

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

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## **1. Project Overview:**

Using a CRM (Customer Relationship Management) application for managing a mall project can be highly beneficial. A CRM system allows you to store all project-related information in one place. This includes customer details, project timelines, budgets, and task progress. Having everything in one system makes it easier to access and manage data. CRMs provide analytics and reporting tools that give you insights into project performance. You can generate reports on various metrics, helping you make informed decisions.

## **2. Objectives:**

### **Business Goals:**

Optimize tenant mix and marketing strategies to attract more customers and boost sales. Provide excellent customer service and maintain strong tenant relationships

### **Specific Outcomes:**

#### **1. Higher Tenant Retention Rates**

By maintaining strong relationships with tenants and addressing their needs promptly, you can reduce tenant turnover.

#### **2. Increased Customer Footfall**

Targeted marketing campaigns and personalized customer engagement can attract more visitors to the mall.

#### **3. Optimized Space Utilization**

Efficiently manage and allocate retail space to maximize revenue and minimize vacancies.

#### **4. Improved Operational Efficiency**

Streamlined processes and centralized data management lead to reduced costs and improved productivity.

### **3. Salesforce Key Features and Concepts Utilized:**

- **Custom Objects:** Created objects for Customer, Vehicle, Appointment, Service, and Invoice.
- **Lookup Relationships:** Connected objects (e.g., Customer to Vehicle, Vehicle to Appointment) for relational data management.
- **Salesforce Flow:** Automations for appointment reminders, invoice generation, and status updates.
- **Validation Rules:** Ensuring correct data entry, such as valid appointment dates and VIN formats.
- **Reports and Dashboards:** For tracking performance, revenue, and service metrics.
- **Page Layouts and Record Types:** Customized layouts for different users (e.g., mechanics vs. administrative staff)

### **4.Detailed Steps to Solution Design:**

#### **1. To create an custom object**

##### **a. Tenant object:**

Setup

Home

Object Manager

Search Setup

12

SETUP > OBJECT MANAGER

Tenant

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name

Tenant\_c

Custom

✓

Singular Label

Tenant

Plural Label

Tenants

Enable Reports

✓

Track Activities

Track Field History

Deployment Status

Deployed

Help Settings

Standard salesforce.com Help Window

Edit

Delete

## b. Lease tracking object:

Setup

Home

Object Manager

Search Setup

12

SETUP > OBJECT MANAGER

Lease Tracking

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Details

Description

API Name

Lease\_Tracking\_\_c

Custom

✓

Singular Label

Lease Tracking

Plural Label

Leases Tracking

Enable Reports

✓

Track Activities

Track Field History

Deployment Status

Deployed

Help Settings

Standard salesforce.com Help Window

Edit

Delete

## c. Tenant issues:

The screenshot shows the Salesforce Setup interface for the 'Tenant Issue' object. The left sidebar contains a navigation menu with options like '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', and 'Restriction Rules'. The 'Details' section is selected, showing fields like 'API Name' (Tenant\_Issue\_\_c), 'Custom' (checked), 'Singular Label' (Tenant Issue), 'Plural Label' (Tenant Issues), 'Enable Reports' (checked), 'Track Activities' (checked), 'Track Field History' (checked), 'Deployment Status' (Deployed), 'Help Settings' (Standard salesforce.com Help Window), and 'Edit' and 'Delete' buttons.

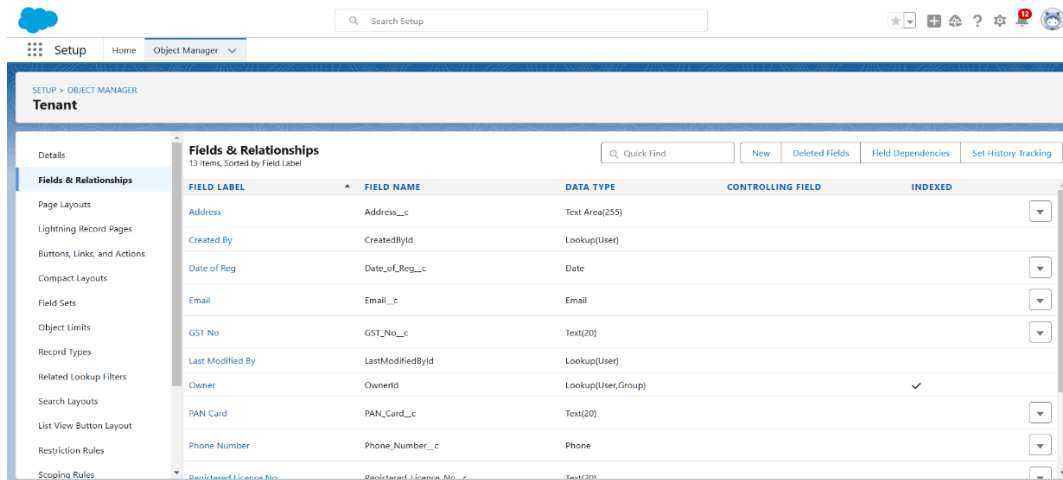
## 2.Tab:

### Create a Custom tab:

The screenshot shows the Salesforce Setup interface for the 'Custom Tabs' section. The left sidebar contains a navigation menu with options like 'Feature Settings', 'Analytics', 'Tableau', 'Tableau Embedding', 'Decision Tables', 'User Interface', 'Loaded Console Tab Limit', 'Rename Tabs and Labels', and 'Tabs'. The 'Custom Tabs' section is selected, showing a table of custom tabs. The table has columns for 'Action', 'Label', 'Tab Style', and 'Description'. The table lists three tabs: 'Leases Tracking' (Building Block), 'Tenant Issues' (IP Phone), and 'Tenants' (Building). Below the table, there are sections for 'Web Tabs', 'Visualforce Tabs', and 'Lightning Component Tabs', each with a 'New' button and a 'What is This?' link. A 'OneDrive - Personal' notification is visible in the bottom right corner.

### 3. Fields and Relationship:

#### a.Tenant:



Setup > OBJECT MANAGER

Tenant

Details

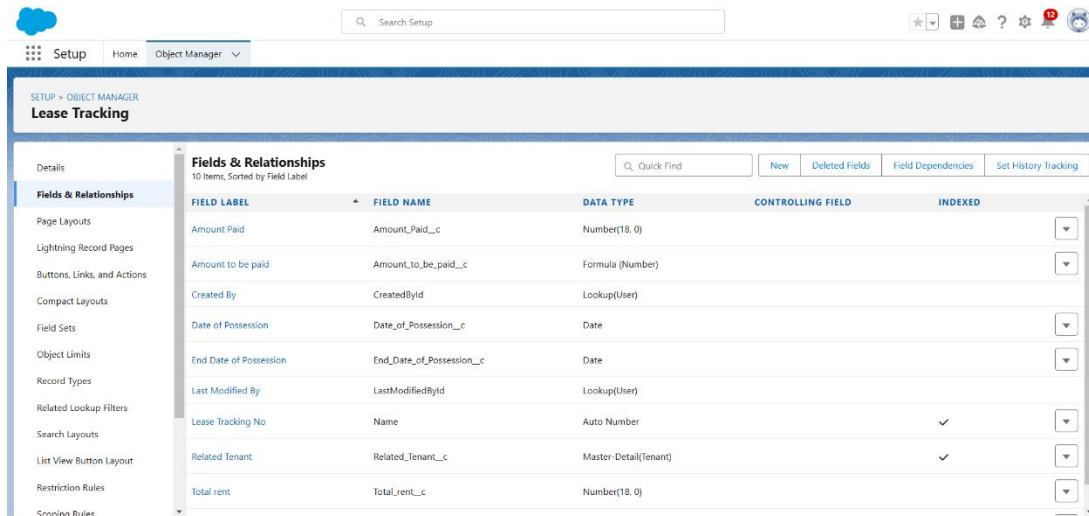
Fields & Relationships

13 Items, Sorted by Field Label

Q Quick Find New Deleted Fields Field Dependencies Set History Tracking

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(20)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
PAN Card	PAN_Card__c	Text(20)		
Phone Number	Phone_Number__c	Phone		
Registered License No	Registered_License_No__c	Text(20)		

#### b.Lease tracking:



Setup > OBJECT MANAGER

Lease Tracking

Details

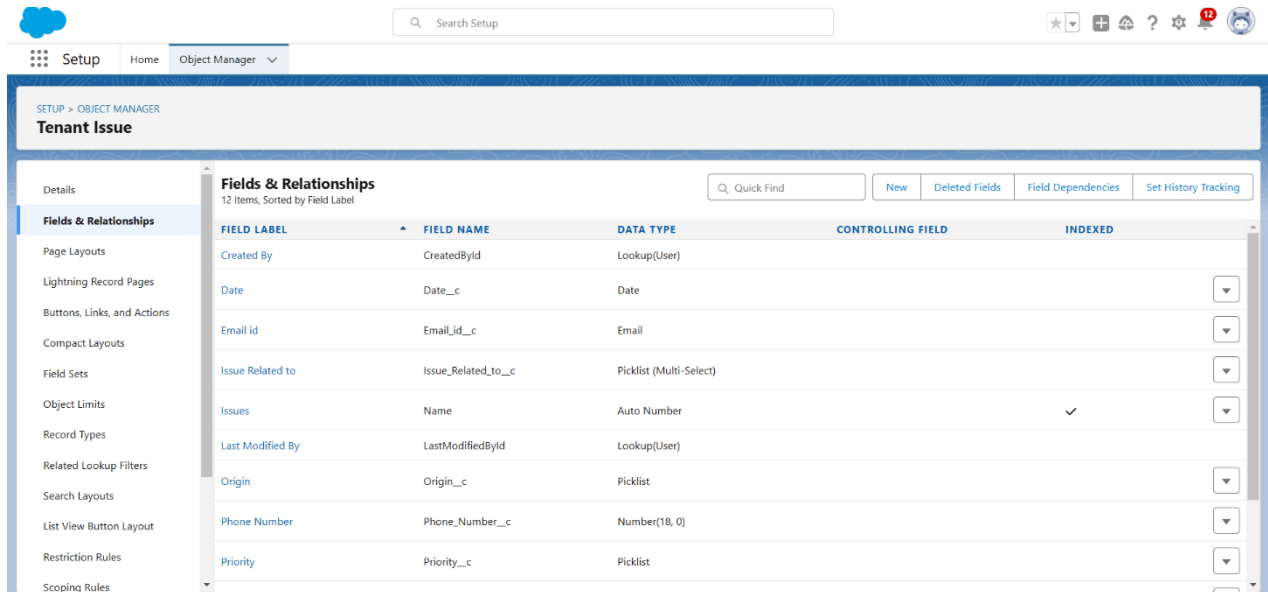
Fields & Relationships

10 Items, Sorted by Field Label

Q Quick Find New Deleted Fields Field Dependencies Set History Tracking

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	Total_Rent__c	Number(18, 0)		

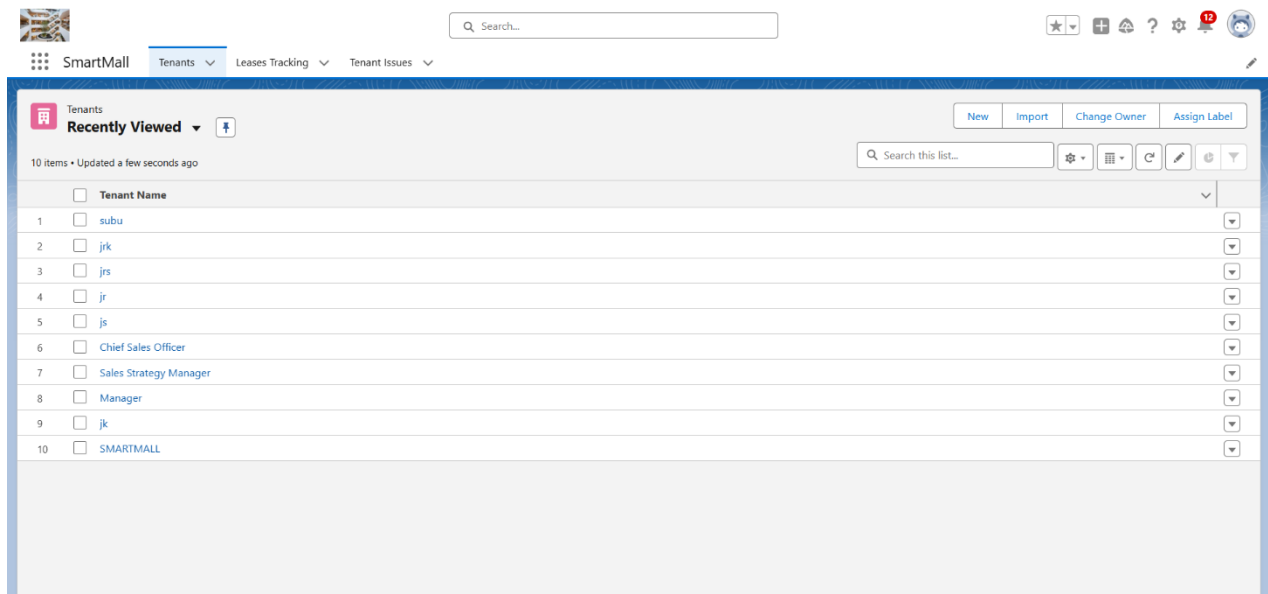
## c.Tenant issues:



The screenshot shows the Salesforce Setup interface for the 'Tenant Issue' object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships (selected), 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, and Scoping Rules. The main content area is titled 'Fields & Relationships' and shows a table of 12 items, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Created By (Lookup(User)), Date (Date), Email Id (Email), Issue Related to (Picklist (Multi-Select)), Issues (Auto Number, indexed), Last Modified By (Lookup(User)), Origin (Picklist), Phone Number (Number(18, 0)), and Priority (Picklist).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Date	Date__c	Date		
Email Id	EmailId__c	Email		
Issue Related to	Issue_Related_to__c	Picklist (Multi-Select)		
Issues	Name	Auto Number		✓
Last Modified By	LastModifiedById	Lookup(User)		
Origin	Origin__c	Picklist		
Phone Number	Phone_Number__c	Number(18, 0)		
Priority	Priority__c	Picklist		

## 4.Lightning app builder:



The screenshot shows the Salesforce Lightning App Builder interface for the 'Tenants' object. The top navigation bar includes 'SmartMall', 'Tenants' (selected), 'Leases Tracking', and 'Tenant Issues'. The main content area is titled 'Tenants' and shows a list of 10 items, sorted by Tenant Name. The list has columns for Tenant Name and a checkbox. The items listed are: 1. subu, 2. jrk, 3. jrs, 4. jr, 5. js, 6. Chief Sales Officer, 7. Sales Strategy Manager, 8. Manager, 9. jk, and 10. SMARTMALL.

Tenant Name	Checkbox
1. subu	<input type="checkbox"/>
2. jrk	<input type="checkbox"/>
3. jrs	<input type="checkbox"/>
4. jr	<input type="checkbox"/>
5. js	<input type="checkbox"/>
6. Chief Sales Officer	<input type="checkbox"/>
7. Sales Strategy Manager	<input type="checkbox"/>
8. Manager	<input type="checkbox"/>
9. jk	<input type="checkbox"/>
10. SMARTMALL	<input type="checkbox"/>

## 5. Records insertion:

### a. Tenant object:

The screenshot shows the 'Tenants' section of the SmartMall application. A modal window titled 'Information' is open, allowing the user to add a new tenant. The modal contains the following fields:

- Tenant Name** (Required): A text input field.
- Phone Number**: A text input field.
- Address**: A text input field.
- PAN Card**: A text input field.
- Date of Reg**: A date picker.
- Email**: A text input field.
- GST No**: A text input field.
- Owner**: A dropdown menu showing 'rohit.j'.

At the bottom of the modal, there are three buttons: 'Cancel', 'Save & New', and 'Save'. A note at the bottom left of the modal says 'Registered License No.'.

In the background, the 'Tenants' list is visible, showing 10 items. The 'Recently Viewed' section lists the following tenants:

Tenant Name
subu
jrk
jrs
jr
js
Chief Sales Officer
Sales Strategy Manager
Manager
jk
SMARTMALL

### b. Lease tracking:

The screenshot shows the 'Leases Tracking' section of the SmartMall application. The page displays a list of 5 items, updated a few seconds ago. The table has the following columns:

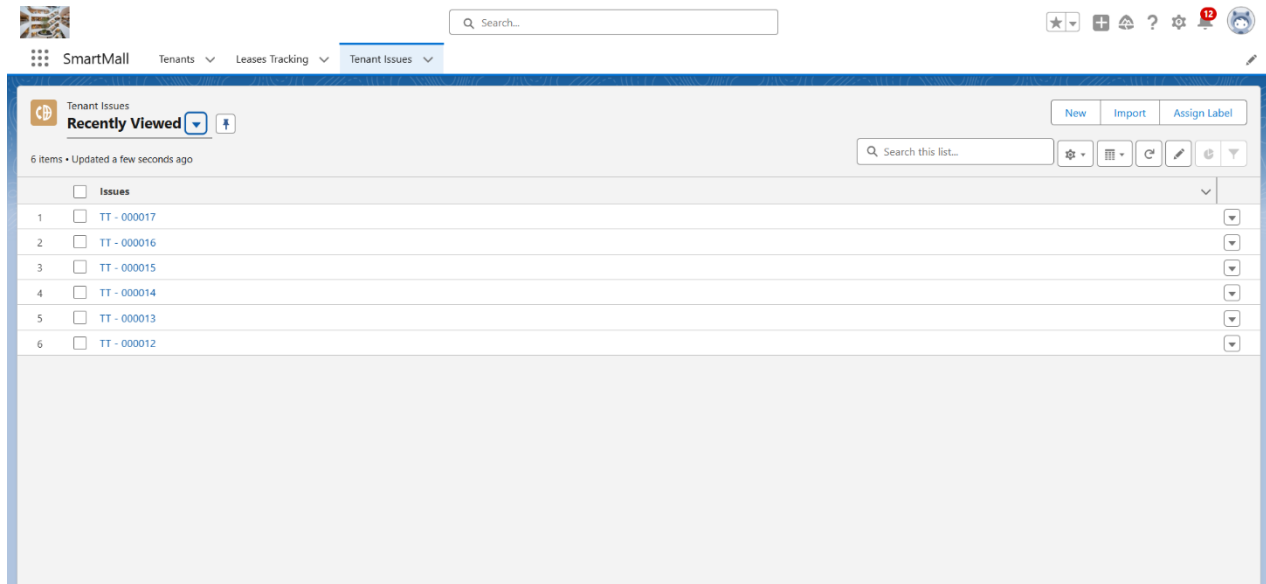
- Lease Tracking No**
- TT - 000005**
- TT - 000004**
- TT - 000003**
- TT - 000002**
- TT - 000001**

The table contains the following data:

Lease Tracking No
TT - 000005
TT - 000004
TT - 000003
TT - 000002
TT - 000001



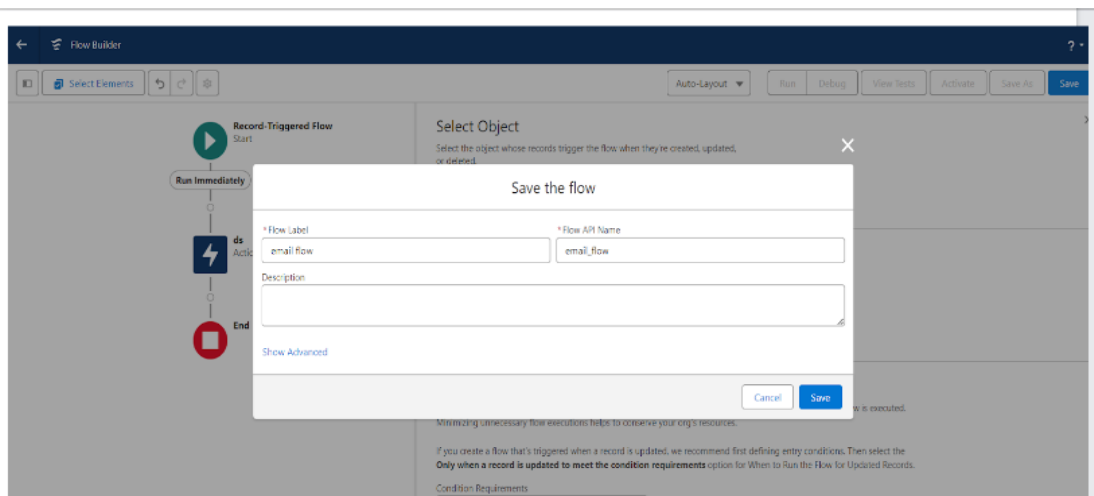
## c.Tenant issues:

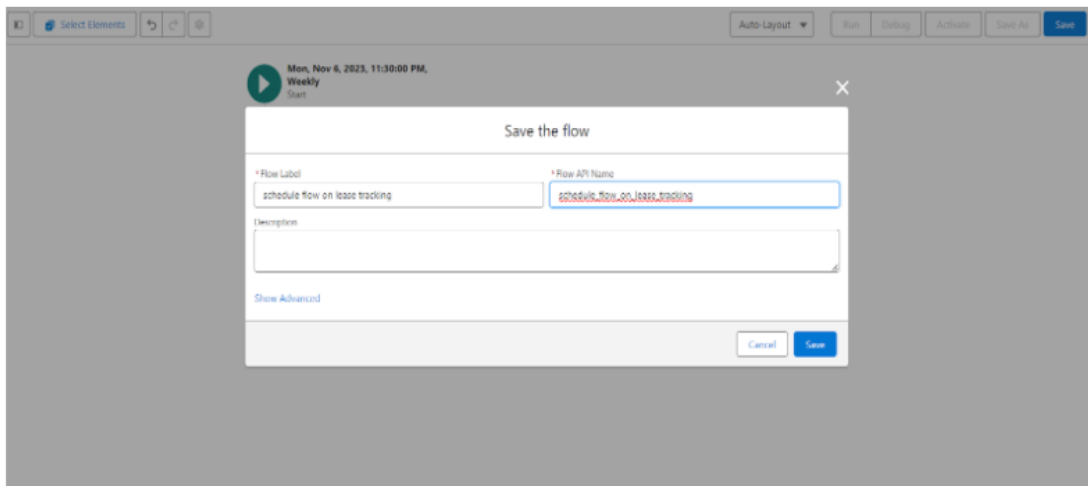


The screenshot shows the 'Tenant Issues' section of the SmartMall application. It features a search bar at the top, a navigation menu with 'Tenants', 'Leases Tracking', and 'Tenant Issues', and a 'Recently Viewed' tab. Below the tab, there is a list of 6 items, each with a checkbox and a unique ID.

	Issues	
1	<input type="checkbox"/> TT - 000017	
2	<input type="checkbox"/> TT - 000016	
3	<input type="checkbox"/> TT - 000015	
4	<input type="checkbox"/> TT - 000014	
5	<input type="checkbox"/> TT - 000013	
6	<input type="checkbox"/> TT - 000012	

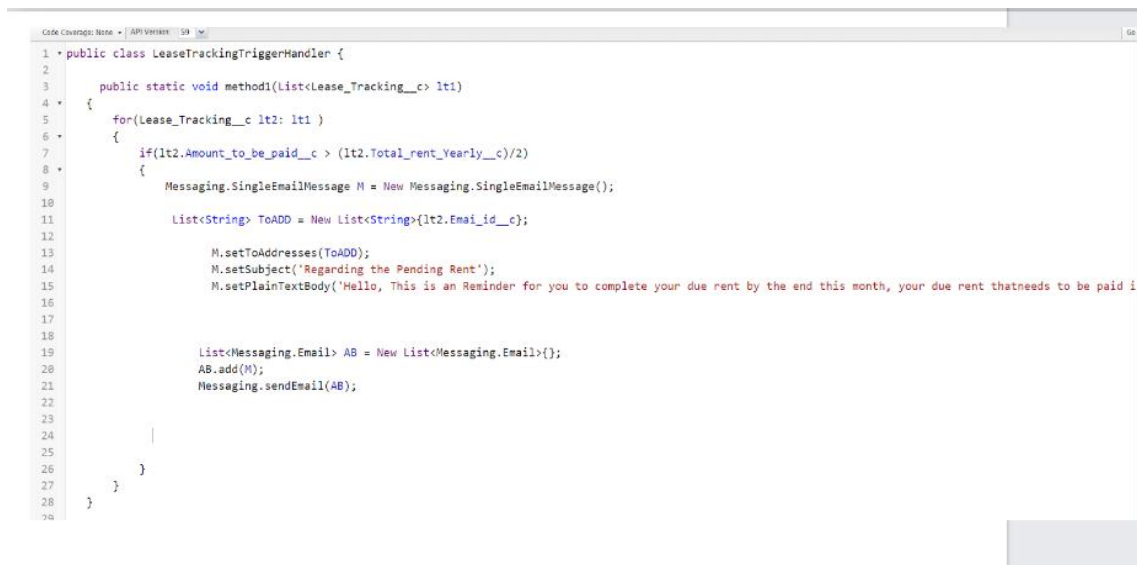
## 6.Create a flow:





## 5. Testing and Validation:

### 1. Apex Triggers:



```

1 public class TenantTriggerhandler {
2
3     public static void method1(List<Tenant__c> te)
4     {
5
6         for(Tenant__c tenant : te)
7         {
8             if(tenant.Pan_Card_no__c.length() > 10)
9             {
10                 tenant.addError('This Pan Card number is invalid, Please Enter Valid Pan Card number');
11             }
12         }
13     }
14 }
15 }

```

## 2.Asynchronous Apex:

### Schedule apex:

```

Code Coverage: None | API Version: 59
1 public class tenantschedulable implements Schedulable
2 {
3     public void execute(Schedulablecontext sc)
4     {
5         list<Tenant__c> ten = [SELECT Id, Status_of_Possession__c FROM Tenant__c ];
6         list<Tenant__c> tenantstodelete = New List<Tenant__c>();
7
8         for(Tenant__c te: ten)
9         {
10             if(te.Status_of_Possession__c == 'Closed')
11             {
12                 tenantstodelete.add(te);
13             }
14         }
15         Delete tenantstodelete;
16     }
17 }

```

# Reports and Dashboards:

## a. Lease management records:

REPORT ▼

New Tenants with Lease trackings Report ✎ Tenants with Lease trackings

⏮ ⏪ ⏩ ⏭ Add Chart Save & Run Save ▼ Close Run

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically ☒

Fields

Outline Filters 1

Groups

GROUP ROWS

Add group...

Labeling X

GROUP COLUMNS

Add group...

Columns

Add column...

# Amount to be paid X

Date of Possession X

Tenant: Tenant Name X

remaining amount X

Dated/Flag	Amount to be paid	Date of Possession	Tenant: Tenant Name	remaining amount
11/06/2023 (1)	300,000.00	06/06/24	pragati	yellow
Subtotal	300,000.00			
16/02/2024 (1)	300,000.00	2/06/2024	myself	yellow
	500,000.00	4/01/2024	nadeem	yellow
	1,000,000.00	2/6/2024	Nalu Ramesh Badge	blue
Subtotal	1,800,000.00			
12/02/2023 (1)	200,000.00	3/02/2024	sky	yellow
Subtotal	200,000.00			
12/06/2023 (1)	400,000.00		- nas	yellow
Subtotal	400,000.00			
3/15/2024 (1)	200,000.00	2/06/2024	Endu badge	yellow
Subtotal	200,000.00			
Total (7)	2,900,000.00			

## b. Tenant issues records:

REPORT ▼

New Tenants with tenants Issues Report ✎ Tenants with tenants Issues

⏮ ⏪ ⏩ ⏭ Add Chart Save & Run Save ▼ Close Run

Previewing a limited number of records. Run the report to see everything. Update Preview Automatically ☒

Fields

Outline Filters 3

Groups

GROUP ROWS

Add group...

Date X

GROUP COLUMNS

Add group...

Columns

Add column...

Origin X

Priority X

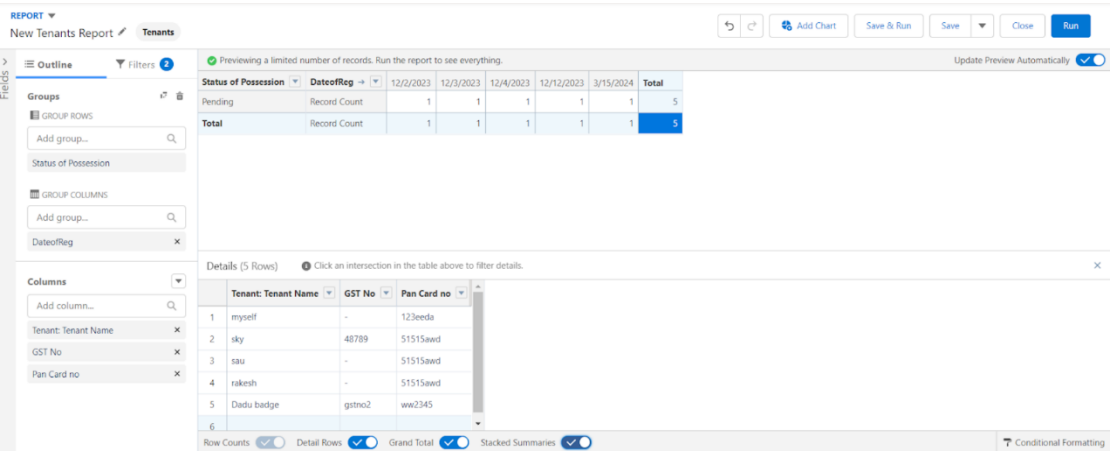
Status X

Tenant: Tenant Name X

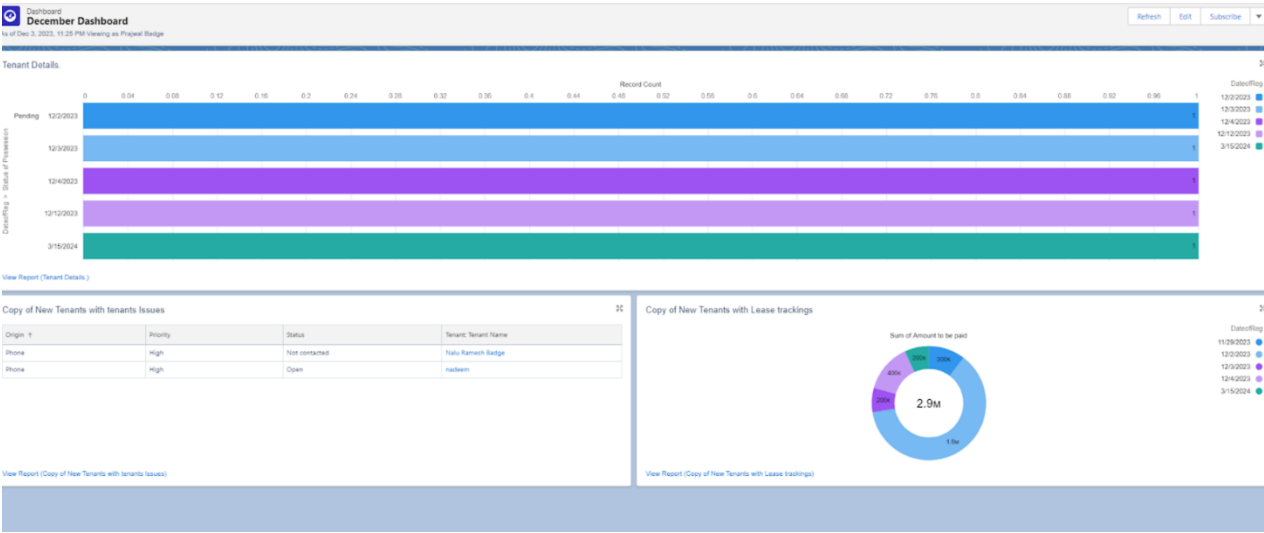
Date	Origin	Priority	Status	Tenant: Tenant Name
12/9/2023 (2)	Phone	High	Not contacted	Nalu Ramesh Badge
	Phone	High	Open	nadeem
Subtotal				
Total (2)				

Row Counts ☒ Detail Rows ☒ Subtotals ☒ Grand Total ☒

c.Tenant records:



d. Dashboard:



6.Key Scenarios Addressed by Salesforce in the Implementation Project:

a. Tenant Onboarding

Efficiently manage the process of bringing new tenants into the mall, from initial contact to finalizing lease agreements and moving in.

#### **b. Lease Management**

Keep track of lease terms, renewal dates, and rental payments. Automate reminders for lease expirations and upcoming payments.

#### **c. Customer Feedback**

Collect and analyze customer feedback to improve mall services and amenities. Use insights to implement changes that enhance the shopping experience.

#### **d. Marketing Campaigns**

Plan and execute targeted marketing campaigns to attract shoppers. Track the effectiveness of different strategies and adjust accordingly.

#### **e. Event Management**

Organize and manage events within the mall to increase foot traffic and engage the community. Coordinate logistics, promotions, and post-event analysis.

### **7. Conclusion:**

**Streamlined Management: Organize and oversee tasks, leases, and tenants effectively.**

**Enhanced Communication: Improve interactions among team members, tenants, and customers.**

**Data Centralization: Store all project-related information in a single, accessible location.**

**Performance Analytics: Utilize data-driven insights to optimize operations and marketing strategies.**

**Customer and Tenant Engagement: Maintain strong relationships and ensure high satisfaction rates.**

Project link: <https://arunai-e9-dev-ed.develop.lightning.force.com/lightning/setup/SetupOneHome/home>