PROJECT TITLE: LEASE MANAGEMENT

College Name: University College of Engineering,
BIT Campus,Trichy

College Code: 8100

TEAM ID: NM2025TMID06880

TEAM SIZE: 4

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Title: Lease Management System

Project Overview:

Real estate and asset leasing companies often struggle to manage lease agreements, tenant details, payment schedules, and property maintenance efficiently. Manual processes can lead to errors, missed renewals, and poor customer experience.
To address these challenges, this project leverages **Salesforce CRM** to build a **Lease Management System** that automates lease operations, manages property and tenant data, tracks rent payments, and provides insightful reports for decision-making.

The system uses **custom objects, workflows, automation, and dashboards** to ensure seamless lease tracking, automated renewal alerts, payment monitoring, and efficient communication between tenants, landlords, and administrators.
This project demonstrates how Salesforce technology can enhance operational efficiency, reduce manual workload, and improve transparency in lease operations.

Objectives:

- **Centralized Lease Data:** Maintain detailed records of leased properties, tenants, contracts, and payment history.
- **Automate Lease Renewal Alerts:** Trigger notifications before lease expiry to avoid revenue loss.
- **Efficient Payment Tracking:** Monitor rent payments, pending dues, and generate payment receipts.
- **Enhance Communication:** Enable real-time updates between tenants and property managers.
- **Improve Operational Efficiency:** Reduce manual recordkeeping through automation and reports.
- **Role-Based Access Control:** Allow secure access to admins, agents, and tenants.
- **Data-Driven Insights:** Generate reports on lease performance, revenue trends, and occupancy rates.

Student Outcomes:

- **Practical Salesforce Skills:** Students learn to configure custom objects, flows, validation rules, and dashboards specific to property leasing.
- **Real-World CRM Experience:** Understand the complete lifecycle of lease management in a CRM environment.
- **Problem-Solving Ability:** Develop skills to automate reminders, payment tracking, and lease renewals using Salesforce tools.
- **Team Collaboration:** Gain experience in group project development, testing, and deployment.
- **Industry Readiness:** Acquire exposure to Salesforce CRM applications in the real estate domain.

System Requirements

Hardware Requirements:

- Computer with minimum 4 GB RAM (8 GB recommended)
- Dual-core processor
- Stable internet connection

Software Requirements:

- Salesforce Developer Edition Org
- Modern Web Browser (Google Chrome, Firefox, Edge)

Phases Overview:

Phase No	Phase Name	Phase Description
1	Requirement Analysis & Planning	Gathering requirements from landlords, tenants, and property managers; defining scope, data model, and workflows.
2	Salesforce Development – Backend	Creating custom objects(Property,Tenant,Lease Agreement,Payment),fields,relationship, and automation.

3	UI/UX Development	Building a Lightning App for lease management, designing page layouts, and customizing record pages.
4	Testing & Security	Creating users, profiles, and permission sets; configuring sharing rules and validating data integrity.
5	Deployment & Maintenance	Deploying to production, training users, and maintaining data consistency.

Phase 1: Requirement Analysis & Planning

Project Goal:

To automate and manage property leasing processes using Salesforce CRM for efficient rent tracking, renewal reminders, and property management.

Key Objectives:

- Manage property and tenant records.
- Automate payment and renewal alerts.
- Generate reports for revenue and occupancy.
- Enable secure communication between involved parties.

Phase 2: Salesforce Development – Backend

Milestone 1: Salesforce Developer Account Creation:

Activity 1: Creating Developer Account

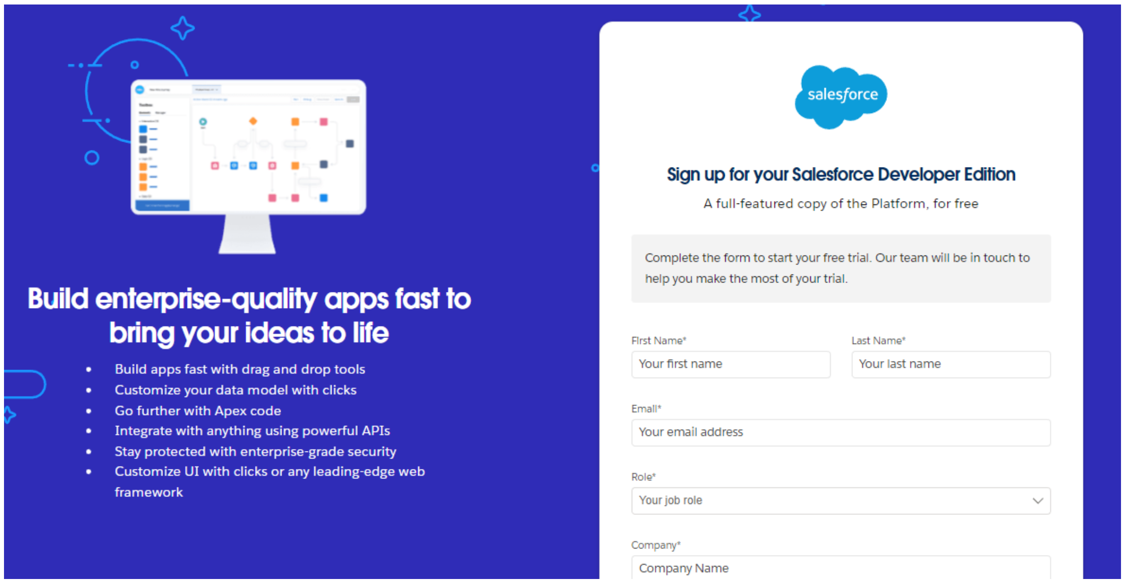
Creating a developer org in salesforce.

1. Go to https://developer.salesforce.com/signup
2. On the sign up form, enter the following details :
    1. First name & Last name
    2. Email

3. Role : Developer
4. Company : College Name
5. County : India
6. Postal Code : pin code
7. Username : should be a combination of your name and company

This need not be an actual email id, you can give anything in the format : username@organization.com

Click on sign me up after filling these.



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- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
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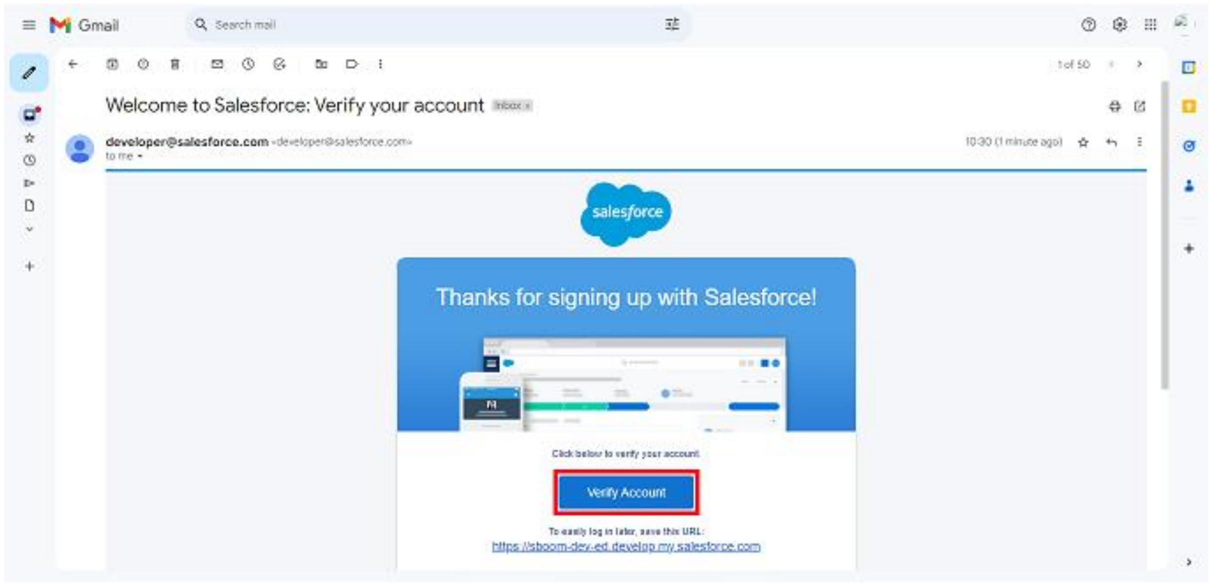
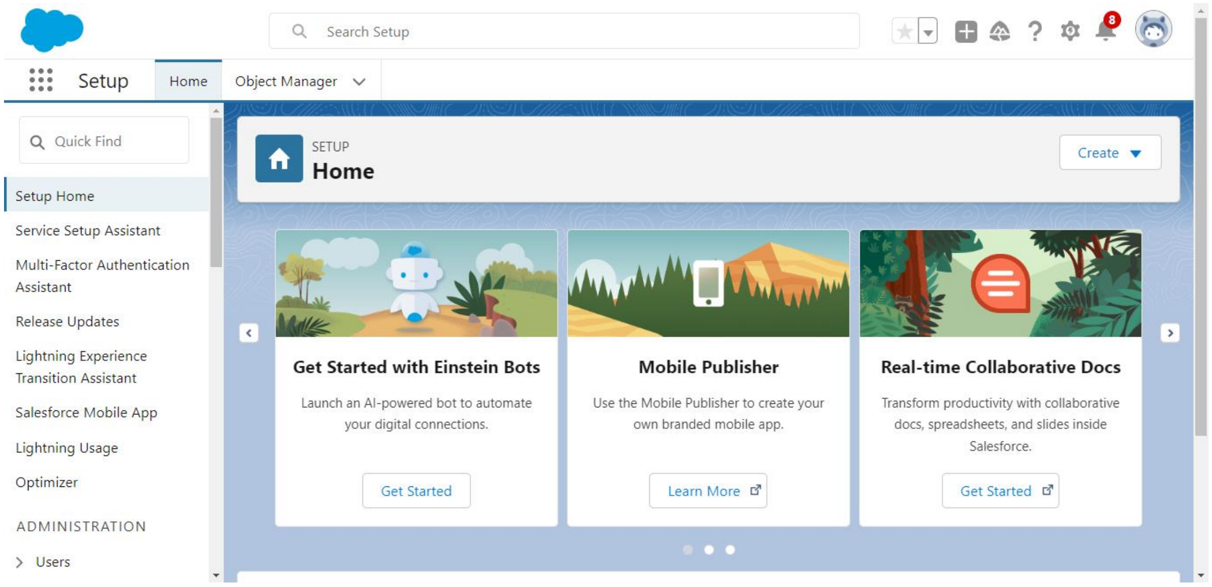
First Name*	Last Name*
Your first name	Your last name
Email*	
Your email address	
Role*	
Your job role	
Company*	
Company Name	

Activity 2: Account Activation:

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins.


Gmail
Search mail
Welcome to Salesforce: Verify your account
developer@salesforce.com
salesforce
Thanks for signing up with Salesforce!
Click below to verify your account
Verify Account
To easily log in later, save this URL:
https://sboom-dev-ed.develop.my.salesforce.com

1. Click on Verify Account
2. Give a password and answer a security question and click on change password.
3. Give a password and answer a security question and click on change password.
4. Then you will redirect to your salesforce setup page.


Search Setup
Setup
Home
Object Manager
Quick Find
Setup Home
Service Setup Assistant
Multi-Factor Authentication Assistant
Release Updates
Lightning Experience Transition Assistant
Salesforce Mobile App
Lightning Usage
Optimizer
ADMINISTRATION
Users
SETUP
Home
Create
Get Started with Einstein Bots
Launch an AI-powered bot to automate your digital connections.
Get Started
Mobile Publisher
Use the Mobile Publisher to create your own branded mobile app.
Learn More
Real-time Collaborative Docs
Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.
Get Started

Milestone 2: Objects

Activity 1: Create Property Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
    1. Enter the label name>> property
    2. Plural label name>> property
    3. Enter Record Name Label and Format
        - Record Name >>property Name
        - Data Type >> Text

2. Click on Allow reports and Track Field History,Allow Activities

3.Allow search >> Save.

Activity 2: Create Tenant Object

To create an object:

1. From the setup page >> Click on Object Manager >>Click on Create >> Click on Custom Object.
    1. Enter the label name>> Tenant
    2. Plural label name>> Tenants
    3. Enter Record Name Label and Format
        - Record Name >> Tenant Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.

Activity 3: Create Payment Object

To create an object:

1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
    1. Enter the label name>> Payment for tenanat
    2. Plural label name>> Payment
    3. Enter Record Name Label and Format
        - Record Name >> Payment Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save.

Activity 4: Create Lease Object

To create an object:

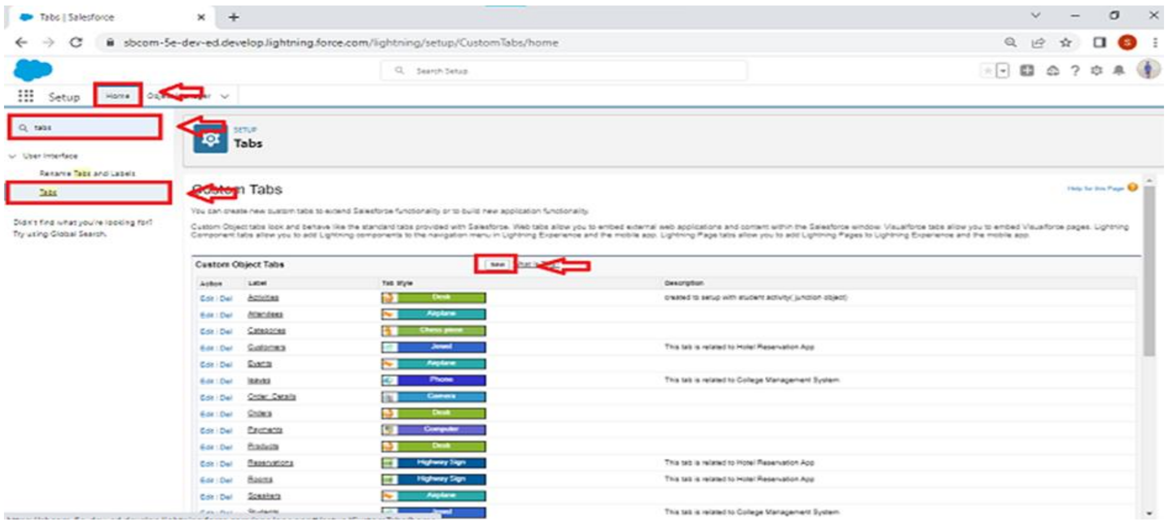
1. From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
    1. Enter the label name>> lease
    2. Plural label name>> lease
    3. Enter Record Name Label and Format
        - Record Name >> lease Name
        - Data Type >> Text
2. Click on Allow reports and Track Field History,Allow Activities
3. Allow search >> Save

Milestone 3: Tabs

Activity 1: Creating a Custom Tab

To create a Tab:(Property)

1. Go to setup page >>type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)



Tabs | Salesforce

sbcom-5e-dev-ed.develop.lightning.force.com/lightning/setup/CustomTabs/home

Didn't find what you're looking for? Try using Global Search.

SETUP
Tabs

Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.

Custom Object Tabs — New

Action	Label	Tab Style	Description
Edit | Del	Activities	Desk	created to setup with student activity(junction object)
Edit | Del	Attendees	Airplane	
Edit | Del	Categories	Chess piece	
Edit | Del	Customers	Jewel	This tab is related to Hotel Reservation App
Edit | Del	Events	Airplane	
Edit | Del	Marks	Phone	This tab is related to College Management System
Edit | Del	Order Details	Camera	
Edit | Del	Orders	Desk	
Edit | Del	Payments	Computer	
Edit | Del	Products	Desk	
Edit | Del	Reservations	Highway Sign	This tab is related to Hotel Reservation App
Edit | Del	Rooms	Highway Sign	This tab is related to Hotel Reservation App
Edit | Del	Speakers	Airplane	
Edit | Del	Students	Jewel	This tab is related to College Management System

1. Select Object(property) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab .
2. Make sure that the Append tab to users' existing personal customizations is checked.
3. Click save

Activity 2: Creating Remaining Tabs

1. Now create the Tabs for the remaining Objects, they are “Payment for tenant,lease,tenant”.
2. Follow the same steps as mentioned in Activity -1 .

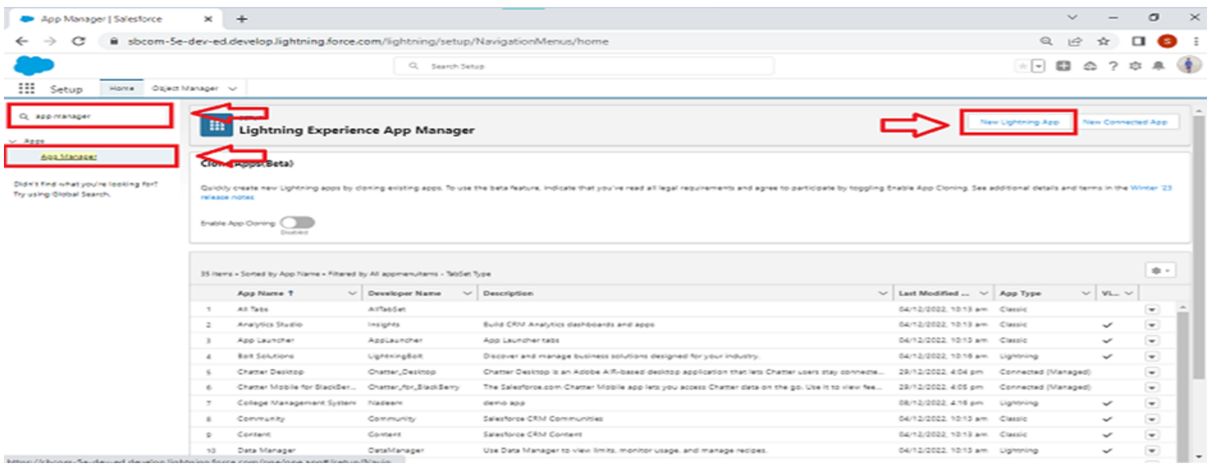
Phase 3: UI/UX Development

Milestone 4: Lightning App

Activity 1: Create a Lightning App

To create a lightning app page:

1. Go to setup page >> search “app manager” in quick find >> select “app manager” >> click on New lightning App.


App Manager | Salesforce
sbcom-5e-dev-ed.develop.lightning.force.com/lightning/setup/NavigationMenus/home
Search Setup
Setup
Home
Object Manager
app manager
Apps
App Manager
Didn't find what you're looking for? Try using Global Search.
Lightning Experience App Manager
New Lightning App
New Connected App
Enable App Cloning
Disabled

Clone Apps (Beta)

Quickly create new Lightning apps by cloning existing apps. To use the beta feature, indicate that you've read all legal requirements and agree to participate by toggling Enable App Cloning. See additional details and terms in the Winter '23 release notes

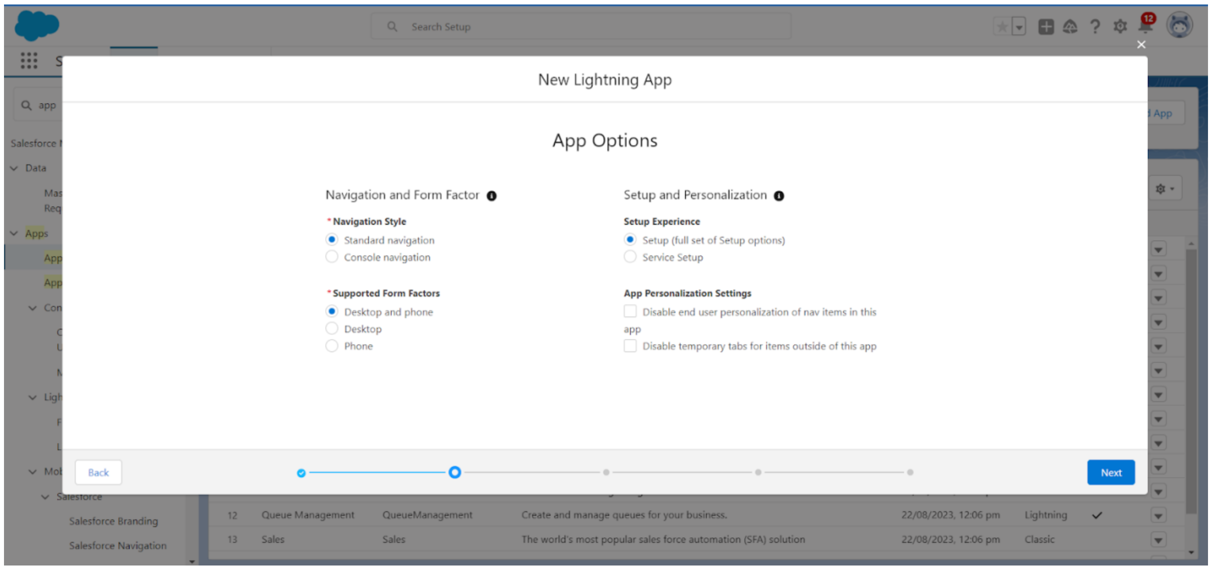
35 items • Sorted by App Name • Filtered by All appmenuitems - TabSet Type

	App Name	Developer Name	Description	Last Modified ...	App Type	Vi...
1	All Tabs	AllTabSet		04/12/2022, 10:13 am	Classic	
2	Analytics Studio	Insights	Build CRM Analytics dashboards and apps	04/12/2022, 10:13 am	Classic	✓
3	App Launcher	AppLauncher	App Launcher tabs	04/12/2022, 10:13 am	Classic	✓
4	Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	04/12/2022, 10:16 am	Lightning	✓
5	Chatter Desktop	Chatter_Desktop	Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connecte...	29/12/2022, 4:04 pm	Connected (Managed)	
6	Chatter Mobile for BlackBer...	Chatter_for_BlackBerry	The Salesforce.com Chatter Mobile app lets you access Chatter data on the go. Use it to view fee...	29/12/2022, 4:05 pm	Connected (Managed)	
7	College Management System	Nadeem	demo app	08/12/2022, 4:16 pm	Lightning	✓
8	Community	Community	Salesforce CRM Communities	04/12/2022, 10:13 am	Classic	✓
9	Content	Content	Salesforce CRM Content	04/12/2022, 10:13 am	Classic	✓
10	Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	04/12/2022, 10:13 am	Lightning	✓

2. Fill the app name in app details and branding as follow

App Name : Lease ManagementDeveloper Name : This will auto populatedImage : optional (if you want to give any image you can otherwise not mandatory) Primary colour hex value : keep this default.

3.Then click Next >> (App option page)Set Navigation Style as Standard Navigation >> Next. 4. Utility Items keep it as default >> Next.



New Lightning App

App Options

Navigation and Form Factor

*Navigation Style
- [✓ Standard navigation]
- Console navigation

*Supported Form Factors
- [✓ Desktop and phone]
- Desktop
- Phone

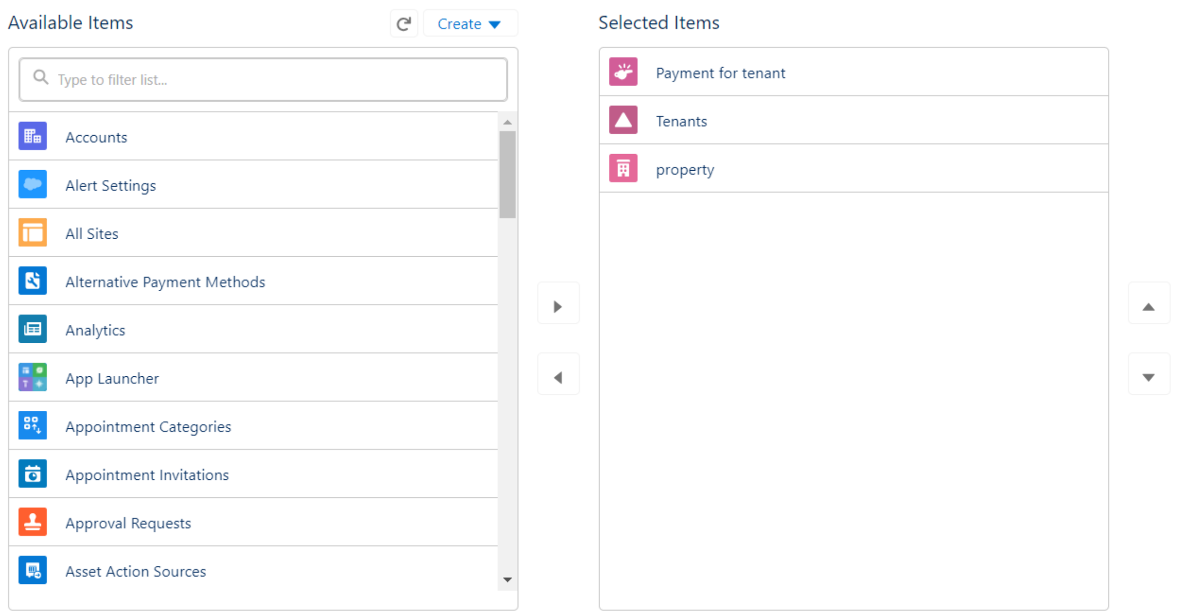
Setup and Personalization

Setup Experience
- [✓ Setup (full set of Setup options)]
- Service Setup

App Personalization Settings
- ☐ Disable end user personalization of nav items in this app
- ☐ Disable temporary tabs for items outside of this app

12	Queue Management	QueueManagement	Create and manage queues for your business.	22/08/2023, 12:06 pm	Lightning	✓
13	Sales	Sales	The world's most popular sales force automation (SFA) solution	22/08/2023, 12:06 pm	Classic	

5. To Add Navigation Items:



Available Items

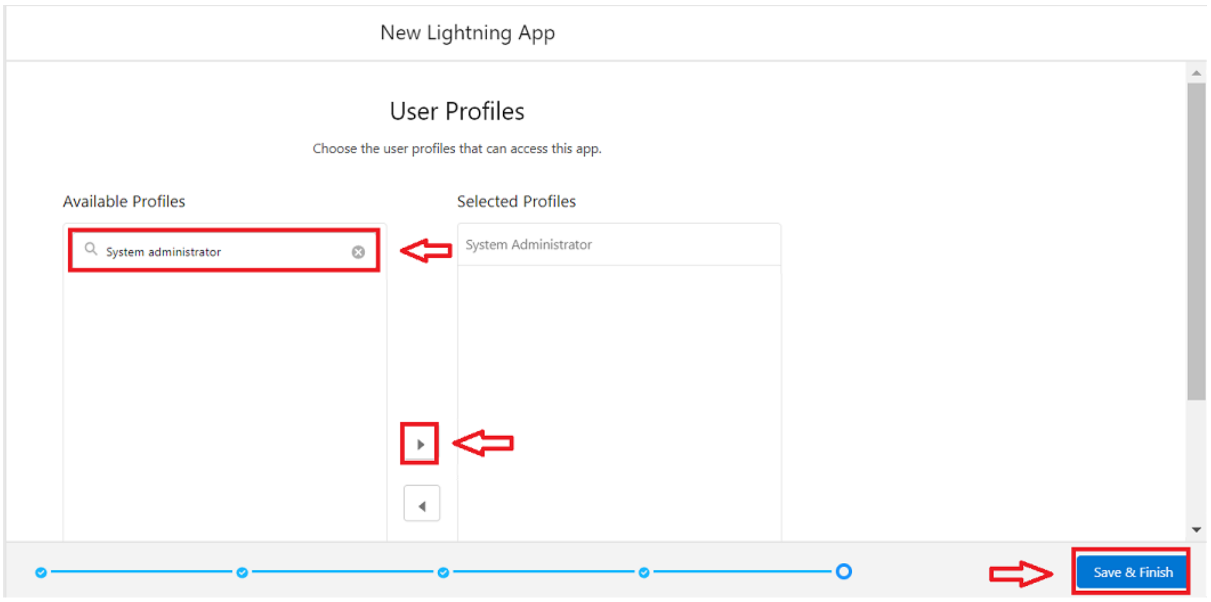
- Accounts
- Alert Settings
- All Sites
- Alternative Payment Methods
- Analytics
- App Launcher
- Appointment Categories
- Appointment Invitations
- Approval Requests
- Asset Action Sources

Selected Items

- Payment for tenant
- Tenants
- property

Search for the item in the (Payment for tenant, Tenants,property,lease) from the search bar and move it using the arrow button ? Next? Next.

6. To Add User Profiles:



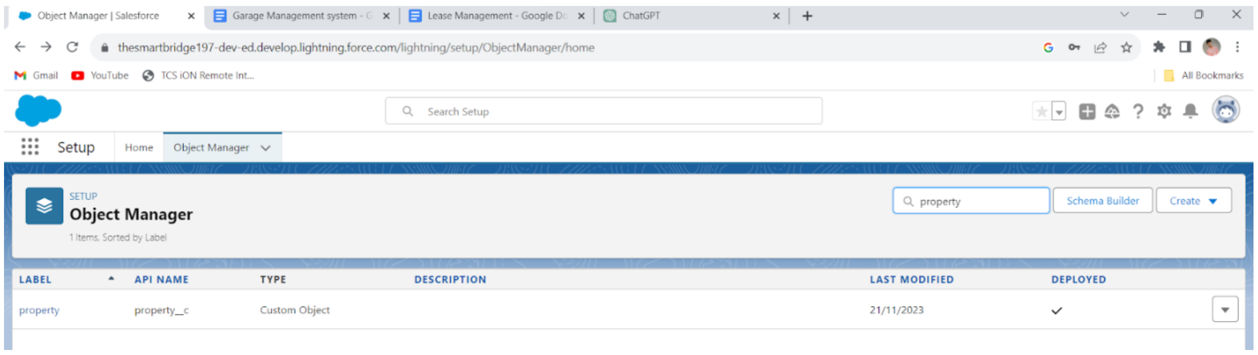
Search profiles (System administrator) in the search bar >>click on the arrow button >> save & finish.

Milestone 5: Fields

Activity 1: Creation of fields for the property object

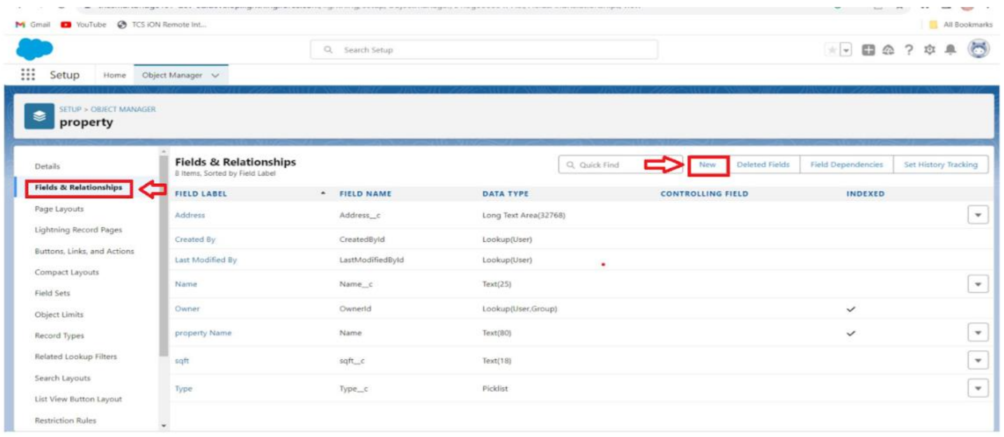
To create fields in an object:

1. Go to setup >> click on Object Manager >> type object name(property) in search bar >>click on the object.



LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
property	property__c	Custom Object		21/11/2023	✓

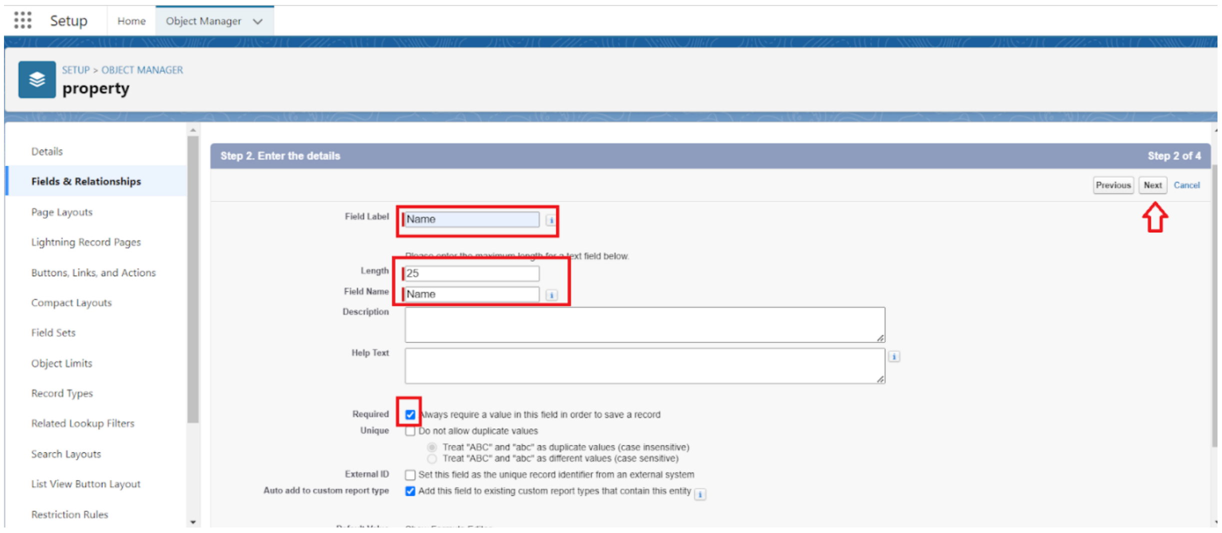
2. Now click on “Fields & Relationships” >> New



Fields & Relationships
8 Items, Sorted by Field Label

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Long Text Area(32768)		
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(18)		
Type	Type__c	Picklist		

3. Select Data Type as a "Text"
4. Click on next
5. Fill the Above as following:
   - Field Label: Name
   - Field Name : gets auto generated
   - Length : 25
   - Required :check box
   - Click on Next >> Next >> Save and new.



Step 2. Enter the details — Step 2 of 4

Field Label: Name
Length: 25
Field Name: Name
Description:
Help Text:
Required: [✓] Always require a value in this field in order to save a record
Unique: Do not allow duplicate values
External ID: Set this field as the unique record identifier from an external system
Auto add to custom report type: [✓] Add this field to existing custom report types that contain this entity

2. To create another fields in an object:

1. Go to setup >> click on Object Manager >>type object name(property) in search bar >>click on the object.
2. Now click on "Fields & Relationships" >>New

3. Select Data type as a “Long Text” and Click on Next
4. Fill the Above as following:
   - Field Label : Address
   - Field Name : gets auto generated
   - Click on Next >> Next >> Save and new.

<u>3. To create another fields in an object:</u>

5. Go to setup >> click on Object Manager >>type object name(property) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >> New
7. Select Data type as a “picklist” and Click on Next
8. Fill the Above as following:
   - Field Label : Type
   - Field Name : gets auto generated
   - Enter values, with each value separated by a new line
   - Enter these values
     1BHK
     2BHK
     3BHK
   - Click on Next >> Next >> Save and new.

<u>To create another fields in an object:</u>

9. Go to setup >> click on Object Manager >> type object name(property) in search bar >> click on the object.
10. Now click on “Fields & Relationships” >> New
11. Select Data type as a “ Text” and Click on Next
12. Fill the Above as following:
   - Field Label : sfqt
   - Field Name : gets auto generated
   - Length : 18
   - Click on Next >> Next >> Save.

Activity 2: Creation of fields for the Tenant object

1.Go to setup >> click on Object Manager >> type object name(Tenant) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Email” and Click on Next
4. Fill the Above as following:
   - Field Label : Email
   - Field Name : gets auto generated
   - Click on required check box

- Click on Next >> Next >> Save and new.

To create another fields in an object:

1. Go to setup >> click on Object Manager >> type object name(Tenant) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “phone” and Click on Next
4. Fill the Above as following:
   - Field Label : Phone
   - Field Name : gets auto generated
   - Click on Next >> Next >> Save and new.

To create another fields in an object:

5. Go to setup >> click on Object Manager >> type object name(Tenant) in search bar >> click on the object.
6. Now click on “Fields & Relationships” >>New
7. Select Data type as a “picklist” and Click on Next
8. Fill the Above as following:
   - Field Label : status
   - Field Name : gets auto generated
   - Enter values, with each value separated by a new line
   - Enter these values
     Stay
     Leaving
   - Click on Next >> Next >> Save

Activity 3: Creation of fields for the Lease object

1.Go to setup >> click on Object Manager >> type object name(Lease) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Date” and Click on Next
4. Fill the Above as following:
   - Field Label : start date
   - Field Name : gets auto generated
   - Click on Next >> Next >> Save and new.

To create another fields in an object:

1.Go to setup >> click on Object Manager >> type object name(Lease) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Date” and Click on Next
4. Fill the Above as following:
- Field Label : End date
- Field Name : gets auto generated
- Click on Next >> Next >> Save and new.

Activity 4: Creation of fields for Payment for the Tenant object

1.Go to setup >> click on Object Manager >> type object name(Payment for tenant) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Date” and Click on Next
4. Fill the Above as following:
- Field Label : Payment date
- Field Name : gets auto generated
- Click on Next >> Next >> Save and new.

To create another fields in an object:
1.Go to setup >> click on Object Manager >> type object name(Payment for tenant) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Number” and Click on Next
4. Fill the Above as following:
- Field Label : Amount
- Length : 18
- Field Name : gets auto generated
- Click on Next >> Next >> Save and new.

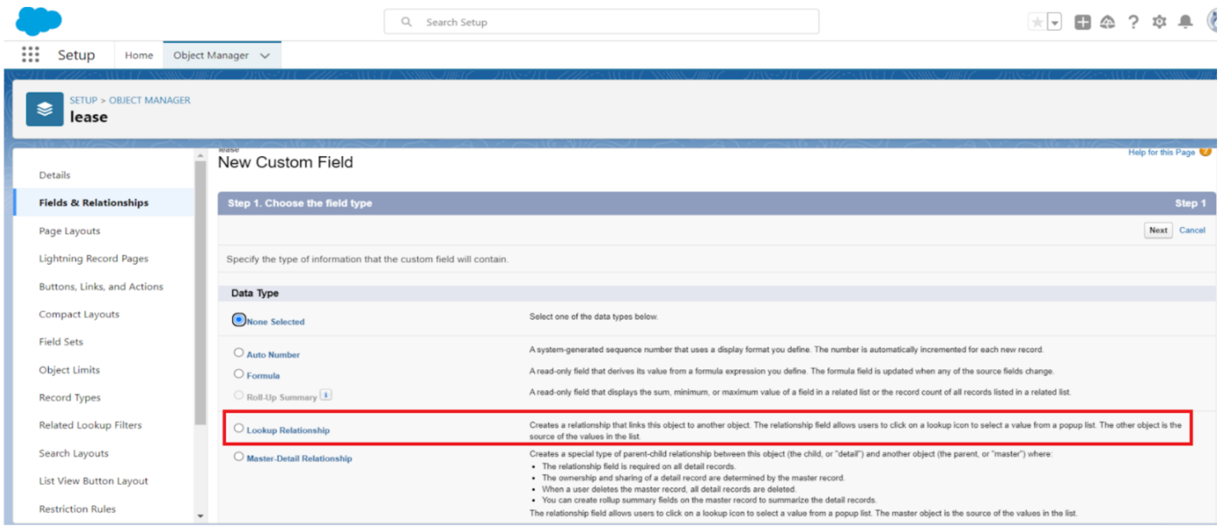
To create another fields in an object:
1.Go to setup >> click on Object Manager >> type object name(Payment for tenant) in search bar >> click on the object.
2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “picklist” and Click on Next
4. Fill the Above as following:
- Field Label : check for payment
- Field Name : gets auto generated
- Enter values, with each value separated by a new line

- Enter these values
  Paid
  Not paid
- Click on Next >> Next >> Save and new.

Activity 5: Creation of Lookup fields

Creation of Lookup Field on Lease Object :

1. Go to setup>> click on Object Manager >> type object name(Lease) in the search bar >> click on the object.



New Custom Field

Step 1. Choose the field type — Step 1

Specify the type of information that the custom field will contain.

Data Type

[✓ None Selected]	Select one of the data types below.
Auto Number	A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.
Formula	A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.
Roll-Up Summary	A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.
Lookup Relationship	Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.
Master-Detail Relationship	Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where: • The relationship field is required on all detail records. • The ownership and sharing of a detail record are determined by the master record. • When a user deletes the master record, all detail records are deleted. • You can create rollup summary fields on the master record to summarize the detail records. The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

2. Now click on "Fields & Relationships" >> New
3. Select lookup relationship
4. Select the related object " property" and click next.
5. Field Name : property
6. Field label : Auto generated
7. Next >> Next >> Save.

Creation of Lookup Field on Payment Object :

8. Go to setup >> click on Object Manager >> type object name(payment) in the search bar >> click on the object.
9. Now click on "Fields & Relationships" >> New
10. Select lookup relationship
11. Select the related object " Tenant" and click next.
12. Field Name : Tenant

13. Field label : Auto generated
14. Next >> Next >> Save.

Creation of Lookup Field on Payment for tenant Object :

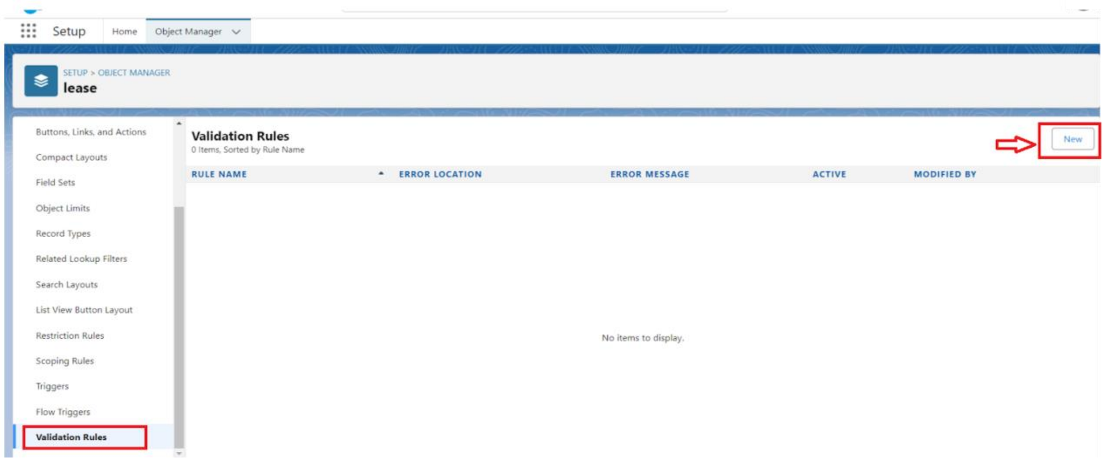
15. Go to setup>> click on Object Manager >> type object name(property) in the search bar >> click on the object.
16. Now click on "Fields & Relationships" >> New
17. Select masterdetail relationship
18. Select the related object " property" and click next.
19. Field Name : property
20. Field label : Auto generated
21. Next >> Next >> Save.

Phase 4: Testing & Security

Milestone 6: Validation Rules

Activity 1: To create a validation rule to an Lease Object

1. Go to the setup page >> click on object manager >> From drop down click edit for Lease object.
2. Click on the validation rule >> click New.

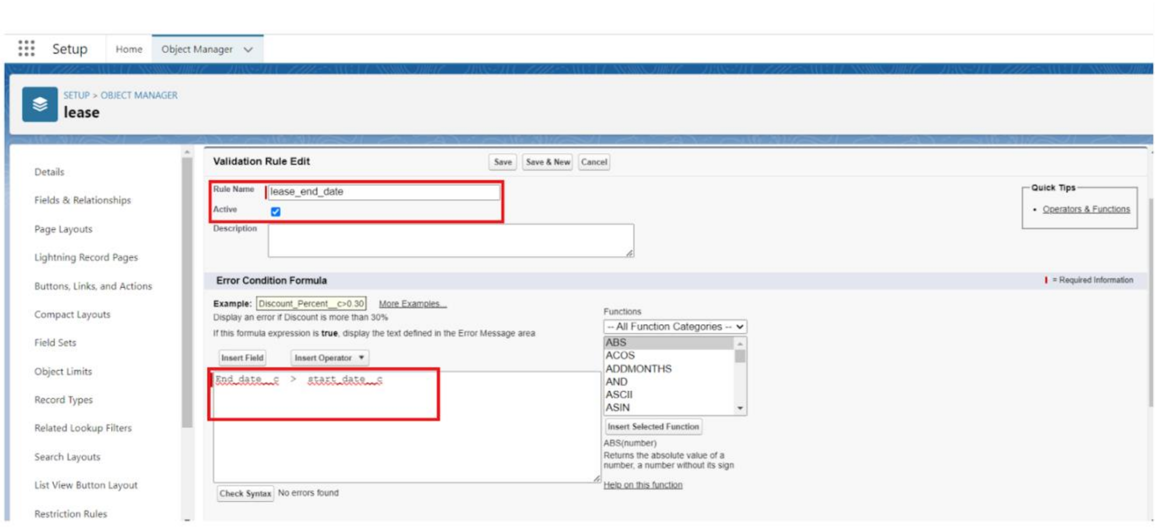


Validation Rules
0 Items, Sorted by Rule Name

No items to display.

3. Enter the Rule name as " lease_end_date".
4. Insert the Error Condition Formula as :

```
  End_date__c  >
start_date__c
```



Validation Rule Edit

Rule Name: lease_end_date

Active: ✓

Description:

Error Condition Formula

Example: Discount_Percent__c>0.30 More Examples...

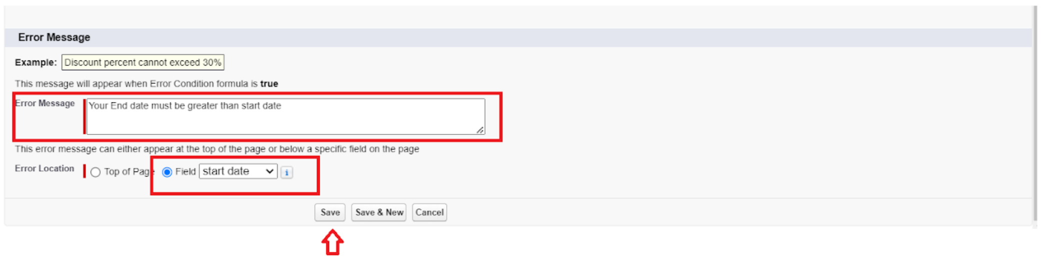
Display an error if Discount is more than 30%

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

```
End_date__c > start_date__c
```

No errors found

5. Enter the Error Message as “Your End date must be greater than start date”, select the Error location as Field and select the field as “start date”, and click Save.



Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is **true**

Error Message: Your End date must be greater than start date

This error message can either appear at the top of the page or below a specific field on the page

Error Location: Top of Page [✓ Field] start date

Milestone 7: Email Templates

Activity 1: Create Email Template For Tenant Leaving

To create Email Template:

1. Go to setup in quick find box enter email template >> click on classic Email Template.

2. Click on >> New Email Template===>Choose text

Folder : Unfiled public Classic Email templates
Click on available for use

3. Email Template Name is “tenant leaving”

4. Template Unique Name : Auto populated

5. Subject : ” request for approve the leave”
6. Email body :

Dear {!Tenant__c.CreatedBy},

Please approve my leave.

7. Save

Activity 2: Create Email Template For Leave Approved

To create Email Template:

1.   Go to setup in quick find box enter email template >> click on classic Email Template.

2. Click on >> New Email Template===>Choose text

Folder : Unfiled public Classic Email templates

Click on available for use

3. Email Template Name is “Leave approved”

4. Template Unique Name : Auto populated
5. Subject : ” Leave approved”
6. Email body :

dear{!Tenant__c.Name},

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

7. Save

Activity 3: Create Email Template For Rejection for Leave

To create Email Template:

1. Go to setup in quick find box enter email template >> click on classic Email Template.

2. Click on >>New Email Template===>Choose text

   Folder : Unfiled public Classic Email templates
   Click on available for use

3. Email Template Name is “Leave rejected”

4. Template Unique Name : Auto populated

5. Subject : ” Leave rejected”
6. Email body :
   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
7. Save

Activity 4: Create Email Template For Monthly Payment

To create Email Template:

1. Go to setup in quick find box enter email template >> click on classic Email Template.

2. Click on >> New Email Template===>Choose text

   Folder : Unfiled public Classic Email templates
   Click on available for use

3. Email Template Name is “Tenant Email”

4. Template Unique Name : Auto populated

5. Subject : ” Urgent: Monthly Rent Payment Reminder”
6. Email body :
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.

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 inconvenience, we kindly request you to settle the payment at your earliest convenience.

7. Save

Activity 5: Create Email Template For Successful Payment

To create Email Template:

1. Go to setup in quick find box enter email template >> click on classic Email Template.

2. Click on >> New Email Template===>Choose text

Folder : Unfiled public Classic Email templates
Click on available for use

3. Email Template Name is “tenant payment”

4. Template Unique Name : Auto populated
5. Subject : ” Confirmation of Successful Monthly Payment”
6. Email body :
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.

7. Save

<u>Milestone 8: Approval Processes</u>

<u>Activity 1: Create Approval Process For check for vacant</u>

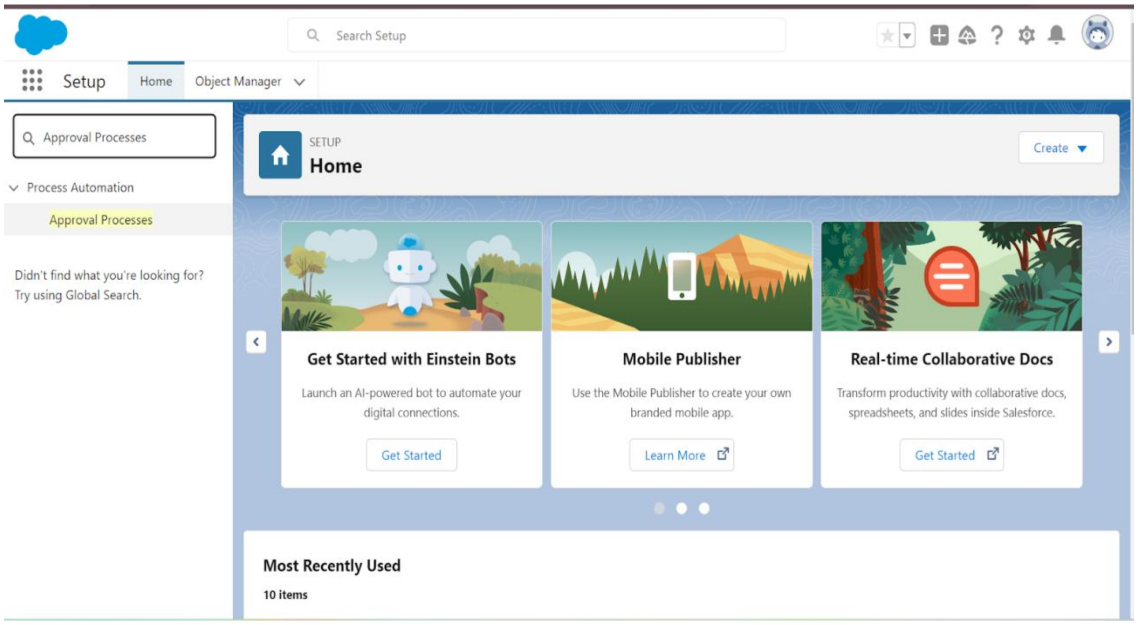
To create fields in an object:

1.Go to setup >> Approval Processes in quick find bar>>click on it.

2.Manage Approval Process For >> “Tenant” from the drop down.

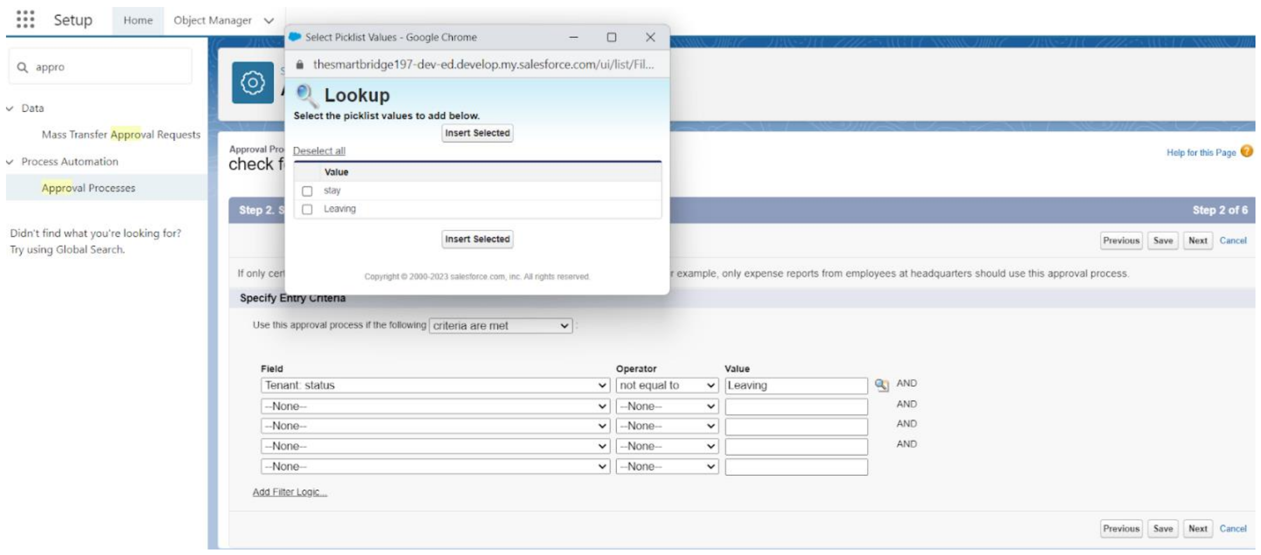
3.Click on “Create New Approval Process” >> Use standard setup wizard.

4. Process Name “check for vacant” >> Click Next


Search Setup
Setup
Home
Object Manager
Approval Processes
Process Automation
Approval Processes
Didn't find what you're looking for? Try using Global Search.
SETUP
Home
Create
Get Started with Einstein Bots
Launch an AI-powered bot to automate your digital connections.
Get Started
Mobile Publisher
Use the Mobile Publisher to create your own branded mobile app.
Learn More
Real-time Collaborative Docs
Transform productivity with collaborative docs, spreadsheets, and slides inside Salesforce.
Get Started
Most Recently Used
10 items

.

5. Field “Tenant:status” >> Operator : Not equals , Value >> Click on the lookup filter icon and select “Leaving”.
6.Click insert field,then click Next.



Setup | Home | Object Manager

appro

Data

Mass Transfer Approval Requests

Process Automation

Approval Processes

Didn't find what you're looking for?
Try using Global Search.

Select Picklist Values - Google Chrome

thesmartbridge197-dev-ed.develop.my.salesforce.com/ui/list/Fil...

Lookup

Select the picklist values to add below.

Insert Selected

Deselect all

	Value
☐	stay
☐	Leaving

Insert Selected

Copyright © 2000-2023 salesforce.com, inc. All rights reserved.

Approval Pro
check f

Step 2. S | Step 2 of 6

Help for this Page

Previous | Save | Next | Cancel

If only cer … r example, only expense reports from employees at headquarters should use this approval process.

Specify Entry Criteria

Use this approval process if the following: criteria are met

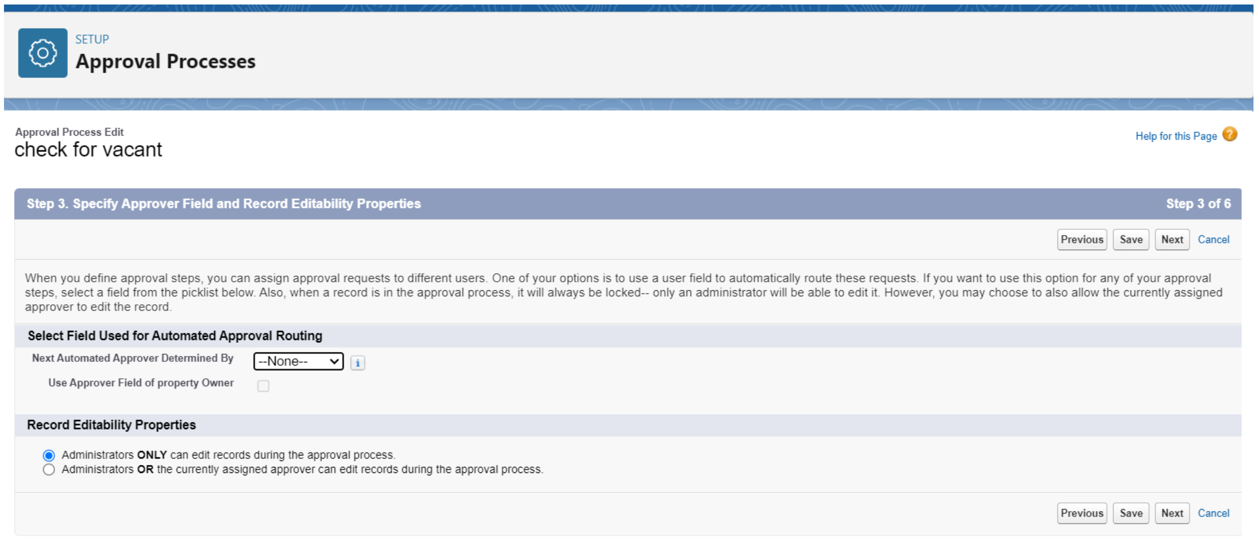
Field	Operator	Value	
Tenant: status	not equal to	Leaving	AND
--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		AND
--None--	--None--		

Add Filter Logic...

Previous | Save | Next | Cancel

7. Next Automated Approver determined by "None" from the drop down.

8. Select the "Administrators ONLY can edit records during the approval process".Then Next.



SETUP
Approval Processes

Approval Process Edit
check for vacant

Help for this Page

Step 3. Specify Approver Field and Record Editability Properties | Step 3 of 6

Previous | Save | Next | Cancel

When you define approval steps, you can assign approval requests to different users. One of your options is to use a user field to automatically route these requests. If you want to use this option for any of your approval steps, select a field from the picklist below. Also, when a record is in the approval process, it will always be locked-- only an administrator will be able to edit it. However, you may choose to also allow the currently assigned approver to edit the record.

Select Field Used for Automated Approval Routing

Next Automated Approver Determined By: --None--

Use Approver Field of property Owner: ☐

Record Editability Properties

[✓ Administrators **ONLY** can edit records during the approval process.]
Administrators **OR** the currently assigned approver can edit records during the approval process.

Previous | Save | Next | Cancel

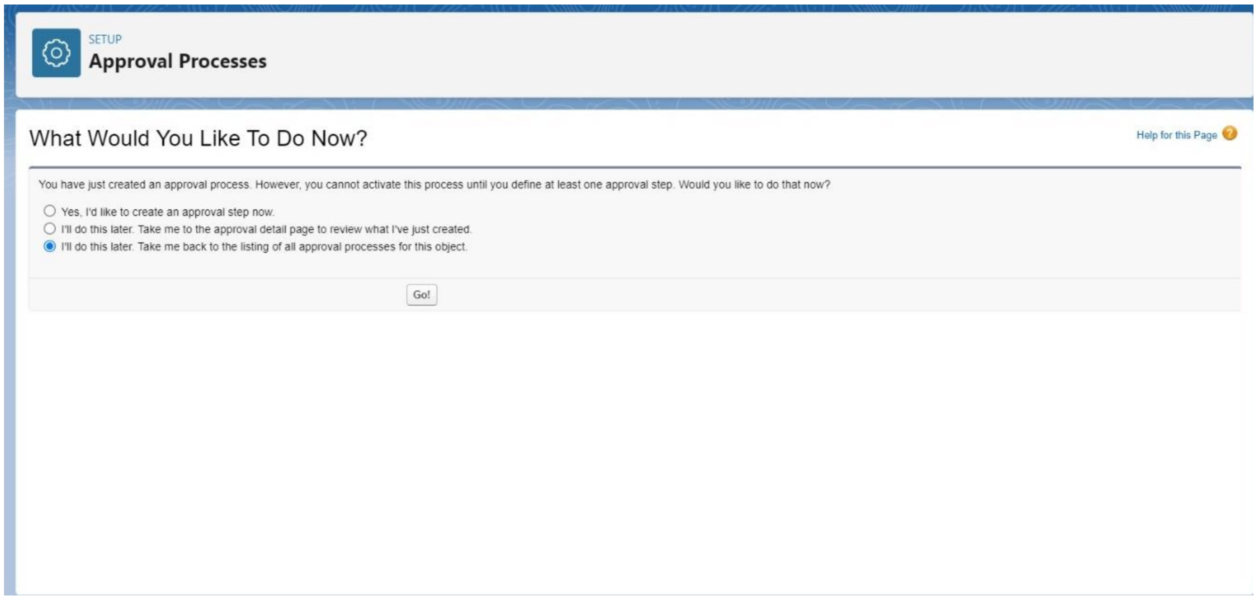
9. Click on next leave the email template click on next

10.From the available fields select >> Tenant Name, and then add >>Add it to the selected.Then Next.

- Make sure Display approver history is checked.
- And under security settings check the "Allow approvers to access the approval page only from within the Salesforce application. (Recommended)" option.

11.Submitter type Search>>Owner, Allowed Submitters>>Property Owner.Then Next.

- Then click save.


SETUP
Approval Processes

What Would You Like To Do Now?

Help for this Page

You have just created an approval process. However, you cannot activate this process until you define at least one approval step. Would you like to do that now?

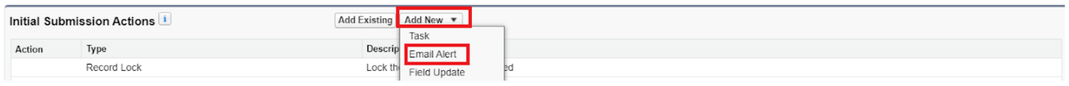
- ○ Yes, I'd like to create an approval step now.
- ○ I'll do this later. Take me to the approval detail page to review what I've just created.
- ● I'll do this later. Take me back to the listing of all approval processes for this object.

Go!

- Click on "i'll do this later. Take me back to the listing of all approval process for this object"
- Click go

Activity 2: Initial Submission Action

1. Under initial submission action click on add new and then select email alert.


Initial Submission Actions

Action	Type	Descrip
	Record Lock	Lock th

2.Description: "please approve my leave".
3.Unique name : auto populated
4.Email template : tenant leaving
5. Recipient type : Email field
6. Available Recipients : Email field : Email
7. From Email address : Current user's email

8. Click save

Activity 3: Final Approved Action

1.Under Final approval action click o n new and then select email alert.

2.Description: “Tenant leaving”.

3.Unique name : auto populated

4.Email template : Leave approved

5.Recipient type : Email field

6.Available Recipients : Email field : Email

7.From Email address : Current user’s email

8.Click save

Activity 4: Final Rejection Action

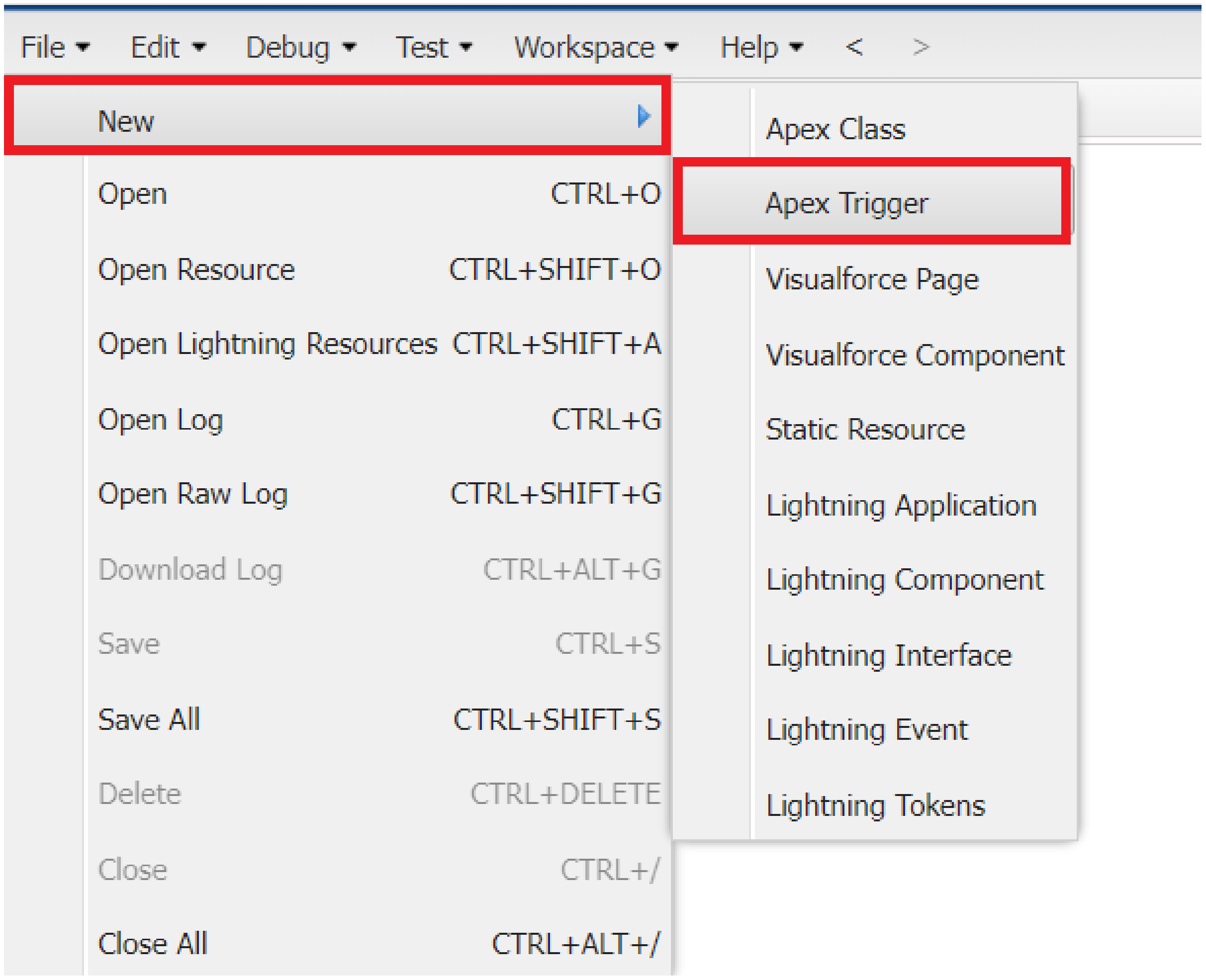
1. Under final rejection action click on add new and then select email alert.
2.Description: “your request for leave is rejected”.
3.unique name : auto populated
4.Email template : leave rejected
5. Recipient type : Email field
6. Available Recipients : Email field : Email
7. From Email address : Current user’s email
8. Click save

Milestone 8:Apex triggers

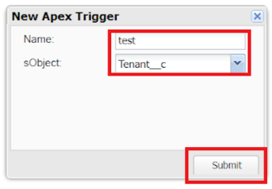
Activity 1: Create an Apex trigger

1. To create a new Apex Class follow the below steps:

   Click on the file >> New ? Apex Class.



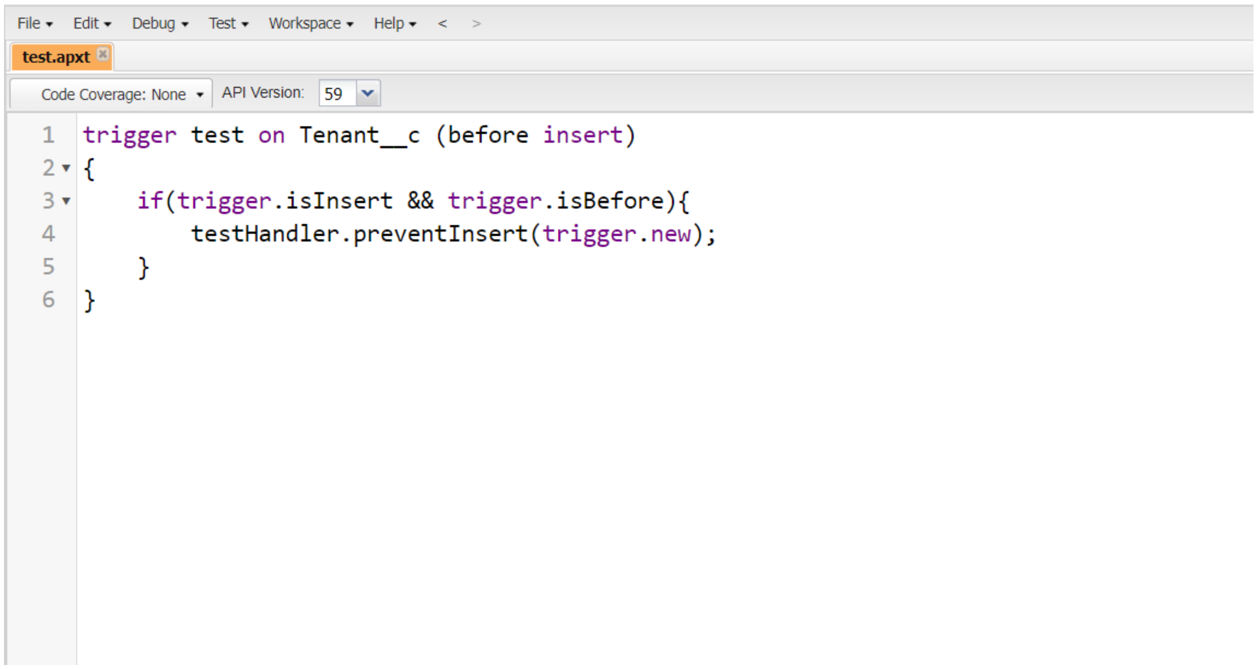
2. Give the Apex Trigger name as “test”, and select “Tenant__c” from the dropdown for sObject.


New Apex Trigger

Name: test

sObject: Tenant__c

3. Click Submit.
4. Now write the code logic here



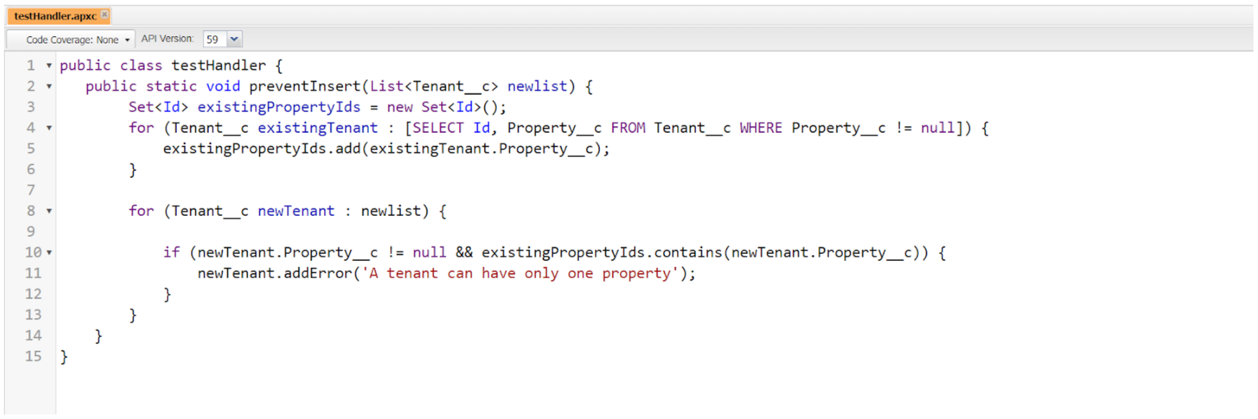
```
trigger test on Tenant__c (before insert)
{
    if(trigger.isInsert && trigger.isBefore){
        testHandler.preventInsert(trigger.new);
    }
}
```

Trigger Code:

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

Activity 2: Create an Apex Handler Class

1.To create a new Apex Class follow the below steps:
  Click on the file >> New >>Apex Class.
2. Enter class name as testHandler.



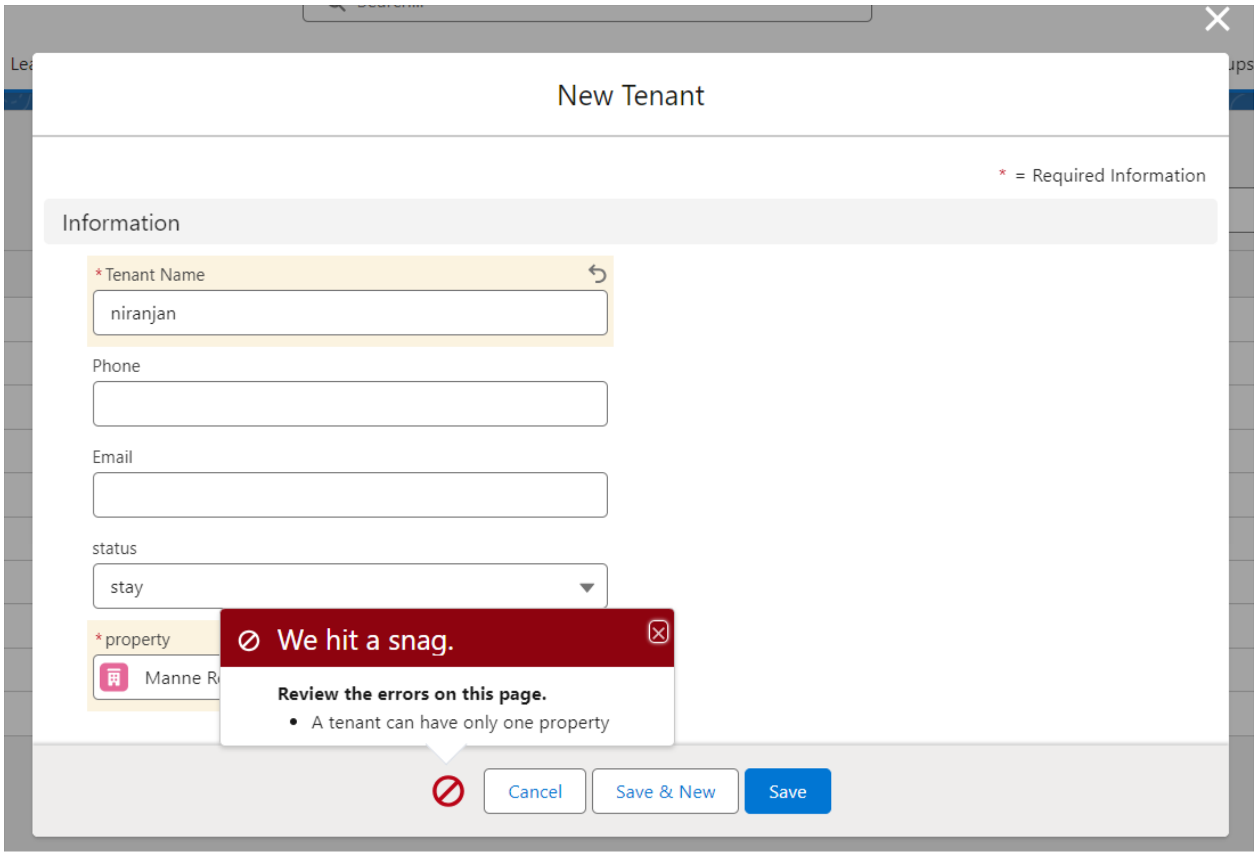
```
public class testHandler {
    public static void preventInsert(List<Tenant__c> newlist) {
        Set<Id> existingPropertyIds = new Set<Id>();
        for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE Property__c != null]) {
            existingPropertyIds.add(existingTenant.Property__c);
        }

        for (Tenant__c newTenant : newlist) {

            if (newTenant.Property__c != null && existingPropertyIds.contains(newTenant.Property__c)) {
                newTenant.addError('A tenant can have only one property');
            }
        }
    }
}
```

Apex logic:

```
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');
           }
       }
   }
}
```

Activity 3: Testing the Trigger’

Try to create new tenant with the existing property then it shows the error


New Tenant

* = Required Information

Information

* Tenant Name: niranjan

Phone

Email

status: stay

* property: Manne R

We hit a snag.

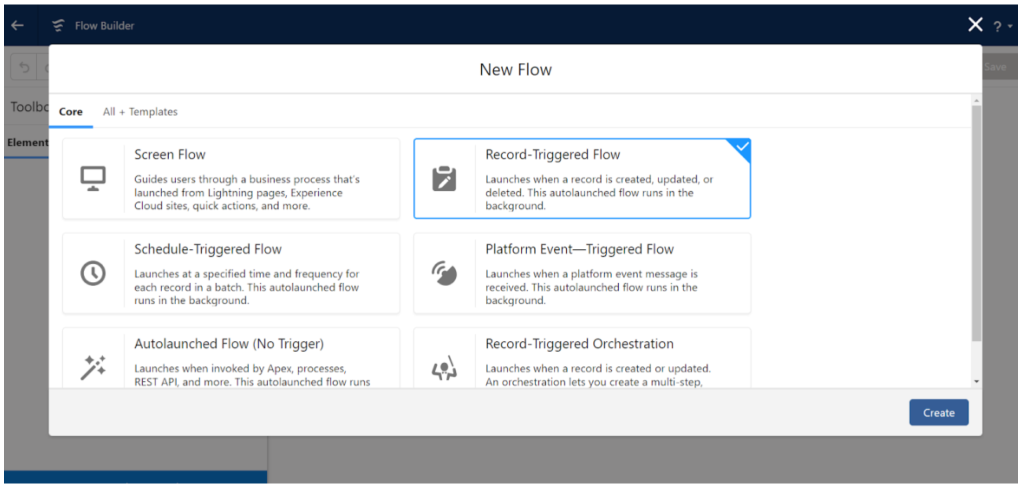
Review the errors on this page.

- A tenant can have only one property

Milestone 10: Flows

Activity 1: Create Flow for monthly payment

1. Go to setup >> type Flow in quick find box >> Click on the Flow and Select the New Flow.
2. Select the record Triggered flow.Click on create.



Screen Flow
Guides users through a business process that's launched from Lightning pages, Experience Cloud sites, quick actions, and more.

Record-Triggered Flow
Launches when a record is created, updated, or deleted. This autolaunched flow runs in the background.

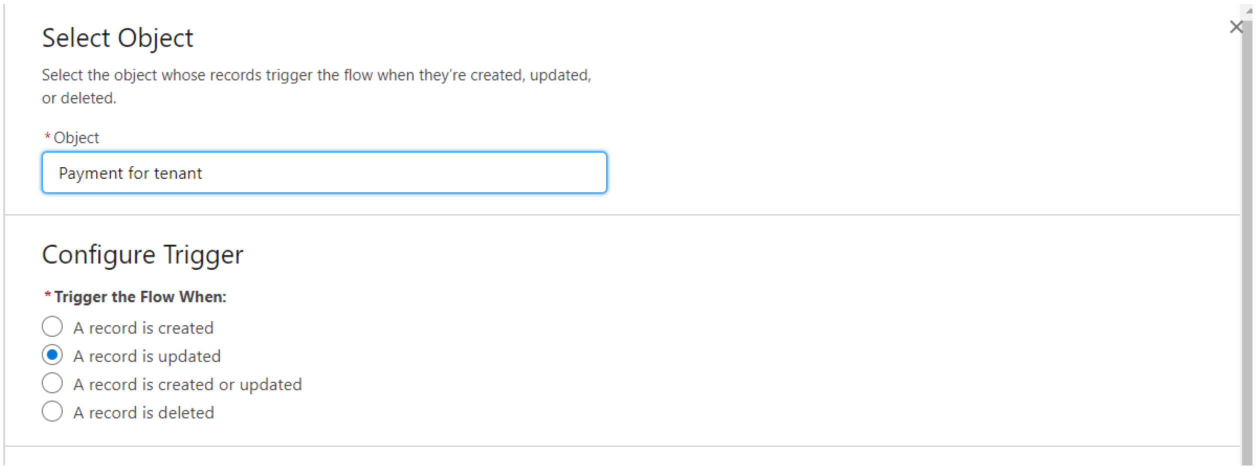
Schedule-Triggered Flow
Launches at a specified time and frequency for each record in a batch. This autolaunched flow runs in the background.

Platform Event—Triggered Flow
Launches when a platform event message is received. This autolaunched flow runs in the background.

Autolaunched Flow (No Trigger)
Launches when invoked by Apex, processes, REST API, and more. This autolaunched flow runs

Record-Triggered Orchestration
Launches when a record is created or updated. An orchestration lets you create a multi-step,

3. Under Object select ”Payment for tenant”. Click on A record is updated.



Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

* Object

Payment for tenant

Configure Trigger

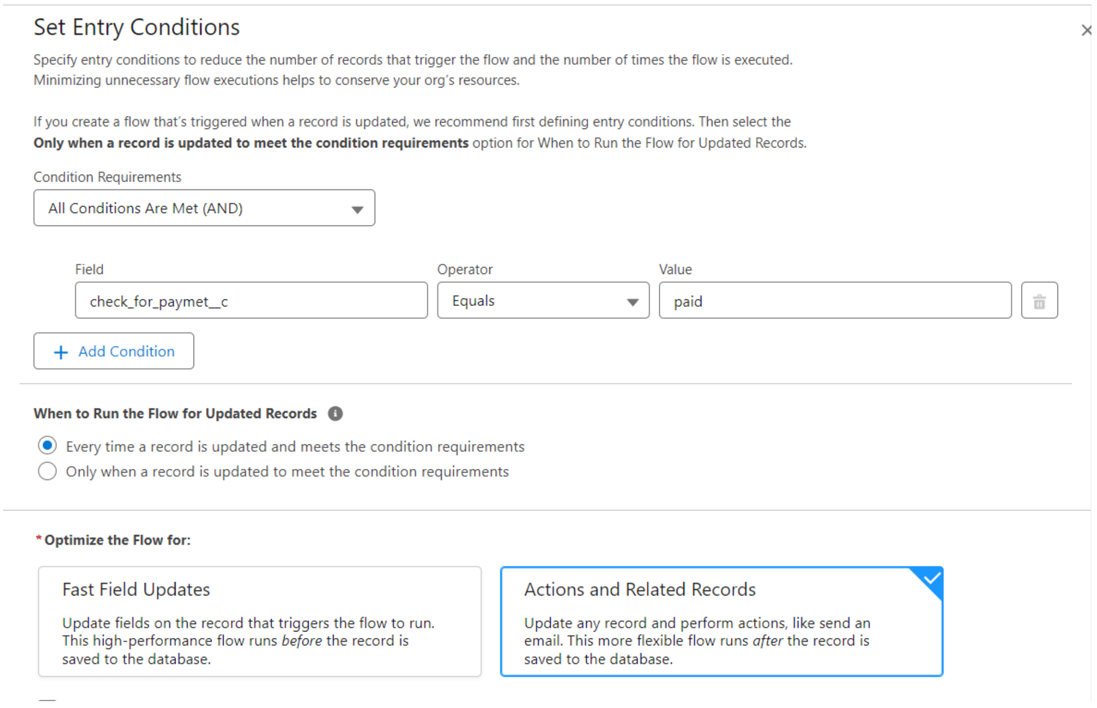
* Trigger the Flow When:

- ○ A record is created
- ● A record is updated
- ○ A record is created or updated
- ○ A record is deleted

4. Set Entry Conditions
   Under Condition Requirements>>All Conditions are met

Field: check_for_payment__c	Operator: Equals	Value : paid

5. Click on : Every time a record is updated and meets the condition requirements
6. Click on : Actions and related records,done



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
check_for_paymet__c	Equals	paid

When to Run the Flow for Updated Records

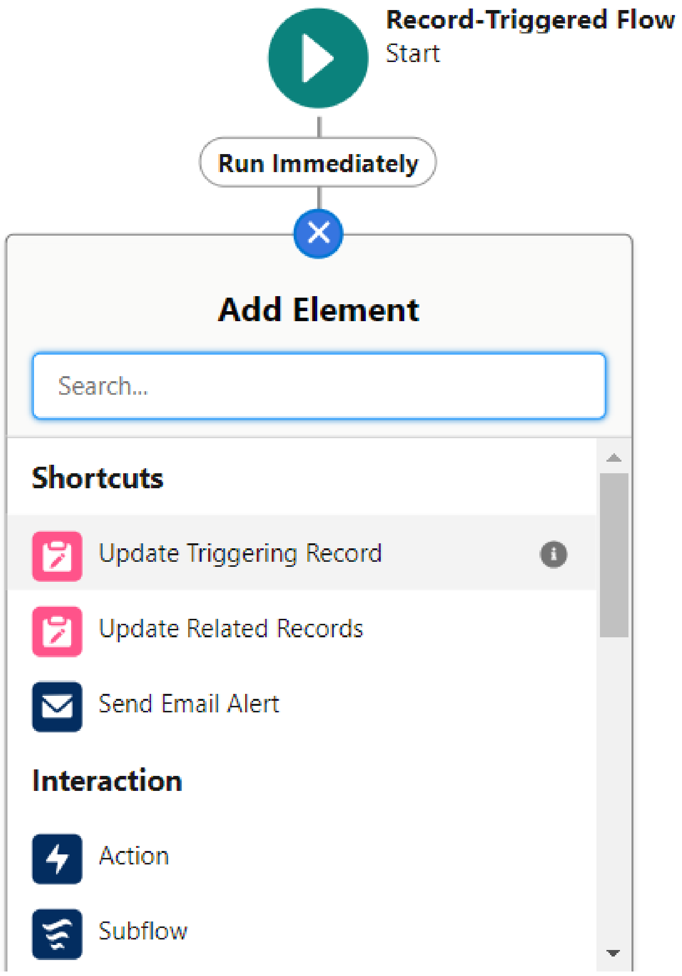
- ● Every time a record is updated and meets the condition requirements
- ○ Only when a record is updated to meet the condition requirements

* **Optimize 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.

7. Under record trigger flow click on "+" icon and select action



In action search for send email then click on send email (check below image)

8. Label : send email

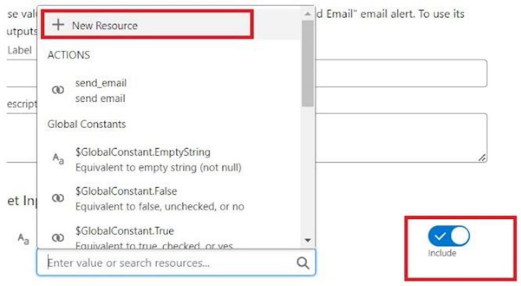
API Name : send_email

9. Label : send email

10. API Name : send_email

11. Enable Body

12. Click on new resource


New Resource
ACTIONS
send_email
send email
Global Constants
$GlobalConstant.EmptyString
Equivalent to empty string (not null)
$GlobalConstant.False
Equivalent to false, unchecked, or no
$GlobalConstant.True
Enter value or search resources...
Include

Under resource type select “Text Template”

API Name : emailbody

Under body: (paste the below text)

Dear {!$Record.Tenant__r.Name},

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.

14. Click Done.

15. Enable recipient Address List
Paste this ?{!$Record.Tenant__r.Email__c}

16. Click Done

17. Enable subject

Pate this >> Confirmation of Successful Monthly Payment

18. Click on save

Flow label : monthly payment

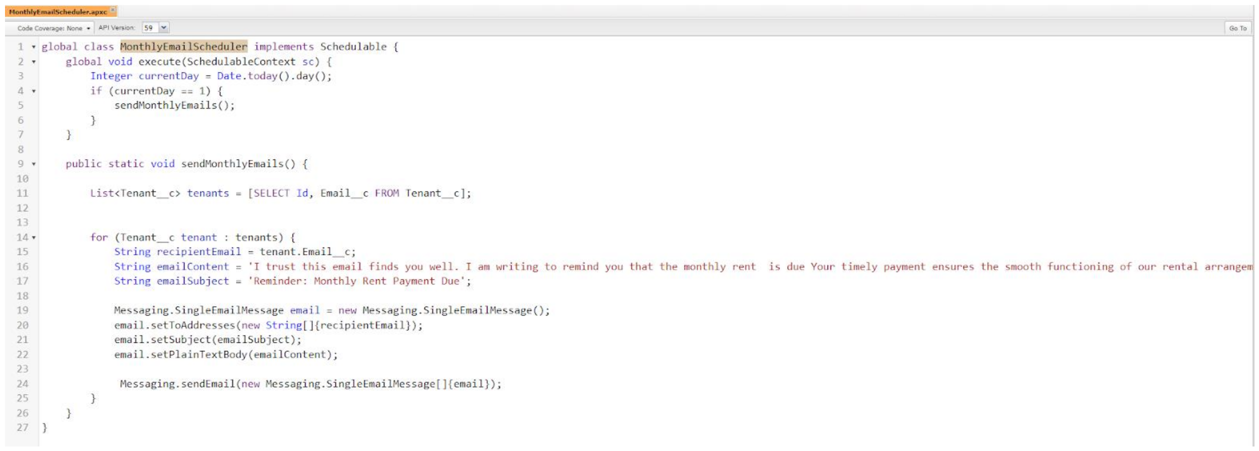
Flow API Name : monthly_payment

Click on activate

Milestone 11: Schedule Class

Activity 1: Create an Apex class

1. To create a new Apex Class follow the below steps:
Click on the file >> New >> Apex Class.
2. Enter class name as MonthlyEmailScheduler.



```
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 arrangem
            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});
        }
    }
}
```

Apex logic:

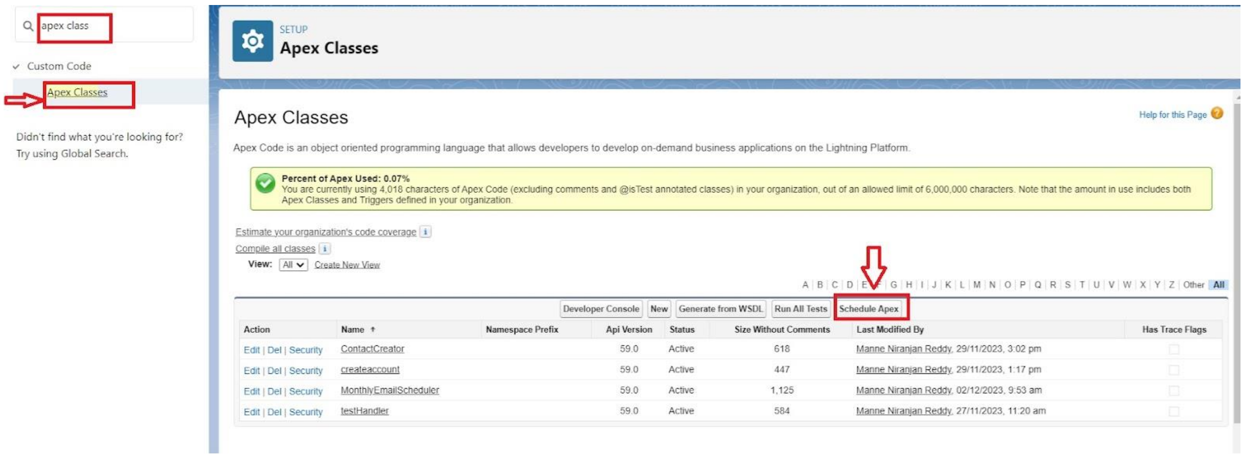
```
global class MonthlyEmailScheduler implements Schedulable {
    global void execute(SchedulableContext sc) {
        Integer currentDay = Date.today().day();
        if (currentDay == 1) {
            sendMonthlyEmails();
        }
    }

    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});
        }
    }
}
```

3.Save the code.

Activity 2: Schedule Apex class

1. Enter Apex class in quick find box
2. Select schedule Apex


apex class
Custom Code
Apex Classes
Didn't find what you're looking for? Try using Global Search.
SETUP
Apex Classes
Help for this Page
Estimate your organization's code coverage
Compile all classes
View: All
Create New View
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All
Developer Console
New
Generate from WSDL
Run All Tests
Schedule Apex

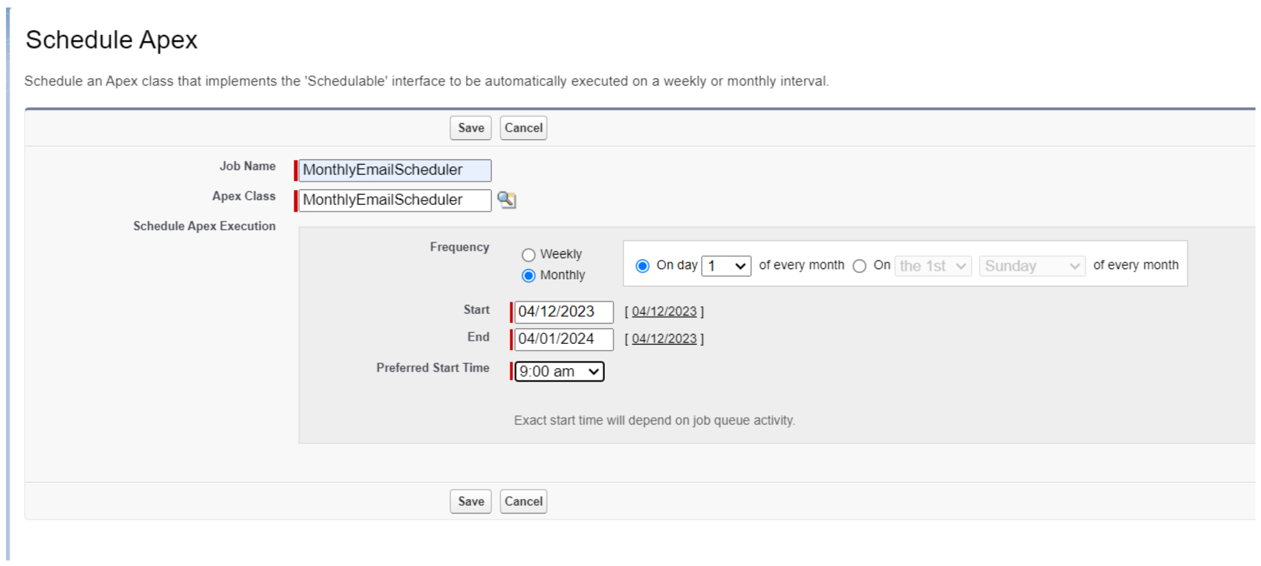
Apex Classes

Apex Code is an object oriented programming language that allows developers to develop on-demand business applications on the Lightning Platform.

Percent of Apex Used: 0.07%
You are currently using 4,018 characters of Apex Code (excluding comments and @isTest annotated classes) in your organization, out of an allowed limit of 6,000,000 characters. Note that the amount in use includes both Apex Classes and Triggers defined in your organization.

Action	Name ↑	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit | Del | Security	ContactCreator		59.0	Active	618	Manne Niranjan Reddy, 29/11/2023, 3:02 pm	
Edit | Del | Security	createaccount		59.0	Active	447	Manne Niranjan Reddy, 29/11/2023, 1:17 pm	
Edit | Del | Security	MonthlyEmailScheduler		59.0	Active	1,125	Manne Niranjan Reddy, 02/12/2023, 9:53 am	
Edit | Del | Security	testHandler		59.0	Active	584	Manne Niranjan Reddy, 27/11/2023, 11:20 am	

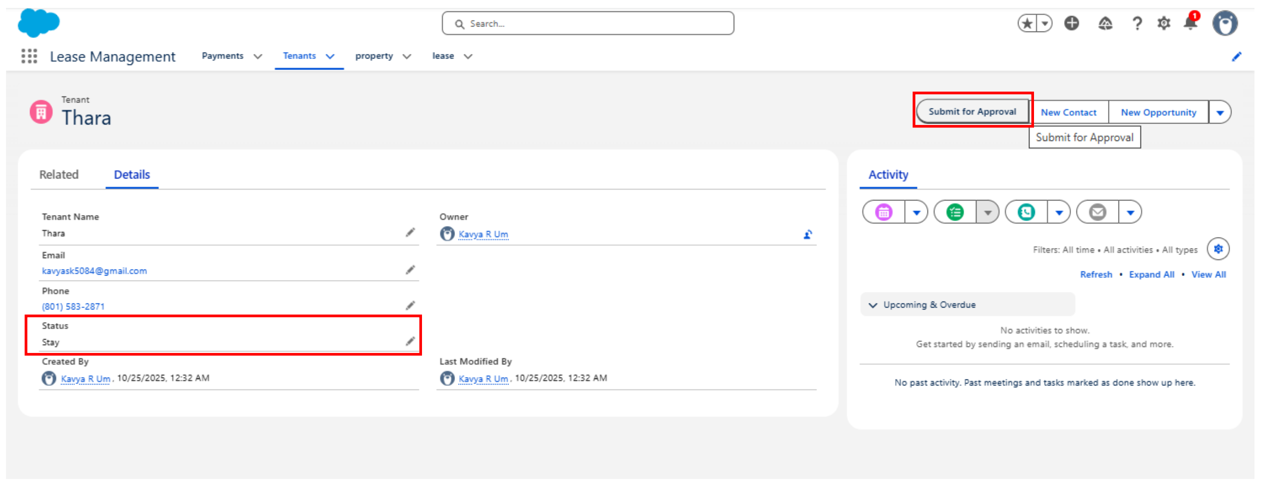
3. Enter job Name : MonthlyEmailScheduler
4. Apex class : MonthlyEmailScheduler
5. Frequency : Monthly===>select on day 1
6. Start date : 04/12/2023
7. End date : 04/01/2024
8. Preferred start time : 09:00 am
9. Save


Schedule Apex

Schedule an Apex class that implements the 'Schedulable' interface to be automatically executed on a weekly or monthly interval.

Job Name: MonthlyEmailScheduler
Apex Class: MonthlyEmailScheduler
Schedule Apex Execution
Frequency: Weekly [✓ Monthly]
[✓ On day 1 of every month] On the 1st Sunday of every month
Start: 04/12/2023 [04/12/2023]
End: 04/01/2024 [04/12/2023]
Preferred Start Time: 9:00 am
Exact start time will depend on job queue activity.

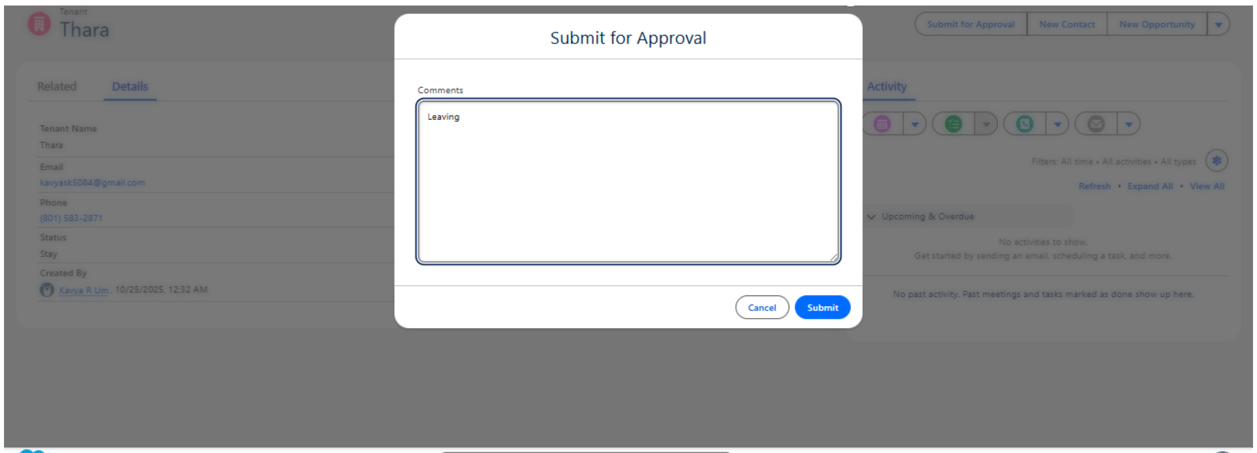
Testing the approval process:


Tenant
Thara

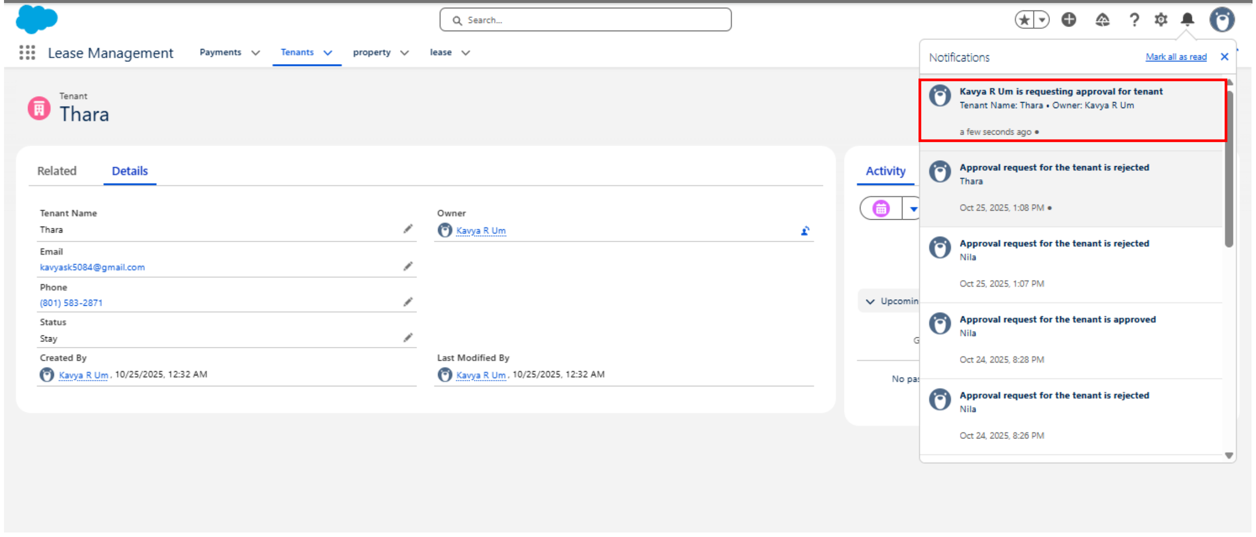
Tenant Name: Thara
Owner: Kavya R Um
Email: kavyask5084@gmail.com
Phone: (801) 583-2871
Status: Stay
Created By: Kavya R Um, 10/25/2025, 12:32 AM
Last Modified By: Kavya R Um, 10/25/2025, 12:32 AM

Filters: All time • All activities • All types
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.

Enter any comment am\nd click on submit



Leaving



Tenant
Thara

Tenant Name: Thara
Email: kavyask5084@gmail.com
Phone: (801) 583-2871
Status: Stay
Created By: Kavya R Um, 10/25/2025, 12:32 AM
Owner: Kavya R Um
Last Modified By: Kavya R Um, 10/25/2025, 12:32 AM

Kavya R Um is requesting approval for tenant
Tenant Name: Thara • Owner: Kavya R Um
a few seconds ago •

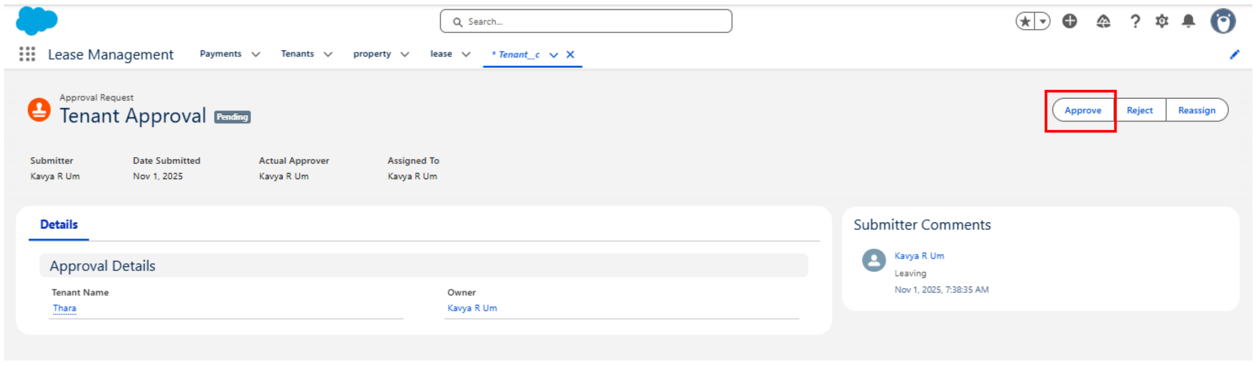
Approval request for the tenant is rejected
Thara
Oct 25, 2025, 1:08 PM •

Approval request for the tenant is rejected
Nila
Oct 25, 2025, 1:07 PM

Approval request for the tenant is approved
Nila
Oct 24, 2025, 8:28 PM

Approval request for the tenant is rejected
Nila
Oct 24, 2025, 8:26 PM

Click on that notification



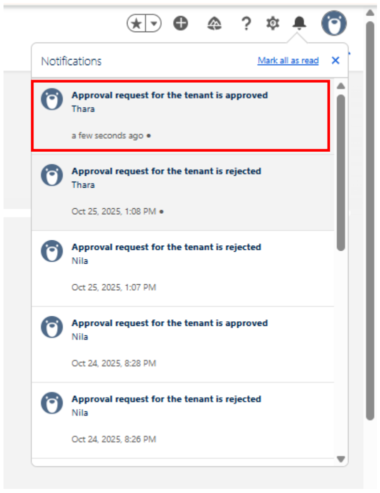
Approval Request
Tenant Approval Pending

Submitter	Date Submitted	Actual Approver	Assigned To
Kavya R Um	Nov 1, 2025	Kavya R Um	Kavya R Um

Approval Details
Tenant Name: Thara
Owner: Kavya R Um

Kavya R Um
Leaving
Nov 1, 2025, 7:38:35 AM

Click on approve
Give any comment and submit.


Notifications
Mark all as read

Approval request for the tenant is approved
Thara
a few seconds ago

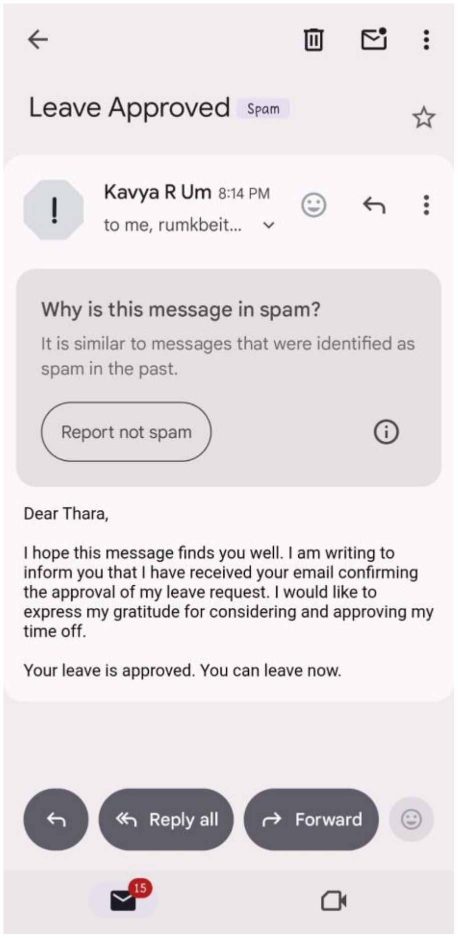
Approval request for the tenant is rejected
Thara
Oct 25, 2025, 1:08 PM

Approval request for the tenant is rejected
Nila
Oct 25, 2025, 1:07 PM

Approval request for the tenant is approved
Nila
Oct 24, 2025, 8:28 PM

Approval request for the tenant is rejected
Nila
Oct 24, 2025, 8:26 PM

You will find notification like this and you will get an email check.


Leave Approved Spam

Kavya R Um 8:14 PM
to me, rumkbeit...

Why is this message in spam?
It is similar to messages that were identified as spam in the past.
Report not spam

Dear Thara,

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.

Phase 5: Deployment & Maintenance:

Once the app was tested successfully, it was deployed to the **production environment**.

- The deployment process involved moving metadata and configurations using **Change Sets** to ensure a smooth transition from sandbox to production.
- End users were **trained** on how to use the application, manage lease records, and generate reports effectively.
- Continuous **maintenance and monitoring** were established to ensure data consistency, system performance, and to apply updates or enhancements as needed.
- Regular feedback collection and system audits were also planned to identify potential improvements and maintain high user satisfaction

Testing Summary:

- All functional modules worked as designed.
- Automation flows and approval processes executed successfully.
- Emails were delivered correctly (occasionally redirected to spam folder).
- Validation rules effectively ensured data integrity.
- Overall application performance and response were stable and efficient.

Limitations:

Despite successful implementation, the current version has certain limitations:

1. **Limited Access Control:** Approval and notification rights are restricted primarily to system administrators.
2. **Email Delivery Issues:** Some system-generated emails may be marked as spam depending on recipient settings.
3. **Lack of Integration:** No integration with external payment or lease accounting systems.
4. **No Mobile Optimization:** The system is functional in desktop browsers but not optimized for Salesforce mobile view.

Future Enhancements:

1. **Add Payment Integration:**
   Connect the system with an online payment option so that tenants can pay their rent directly and automatically update their payment status.
2. **Improve Email Notifications:**
   Make the email templates more attractive and add more details such as payment amount, due date, and tenant name for better communication.
3. **Add Reports and Dashboards:**
   Create simple dashboards to show the number of active leases, total payments received, and tenants who haven't paid.
4. **Mobile Access:**
   Make the system easier to use on mobile devices using Salesforce mobile view for property owners and tenants.
5. **Lease Renewal Reminders:**
   Add an automatic reminder email or notification when a lease is about to expire, so tenants can renew it on time.

Conclusion:

The **Lease Management System** project successfully demonstrates the end-to-end use of Salesforce CRM capabilities for real-world business automation.
It automates tenant record management, lease tracking, approval workflows, and rent reminders — reducing manual intervention and improving operational efficiency.

Through the combination of **custom objects, validation rules, approval processes, flows, and Apex scheduling**, the project provides a scalable and intelligent solution for property management.

This implementation showcases practical expertise in Salesforce configuration, automation, and declarative development, aligning perfectly with the goals of a Salesforce Developer project.
With further enhancements, the system can evolve into a full-scale, enterprise-level lease management platform.