

# **A CRM Application to Manage the Mall**

Hari Prasath K(431E28E569EDD44AD04437404D6D06D0)

Jey Krishnan M(52FF5719AA42A9A88114FEFFD81581EA)

Janani J(E83D88C642979B48306490B13FA45FA6)

Suji N(55EC29523AEF16DBE08454D3A35138F8)

## Salesforce

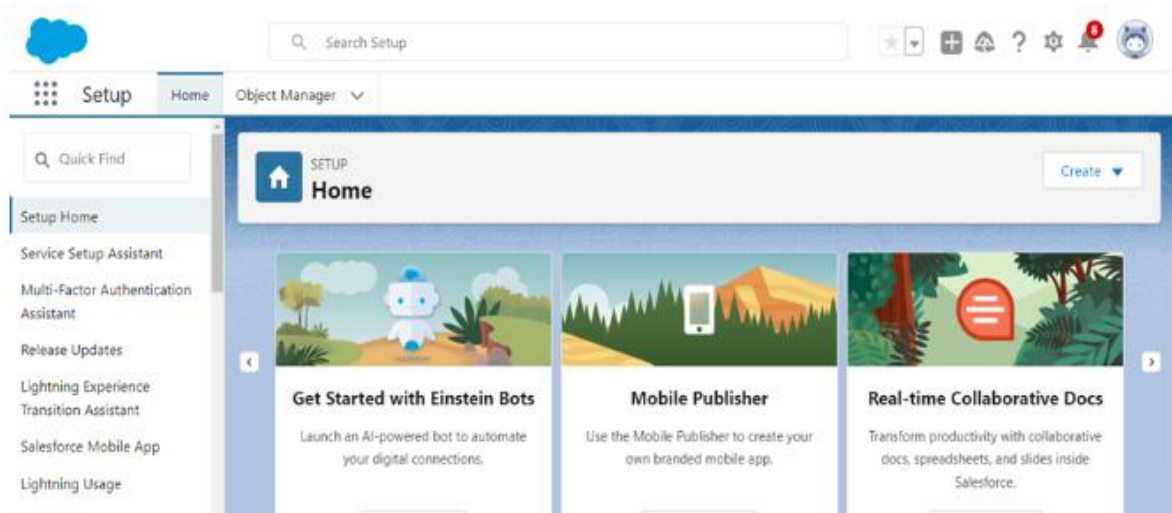
Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you. Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, What is Salesforce, anyway?

### Why are we using Salesforce Platform for this project

We're using Salesforce for the Mall Management App because it lets us build the app quickly without a lot of complicated coding. It's flexible, so we can easily customize it to fit the specific needs of managing a mall. Salesforce keeps everything organized in one place, making it easy to handle tenant info, leases, and maintenance issues. It's also secure, ensuring that sensitive data is protected. With automation features, tasks can be done automatically, saving time. The user-friendly interface makes it easy for everyone to use, and the analytics tools help us make smart decisions based on data. Plus, Salesforce has a helpful community for support and additional resources, making it a great overall choice for our project.

### Creating Developer Account

<https://developer.salesforce.com/signup>



### Create Custom Objects

To store the data as per business requirement.

### Create Tenant Object

From the setup page ==> Click on Object Manager ==> Click on Create ==> Click on Custom Object.

1. Enter the label name: Tenant

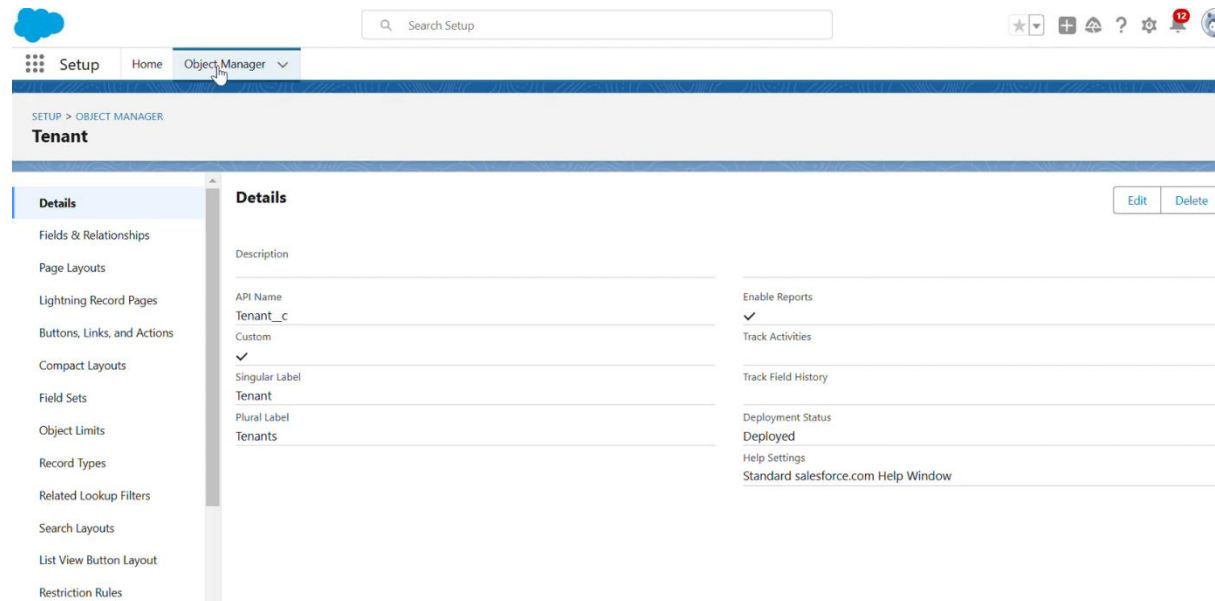
2.Plural label name: Tenants

3.Enter Record Name Label and Format

- Record Name : Tenant Name
- Data Type: Text

4.Click on Allow reports.

5.Allow search and Save.



## Create Lease Tracking Object

1.Enter the label name ==>Lease Tracking

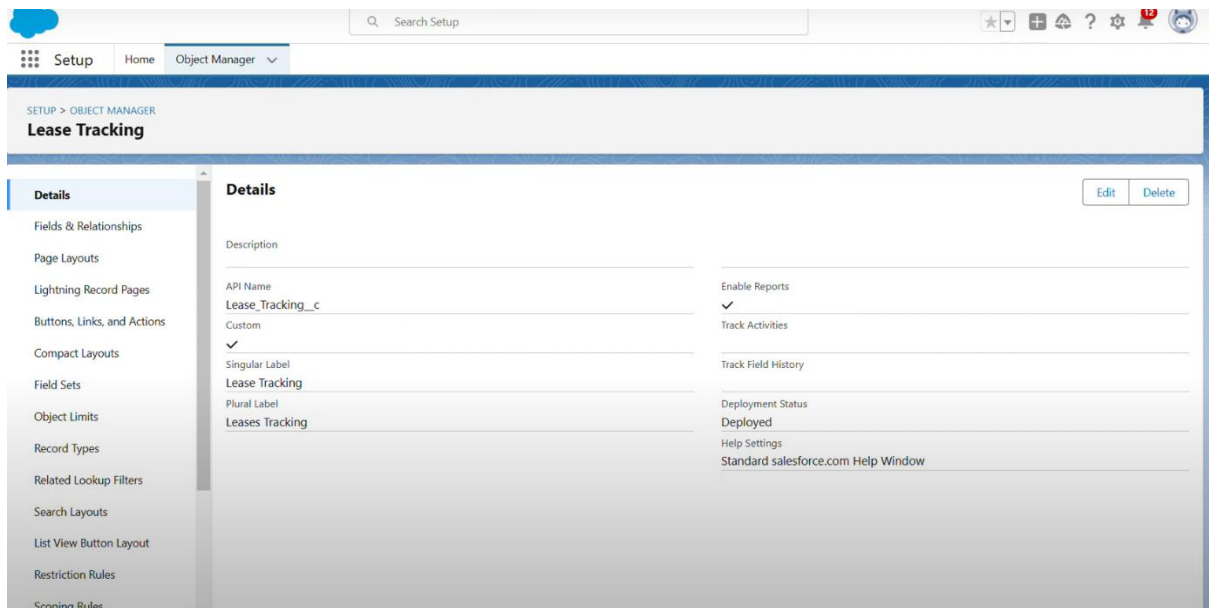
2.Plural label name ==> Leases Tracking

3.Enter Record Name Label and Format

- Record Name : Lease Tracking No
- Data Type : Auto Number
- Display Format - TT - {000000}

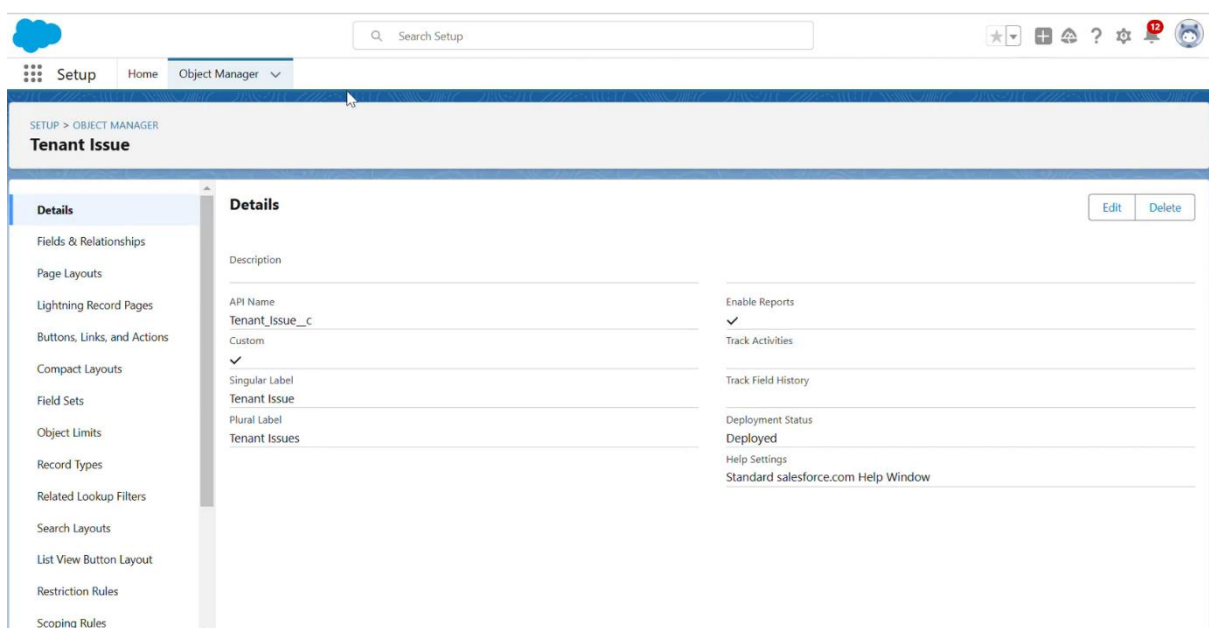
4.Click on Allow reports.

5.Allow search and Save.



## Create Tenant Issues Object

1. Enter the label name ==> Tenant Issue
2. Plural label name ==> Tenant Issues
3. Enter Record Name Label and Format
  - Record Name : Issues
  - Data Type : Auto number
4. Click on Allow reports.
5. Allow search and Save.



## Tabs

What is tab and Types of tabs :

What is Tab: A tab is like a user interface that is used to build records for objects and to view the records in the objects.

## Create a custom tab for tenant object

The screenshot shows the Salesforce Setup interface. The left sidebar has a search bar with 'tabs' entered. Under 'User Interface', 'Rename Tabs and Labels' is selected, and 'Tabs' is highlighted. The main content area is titled 'Edit Custom Object Tab Leases Tracking'. It contains a 'Custom Tab Definition Edit' section with the following fields:

- Tab Label: Leases Tracking
- Object: Lease\_Tracking
- Tab Style: Cell phone
- (Optional) Choose a Home Page Custom Link to show as a splash page the first time your users click on this tab. Splash Page Custom Link: --None--
- Enter a short description. Description: (empty text box)

At the bottom of the form are 'Save' and 'Cancel' buttons. A red error message 'Required Information' is visible next to the 'Tab Label' field.

## Create Fields and Relationships

The screenshot shows the Salesforce Setup interface. The left sidebar has a search bar with 'Search Setup' entered. Under 'Object Manager', 'Tenant' is selected. The main content area is titled 'Tenant' and shows the 'Details' tab. The 'Details' section includes the following fields:

- Description: (empty text box)
- 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

At the top right of the 'Details' section are 'Edit' and 'Delete' buttons.

## Create fields on Lease Tracking Object

The screenshot shows the 'Validation Rule Edit' page for the 'Tenant' object. The 'Rule Name' is 'Date\_Validation'. The 'Error Condition Formula' section contains the formula: `ISNULL(Date__c) < TODAY()`. A 'Functions' dropdown menu is open, showing a list of functions including ABS, ACOS, ARITHMETICS, AND, ASIN, and ASINH. The 'Check Syntax' button indicates 'No errors found'.

## Create fields on Tenant Issues

The screenshot shows the 'Object Manager' page for the 'Tenant' object. The 'Fields & Relationships' tab is selected, showing a list of 13 fields. The fields are sorted by Field Label. The table below lists the fields and their data types.

Field Label	Field Name	Data Type	Required
Email	Email__c	Email	
GST No	GST_No__c	Text(1)	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User,Group)	✓
PAN Card no	PAN_Card_no__c	Text(125)	
Phone Number	Phone_Number__c	Phone	
Registered License No	Registered_License_No__c	Text(1)	
Shop Act license No	Shop_Act_license_No__c	Text(1)	
Status of possession	Status_of_possession__c	Picklist	
Tenant Name	Name	Text(80)	✓

## Create the Lightning App

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps gives users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

There are two types of Salesforce Applications:

- Standard Apps

- Custom Apps

### Standard Apps:

Standard apps come with every occurrence of Salesforce as default. Community, Call Center, Content, Sales, Marketing, Salesforce Chatter, Site.com, and App Launcher are included in these apps. The description, logo, and label of a standard app cannot be altered.

### Custom Apps:

Custom apps are created according to the needs of a company. They can be made by putting custom and standard tabs together. Logos for custom apps can be changed.

## Steps to create custom app in salesforce

App Name	Developer Name	Description	Last Modified	App Type	Visibility
11 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	18/11/2024, 6:13 pm	Lightning	✓
12 Marketing CRM Clas...	Marketing	Track sales and marketing efforts with CRM objects.	18/11/2024, 6:13 pm	Classic	✓
13 Platform	Platform	The fundamental Lightning Platform	18/11/2024, 6:13 pm	Classic	✓
14 Queue Management	QueueManagement	Create and manage queues for your business.	18/11/2024, 6:13 pm	Lightning	✓
15 Sales	Sales	The world's most popular sales force automation (SFA) solution	18/11/2024, 6:13 pm	Classic	✓
16 Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more	18/11/2024, 6:13 pm	Lightning	✓
17 Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one ...	18/11/2024, 6:13 pm	Lightning	✓
18 Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	18/11/2024, 6:13 pm	Classic	✓
19 Salesforce Scheduler...	LightningScheduler	Set up personalized appointment scheduling.	18/11/2024, 6:16 pm	Lightning	✓
20 Service	Service	Manage customer service with accounts, contacts, cases, and more	18/11/2024, 6:13 pm	Classic	✓
21 Service Console	LightningService	(Lightning Experience) Lets support agents work with multiple records ac...	18/11/2024, 6:13 pm	Lightning	✓
22 Site.com	Sites	Build pixel-perfect, data-rich websites using the drag-and-drop Site.com...	18/11/2024, 6:13 pm	Classic	✓
23 SmartMail	SmartMail		19/11/2024, 10:39 ...	Lightning	✓
24 Subscription Manan...	RevenueCloudConsole	Get started automating your revenue processes	18/11/2024, 6:13 pm	Lightning	✓

## Record Insertion

Creating records in Salesforce is a fundamental and essential activity that serves multiple purposes, contributing to the effective management of data, streamlined processes, and overall success of an organization.

## Inserting Records in Tenant Object

SmartMall

Tenants

Tenant Issues

Leases Tracking

Search...

Tenants

Recently Viewed

4 items • Updated a few seconds ago

New Import Change Owner Assign Label

Search this list...

	Tenant Name	
1	janani	
2	Jey	
3	suji	
4	hari	

## Inserting Records in Tenants Issues object

SmartMall

Tenants

Tenant Issues

Leases Tracking

Search...

Leases Tracking

Recently Viewed

3 items • Updated a few seconds ago

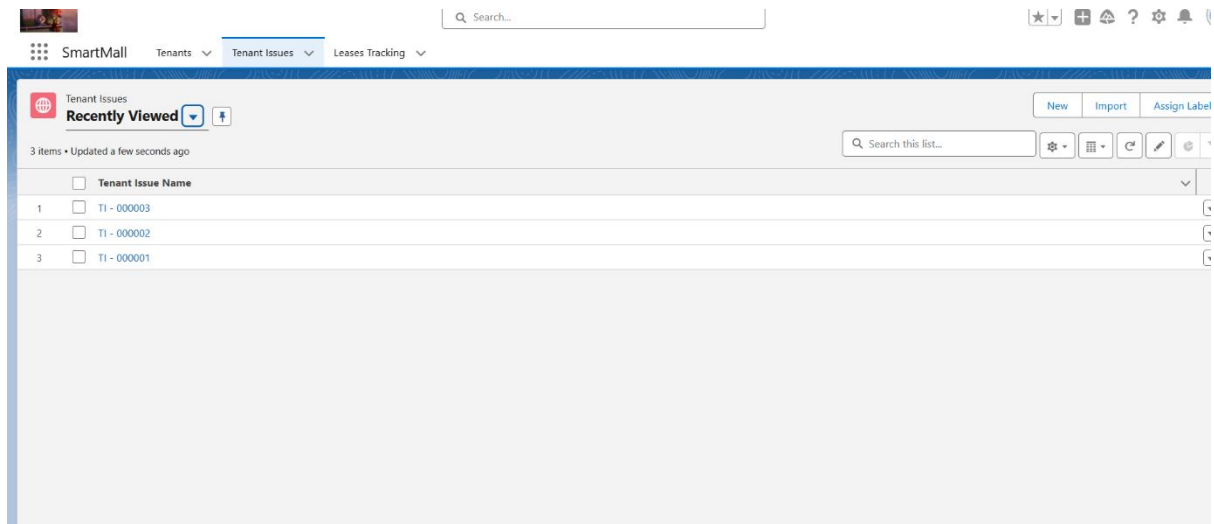
New Import Assign Label

Search this list...

	Lease Tracking Name	
1	TT - 000001	
2	TT - 000003	
3	TT - 000002	

## Inserting Records in Lease Tracking Object

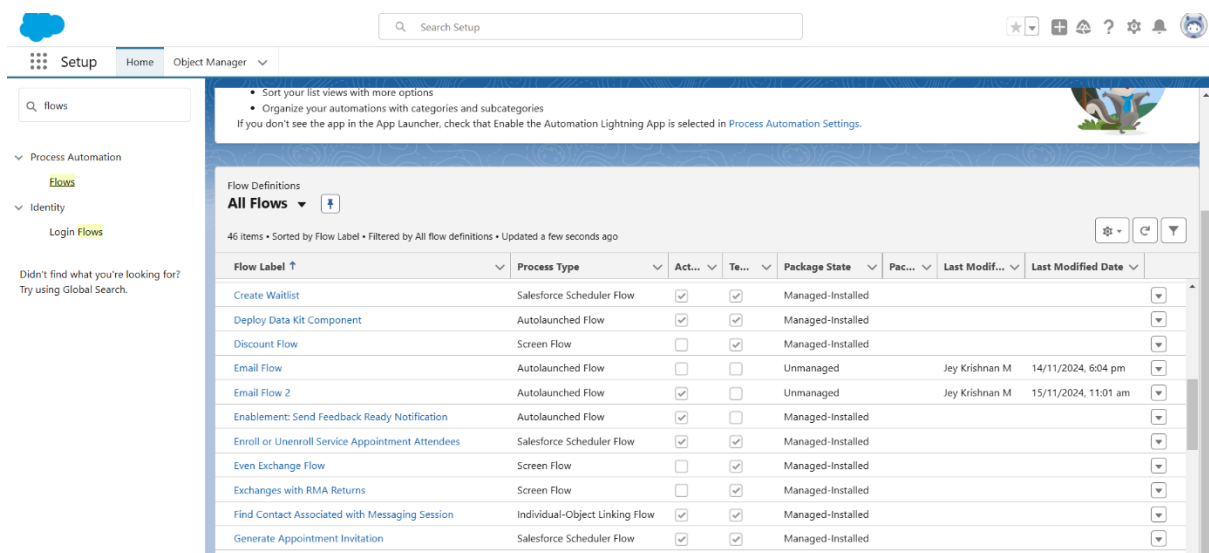




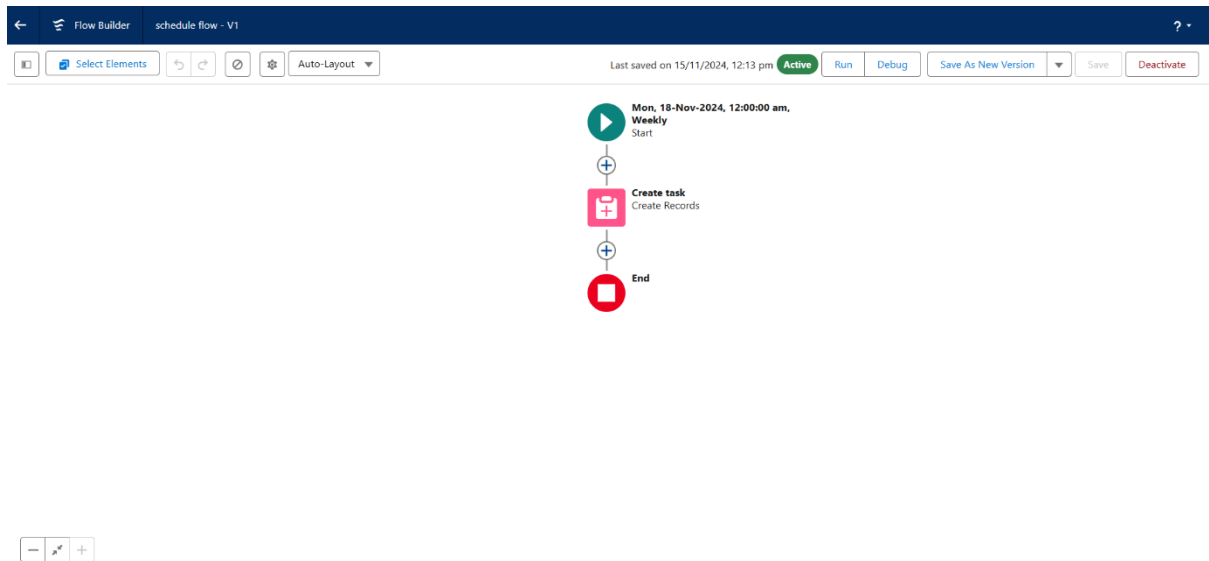
## Create Flows

In Salesforce, a Flow is a powerful tool that allows users to automate complex business processes by orchestrating and automating sequences of tasks, data manipulations, and user interactions. Flows are designed through a visual interface, making them accessible to users with varying technical expertise.

## Create a Record Triggered flow on tenant Object



## Create a Schedule Flow on Lease Management Object



### Apex Triggers

**Write an Apex Trigger to send an email if the tenant has not paid 50 Percent of Total Rent.**

- 1) Click on the gear icon and click on the developer console.
- 2) Click on file select New Apex Trigger
- 3) Name- leasetrackingtrigger, Object —> Lease\_Tracking\_\_c
- 4) Use Event - After insert and After Update and Use Trigger Context Variables as IsAfter and IsUpdate.

**Trigger : -**

**CODE SNIPPET :**

```
trigger leasetrackingtrigger on Lease_Tracking__c (After insert,After update) {
```

```
    if(Trigger.isAfter && Trigger.IsUpdate)
    {
        LeaseTrackingTriggerHandler.method1(trigger.old);
    }
```

```
}
```

### Trigger Handler : -

1) Create an apex class and Name it LeaseTrackingTriggerHandler

#### CODE SNIPPET : -

```
public class LeaseTrackingTriggerHandler {

    public static void method1(List<Lease_Tracking__c> lt1)
    {
        for(Lease_Tracking__c lt2: lt1 )
        {
            if(lt2.Amount_to_be_paid__c > (lt2.Total_rent_Yearly__c)/2)
            {
                Messaging.SingleEmailMessage M = New Messaging.SingleEmailMessage();

                List<String> ToADD = New List<String>{lt2.Email_id__c};

                M.setToAddresses(ToADD);
                M.setSubject('Regarding the Pending Rent');
                M.setPlainTextBody('Hello, This is an Reminder for you to complete your due rent
by the end this month, your due rent thatneeds to be paid is' +lt2.Amount_to_be_paid__c);

                List<Messaging.Email> AB = New List<Messaging.Email>{};
                AB.add(M);
                Messaging.sendEmail(AB);
            }
        }
    }
}
```

```

    }
}
}

```

**Write an Apex Trigger on Tenant Object to Show error if the pan card is invalid.**

- 1) Click on the gear icon and click on the developer console.
- 2) Click on file select New Apex Trigger
- 3) Name- TenantTrigger, Object - Tenant
- 4) Use Events - Before insert and Trigger context Variable - IsBefore

**Trigger : -**

**CODE SNIPPET : -**

```

trigger TenantTrigger on Tenant__c (before insert) {

    if(trigger.isBefore)
    {
        TenantTriggerhandler.method1(trigger.New);
    }

}

```

**Trigger Handler : -**

- 1) Create an apex class and Name it TenantTriggerhandler

**CODE SNIPPET: -**

```

public class TenantTriggerhandler {

    public static void method1(List<Tenant__c> te)

```

```

{

    for(Tenant__c tenant : te)
    {
        if(tenant.Pan_Card_no__c.length() > 10)
        {
            tenant.addError('This Pan Card number is invalid, Please Enter Valid Pan Card number');
        }
    }
}
}

```

### **Asynchronous Apex**

Asynchronous Apex in Salesforce refers to a programming paradigm where code execution is detached from the immediate context and occurs independently, typically in the background. This approach is designed to handle long-running processes, heavy computations, or tasks that should not block user interactions.

### **Schedule Apex**

Delete the Tenant Records Monthly whose Status Of Possession is closed.

- 1) Create a class with name tenantschedulable
- 2) Give extension Schedulable to the class.
- 3) Open the Anonymous Window.
- 4) Schedule the class-

```

tenantschedulable a = new tenantschedulable();
string cron = '0 0 0 1 * ? *';
system.schedule('Delete the records monthly', cron, a);

```

### **CODE SNIPPET : -**

```

public class tenantschedulable implements Schedulable
{

```

```
public void execute(Schedulablecontext sc)
{
    list<Tenant__c> ten = [SELECT Id, Status_of_Possession__c FROM Tenant__c ];

    list<Tenant__c> tenantstodelete = New List<Tenant__c>();

    for(Tenant__c te: ten)
    {
        if(te.Status_of_Possession__c == 'Closed')
        {
            tenantstodelete.add(te);
        }
    }

    Delete tenantstodelete;
}
}
```

Create Reports And Dashboards

Salesforce Reports and Dashboards are powerful tools that empower users to visualize and analyze data within the Salesforce platform. They play a crucial role in providing insights, monitoring performance, and making informed business decisions.

Create a Report of lease Management Records

Reports

All Folders

7 items

Q Search all folders...

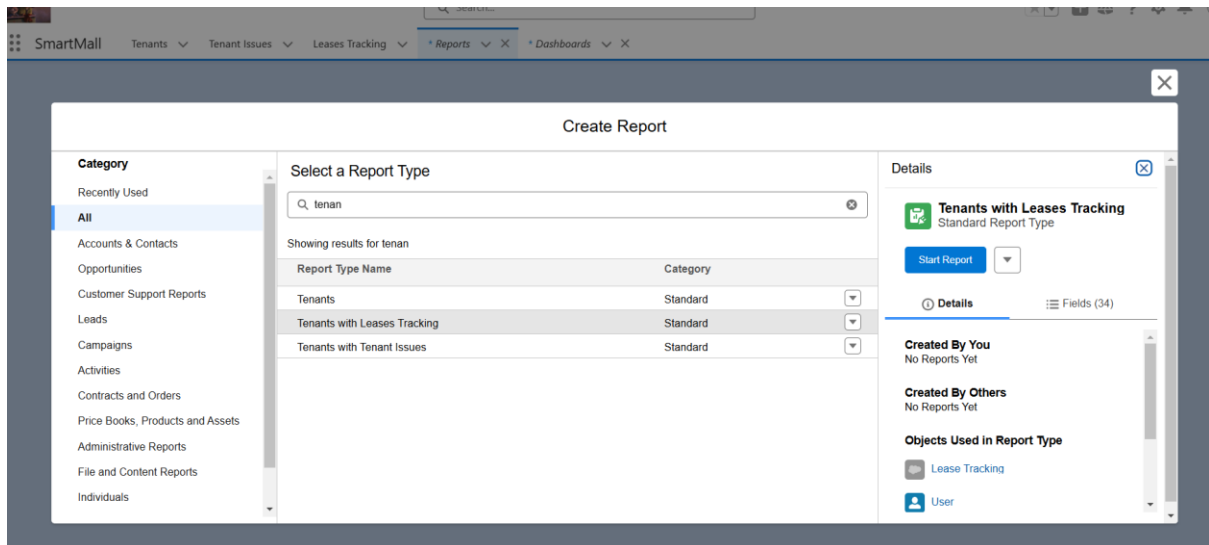
New Report

New Folder

⚙

REPORTS	Name	Created By	Created On	Last Modified By	Last Modified Date	
Recent	Einstein Bot Reports	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
Created by Me	Einstein Bot Reports Spring '23	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
Private Reports	Einstein Bot Reports Summer '23	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
Public Reports	Einstein Bot Reports Winter '23	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
All Reports	Enablement Dashboard Reports Spring '24	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
FOLDERS	Enablement Dashboard Reports Summer '24	Automated Process	14/11/2024, 1:29 pm	Automated Process	14/11/2024, 1:29 pm	⌵
All Folders						
Created by Me						
Shared with Me						
FAVORITES						
All Favorites						

Create a Report on Tenant issue Records



## Create a Report on Tenant Records

SmartMail	Tenants	Tenant Issues	Leases Tracking	Reports	Dashboards
Reports					
All Reports					
30 items					
REPORTS	Report Name	Description	Folder	Created By	Created On
Recent	Exercise Completion by Days to Complete	Analyze an exercise's completion status based on average days to complete.	Enablement Dashboard Reports Summer '24	Automated Process	14/11/2024, 1:29 pm
Created by Me	Exercise Completion by Days to Complete	Analyze an exercise's completion status based on average days to complete.	Enablement Dashboard Reports Spring '24	Automated Process	14/11/2024, 1:29 pm
Private Reports	Exercise Completion by User	Analyze how long users are spending on an exercise and the amount of progress they're making.	Enablement Dashboard Reports Summer '24	Automated Process	14/11/2024, 1:29 pm
Public Reports	Exercise Completion by User	Analyze how long users are spending on an exercise and the amount of progress they're making.	Enablement Dashboard Reports Spring '24	Automated Process	14/11/2024, 1:29 pm
FOLDERS	Exercise Completion Status	Analyze how long users take to complete an exercise and their completion percentage.	Enablement Dashboard Reports Summer '24	Automated Process	14/11/2024, 1:29 pm
All Folders	Exercise Completion Status by Section	Analyze an exercise's completion status based on program sections.	Enablement Dashboard Reports Spring '24	Automated Process	14/11/2024, 1:29 pm
Created by Me	Exercise Completion Status by Section	Analyze an exercise's completion status based on program sections.	Enablement Dashboard Reports Summer '24	Automated Process	14/11/2024, 1:29 pm
Shared with Me					
FAVORITES					
All Favorites					

## Create a Dashboard

SmartMail	Tenants	Tenant Issues	Leases Tracking	Reports	Dashboards
Dashboards					
All Dashboards					
2 items					
DASHBOARDS	Dashboard Name	Description	Folder	Created By	Created On
Recent	Enablement Dashboard	View data on how Enablement helps drive your business outcomes. This is your main dashboard for all Enablement analytics. Don't delete it. If you want to make changes to this dashboard, duplicate it.	Enablement Dashboard Spring '24	Automated Process	14/11/2024, 1:29 pm
Created by Me					
Private Dashboards					
All Dashboards					
FOLDERS					
All Folders	Enablement Dashboard	View data on how Enablement helps drive your business outcomes. This is your main dashboard for all Enablement analytics. Don't delete it. If you want to make changes to this dashboard, duplicate it.	Enablement Dashboard Summer '24	Automated Process	14/11/2024, 1:29 pm
Created by Me					
Shared with Me					
FAVORITES					

