LEASE MANAGEMENT

College Name: HINDUSTHAN COLLEGE OF SCIENCE AND COMMERCE

College Code:CA

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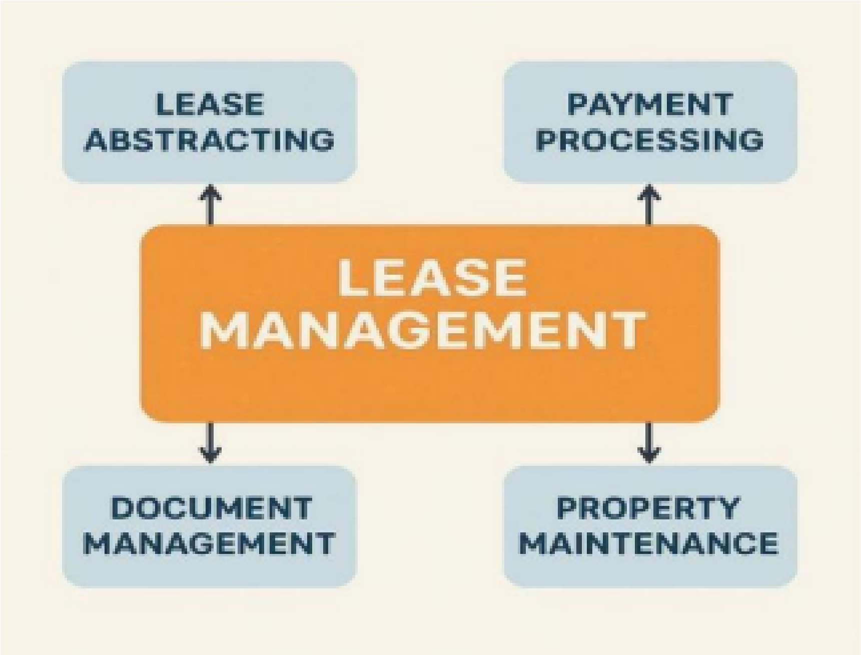
1.INTRODUCTION

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.

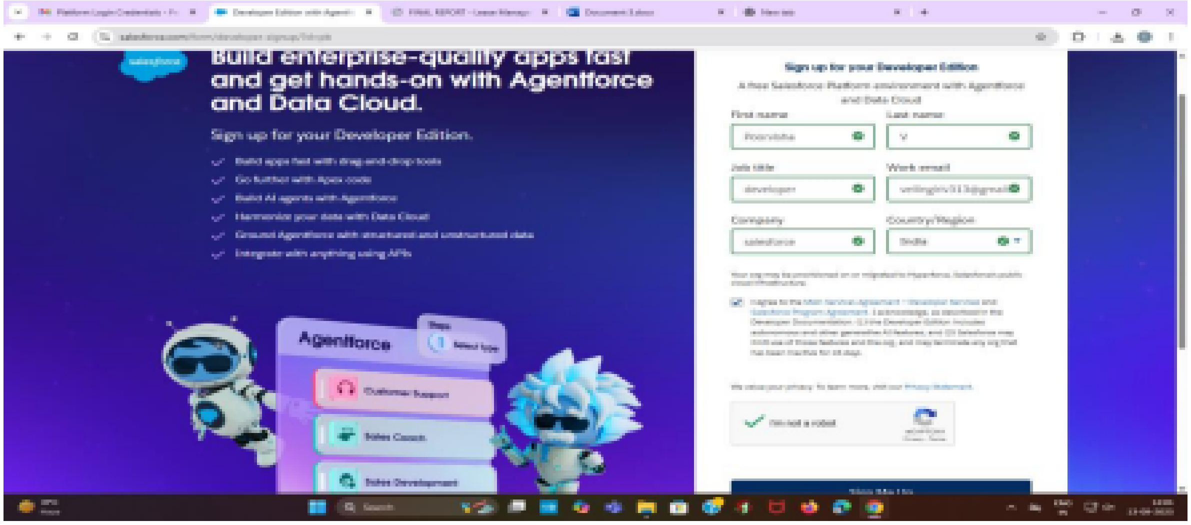


1.2 Purpose

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



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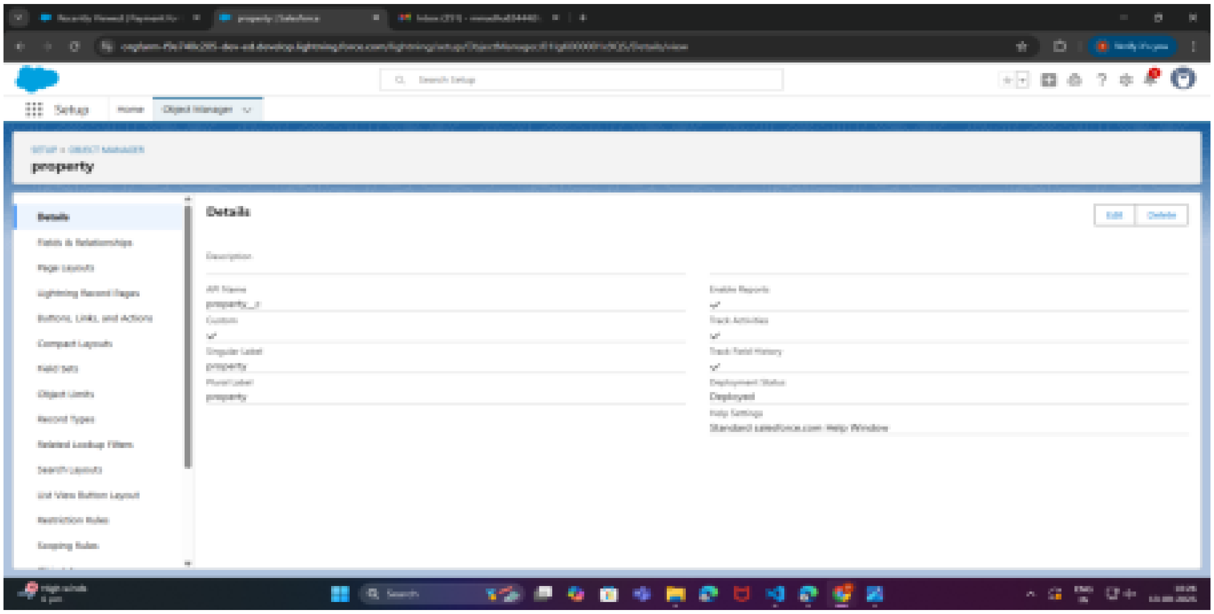
A free Salesforce Platform environment with Agentforce and Data Cloud

First name: Poorvisha
Last name: V
Job title: developer
Company: salesforce
Country/Region: India

☑

● Created objects: Property, Tenant, Lease, Payment



SETUP > OBJECT MANAGER

property

Details

Description

API Name
property__c

Custom
✓

Singular Label
property

Plural Label
property

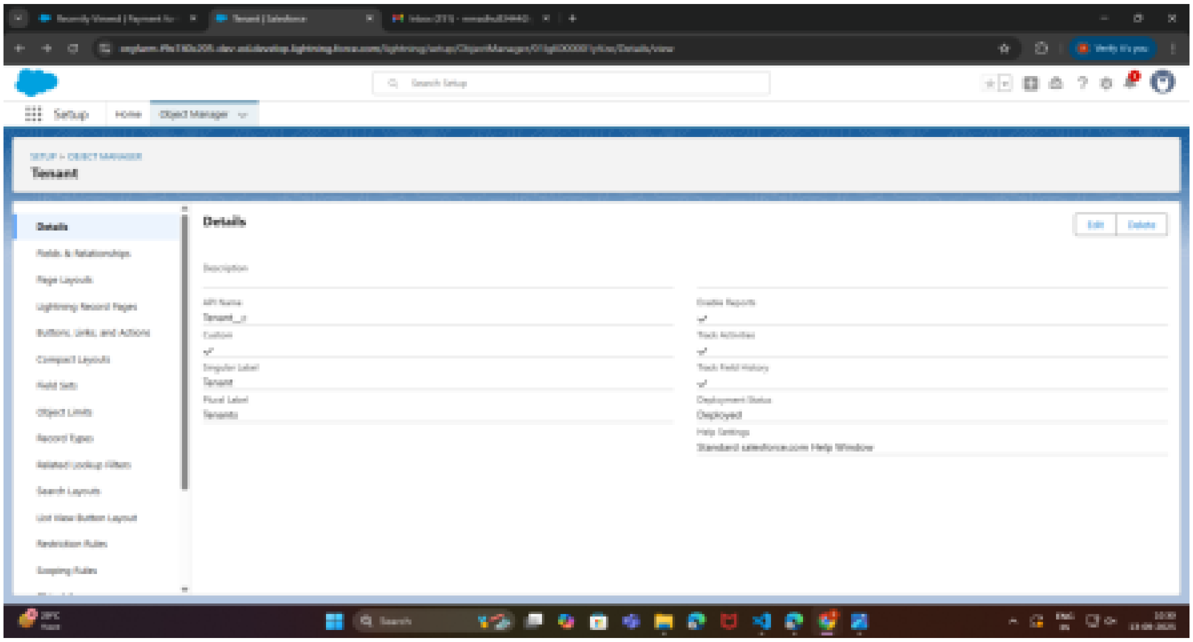
Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



SETUP > OBJECT MANAGER

Tenant

Details

Description

API Name
Tenant__c

Custom
✓

Singular Label
Tenant

Plural Label
Tenants

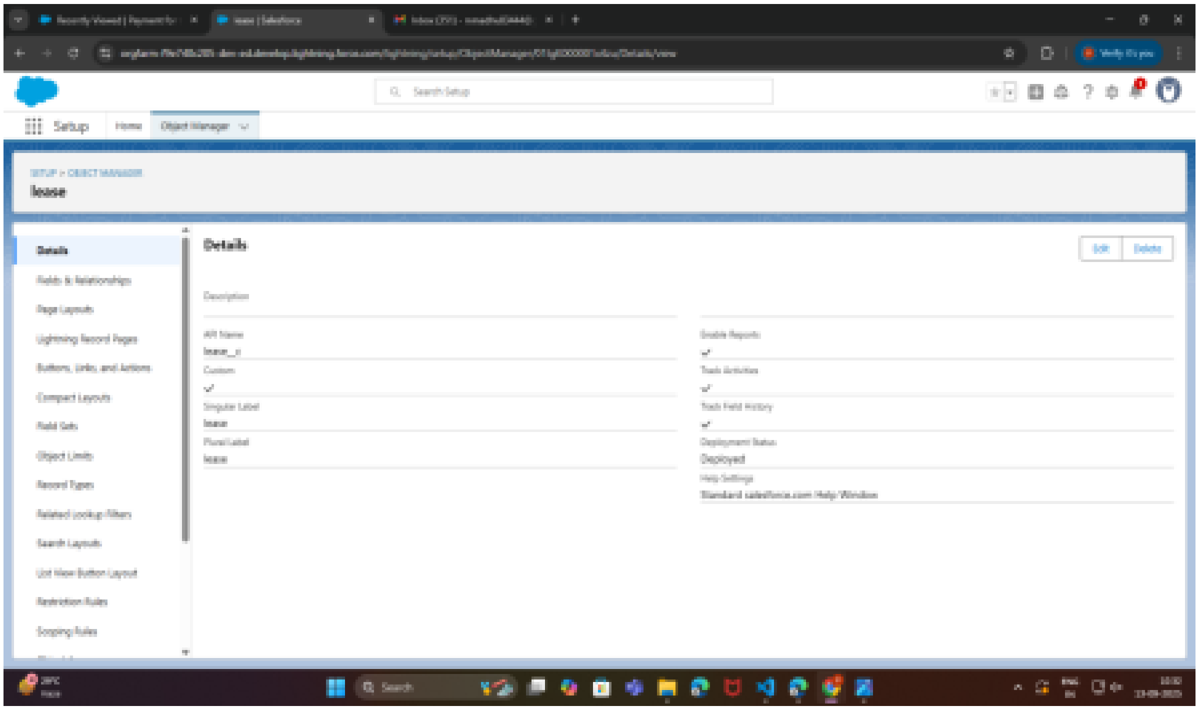
Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



SETUP > OBJECT MANAGER

lease

Details

Description

API Name
lease__c

Custom
✓

Singular Label
lease

Plural Label
lease

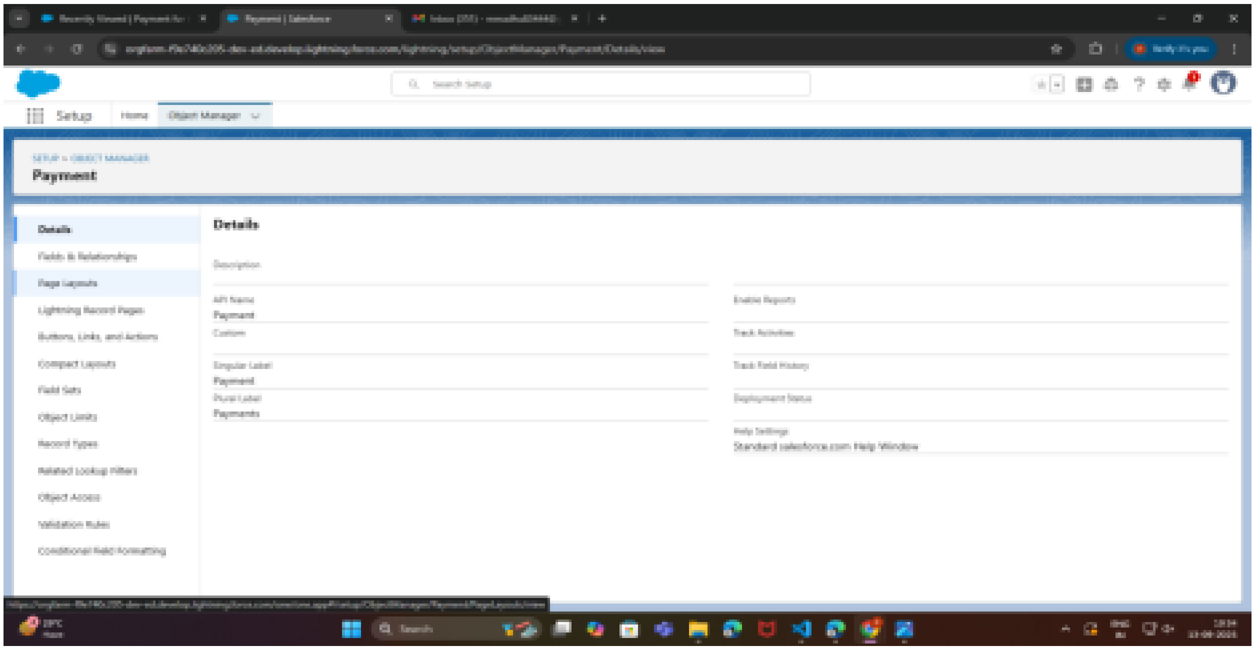
Enable Reports
✓

Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window



SETUP > OBJECT MANAGER

Payment

Details

Description

API Name: Payment

Custom

Singular Label: Payment

Plural Label: Payments

Enable Reports

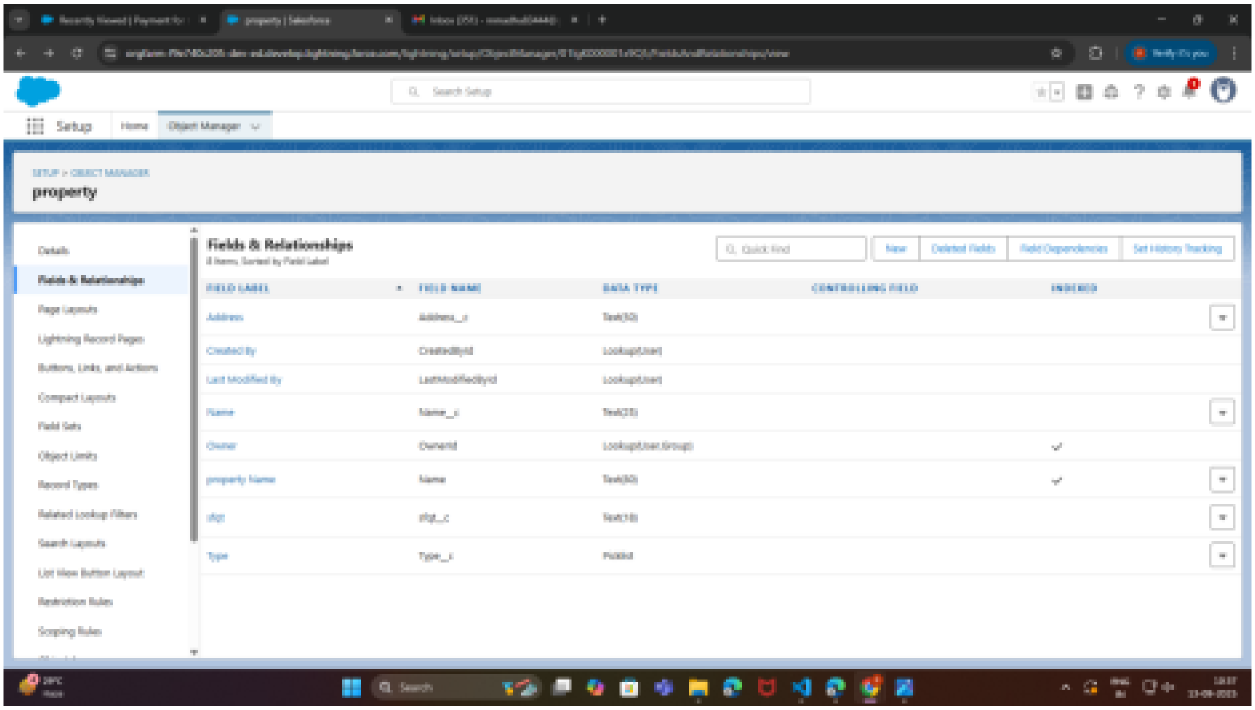
Track Activities

Track Field History

Deployment Status

Help Settings: Standard salesforce.com Help Window

- Configured fields and relationships



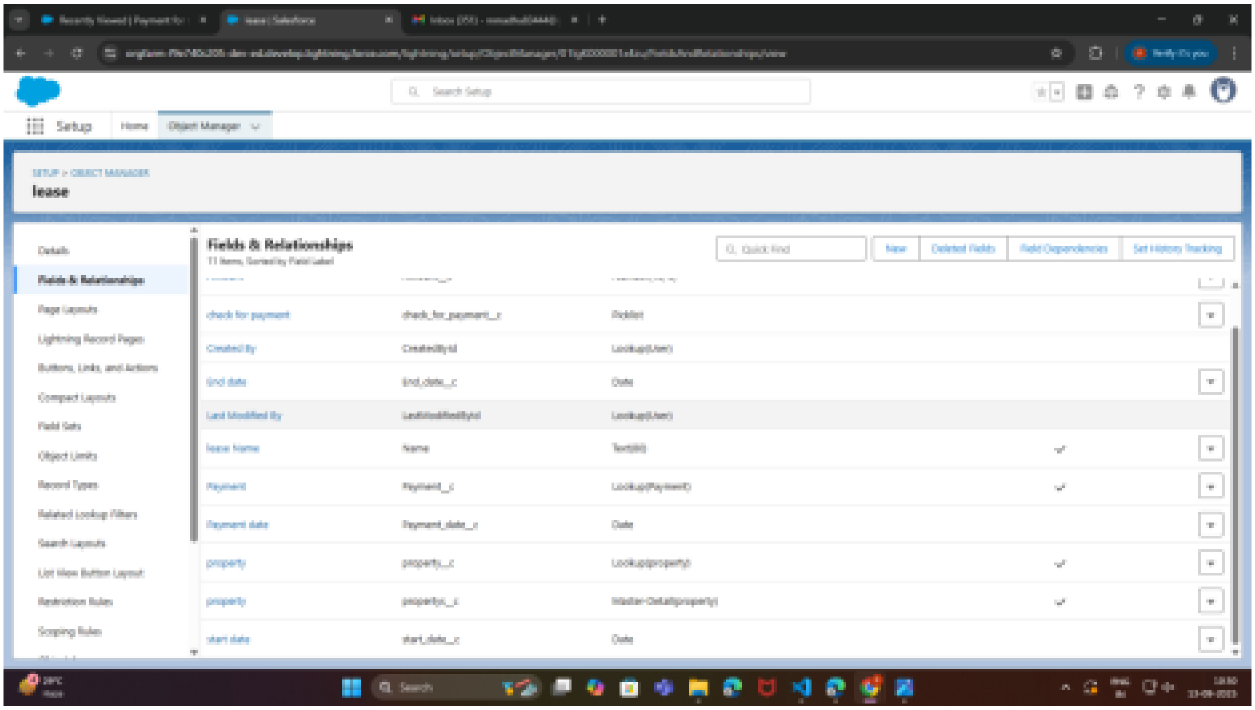
SETUP > OBJECT MANAGER

property

Fields & Relationships

8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text(50)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name__c	Text(25)		
Owner	OwnerId	Lookup(User,Group)		✓
property Name	Name	Text(80)		✓
sqft	sqft__c	Text(10)		
Type	Type__c	Picklist		



SETUP > OBJECT MANAGER

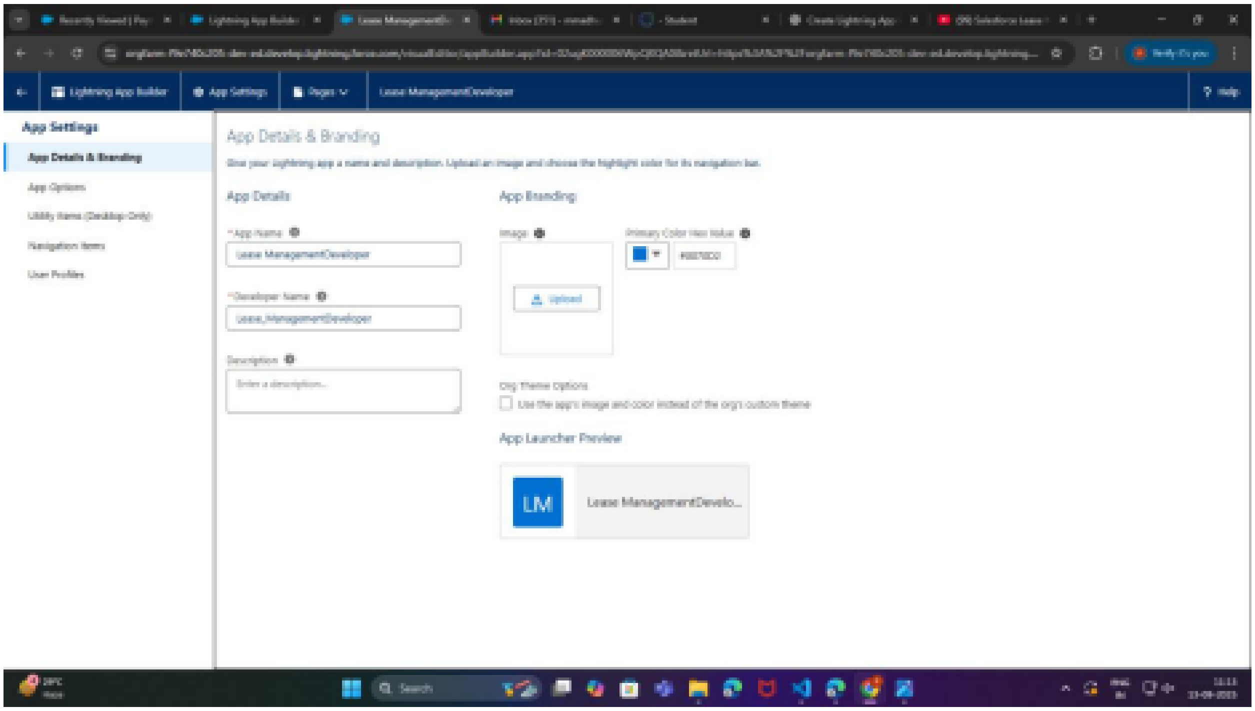
lease

Fields & Relationships

11 Items, Sorted by Field Label

check for payment	check_for_payment__c	Picklist	
Created By	CreatedById	Lookup(User)	
End date	End_date__c	Date	
Last Modified By	LastModifiedById	Lookup(User)	
lease Name	Name	Text(80)	✓
Payment	Payment__c	Lookup(Payment)	✓
Payment date	Payment_date__c	Date	
property	property__c	Lookup(property)	✓
property	propertys__c	Master-Detail(property)	✓
start date	start_date__c	Date	

- Developed Lightning App with relevant tabs



App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

App Details

*App Name: Lease ManagementDeveloper

*Developer Name: Lease_ManagementDeveloper

Description: Enter a description...

App Branding

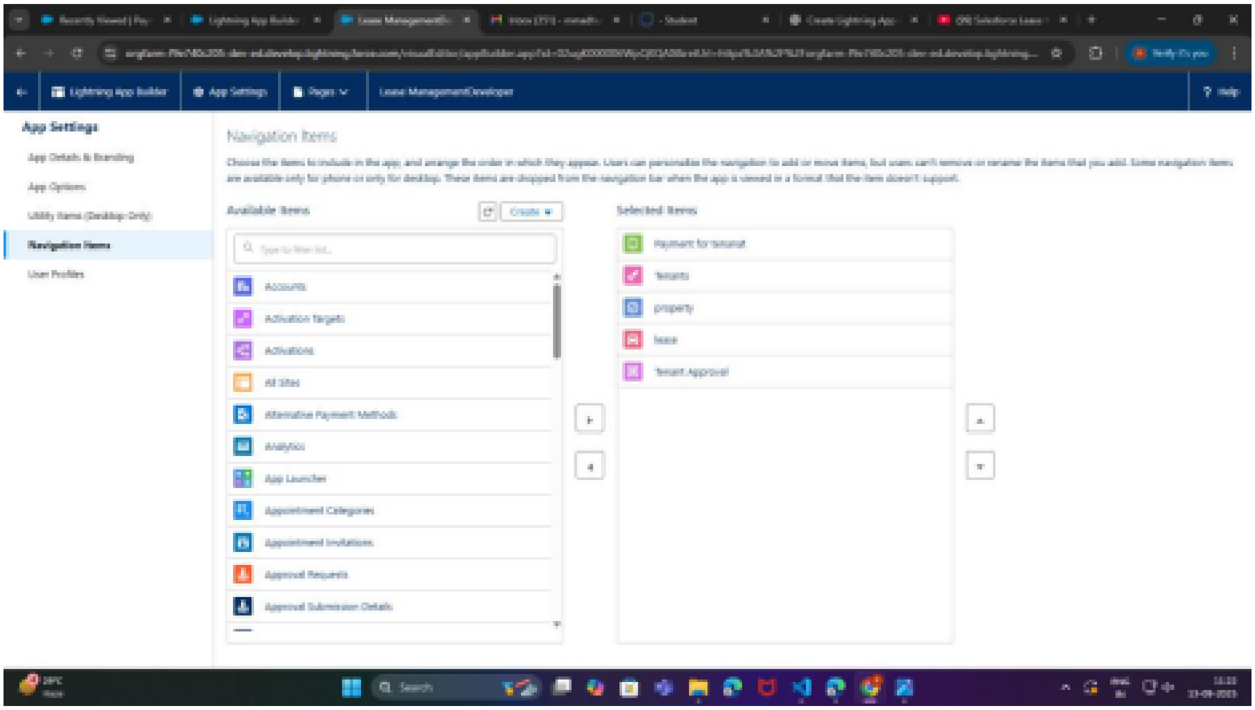
Image

Primary Color Hex Value: #0070D2

Org Theme Options

□ Use the app's image and color instead of the org's custom theme

App Launcher Preview



Lightning App Builder | App Settings | Pages | Lease ManagementDeveloper

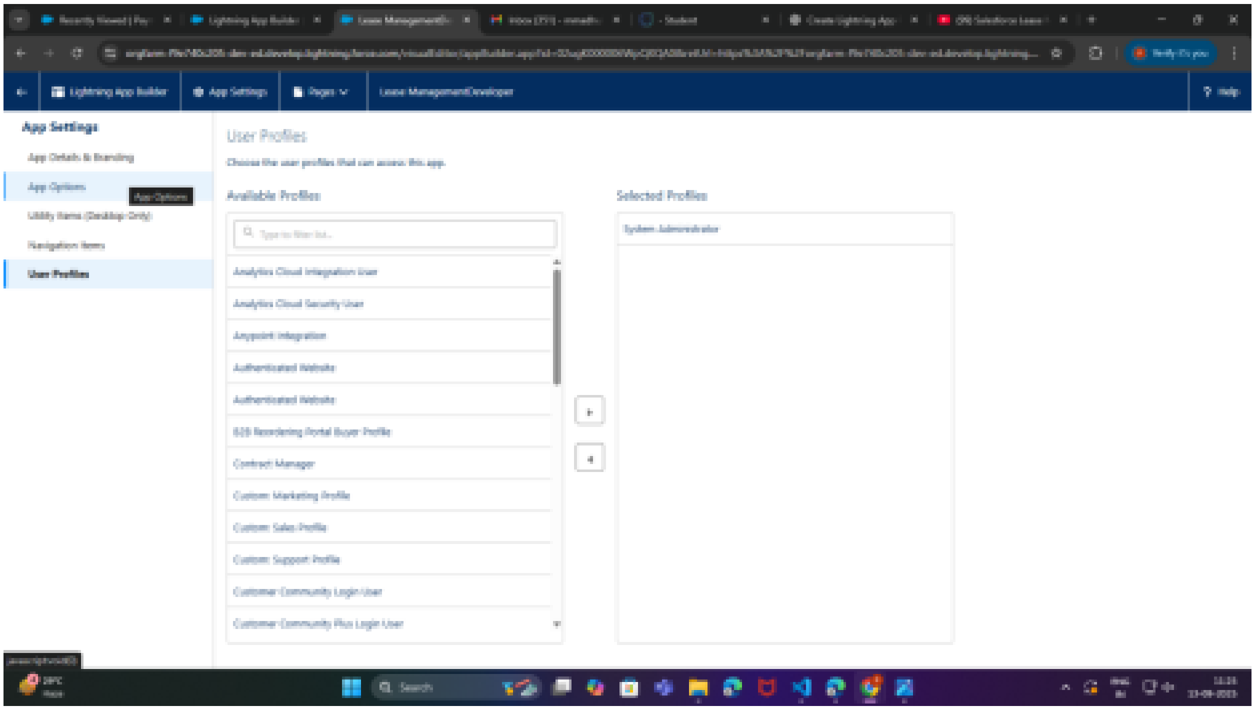
App Settings
- App Details & Branding
- App Options
- Utility Items (Desktop Only)
- **Navigation Items**
- User Profiles

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
- Accounts
- Activation Targets
- Activations
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Approval Submission Details

Selected Items
- Payment for tenanat
- Tenants
- property
- lease
- Tenant Approval



Lightning App Builder | App Settings | Pages | Lease ManagementDeveloper

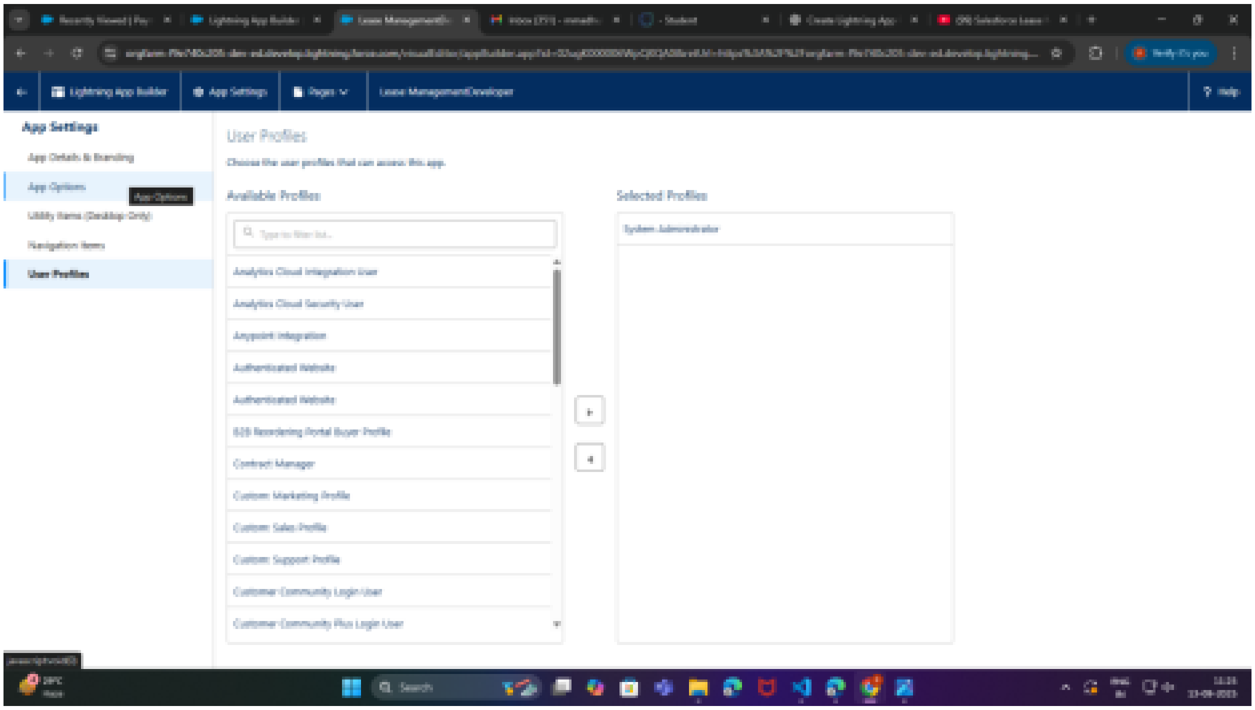
App Settings
- App Details & Branding
- App Options
- Utility Items (Desktop Only)
- Navigation Items
- **User Profiles**

User Profiles

Choose the user profiles that can access this app.

Available Profiles
- 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
- Customer Community Plus Login User

Selected Profiles
- System Administrator



User Profiles

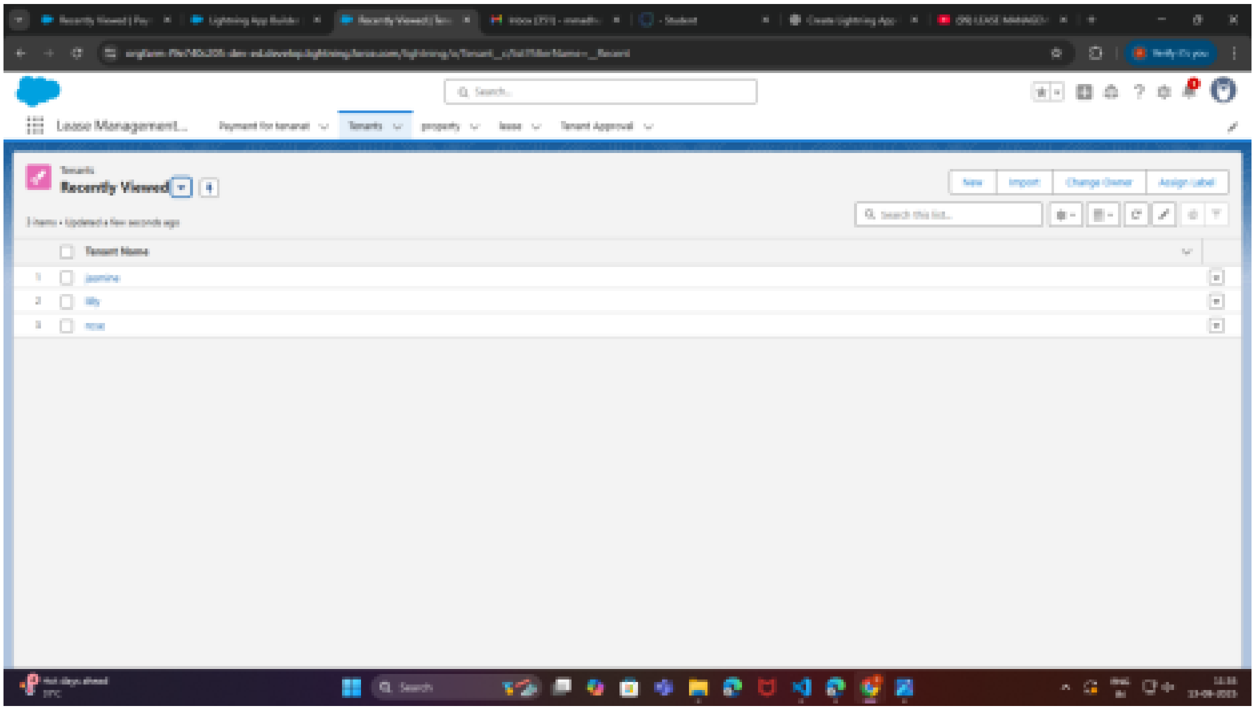
Choose the user profiles that can access this app.

Available Profiles

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
Customer Community Plus Login User

Selected Profiles

System Administrator

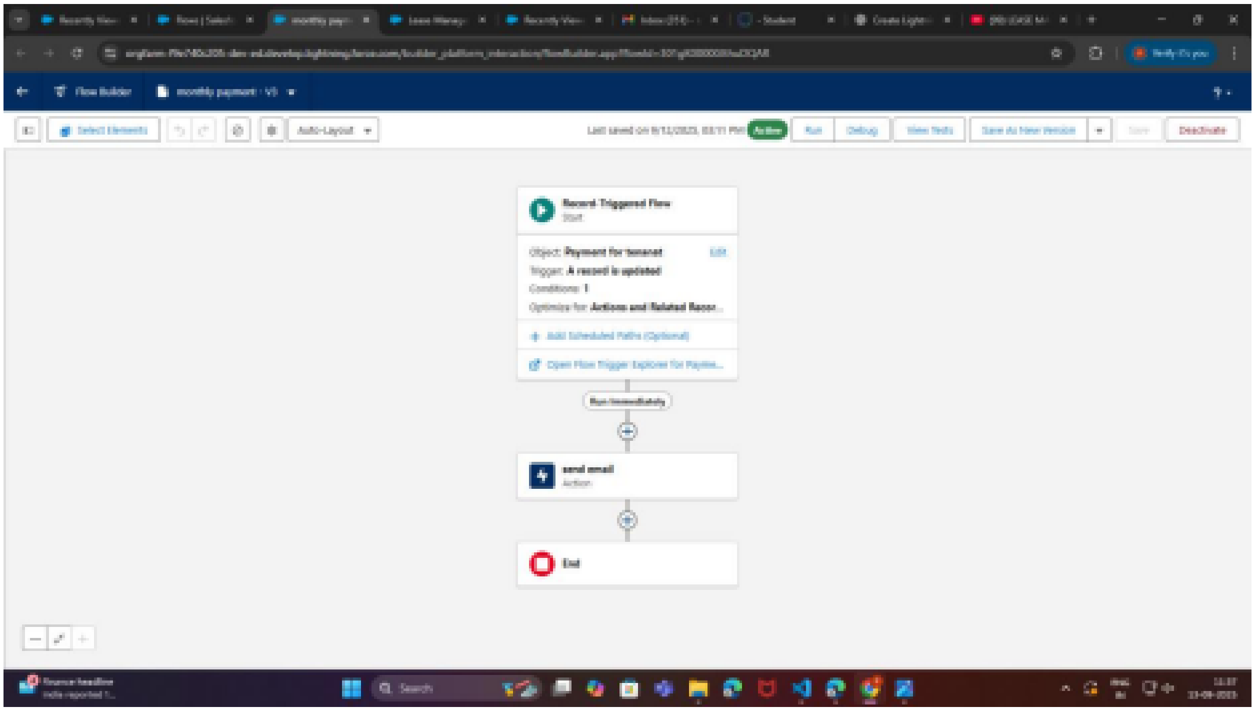


Tenants
Recently Viewed

3 items • Updated a few seconds ago

	Tenant Name
1	jasmine
2	lilly
3	rose

- Implemented Flows for monthly rent and payment success



Flow Builder

monthly payment - V1

Last saved on 9/13/2023, 03:11 PM Active

Record-Triggered Flow
Start

Object: Payment for tenanat
Trigger: A record is updated
Conditions: 1
Optimize for: Actions and Related Recor...

Add Scheduled Paths (Optional)

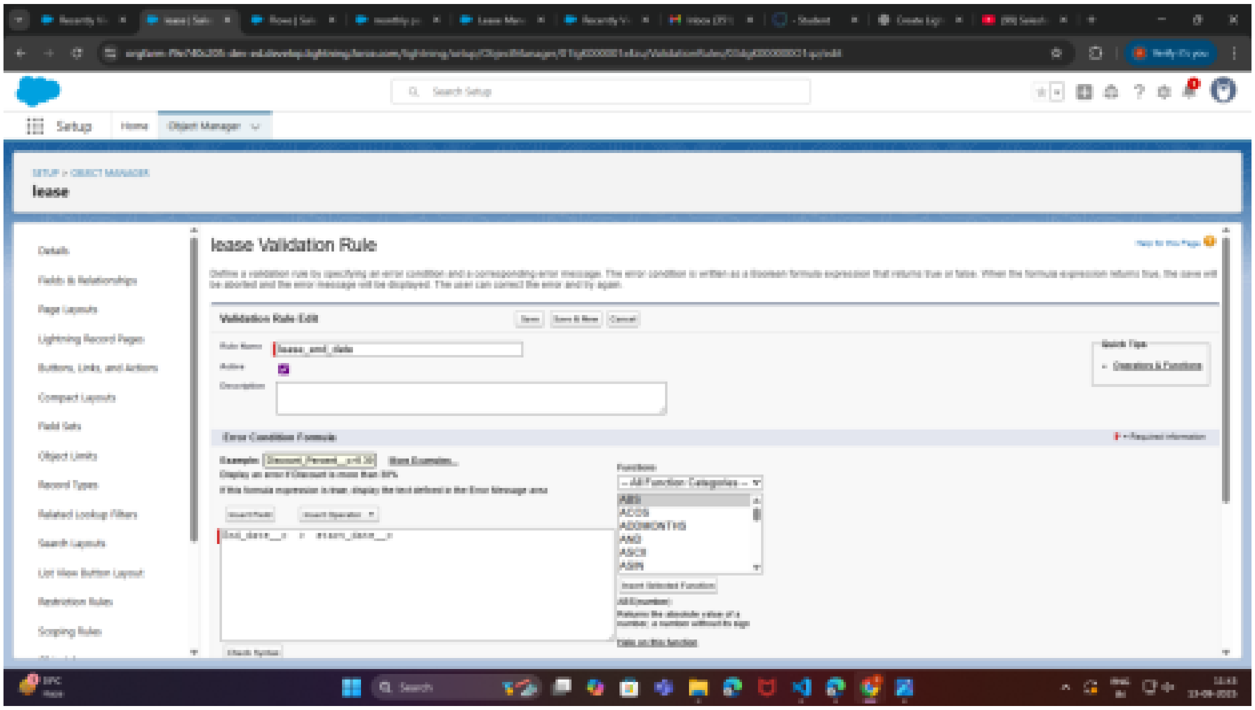
Open Flow Trigger Explorer for Payme...

Run Immediately

send email
Action

End

- To create a validation rule to a Lease Object



SETUP > OBJECT MANAGER

lease

lease Validation Rule

Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.

Validation Rule Edit

Rule Name: lease_end_date

Active: ☑

Description:

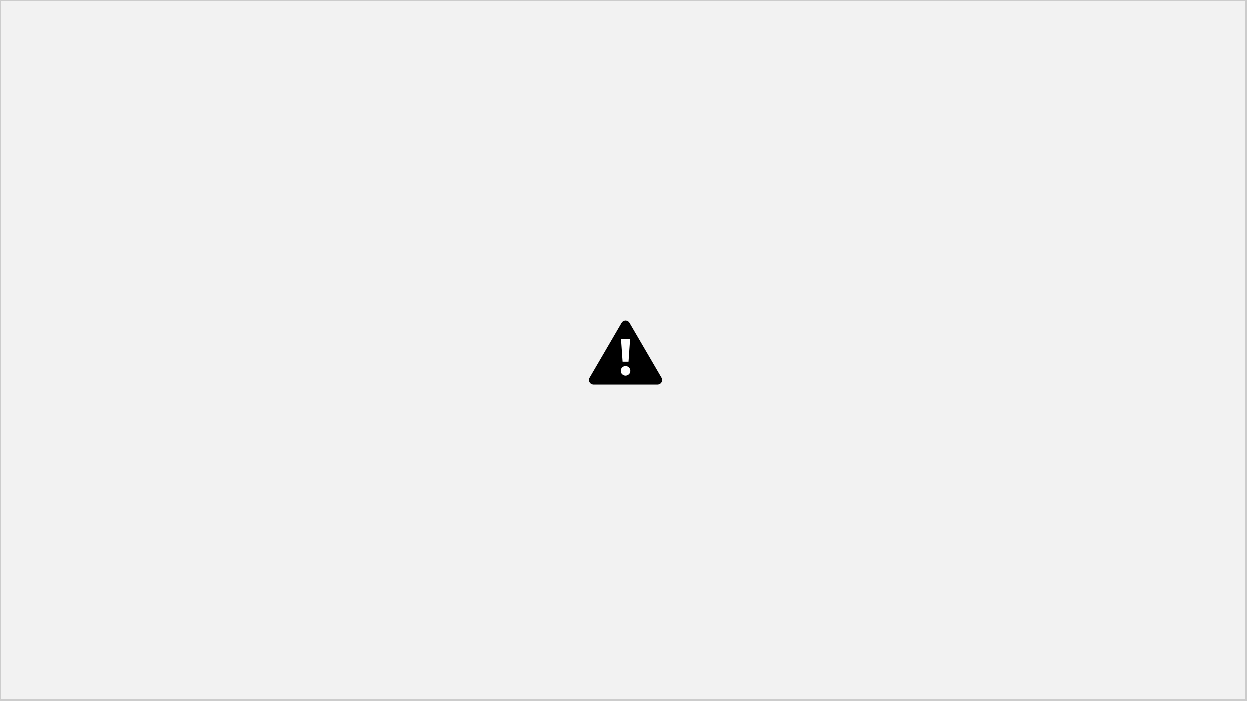
Error Condition Formula

Example: Discount_Percent__c>0.30 More Examples...

Display an error if Discount is more than 30%

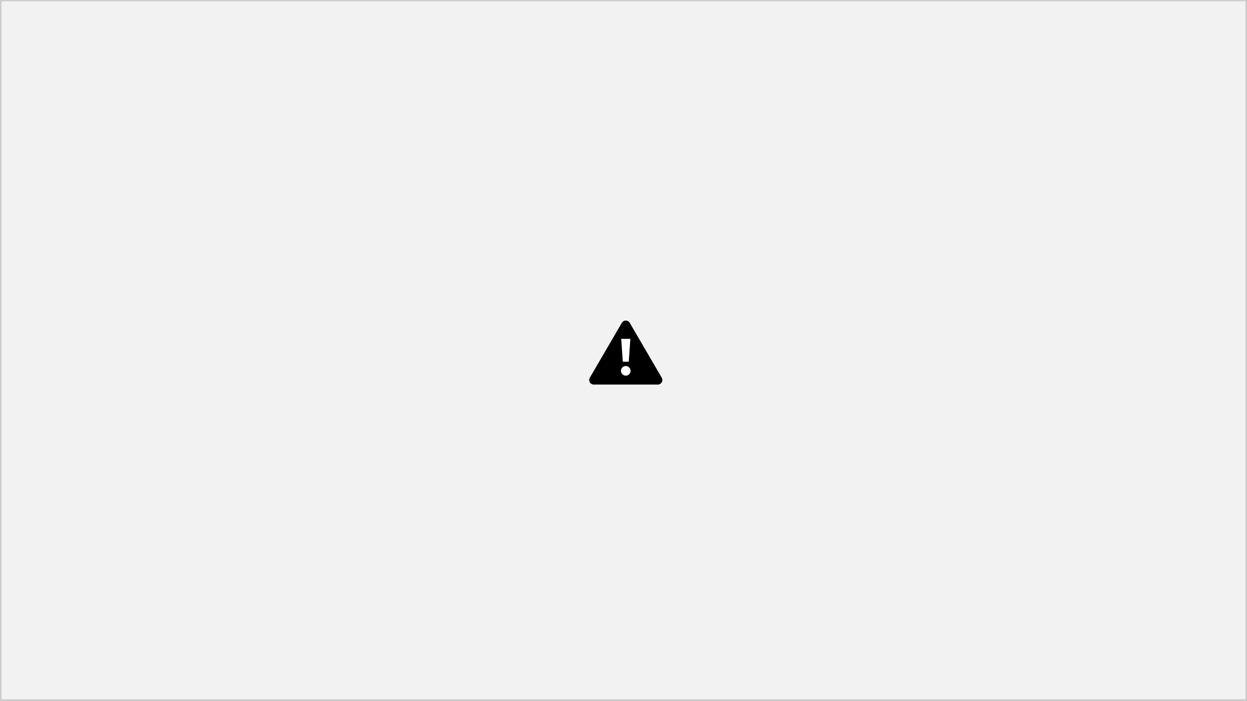
If this formula expression is true, display the text defined in the Error Message area

```
End_date__c [illegible] start_date__c
```

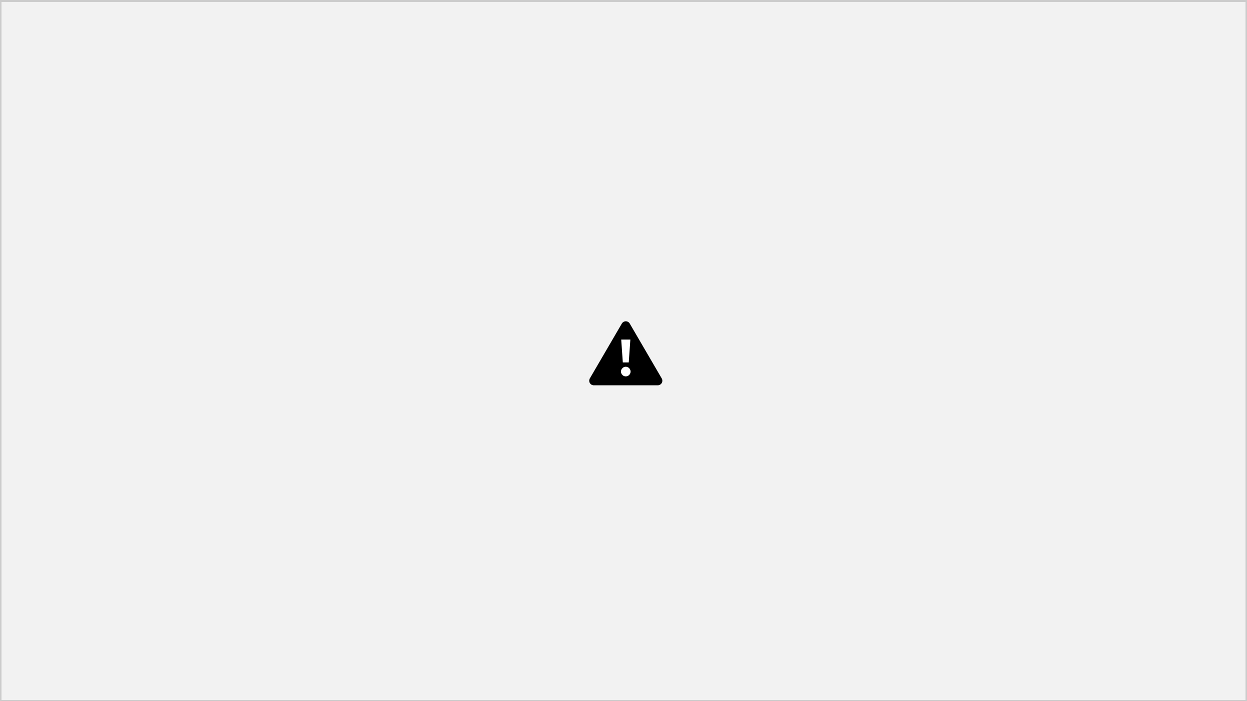


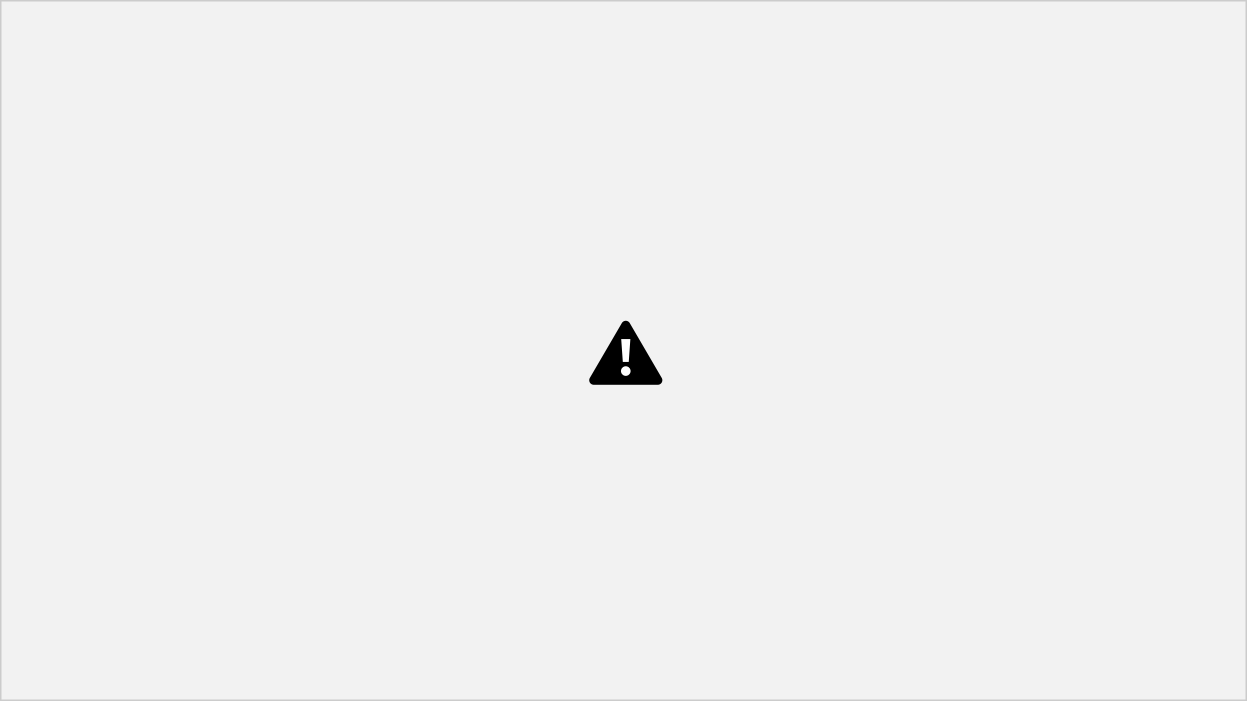
- Added Apex trigger to restrict multiple tenants per property

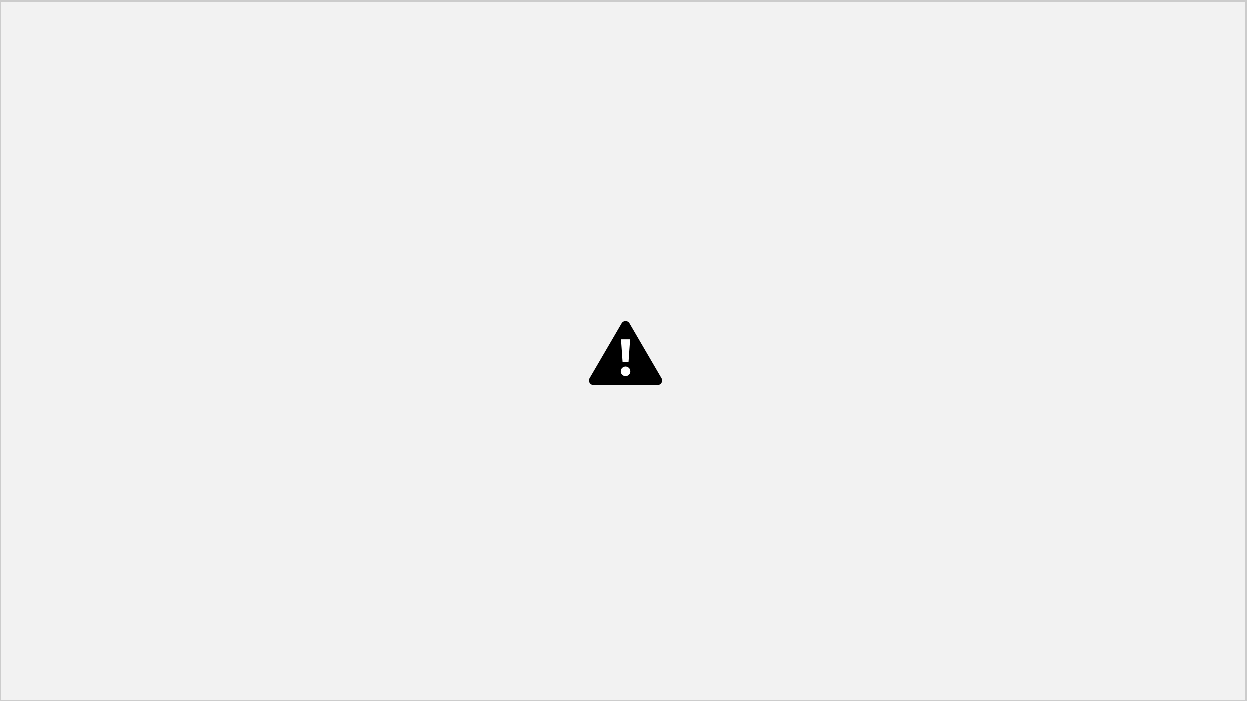
- Scheduled monthly reminder emails using Apex class



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

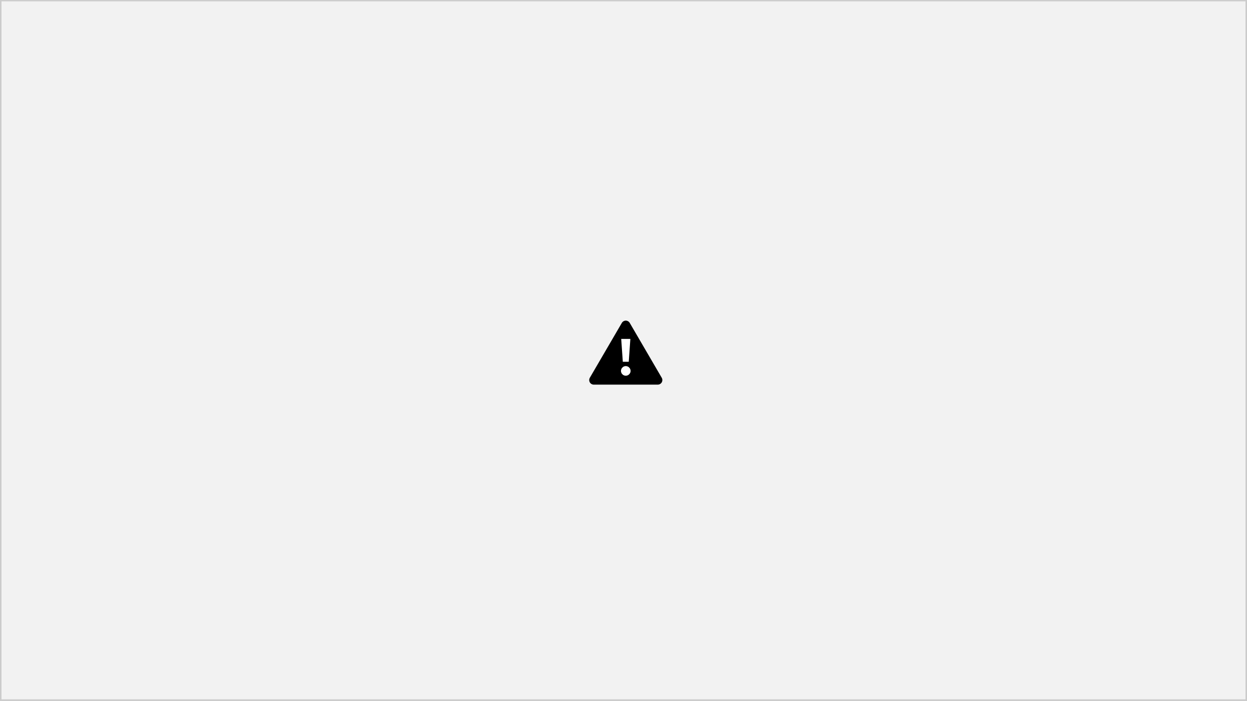




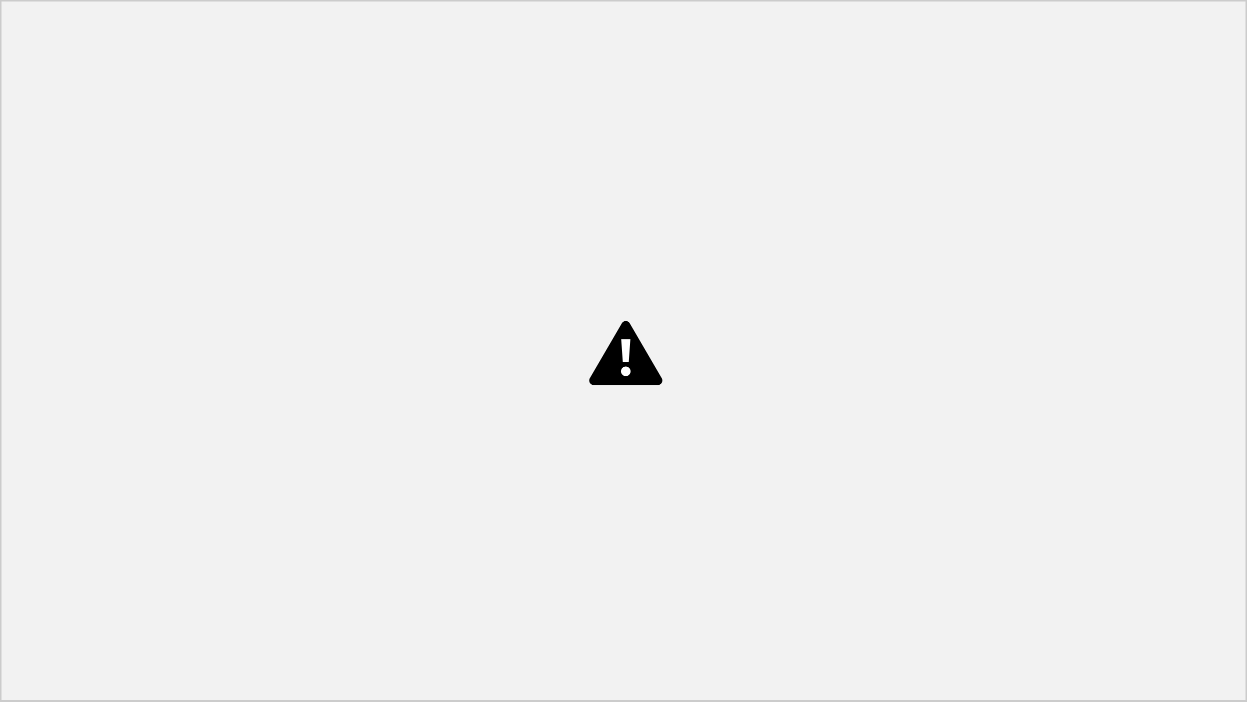


- Approval Process creation

For Tenant Leaving:

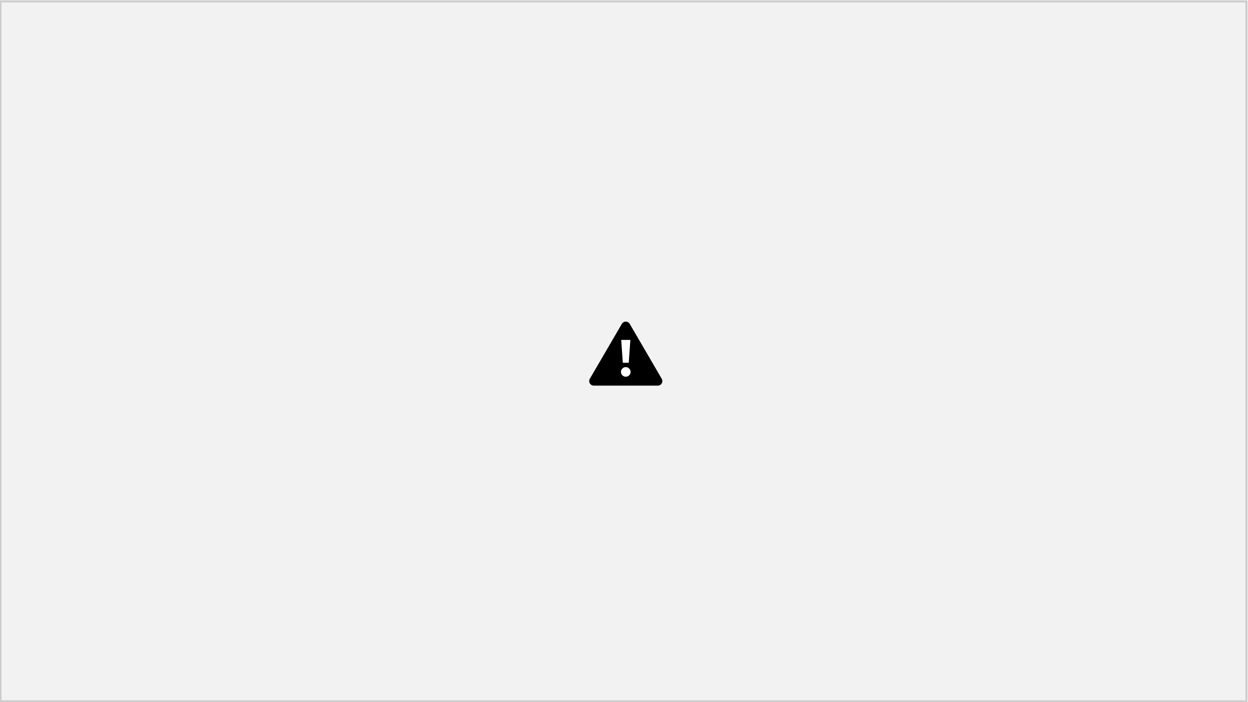


For Check for Vacant:

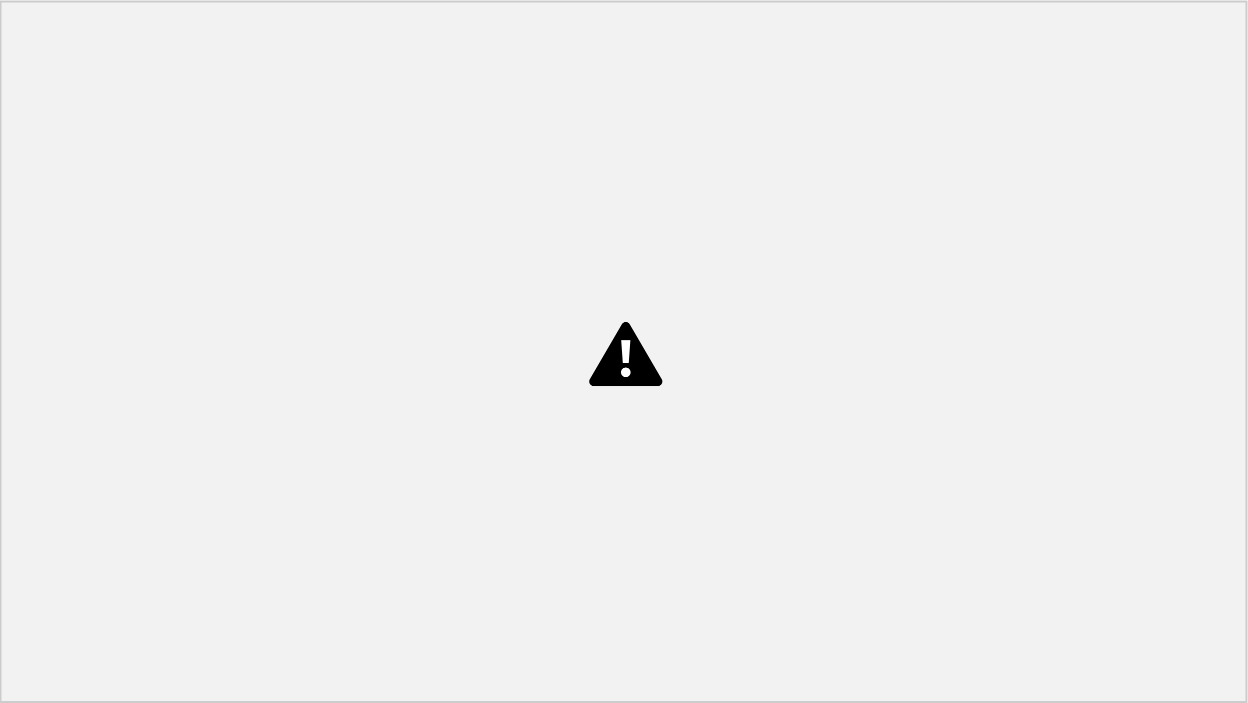


- Apex Trigger

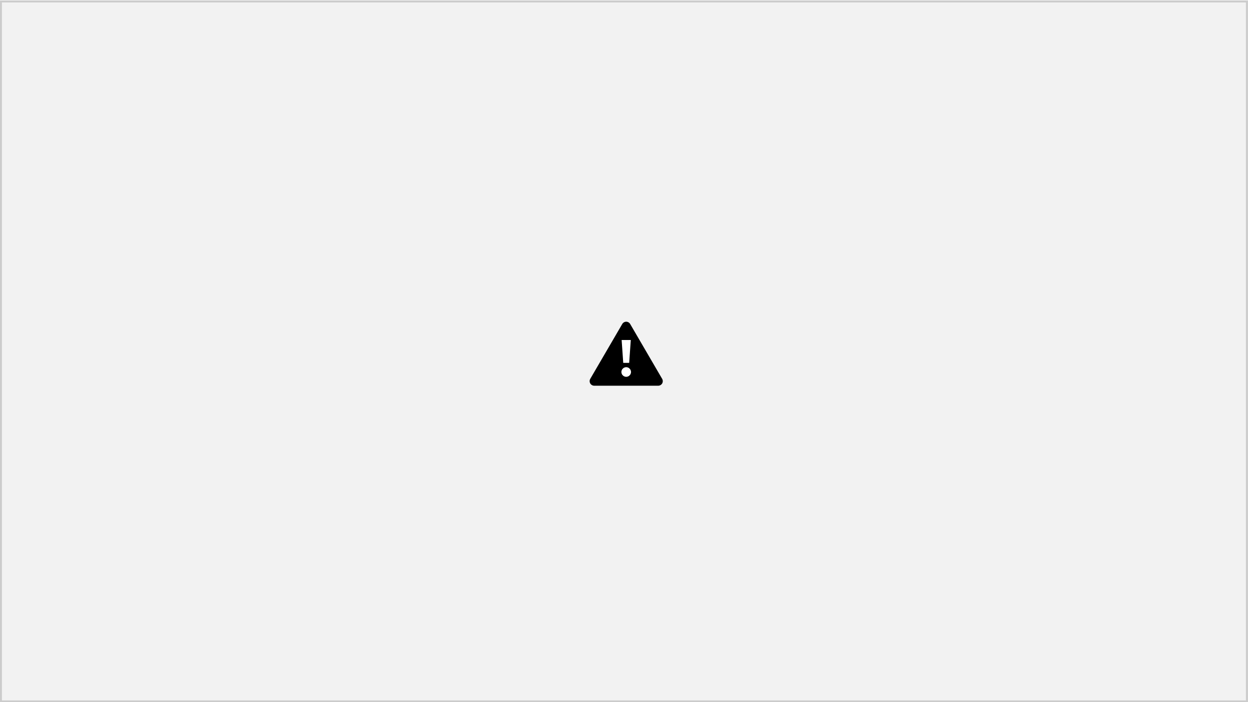
Create an Apex Trigger

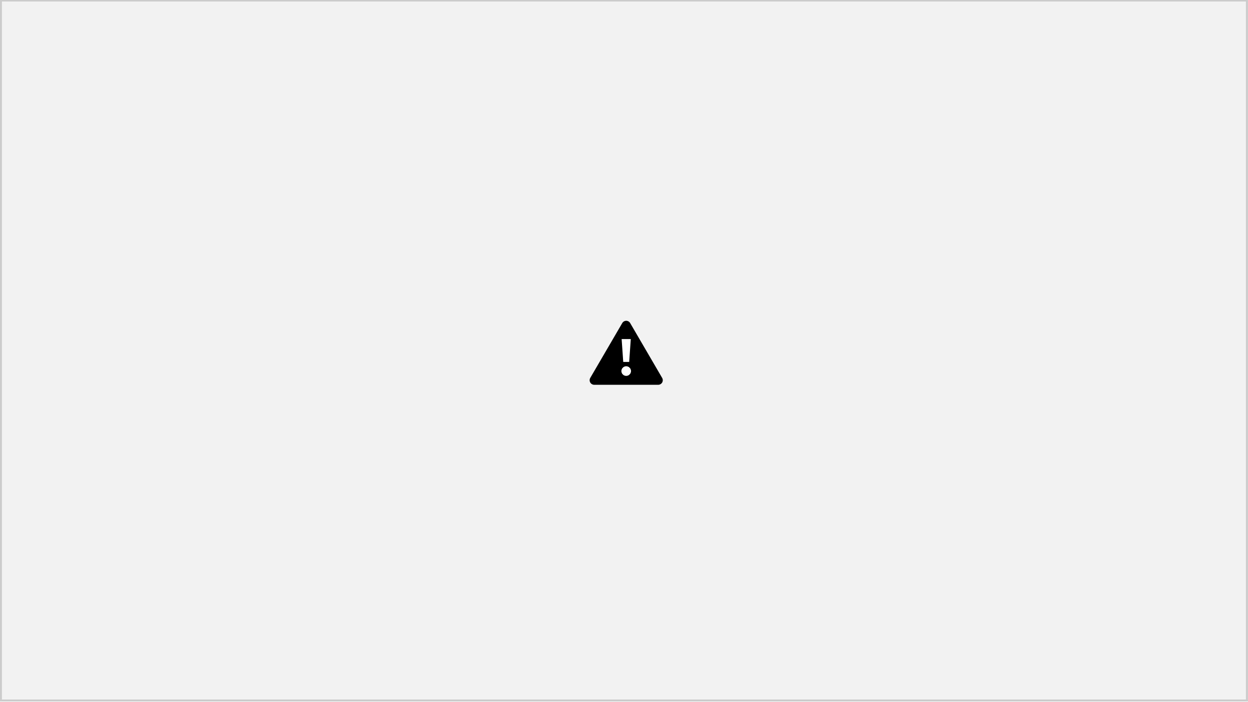


Create an Apex Handler class



- FLOWS

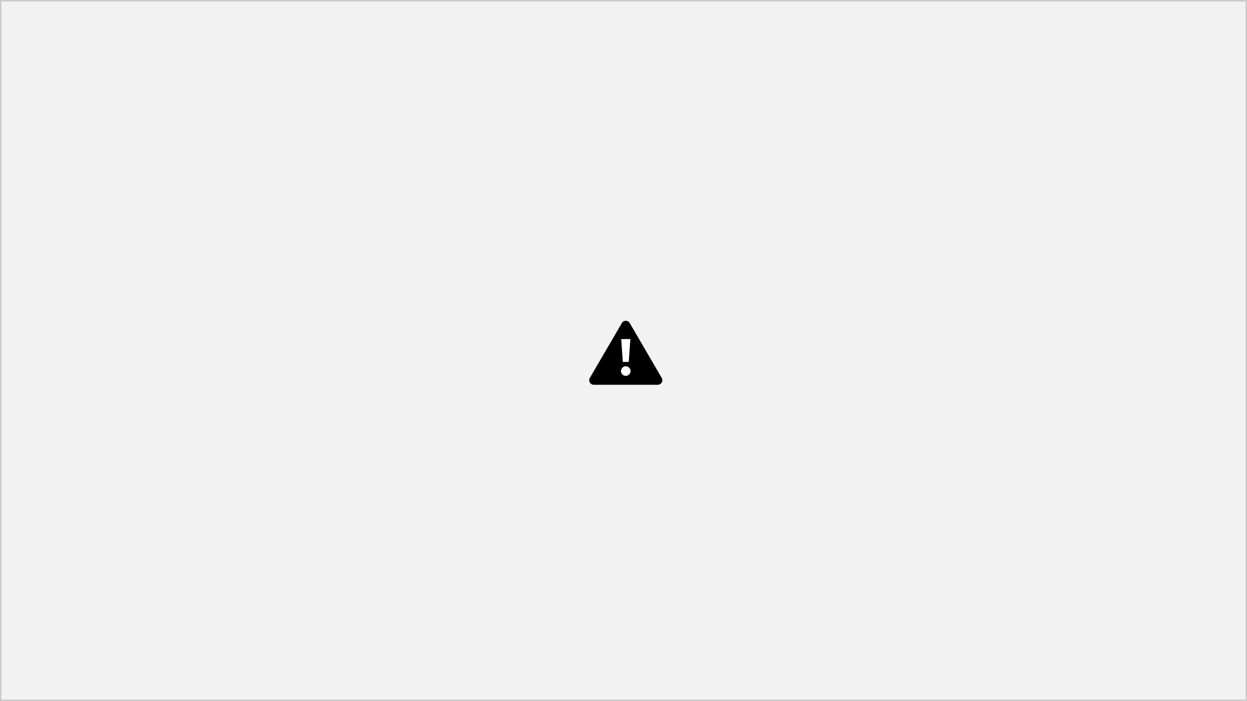


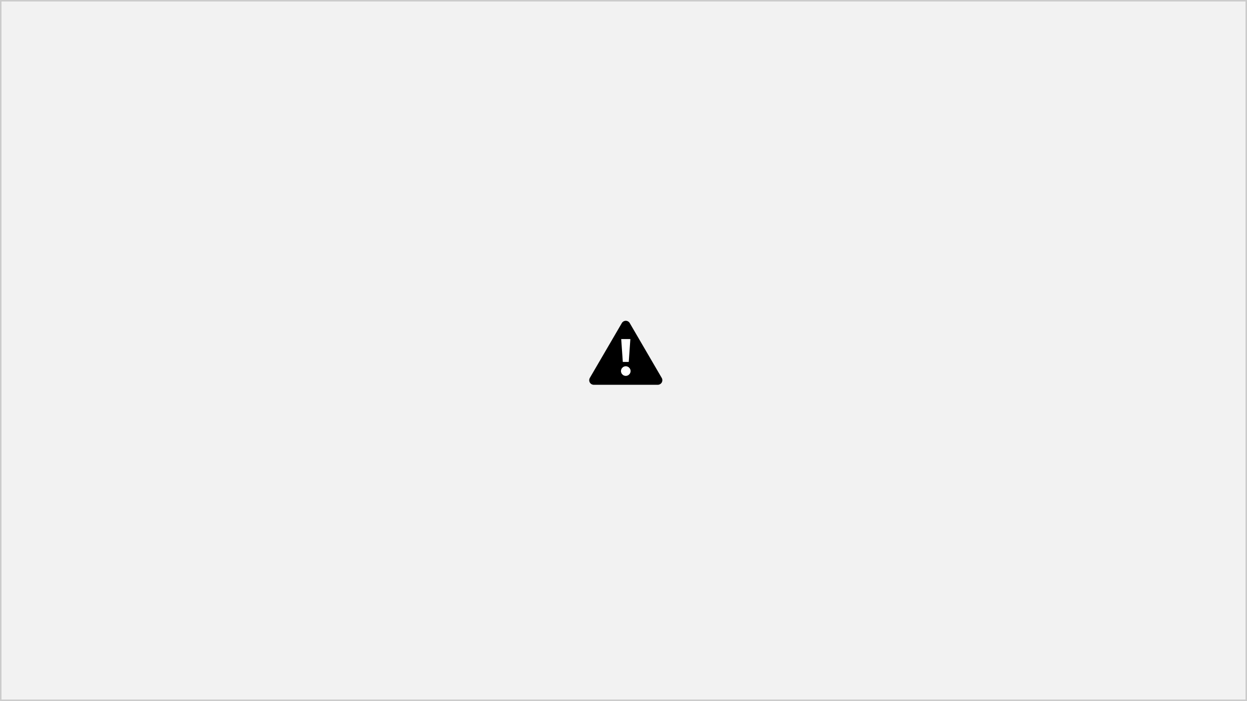


- Schedule class:

Create an Apex Class

Schedule Apex class

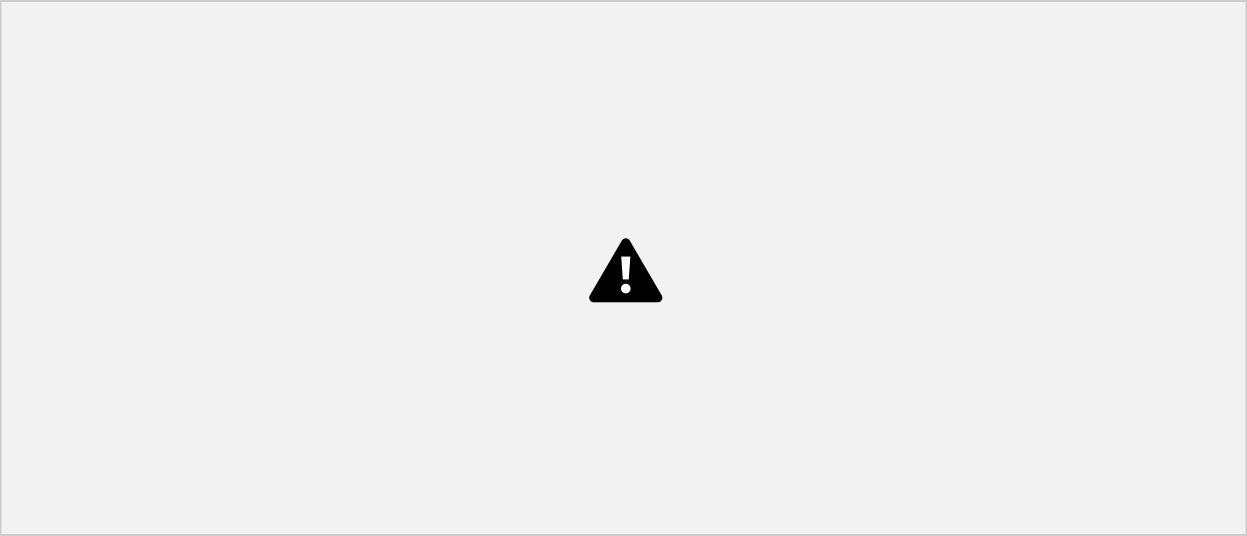




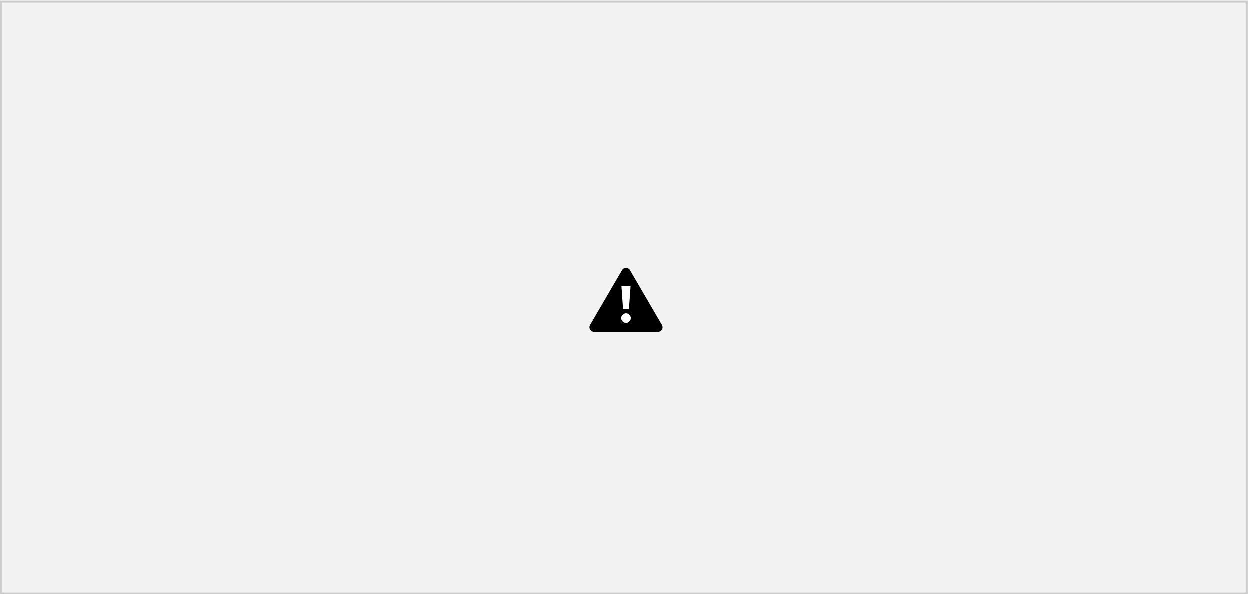
FUNCTIONAL AND PERFORMANCE TESTING

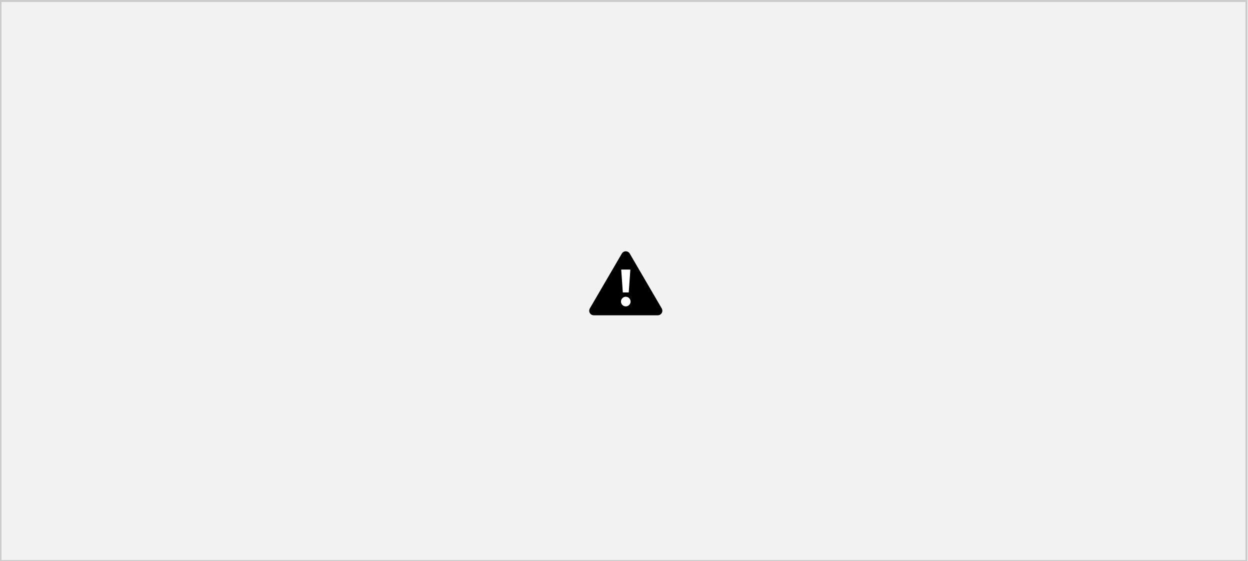
Performance Testing

- Trigger validation by entering duplicate tenant-property records



- Validation Rule checking





- Test flows on payment update

- Approval process validated through email alerts and status updates

RESULTS

Output Screenshots

- Tabs for Property, Tenant, Lease, Payment

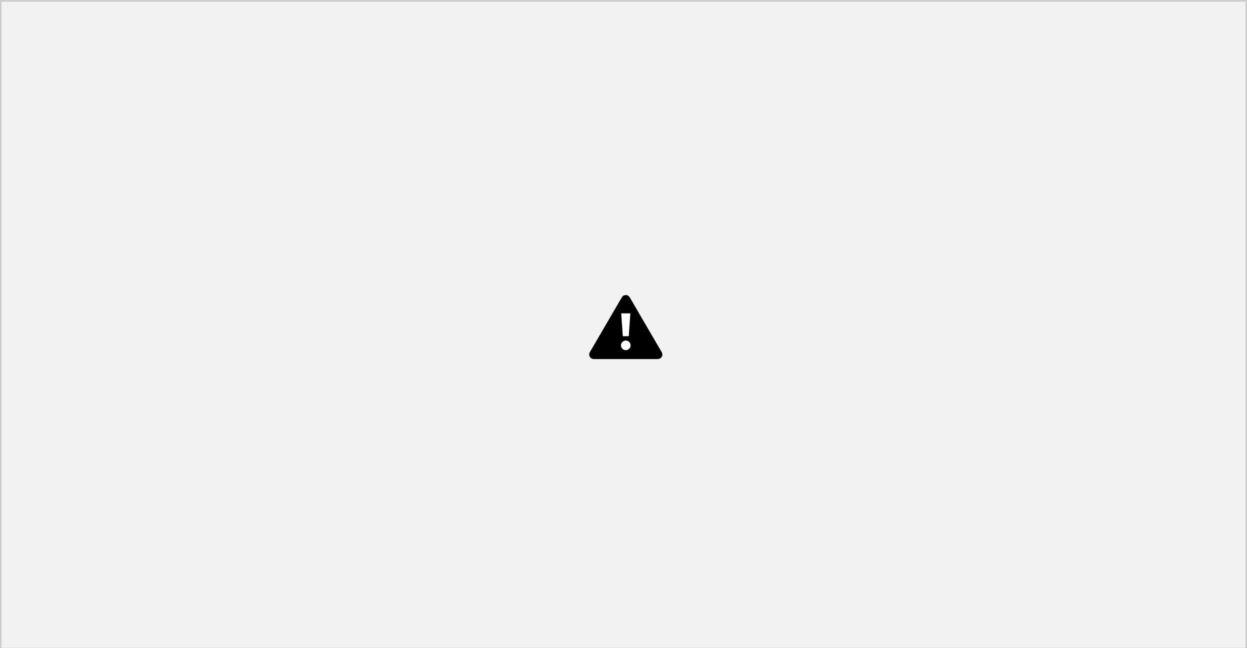
- Email alerts

- Request for approve the leave

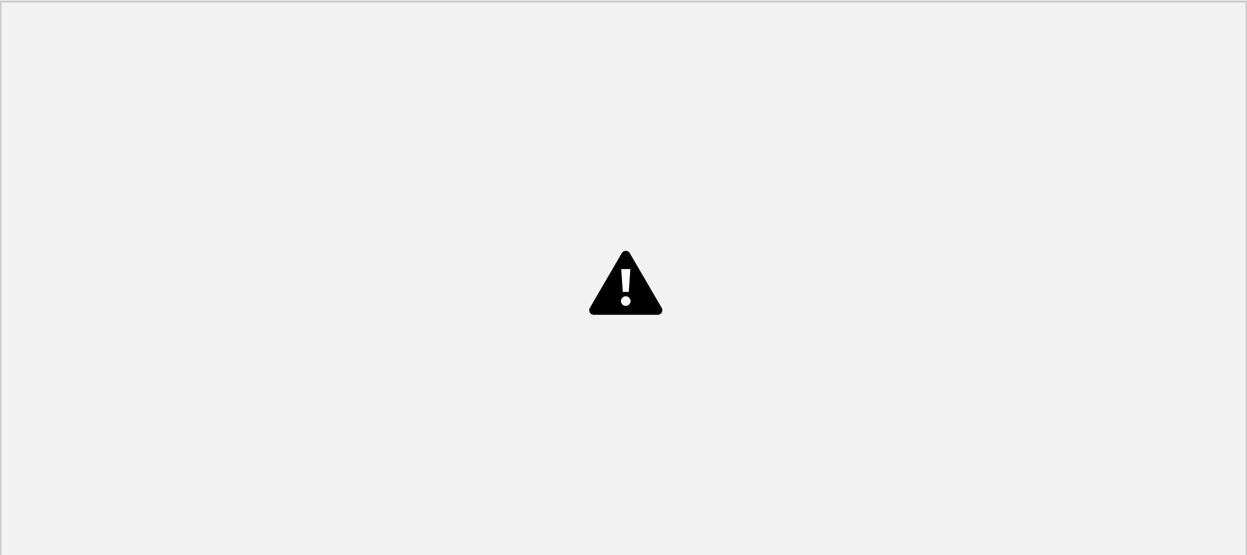
- Leave approved

- Leave rejected

- Flow runs



- Trigger error messages



- Approval process notifications

ADVANTAGES & DISADVANTAGES

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

<u>Test.apxt:</u>

```
trigger test on Tenant__c (before insert) { if (trigger.isInsert &&
trigger.isBefore){ testHandler.preventInsert(trigger.new); } }
```

<u>testHandler.apxc</u>:

```
 public class testHandler { public static void preventInsert(List< Tenant__c> newlist) {
Set  existingPropertyIds

= new Set()
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 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}); }

}
}
```