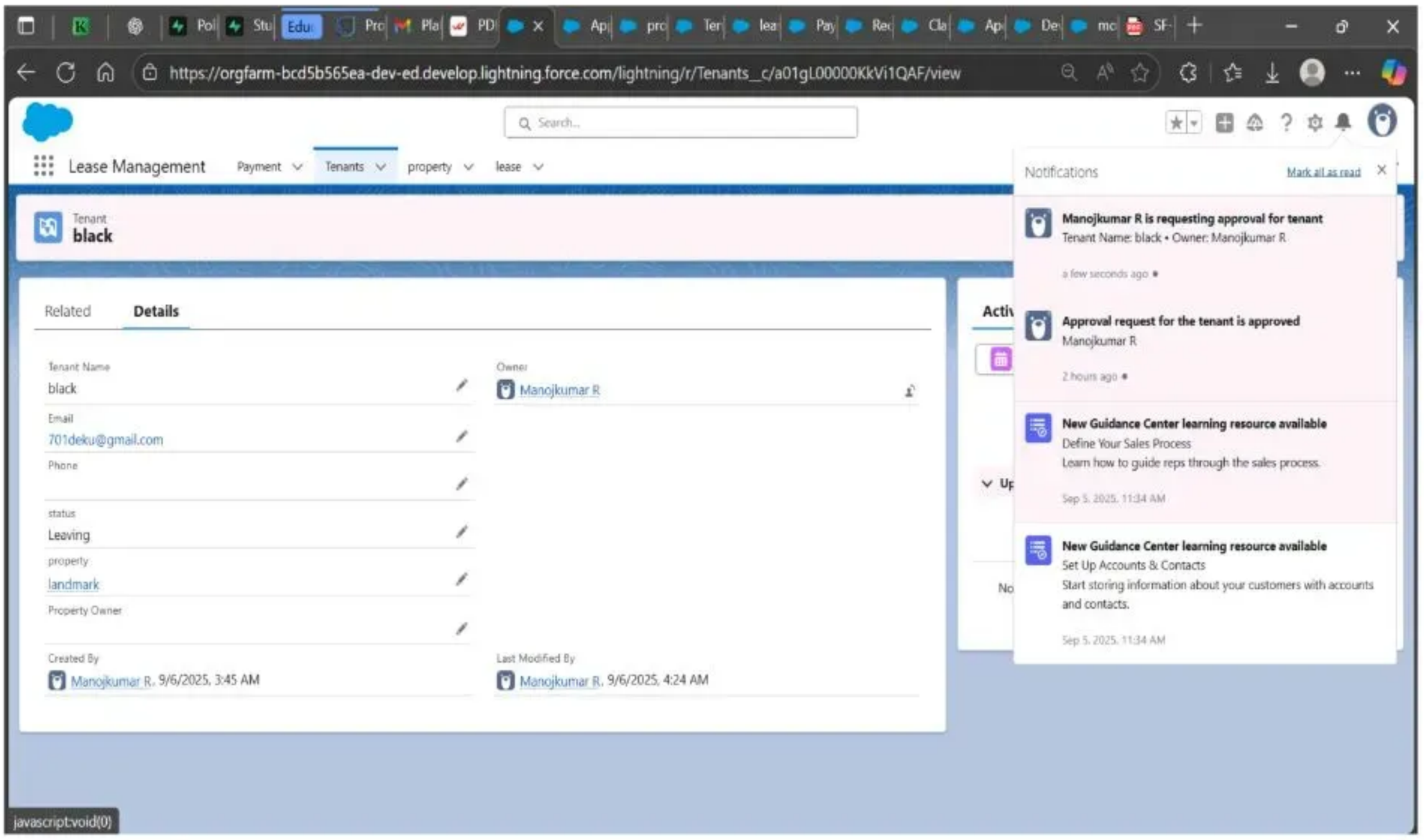


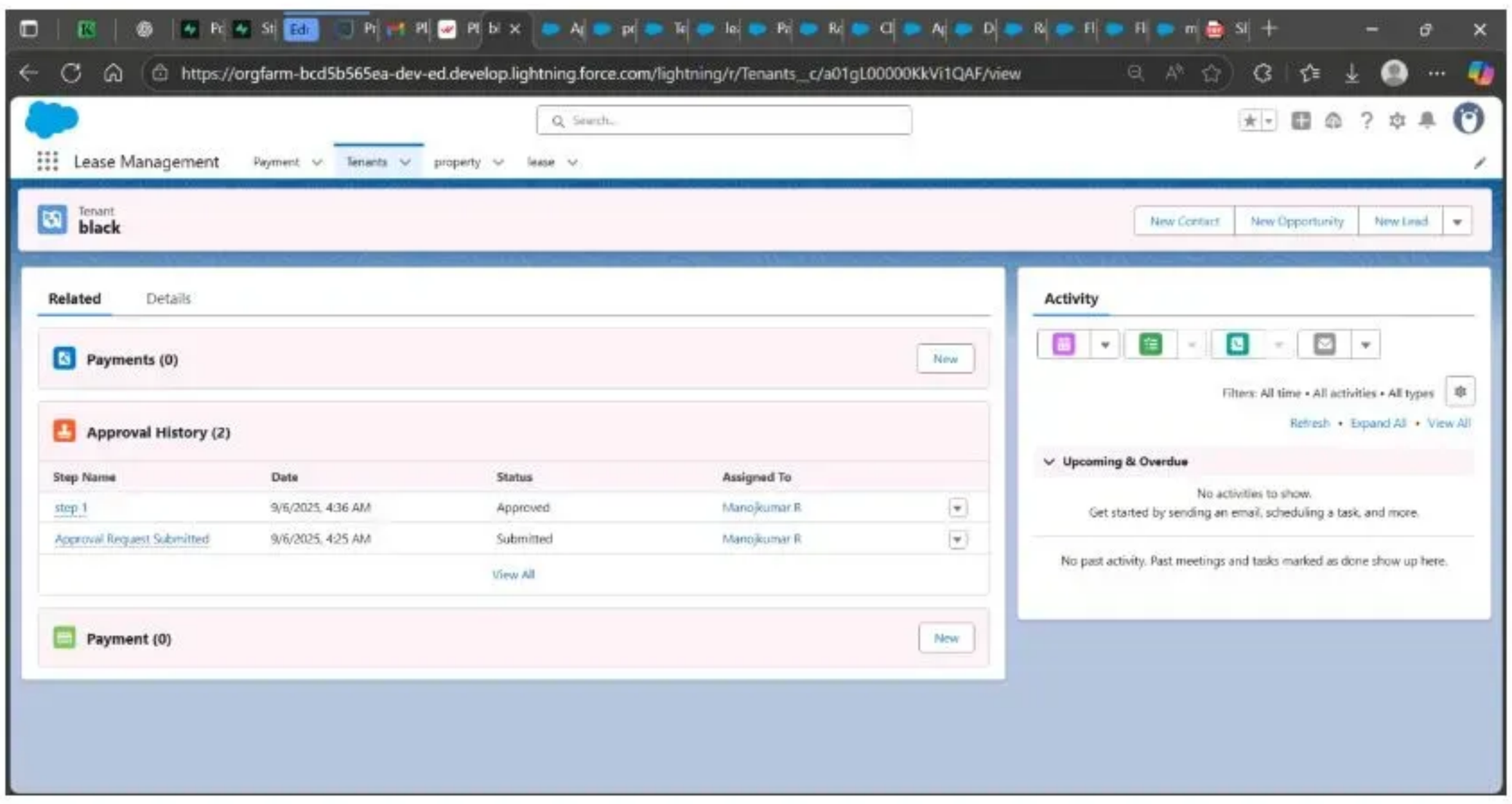


- Test flows on payment update



- Approval process validated through email alerts and status updates


https://orgfarm-bcd5b565ea-dev-ed.develop.lightning.force.com/lightning/r/Tenants__c/a01gL00000KkVi1QAF/view
Search...
Lease Management
Payment
Tenants
property
lease
Tenant
black
Related
Details
Tenant Name
black
Owner
Manojkumar R
Email
701deku@gmail.com
Phone
status
Leaving
property
landmark
Property Owner
Created By
Manojkumar R, 9/6/2025, 3:45 AM
Last Modified By
Manojkumar R, 9/6/2025, 4:24 AM
Notifications
Mark all as read
Manojkumar R is requesting approval for tenant
Tenant Name: black • Owner: Manojkumar R
a few seconds ago
Approval request for the tenant is approved
Manojkumar R
2 hours ago
New Guidance Center learning resource available
Define Your Sales Process
Learn how to guide reps through the sales process.
Sep 5, 2025, 11:34 AM
New Guidance Center learning resource available
Set Up Accounts & Contacts
Start storing information about your customers with accounts and contacts.
Sep 5, 2025, 11:34 AM
javascript:void(0)


https://orgfarm-bcd5b565ea-dev-ed.develop.lightning.force.com/lightning/r/Tenants__c/a01gL00000KkVi1QAF/view
Search...
Lease Management
Payment
Tenants
property
lease
Tenant
black
New Contact
New Opportunity
New Lead
Related
Details
Payments (0)
New
Approval History (2)
Step Name
Date
Status
Assigned To
step 1
9/6/2025, 4:36 AM
Approved
Manojkumar R
Approval Request Submitted
9/6/2025, 4:25 AM
Submitted
Manojkumar R
View All
Payment (0)
New
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.

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});
    }
}
}
```