

CRM Application to Manage the Mall

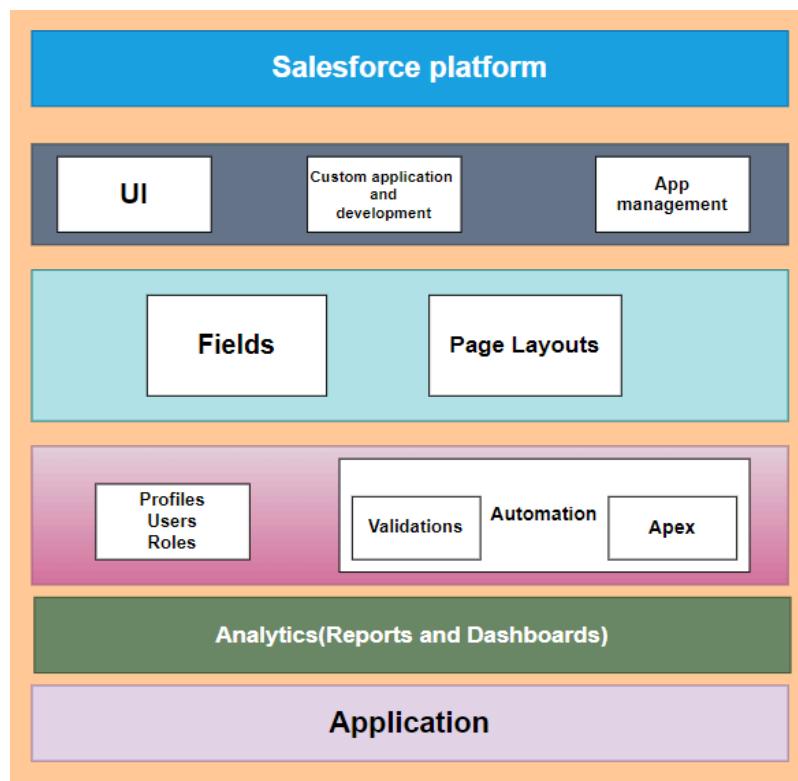
Project Description:

The Management App is a comprehensive solution built on the Salesforce platform to streamline and enhance the management of commercial malls. This innovative app offers a suite of features designed to optimize the lease tracking process, improve tenant interactions, and provide actionable insights for effective decision-making.

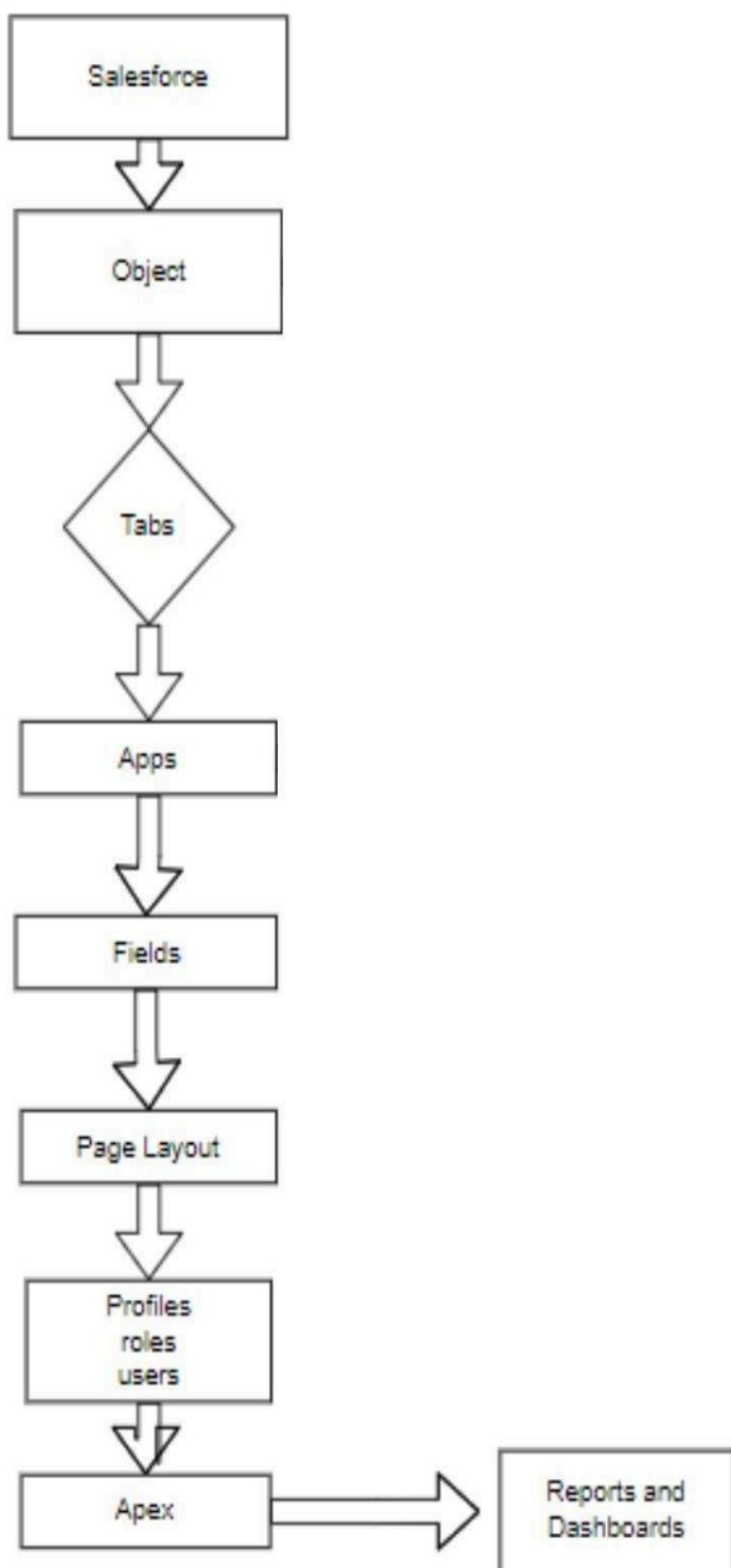
Short Description:

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.

Technical Architecture:



Project Flow



System Requirements:

Windows 8 machine

Install with two web browser

Bandwidth of 30mbps

AGENDA:

1. Create Custom Objects
2. Tabs
3. Create Fields and Relationships
4. Create the Lightning App
5. Record Insertion
6. Create Flows
7. Apex Triggers
8. Asynchronous Apex
9. Create Reports And Dashboard

Milestone 1-Salesforce

Introduction:

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?"

What Is Salesforce?

Salesforce is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers.

Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

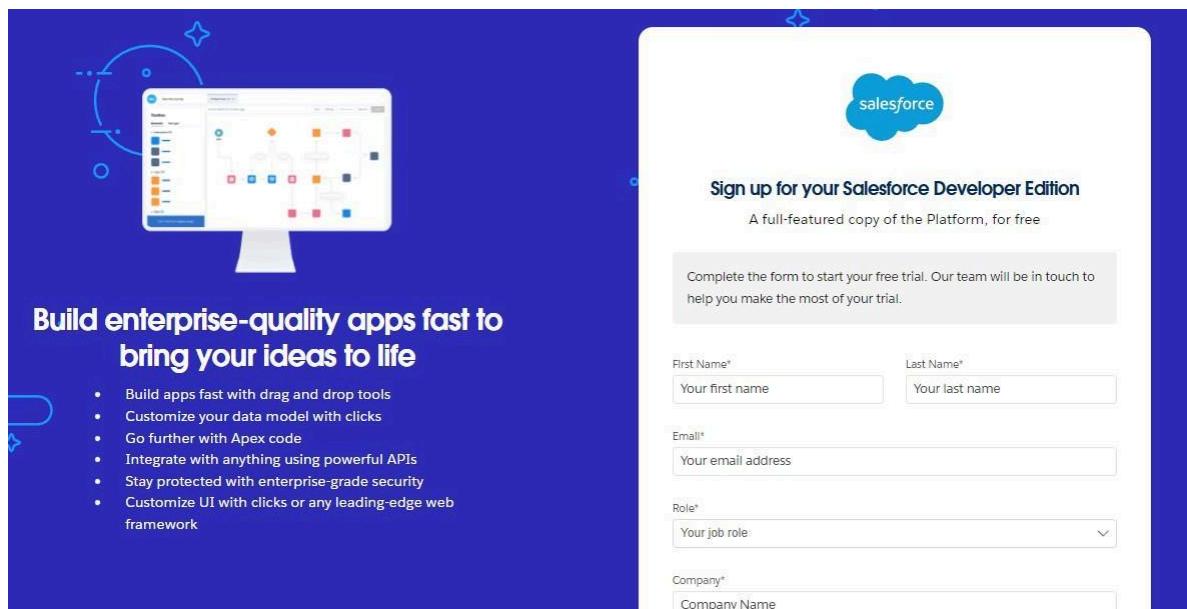
So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

<https://youtu.be/r9EX3lGde5k>

Activity 1: Creating Developer Account

Creating a developer org in salesforce.

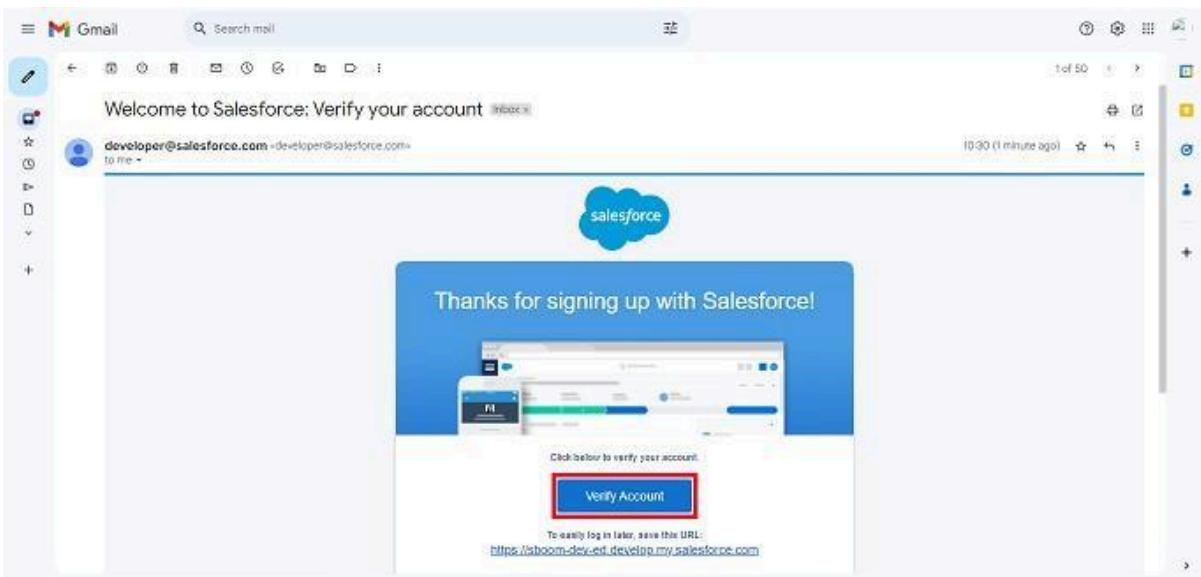
1. Go to <https://developer.salesforce.com/signup>
2. On the sign up form, enter the following details :



- 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.

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.



2. Click on Verify Account
3. Give a password and answer a security question and click on change password

Change Your Password

Enter a new password for lead@sb.oom.
Make sure to include at least:

- 8 characters
- 1 letter
- 1 number

* New Password
 Good

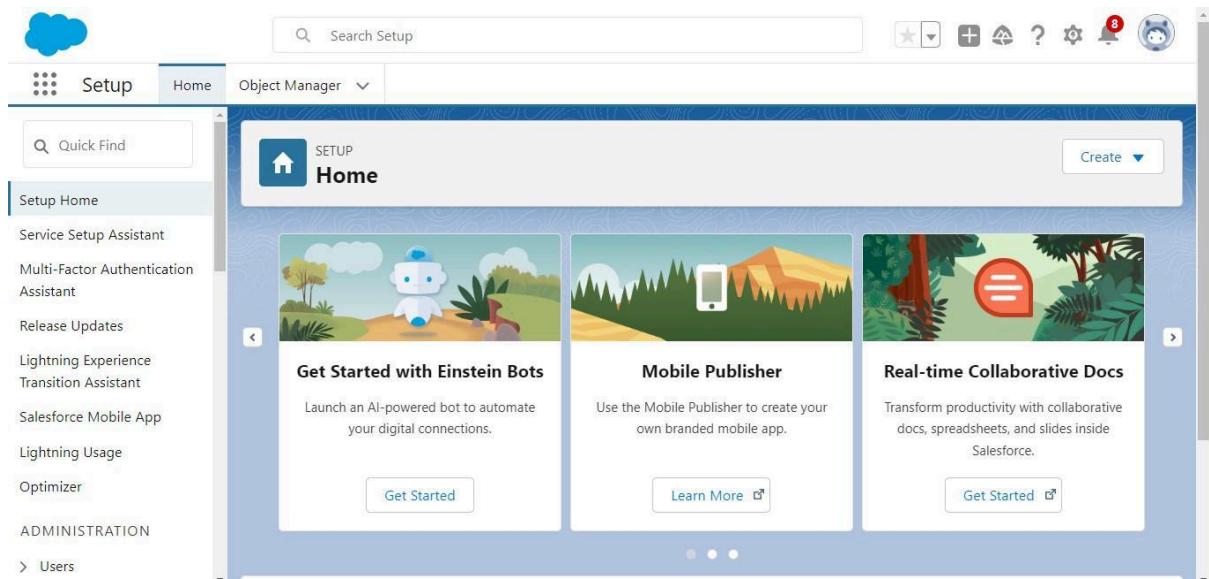
* Confirm New Password
 Match

Security Question
 In what city were you born?

* Answer
 asdfghjkl

Change Password

4. Then you will redirect to your salesforce setup page

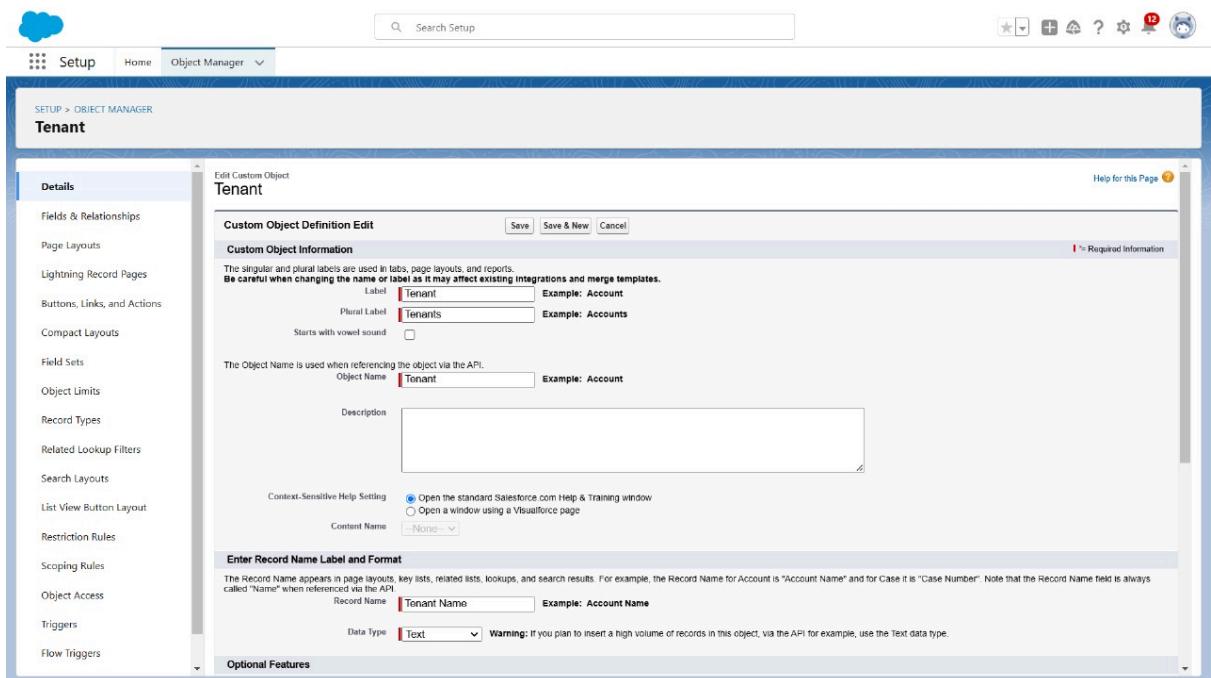


The screenshot shows the Salesforce Setup Home page. The left sidebar is titled "Setup" and includes links such as "Setup Home", "Service Setup Assistant", "Multi-Factor Authentication Assistant", "Release Updates", "Lightning Experience Transition Assistant", "Salesforce Mobile App", "Lightning Usage", "Optimizer", "ADMINISTRATION", and "Users". The main content area is titled "SETUP Home" and features three cards: "Get Started with Einstein Bots", "Mobile Publisher", and "Real-time Collaborative Docs". Each card has a "Get Started" button.

Milestone 2- Object :

Create Tenant 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
 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

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Search Setup, Home, Object Manager
- Page Title:** SETUP > OBJECT MANAGER Tenant Issue
- Left Sidebar (Details):** Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Object Access, Triggers, Flow Triggers.
- Main Content Area:**
 - Custom Object Definition Edit:** Save, Save & New, Cancel.
 - Custom Object Information:** A note: "Be careful when changing the name or label as it may affect existing integrations and merge templates." Fields: Label (Tenant Issue), Example: Account, Plural Label (Tenant Issues), Example: Accounts, Starts with vowel sound (unchecked).
 - Object Name:** Object Name (Tenant_Issue), Example: Account.
 - Description:** A large text input field.
 - Context-Sensitive Help Setting:** Open the standard Salesforce.com Help & Training window (radio button selected).
 - Content Name:** None.
- Record Name Label and Format:** A note: "The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API." Fields: Record Name (Issues), Example: Account Name, Data Type (Auto Number), Warning: "If you plan to insert a high volume of records in this object, via the API for example, use the Text data type.", Display Format (- TT - {000000}), Example: A-{000000} What Is This?

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

The screenshot shows the Salesforce Setup interface under the Object Manager section. A new custom object is being created with the following details:

- Object Name:** Tenant Issue
- Plural Label:** Tenant Issues
- Record Name:** Issues
- Data Type:** Auto Number
- Description:** (Empty)
- Context-Sensitive Help Setting:** Open the standard Salesforce.com Help & Training window
- Content Name:** None
- Enter Record Name Label and Format:** (Describes how the record name appears in various contexts like page layouts and search results.)
- Record Name:** Issues
- Data Type:** Auto Number
- Display Format:** #TT-(00000)

Milestone 3 - Tabs

Create a custom tab

1 tenant object

1. Go to setup page ==> type Tabs in Quick Find bar ?==>click on tabs ==> New (under custom object tab)
2. Select Object(Tenant) ==> Select the tab style ==> Next (Add to profiles page) keep it as default ==> Next (Add to Custom App) uncheck the include tab ==> Save.
3. Make sure to append tab to users' existing personal customizations is checked.

2 Lease Tracking

1. Go to setup page ==> type Tabs in Quick Find bar ?==>click on tabs ==> New (under custom object tab)
2. Select Object(lease tracking) ==> Select the tab style ==> Next (Add to profiles page) keep it as default ==> Next (Add to Custom App) uncheck the include tab ==> Save.

3 Tenant issues

1. Go to setup page ==> type Tabs in Quick Find bar ?==>click on tabs ==> New (under custom object tab)
2. Select Object(tenat issues) ==> Select the tab style ==> Next (Add to profiles page) keep it as default ==> Next (Add to Custom App) uncheck the include tab ==> Save.

The screenshot shows the Salesforce Setup interface with the 'Tabs' page selected. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The left sidebar has a 'User Interface' section with 'Rename Tabs and Labels' and 'Tabs' selected. A search bar at the top says 'Search Setup'. The main content area is titled 'Custom Tabs' with a sub-section 'Custom Object Tabs'. It lists three tabs:

Action	Label	Tab Style	Description
Edit Del	Leases Tracking	Alarm clock	
Edit Del	Tenant Issues	Apple	
Edit Del	Tenants	Airplane	

Below this are sections for 'Web Tabs', 'Visualforce Tabs', 'Lightning Component Tabs', and 'Lightning Page Tabs', each stating 'No [tab type] have been defined'. The bottom of the page has standard Salesforce navigation icons.

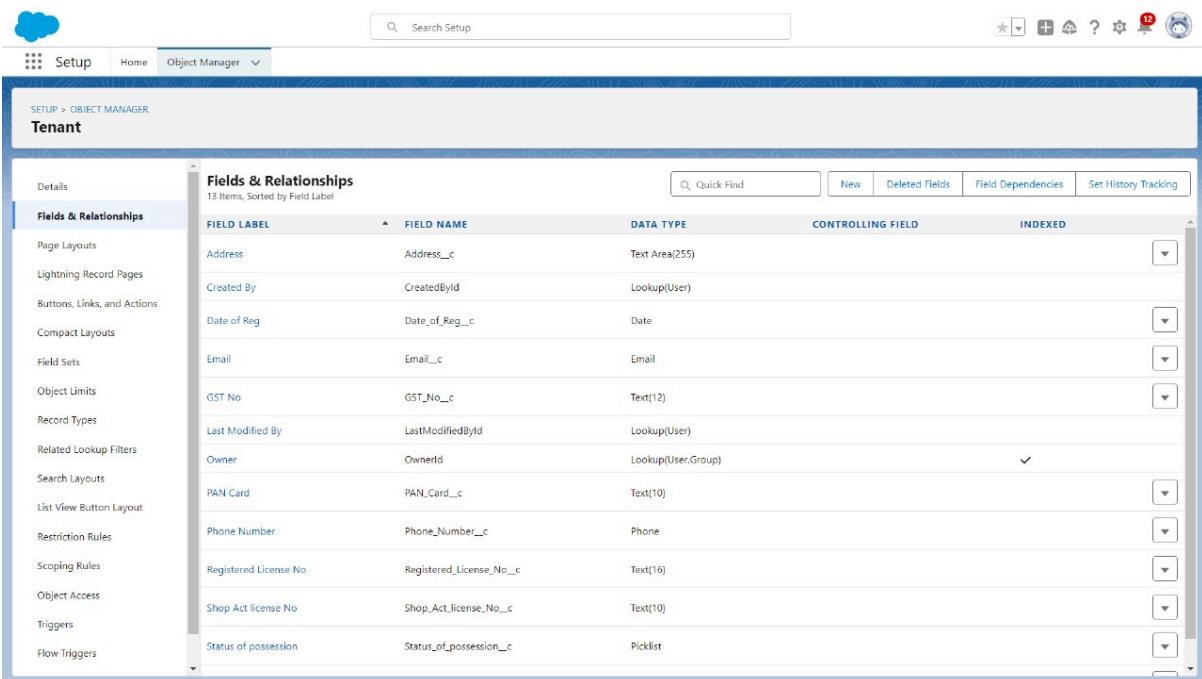


Milestone 3 - Create Fields and Relationships:

1 Create Fields on Tenant object

1. While still on your salesforce account, navigate to the gear icon present in the top right corner. You will notice Setup and click on setup.
2. You will now be navigated to the setup page, and click on object manager and search for object “Tenant”.
3. Click on “Fields & Relationships” in the left panel.
4. Click on New and choose the data type Phone and first name : Phone Number.
5. Click next and fill the following details in the mentioned.
6. Click Next, Next and click on “Save and New”.

S No	Field Label	Data Type
1	Address	Text Area(255)
2	PAN Card	Text
3	Date of Reg	Date
4	Email	Email
5	GST No	Text
6	Registered License No	Text
7	Shop Act license No	Text
8	Status of possession	Pick List Pending Hand Overed Renewal Needed



The screenshot shows the Salesforce Object Manager interface for the 'Tenant' object. The top navigation bar includes 'Setup', 'Home', 'Object Manager', and a search bar. The left sidebar lists various setup categories like Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Object Access, Triggers, and Flow Triggers.

The main content area displays the 'Fields & Relationships' section for the 'Tenant' object. It shows 13 items, sorted by Field Label. The table includes columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Text Area(255)		
Created By	CreatedById	Lookup(User)		
Date of Reg	Date_of_Reg_c	Date		
Email	Email_c	Email		
GST No	GST_No_c	Text(12)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
PAN Card	PAN_Card_c	Text(10)		
Phone Number	Phone_Number_c	Phone		
Registered License No	Registered_License_No_c	Text(16)		
Shop Act license No	Shop_Act_license_No_c	Text(10)		
Status of possession	Status_of_possession_c	Picklist		

Create Validation Rules for Tenant Object:

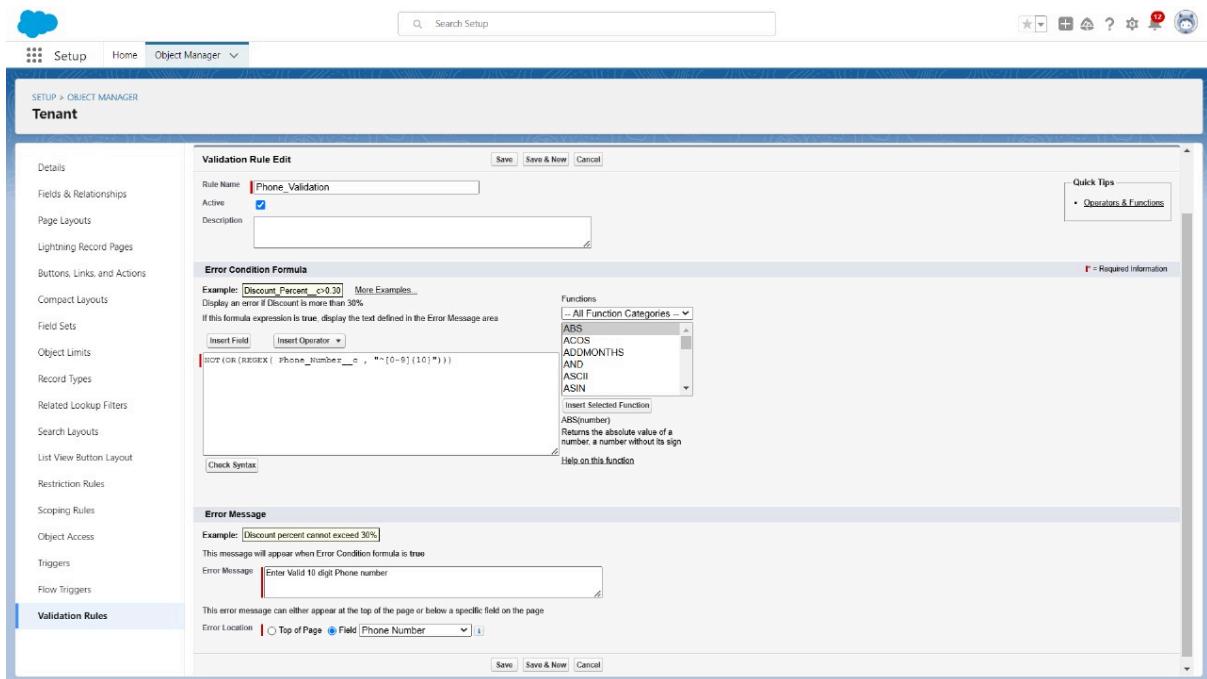
A) Create validation rule for Phone Number :

Note:- check if the Phone Number is valid having 10 digits if not then show error.

- 1] Go to setup ==> click on Object Manager ==> type object name(Tenant) in quick find bar==>click on the object.
- 2] Click on the validation rule ==> click New.
- 3] Enter the Rule name as “Phone Validation “.
- 4] Insert the Error Condition Formula as :-

NOT(OR(REGEX(Phone_Number__c , "^[0-9]{10}")))

- 5] Enter the Error Message as “Enter Valid 10 digit Phone number”, select the Error location as Field and select the field as “Phone Number”, and click Save



B) Create Validation rule for Date of Reg :

Note:- check if the DateofReg is valid and is not a Date in the past.

1] Go to setup ==> click on Object Manager ==> type object name(Tenant) in quick find bar==> click on the object.

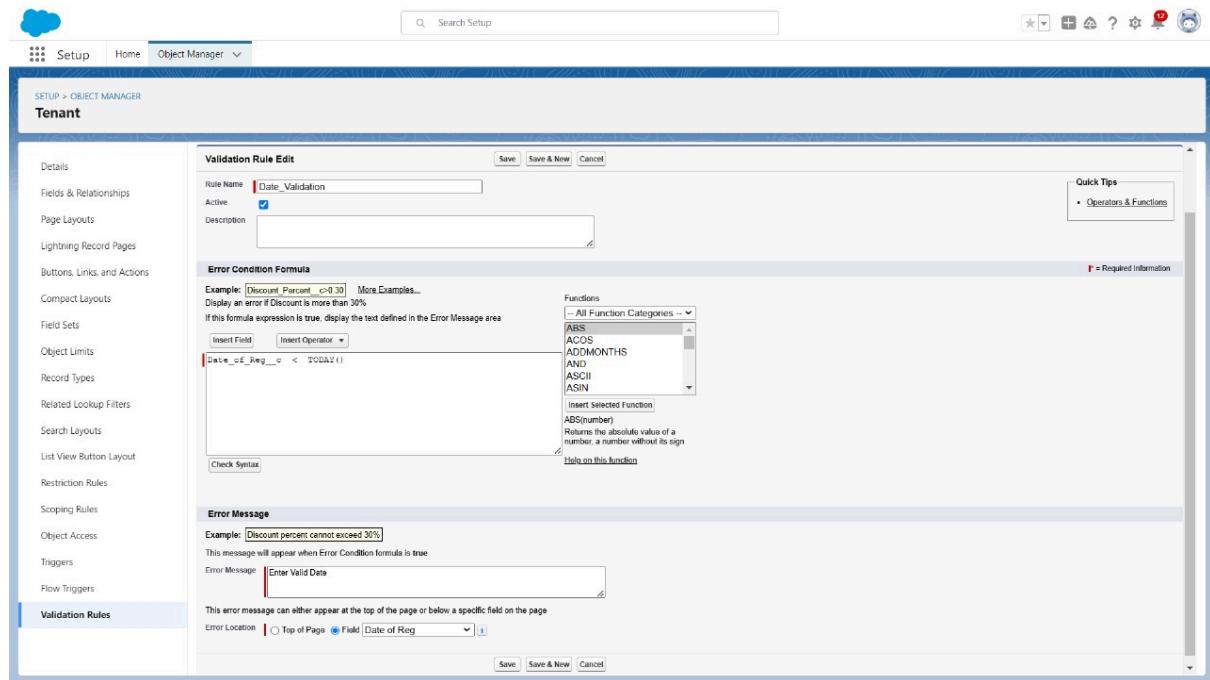
2] Click on the validation rule==> click New.

3] Enter the Rule name as “Date Validation “.

4] Insert the Error Condition Formula as : -

DateofReg_c < TODAY()

6] Enter the Error Message as “Enter Valid Date”, select the Error location as Field and select the field as “DateOfReg”, and click Save.



2 Create Fields on lease tracking

1. While still on your salesforce account, navigate to the gear icon present in the top right corner. You will notice Setup and click on setup.
2. You will now be navigated to the setup page, and click on object manager and search for object “Tenant”.
3. Click on “Fields & Relationships” in the left panel.
4. Click on New and choose the data type Master Detail Relationship tenant and first name : Related Tenant
5. Click next and fill the following details in the mentioned.
6. Click Next, Next and click on “Save and New”.

S No	Field Label	Data Type
1	Date of Possession	Date
2	End Date of Possession	Date
3	Total Year of Contract	Number
4	Total rent(Yearly)	Number
5	Amount Paid	Number
6	Amount to be paid	Formula field (Total Rent - Amount Paid) Return Data Type- Number

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount Paid	Amount_Paid__c	Number(18, 0)		
Amount to be paid	Amount_to_be_paid__c	Formula (Number)		
Created By	CreatedById	Lookup(User)		
Date of Possession	Date_of_Possession__c	Date		
End Date of Possession	End_Date_of_Possession__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Lease Tracking No	Name	Auto Number	✓	
Related Tenant	Related_Tenant__c	Master-Detail(Tenant)	✓	
Total rent(Yearly)	Total_rent_Yearly__c	Number(18, 0)		
Total Year of Contract	Total_Year_of_Contract__c	Number(18, 0)		

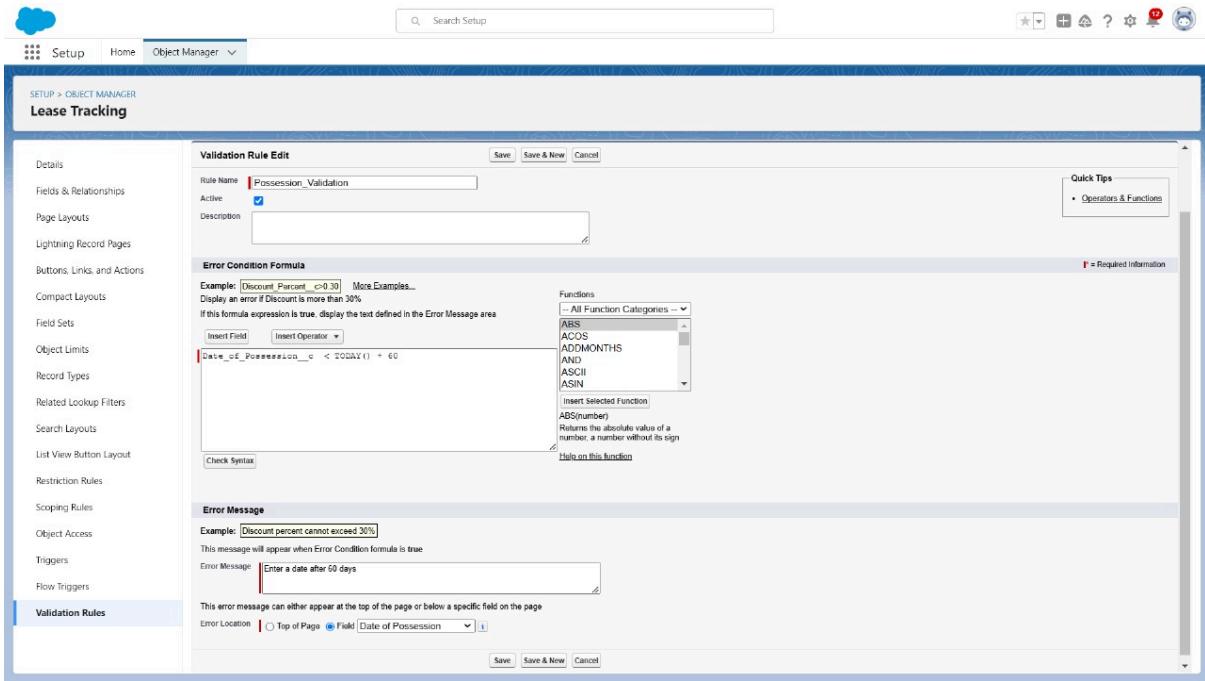
Create Validation Rule For Lease Tracking Object :

A) Create Validation rule on Date of Possession:

Note:- check if the Date of Possession is after 60 days from today or not if not then show error.

- 1] Go to setup ==> click on Object Manager ==> type object name(Lease tracking) in quick find bar==>click on the object.
- 2] Click on the validation rule ==> click New.
- 3] Enter the Rule name as “Possession Validation“.
- 4] Insert the Error Condition Formula as : -


```
Date of Possession < TODAY() + 60
```
- 5] Enter the Error Message as “Enter a date after 60 days ”, select the Error location as Field and select the field as “DateofPossession”, and click Save.



3 Create Fields on tenant issue:

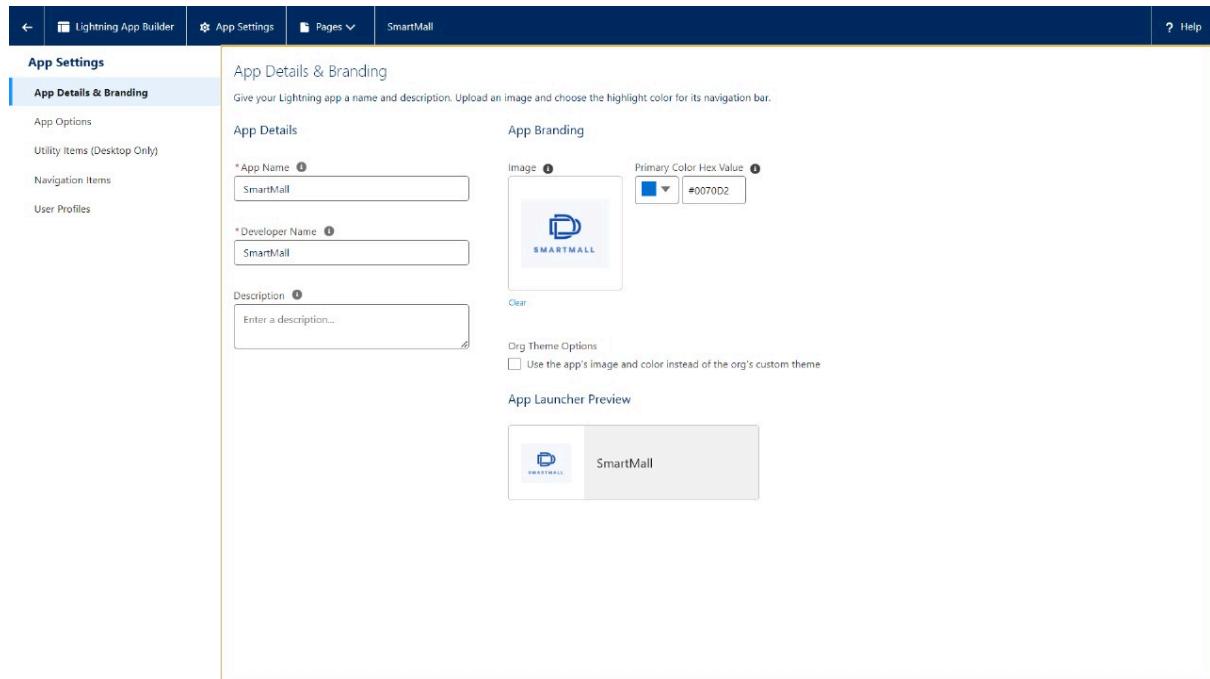
1. While still on your salesforce account, navigate to the gear icon present in the top right corner. You will notice Setup and click on setup.
2. You will now be navigated to the setup page, and click on object manager and search for object “Tenant”.
3. Click on “Fields & Relationships” in the left panel.
4. Click on New and choose the data type Master Detail Relationship tenant and first name : Related Tenant
5. Click next and fill the following details in the mentioned.
6. Click Next, Next and click on “Save and New”.

S No	Field Label	Data Type
1	Related tenant	Master Detail Relationship (Related to - Tenant)
2	Issue Related to	Multi Select Picklist 1) ELECTRICITY 2) INFRASTRUCTURE 3) PLUMBING 4) RENT 5) OTHER
3	Subject	Text Are (long)
4	Phone Number	Number
5	Status	Pick List 1. Not contacted 2. Open 3. In progress 4. Working 5. closed
6	Priority	Picklist 1. Low 2. Medium 3. High
7	Origin	Picklist 1. Phone 2. Mail 3. Web
8	Email id	Email
9	Date	Date (Default Value - Today())

Milestone 4 -Create the Lightning App:

create custom app in salesforce:

1. Go to setup, by clicking the gear icon present in the top right corner.
2. Navigate to the Home bar and in the quick find box, search for App.
3. Click on APP MANAGER.
4. You can notice the screen like this. Now click on New Lightning App. You will find like this below.
5. Enter the App name(Here we entered ‘SmartMall’),the developer name gets automatically populated. If an image is required, you can browse the image and upload it.



6. Click Next, Next and you can see a Navigation Items window like this:
7. In the filter list, enter Tenant , Lease Tracking, Tenant issues and move them in the Selected items from Available items.

1. Click on Next , and you can see User Profiles. This option is used when we want only certain profiles to access them.
2. Enter System Administrator in the filter box and add the system Administrator to the selected profile list.

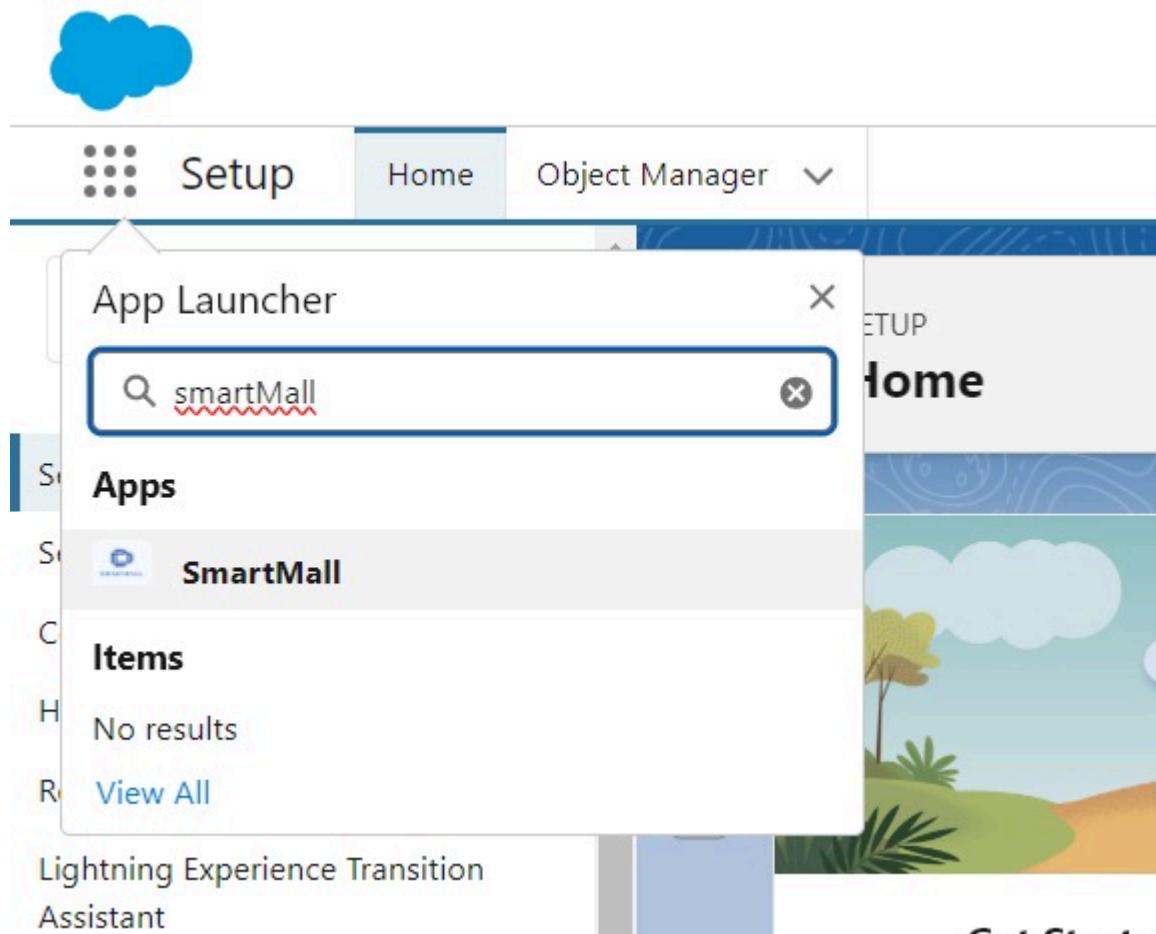
3. Click on Save and Finish.
4. Now navigate to the App launcher and search for SmartMall and you can find the SmartMall app.

Milestone 5 - 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:

- 1) Click on the App Launcher and search Tenant Object then click New in the right corner to create a record.



- 2) Fill every field with valid data, especially the fields on which you have created a validation rule.
- 3) If you Enter Phone Number more or less than 10 digits it will show an error.
- 4) Similarly, if you enter DateofReg a Past date it will show an error.
- 5) After creating a record the page will look like this
[Note]: Create at least 10 records in the tenant object.

Inserting Records in Lease Tracking Object:

- 1) Click on the App Launcher and search Lease Tracking Object then click New in the right corner to create a record.
- 2) Fill every field with valid data, especially the fields on which you have created a validation rule and Give each tenant related to each lease tracking.
- 3) If you Enter Date before the next 60 days it will show an error.
- 4) Similarly, if you enter Total rent and Amount Paid the Amount to be paid formula field will be added directly.
- 5) After creating a record the page will look like this

[Note]: Create at least 10 records in the Lease Tracking object.

Lease Tracking No
- TT - 000011

Related Tenant
mohan

Date of Possession
24/01/2025

End Date of Possession
16/01/2025

Total Year of Contract
5

Total rent(Yearly)
6,00,000

Amount Paid
5,00,000

Amount to be paid
1,00,000.00

This field is calculated upon save.

Created By
jothieesh s v, 11/11/2024, 11:59 am

Last Modified By
jothieesh s v, 11/11/2024, 12:27 pm

Edit - TT - 000011

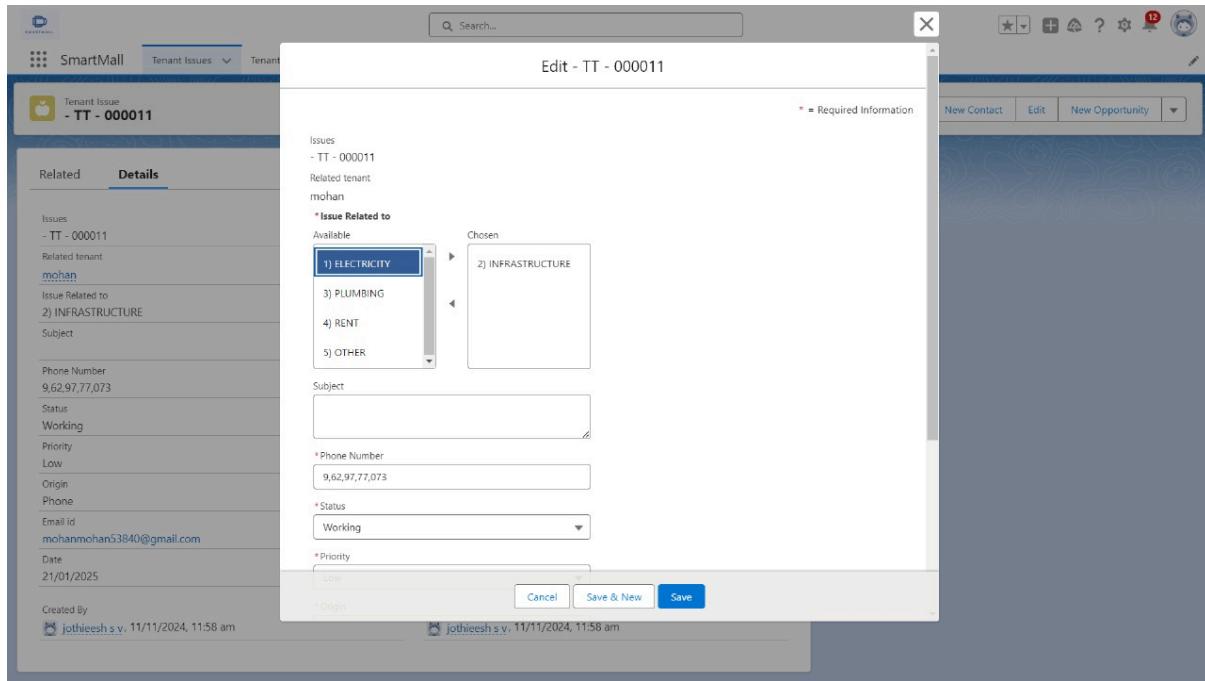
* = Required Information

Cancel Save & New Save

Inserting Records in Tenants Issues object:

- 1) Click on the App Launcher and search Tenant Issues Object then click New in the right corner to create a record.
- 2) Fill every field with valid data.
- 3) Give each tenant related to each issue.
- 5) After creating a record the page will look like this

[Note]: Create at least 10 records in the tenants issues object.



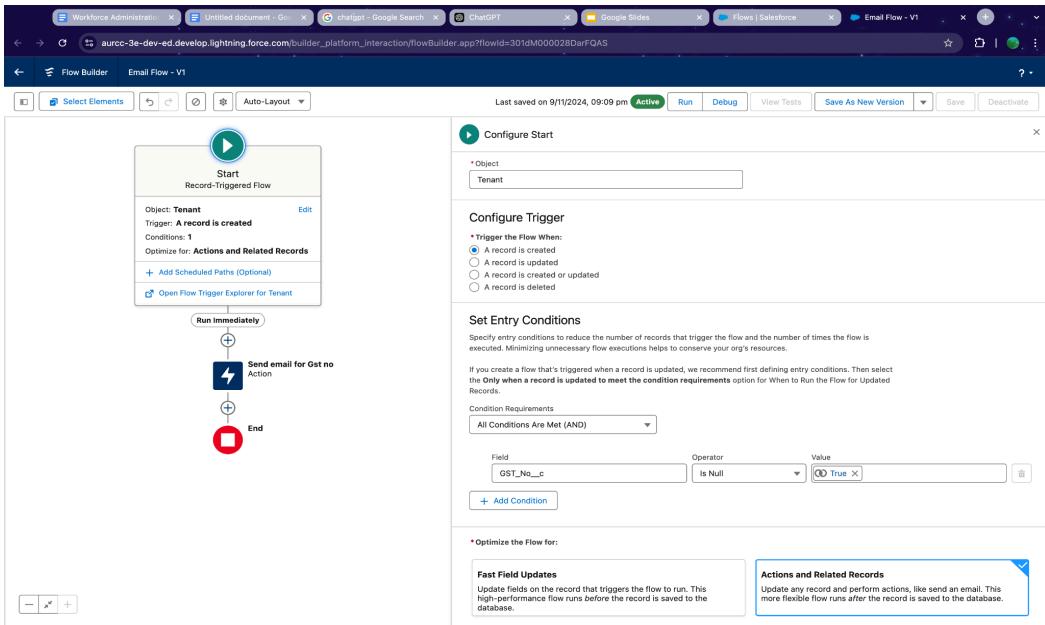
Milestone 6 - Create Flows:

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

Whenever tenant record is created and the GST No field in tenant Object is empty a mail should be sent to the tenant requesting the GST No.

- 1) To create a flow click on setup==> Flow ==> Click on New Flow==> Select Record Triggered Flow
- 2) In Trigger the flow when Select A record is created
- 3) Select Condition required All Conditions are met (AND)
- 4) Select Field - GST_No__c , Operator - Is Null , Value - True.



5) Optimize the Flow for: Actions and Related Records

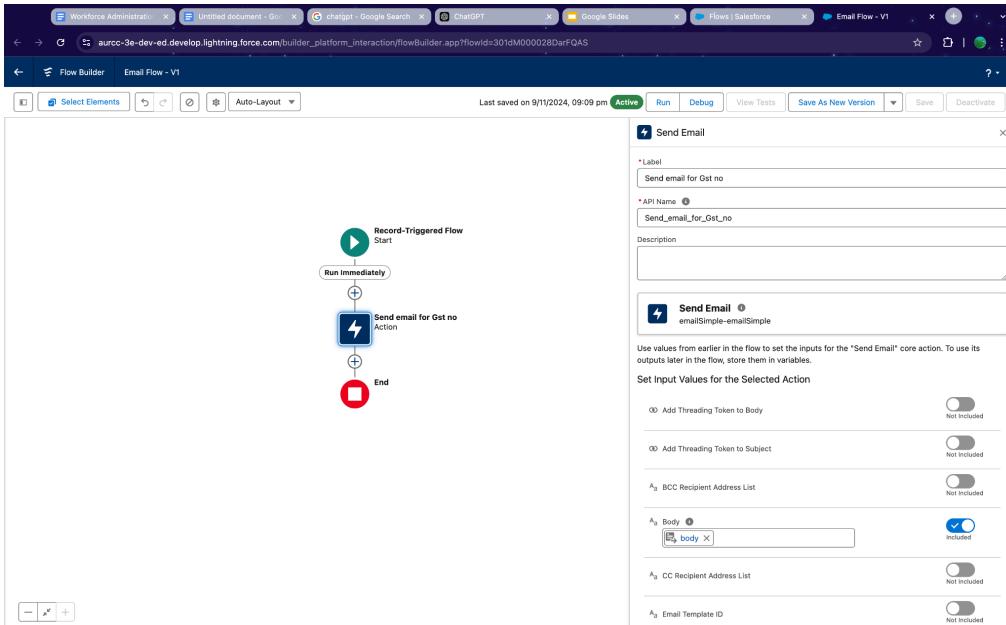
6) Add Element and choose ACTION in the search bar Search Send Email.

7) Label Name - Send email for Gst no, Description - This email is to alert the tenant that he or she has not submitted the GST NO yet.

8) Include Body And Create a Resource - Text Template As below-

9) Include Recipient ID and from profile select tenant Email id.

10) Include Subject and enter - Regarding your GST Details



11) Click on Save and Name the Flow as Email Flow for tenant and Save.

12) Activate the flow.

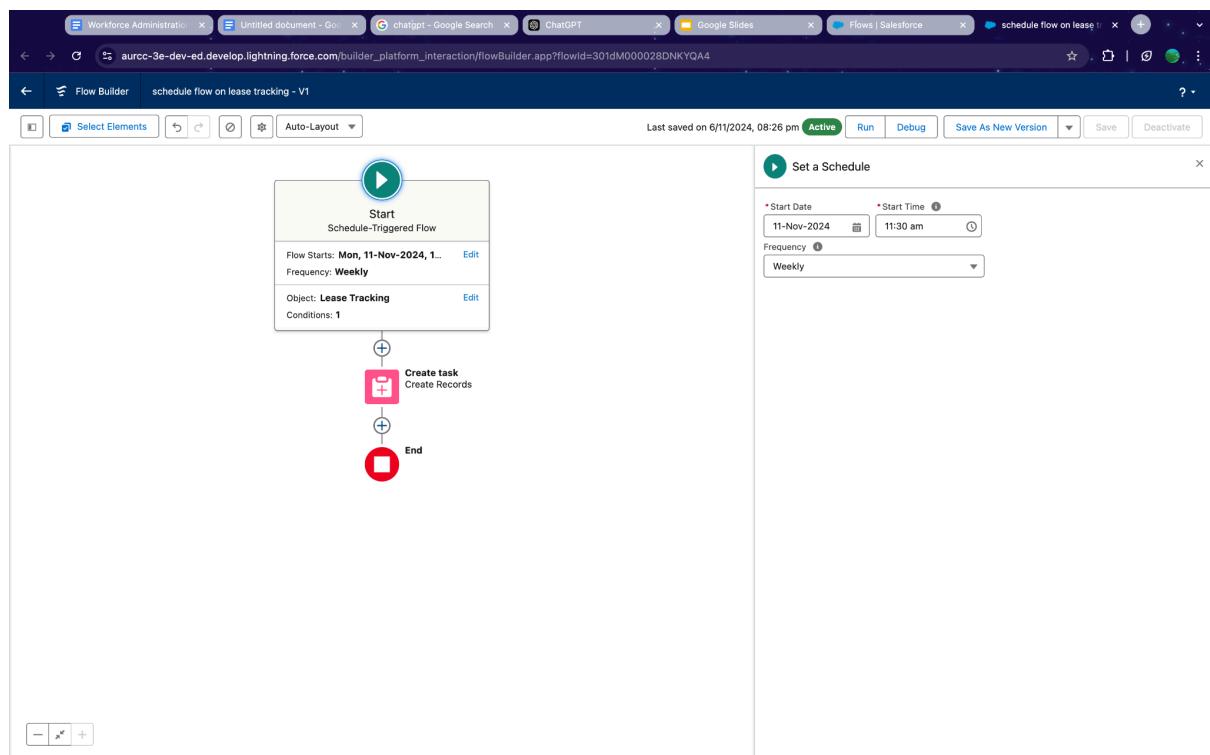
Create a Schedule Flow on Lease Management Object:

If the End Date is within Next 1 year create a task to the Lease tracking weekly on every Monday.

1) To create a flow click on setup ==> Flow ==> Click on New Flow==> Select Schedule-Triggered Flow

2) Set the Schedule Date - Any Monday , Time - 11.30, Frequency - Weekly.

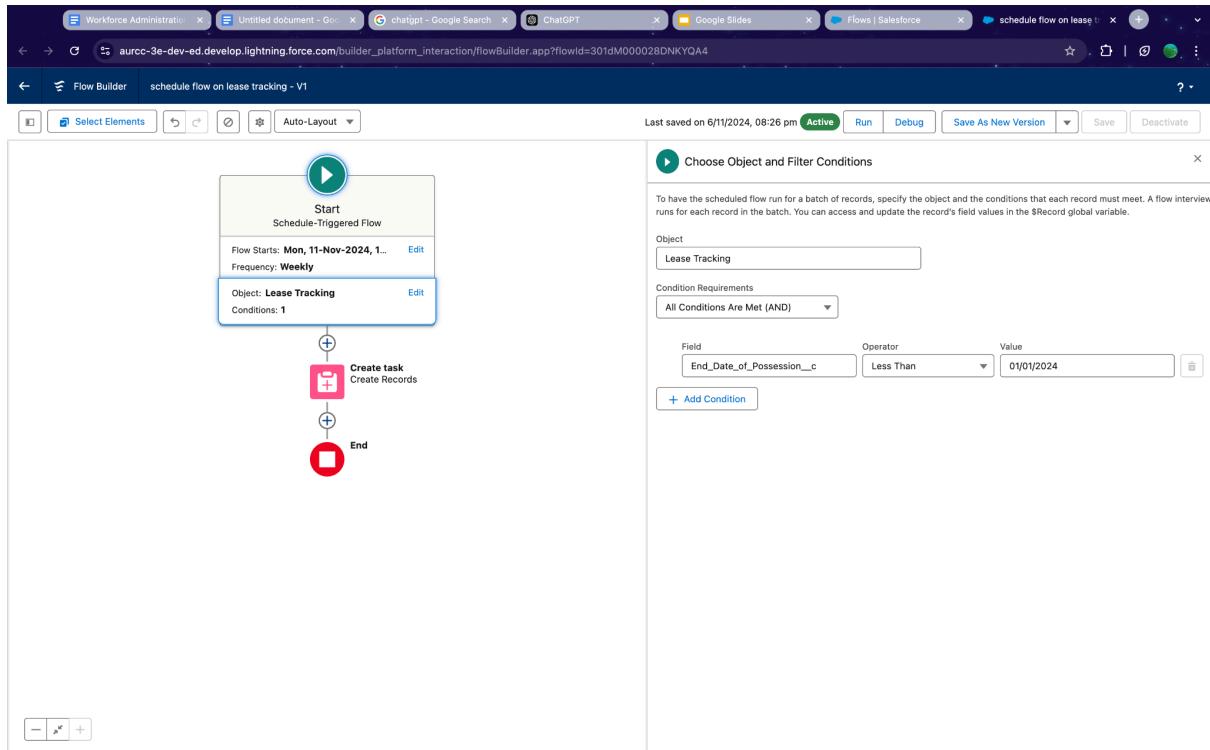
3) Choose Object as Lease Tracking , Condition Requirements - All Conditions are met(AND)



4) Enter field as End_Date_of_Possession__c

5) Operator - Less than

6) Value - 1/1/2024



7) Create a Record give labe as Create task

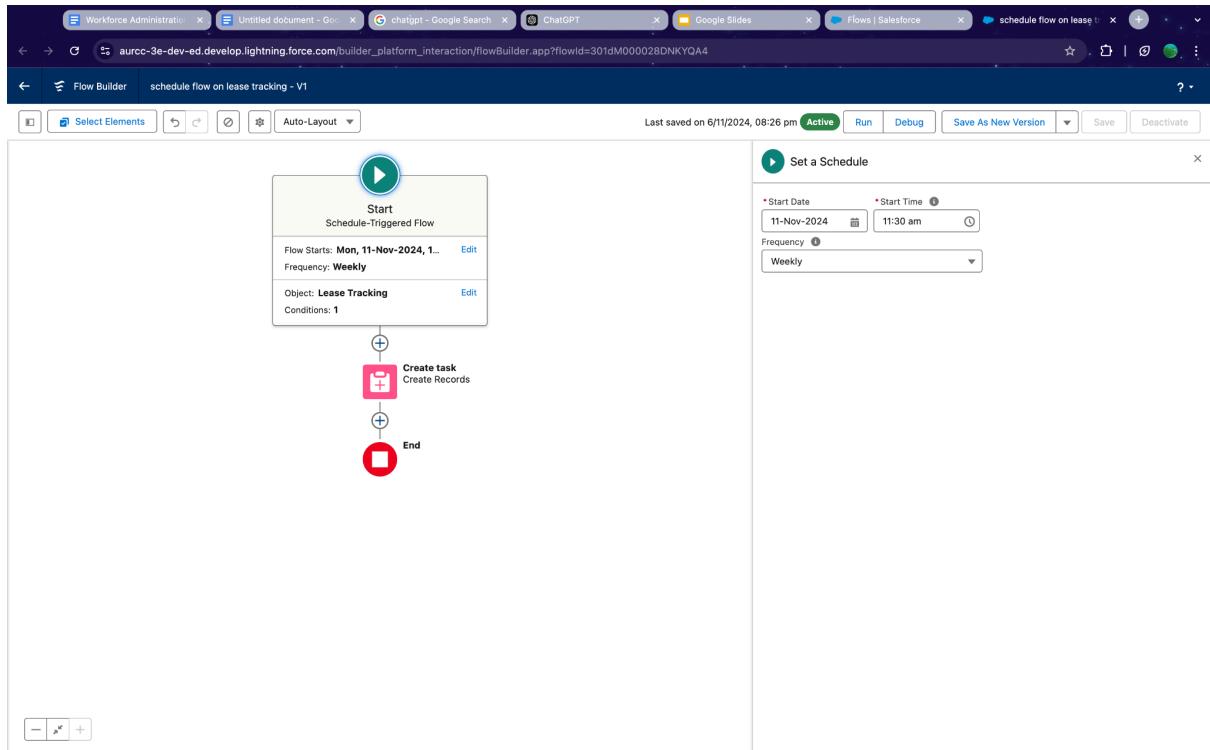
8) How many Records to create - one

9) How to Set the Record Fields - Use Separate Values

10) object - Task

11) Select the field and map them as below : -

12) Subject of the Task - your possession is going to end soon. Please Contact with Manager to renew your Possession or to End the contract.



13) Save the flow and label it as 'schedule flow on lease tracking'

14) Activate the flow.

Milestone 7 - Apex Triggers:

A trigger is a set of Apex code that runs before or after DML(Data Manipulation Language) events. A DML event could be a variety of data processing tasks that include the standard insert, update, and delete commands.

With Apex triggers, you can automate tasks that would otherwise be nearly impossible to accomplish using only the Salesforce user interface. Triggers enable you to create custom scripts that you can implement according to your needs, and the only limitation is your coding skills.

There are two Salesforce Apex trigger types:

Before triggers. These are helpful in cases that require a validation process before accepting a change. They run before any database changes. After triggers. These are helpful in cases where you need to modify your database records and when the necessary value is stored in other records. They run after any database changes. Both types will help you perform custom tasks and manage records effectively. They can help you perform bulk actions as they can handle several records simultaneously.

How to create a new trigger :

1. While still in the trailhead account, navigate to the gear icon in the top right corner.
2. Click on developer console and you will be navigated to a new console window.
3. Click on the File menu in the toolbar, and click on new Trigger.

Enter the trigger name and the object to be triggered.

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');  
            }  
        }  
    }  
}
```

Milestone 8 - 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;  
    }  
}
```

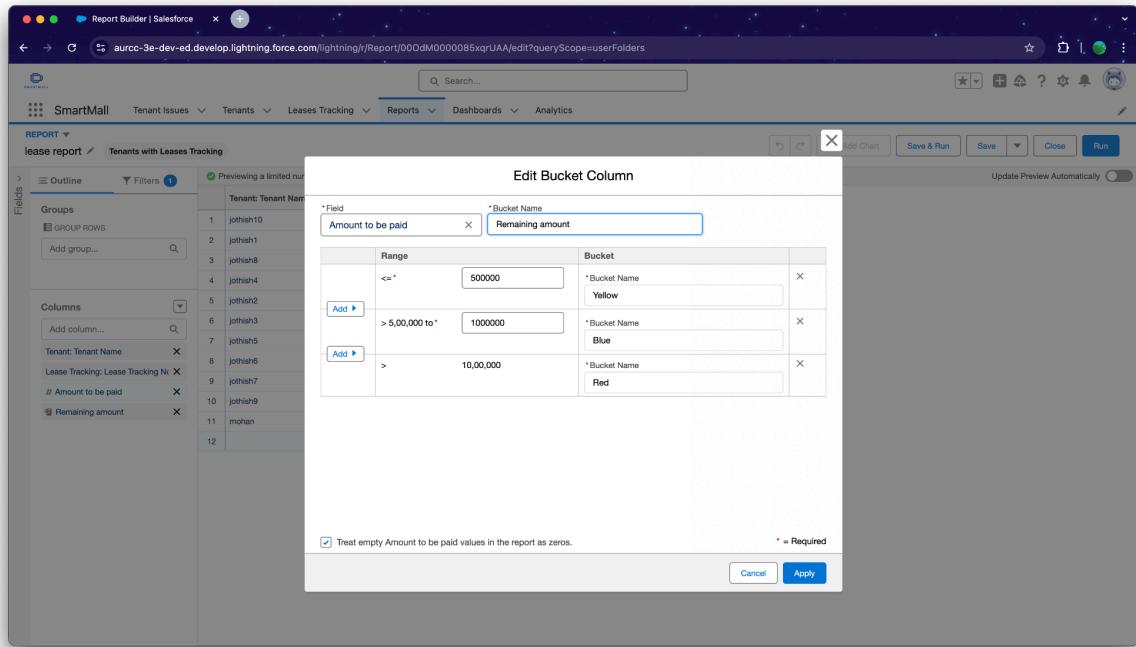
Milestone 9 - Create Reports And Dashboards:

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.

1 lease Management Records

The Manager needs a report which shows the tenant and their joining date and their Remaining payment details and also group this by date of Registration, and make a bucket list of remaining amount as greater than 1000000 as red, less than 1000 and greater than 500000 as blue and less than equal to 500000 as yellow.

- 1) Create a new Folder and name it as MallReports
- 2) Click On new report ==> Select object Activities with LeaseTracking ==> Click on start report
- 3) Click on the Amount to be paid column and click on bucket this list and name it as Remaining amount
- 4) Save the report named as lease report and Save it in MallReports.



2 Tenant issue Records

Now the manager is asking for a report on issues which has not been contacted or Open yet and has high priority which are directly encountered by Phone and Mail and the date of issue is from last 7 days

- 1) Click On new report ==> Select object Activities with Tenant issue==> Click on start report
- 2) Click on save, enter Name - Issue Report
- 3) Choose the folder Mall Reports and save.

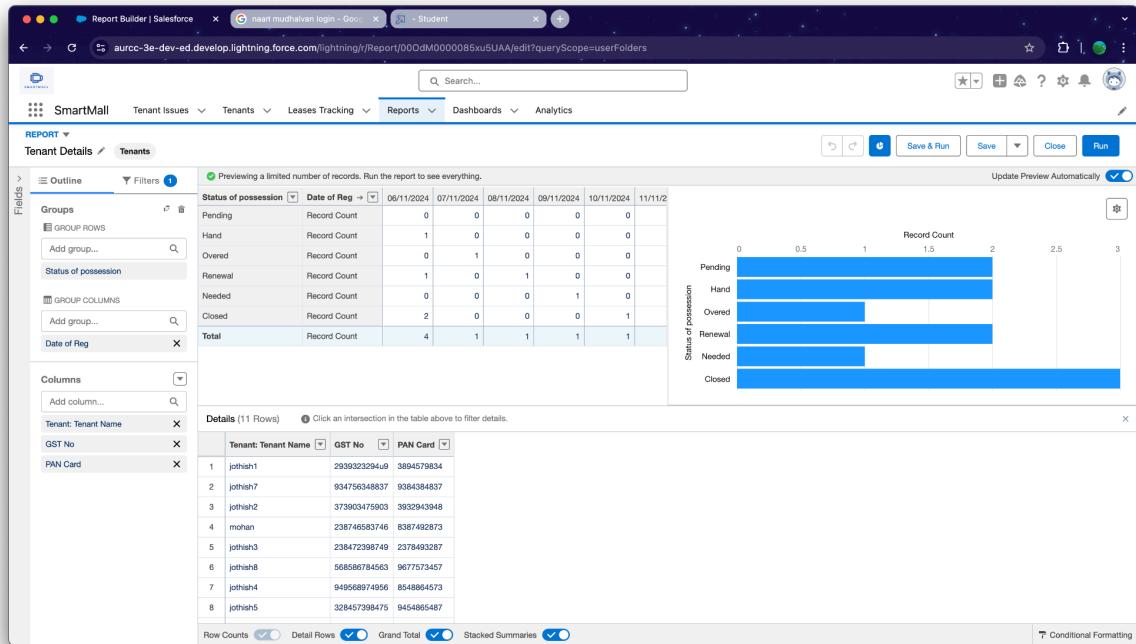
The screenshot shows the Report Builder interface for a Salesforce application. The report is titled "Tenants with Tenant Issues". The data is grouped by Date, Tenant Name, Origin, Priority, and Status. The report includes subtotals for each group and a total row at the bottom.

Date	Tenant Name	Origin	Priority	Status
20/11/2024 (2)	jothish8 jothish1	Phone Phone	High High	In progress Not contacted
Subtotal				
21/11/2024 (2)	jothish9 jothish10	Web Phone	High High	Open Not contacted
Subtotal				
26/11/2024 (1)	jothish2	Mail	Low	Working
Subtotal				
27/11/2024 (2)	jothish5 jothish6	Mail Phone	Low Medium	In progress In progress
Subtotal				
28/11/2024 (3)	jothish4 jothish3 jothish7	Web Mail Phone	Medium Low Medium	closed Not contacted In progress
Subtotal				
21/01/2025 (1)	mohan	Phone	Low	Working
Subtotal				
Total (11)				

3 Tenant Records

Now, The Manager wants a Report which shows all the pending possessions and also shows the tenant's Pan Card no and GST NO and group date of reg by column and row by Status of Possession.

- 1) Click On new report ==> Select object Tenants ==> Click on start report
- 2) Choose the folder Mall Reports.
- 3) Save the report and Name it as Tenant Details.



Create a Dashboard

Very Good, You have created multiple reports but now for better convenience the owner wants a Dashboard which shows the data of these reports, So Create a Dashboard and follow the instruction below -

- 1) To Create a Dashboard first create a folder to store the dashboard and save it as Mall Dashboard.
- 2) Now click on New Dashboard
- 3) Enter Name - December Dashboard, select the Mall Dashboard folder and click on create.
- 4) Click on + Component and Select Tenant Details, Display as Horizontal Bar Chart, Dimensions - Height * width = 10*12.
- 5) Click on + Component and Select Issue Report, Display as Lightning Table, Dimensions - Height * width = 8*6.
- 6) Click on + Component and Select lease report, Display as Lightning Table, Dimensions - Height * width = 8*6
- 7) Click on save and Done.

The screenshot shows a web browser window with a dark blue header bar. The title bar includes tabs for 'Recent | Dashboards | Sales...' and 'aurcc-3e-dev-ed.lightning.force.com'. The main content area is a dashboard titled 'SmartMall' with a search bar at the top. A sidebar on the left lists categories like 'Dashboards', 'Folders', and 'Favorites'. The main panel displays a table of recent dashboards, with one entry: 'December Dashboard' created by 'jothileesh s v' on '11/11/2024, 10:47 pm'. There are buttons for 'Search recent dashboards...', 'New Dashboard', 'New Folder', and a settings icon.

Tenant Records

The screenshot shows a web browser window with a dark blue header bar. The title bar includes tabs for 'December Dashboard | Sales...' and 'aurcc-3e-dev-ed.lightning.force.com'. The main content area is a dashboard titled 'December Dashboard' with a search bar at the top. On the left, there's a section for 'Tenant Details' showing a bar chart of 'Date of Reg' counts. Below it is a table of 'Lease report' data. A modal window titled 'Edit Widget' is open in the center, showing configuration options for a chart. The 'Preview' tab of the modal shows a bar chart titled 'Record Count' with data matching the chart on the dashboard. The modal has sections for 'Report' (set to 'Tenant Details'), 'Display As' (set to 'Bar'), 'Y-Axis' (set to 'Date of Reg'), and 'X-Axis' (set to 'Record Count'). Buttons for 'Cancel' and 'Update' are at the bottom. To the right of the modal, there's a table of 'Priority' and 'Status' data.

Lease Report

The screenshot shows the December Dashboard in the SmartMall application. On the left, there's a bar chart titled 'Tenant Details' showing data from 06/11/2024 to 16/11/2024. Below it is a table for 'lease report' with columns: Tenant: Tenant Name, Lease Tracking: Lease Tracking No, Amount to be paid, and Remaining amount. A modal window titled 'Edit Widget' is open over the dashboard, specifically for the 'lease report' section. The modal has tabs for 'Report' (selected) and 'Preview'. The 'Report' tab shows a table with data for tenants jothin1 through jothin5. The 'Preview' tab shows a grid view of the same data. At the bottom of the modal are 'Cancel' and 'Update' buttons.

Tenant: Tenant Name	Lease Tracking: Lease Tracking No	Amount to be paid	Remaining amount
jothin1	- TT - 000001	900.00	Yellow
jothin10	- TT - 000010	19.98m	Red
jothin2	- TT - 000002	-1.00e	Yellow
jothin3	- TT - 000003	500.00	Yellow
jothin4	- TT - 000004	2.50e	Yellow
jothin5	- TT - 000005	0.00	Yellow
jothin6	- TT - 000006	-2.00e	Yellow

Issue Report

The screenshot shows the December Dashboard in the SmartMall application. On the left, there's a bar chart titled 'Tenant Details' showing data from 06/11/2024 to 16/11/2024. Below it is a table for 'Issue report' with columns: Tenant: Tenant Name, Lease Tracking: Lease Tracking No, Origin, Priority, and Status. A modal window titled 'Edit Widget' is open over the dashboard, specifically for the 'Issue report' section. The modal has tabs for 'Report' (selected) and 'Preview'. The 'Report' tab shows a table with data for tenants jothin1 through jothin5. The 'Preview' tab shows a grid view of the same data. At the bottom of the modal are 'Cancel' and 'Update' buttons.

Tenant: Tenant Name	Origin	Priority	Status
jothin1	Phone	High	Not contacted
jothin10	Phone	High	Not contacted
jothin2	Mail	Low	Working
jothin3	Mail	Low	Not contacted
jothin4	Web	Medium	closed
jothin5	Mail	Low	In progress
jothin6	Phone	Medium	In progress

December Dashboard

The screenshot shows a Salesforce Lightning dashboard titled "December Dashboard". The dashboard includes the following components:

- Tenant Details:** A horizontal bar chart showing the count of records for each date of entry. The data is as follows:

Date of Reg	Record Count
06/11/2024	4
07/11/2024	1
08/11/2024	1
09/11/2024	1
10/11/2024	1
11/11/2024	2
16/11/2024	1

- Lease report:** A table showing lease tracking details for various tenants. The data is as follows:

Tenant: Tenant Name	Lease Tracking: Lease Tracking No	Amount to be paid	Remaining amount
jothish1	- TT - 000001	900.00	Yellow
jothish10	- TT - 000010	19.98	Red
jothish2	- TT - 000002	-1.00	Yellow
jothish3	- TT - 000003	500.00	Yellow
jothish4	- TT - 000004	2.50	Yellow
jothish5	- TT - 000005	0.00	Yellow
jothish6	- TT - 000006	-2.00	Yellow

- Issue Report:** A table showing tenant issues with details like origin, priority, and status. The data is as follows:

Tenant: Tenant Name	Origin	Priority	Status
jothish1	Phone	High	Not contacted
jothish10	Phone	High	Not contacted
jothish2	Mail	Low	Working
jothish3	Mail	Low	Not contacted
jothish4	Web	Medium	closed
jothish5	Mail	Low	In progress
jothish6	Phone	Medium	In progress