ARUNAI ENGINEERING COLLEGE (Autonomous Institution)

Lease management

Salesforce Nan Mudhalvan Project

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Lease management

1.PROJECT OVERVIEW

A lease management project involves creating a system or application to efficiently handle the processes related to leasing real estate properties, equipment, or other assets. The goal is to streamline and automate various tasks associated with lease agreements, ensuring accurate record-keeping, compliance with regulations, and effective communication between parties involved.

Lease management in Salesforce involves using the platform to store and manage lease data centrally, automate workflows, and create approval processes for efficient lease operations. It supports document management with file storage and e-signatures, and offers powerful reporting and analytics through customizable dashboards. Integrations with ERP and accounting systems enable seamless financial tracking, while third-party apps extend its lease management capabilities.

Salesforce facilitates lease lifecycle management, from creation to termination, ensuring regulatory compliance with audit trails. Mobile access allows for on-the-go updates, while its customizable interface and collaboration tools enhance productivity and communication among stakeholders.

2. OBJECTIVES: BUSINESS GOALS AND SPECIFIC OUTCOMES

Tenant Relations

- **Objective**: Maintain positive relationships with tenants for long-term retention and stability.
- **How**: Effective communication, resolving disputes quickly, addressing tenant concerns, and offering flexible lease renewal options can improve tenant satisfaction and reduce turnover.

Lease Portfolio Management

- **Objective**: Manage and track a portfolio of leases across multiple properties.
- **How**: This involves using lease management software or systems to track key dates (e.g., renewal dates, rent payment due dates), lease terms, financial obligations, and property conditions for all leased properties.

Strategic Planning

- **Objective**: Align lease management with the broader strategic goals of the organization (whether a landlord or tenant).
- **How**: This could involve evaluating lease terms that fit the long-term goals of expansion, downsizing, or other corporate strategies

Enhanced Customer and Tenant Experience

- **Goal**: Provide a seamless, transparent, and engaging experience for tenants and stakeholders.

- **How**: Utilize Salesforce's CRM capabilities to maintain detailed tenant records, communication history, and proactive notifications.

Centralized Lease Data Management

- **Goal**: Ensure all lease-related information is accessible from a single, unified platform.
- **How**: Store and manage all documents, lease terms, and payment history in Salesforce, enabling quick access and reducing data silos.

Automated Notifications and Updates

- Set up alerts and updates to notify team members about progress or deadlines related to lease management objectives.
- Use reminders and notifications to keep objectives on track and ensure timely follow-ups.

Accurate Financial Tracking and Reporting

- **Customizable Objective Setting**
- Create specific, measurable, achievable, relevant, and time-bound (SMART) objectives related to lease management.
- **Linkage to Lease Management Metrics**
- Connect objectives to relevant metrics within Salesforce, such as revenue from lease agreements and renewal rates.
- **Collaborative Goal Tracking**
- Enable teams to work collaboratively towards common objectives by sharing progress updates.
- **Integrated Reporting and Dashboards**
- Use dashboards that display key performance indicators (KPIs) related to lease objectives.
- **Alignment with Broader Strategic Objectives**

- Ensure that lease management objectives align with company-wide goals like profitability and sustainability.

3. Key Salesforce Features Utilized in Lease Management

1. **Custom Objects and Fields**
    a. Create custom objects to represent leases, tenants, and properties, with tailored fields for tracking lease-specific data such as terms, payment schedules, and renewal dates.
2. **Workflow Rules and Process Builder**
    a. Automate lease-related processes such as approval workflows, payment reminders, and notifications for lease expiration or renewals.
    b. Utilize **Salesforce Flow** for more complex automation, enabling customized processes based on lease criteria.
3. **Record Types and Page Layouts**
    a. Use record types to manage different types of leases (e.g., residential, commercial) with distinct layouts and data fields.
    b. Customize page layouts to ensure relevant lease details are visible to the appropriate user roles.
4. **Document Management**
    a. Store and manage lease agreements, amendments, and supporting documents using **Salesforce Files** or integrate with external document management systems.
    b. Use document generation tools like **Salesforce CPQ** or third-party apps to create lease documents directly within Salesforce.
5. **Reports and Dashboards**
    a. Build custom reports and dashboards to provide insights into lease performance, occupancy rates, and financial metrics.
    b. Utilize **Salesforce's reporting tools** to track KPIs such as lease revenue, payment history, and upcoming expirations.
6. **Notifications and Alerts**

   a. Set up automated email notifications, tasks, and alerts to keep stakeholders informed about important lease milestones.
   b. Use **Salesforce Chatter** to facilitate internal discussions and real-time updates on lease management activities.

7. **Role-Based Access Control**
   a. Ensure secure and role-specific access to lease data by leveraging Salesforce's robust **security and sharing settings**.
   b. Use **profiles and permission sets** to control who can view, edit, or manage lease records.
8. **Integration Capabilities**
   a. Integrate Salesforce with accounting and ERP systems for seamless financial tracking and data exchange.
   b. Use **Salesforce AppExchange** to find specialized lease management solutions or integrate with property management tools for enhanced functionality.
9. **Mobile Accessibility**
   a. Utilize the **Salesforce mobile app** to enable property managers and leasing agents to access and update lease information on the go, ensuring data is always up to date.
10. **Einstein Analytics and AI**
   a. Use **Salesforce Einstein Analytics** for predictive insights and enhanced reporting on leasing trends, vacancy forecasting, and tenant behavior analysis.
   b. Implement AI-powered chatbots or guided leasing assistance to improve tenant interactions and responses.
11. **Audit Trail and Compliance**
   a. Maintain an audit trail of all lease activities for compliance and transparency, using Salesforce's built-in tracking features.
   b. Automate compliance checks to ensure adherence to lease terms and regulatory requirements.

Concepts in Lease Management

Data Model Customization

- Design a lease management data model that includes relationships between leases, properties, tenants, and financial records.

Automation and Workflow Efficiency

- Implement process automations to streamline manual tasks, enhance productivity, and reduce human error.

Customer 360 View

- Leverage Salesforce's ability to create a comprehensive view of tenants and related interactions, ensuring a complete understanding of tenant needs and status.

Scalability and Flexibility

- Customize and scale the lease management solution as business needs evolve, ensuring it can adapt to manage growing lease portfolios or additional property types.

Integration Capabilities

Salesforce's open architecture allows it to integrate seamlessly with other systems, such as accounting platforms, property management tools, and payment gateways.

Reports and Dashboards

Custom reports can be created to monitor metrics such as lease occupancy rates, rent collection, and upcoming renewals. Dashboards provide a real-time snapshot of performance indicators relevant to lease management.

4. Detailed Steps to Solution Design

lease management refers to the set of rules, calculations, and automated processes that govern how leases are managed within a system like Salesforce. This logic ensures that all aspects of lease management—such as tracking, notifications, renewals, and compliance—are handled consistently and accurately. Here are key components of business logic in lease management:

Lease Lifecycle Management

- **Definition**: Automating processes from lease creation to termination

Automated Notifications and Reminders

- **Definition**: Business logic that sends alerts related to important lease events.

Payment and Invoice Management

- **Definition**: Handling the financial aspects of leases through automated billing and payment tracking.

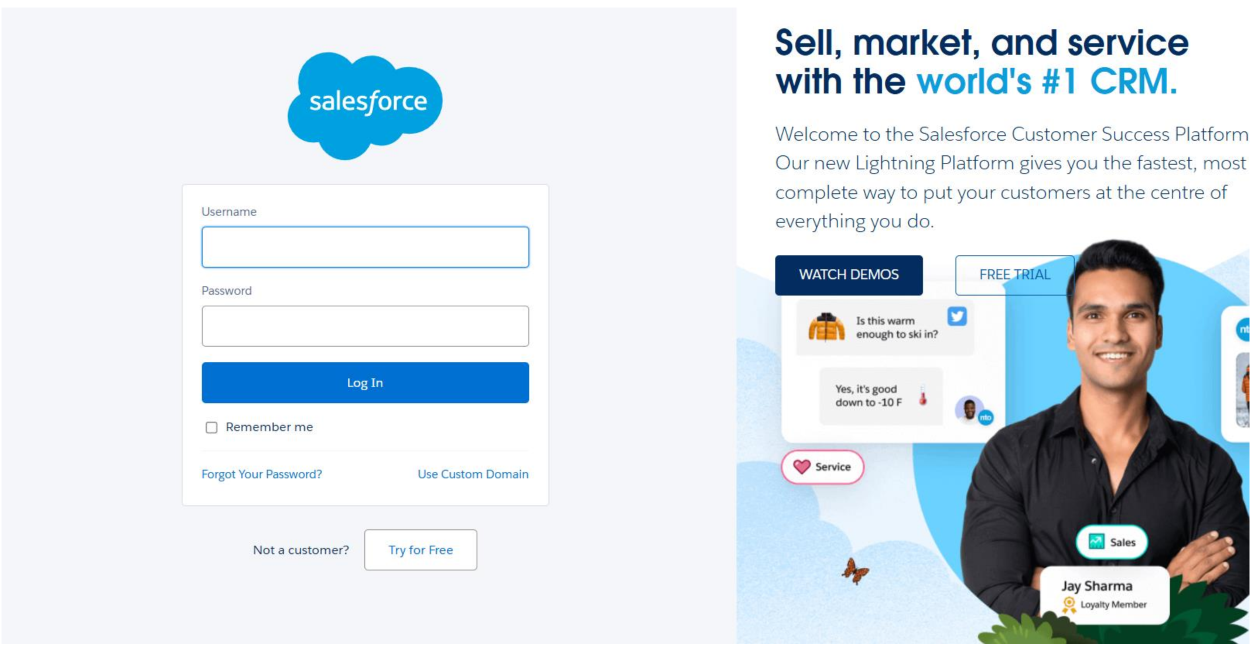
Renewal and Extension Logic

- **Definition**: Rules that handle lease renewals and extensions.

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 detail



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

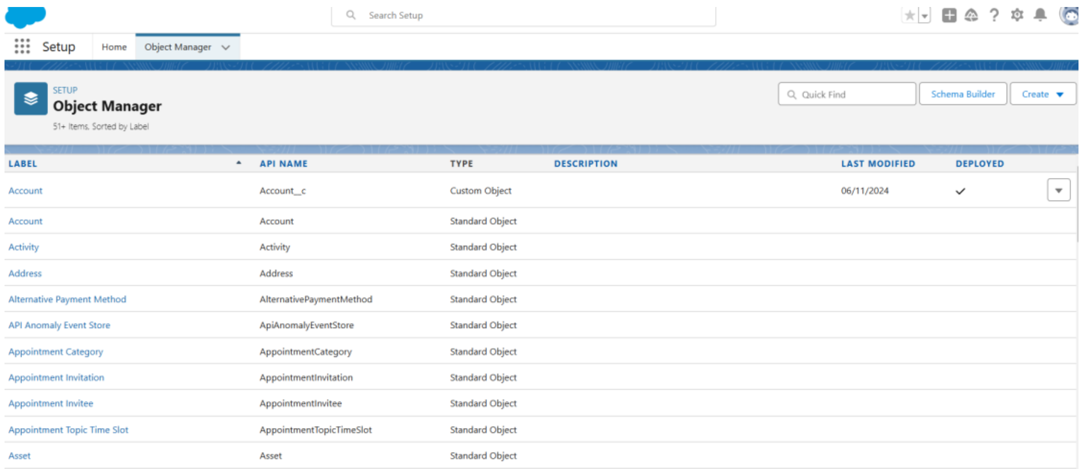
3. Give a password and answer a security question and click on change password.

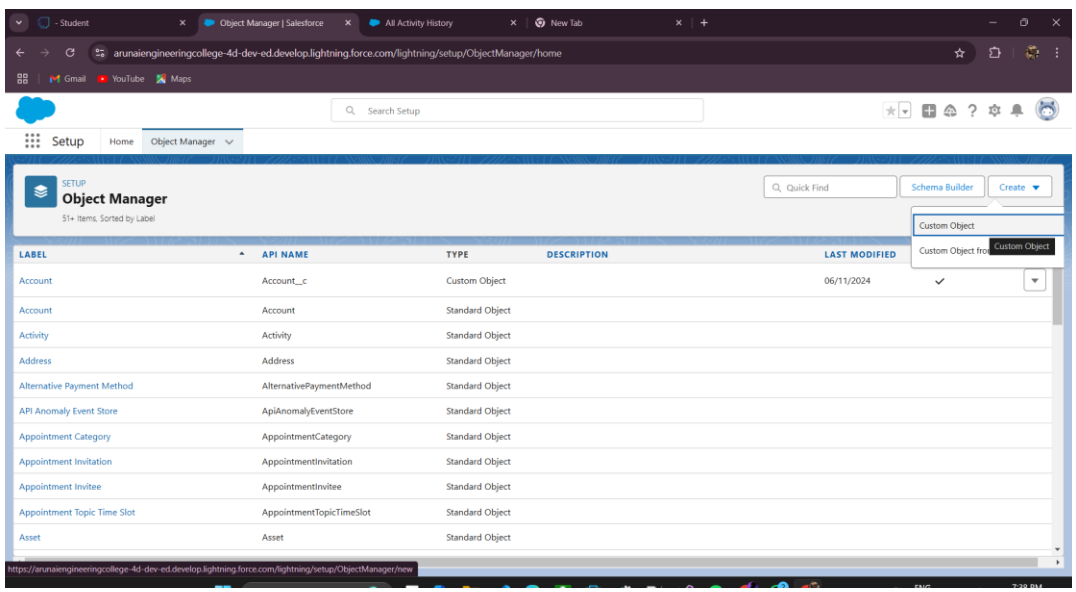
4.Then you will redirect to your salesforce setup page.

Object

What Is an Object?
Salesforce objects are database tables that permit you to store data that is specific to an organization. What are the types of Salesforce objects

1. Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

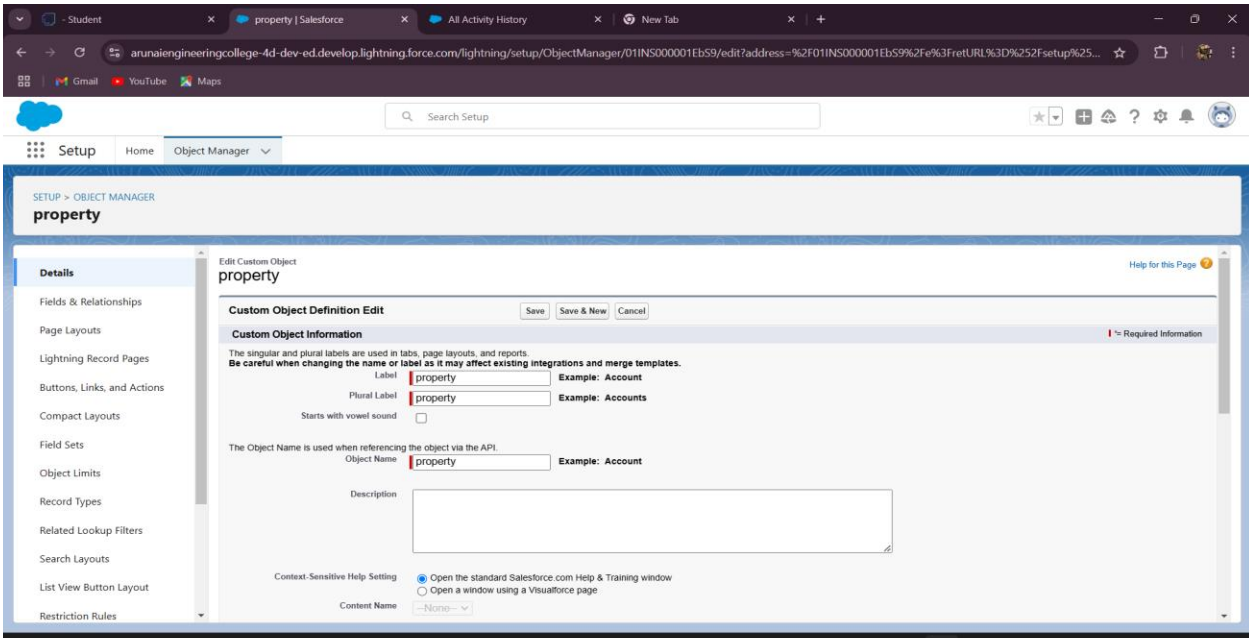




Create Property Object:

To create an object:

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

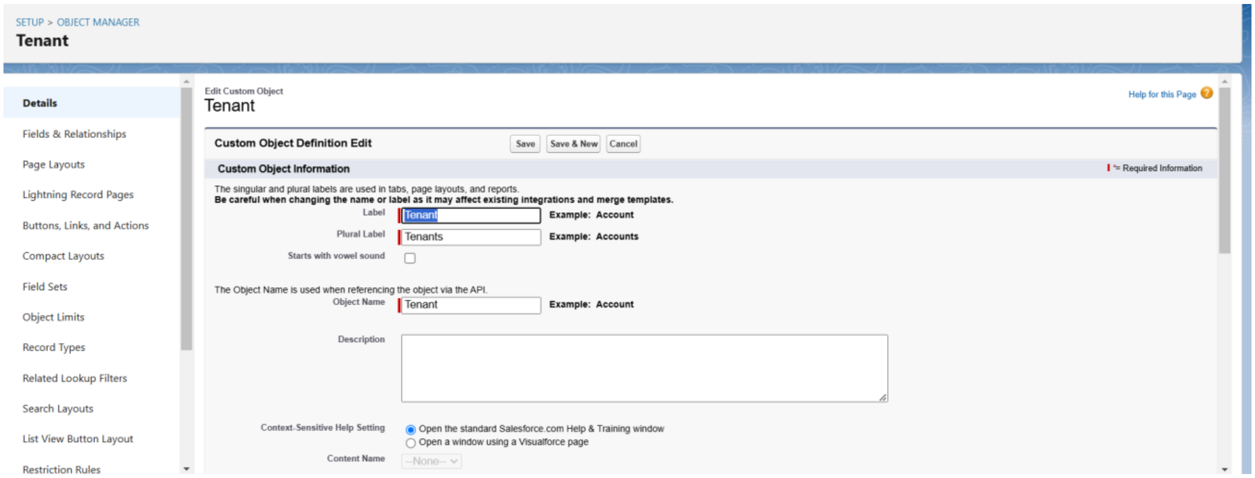


1. Enter the label name>> property
2. Plural label name>> property
3. Enter Record Name Label and Format
4. Record Name >>property Name
5. Data Type >> Text
6. Click on Allow reports and Track Field History, Allow Activities
7. Allow search >> Save.

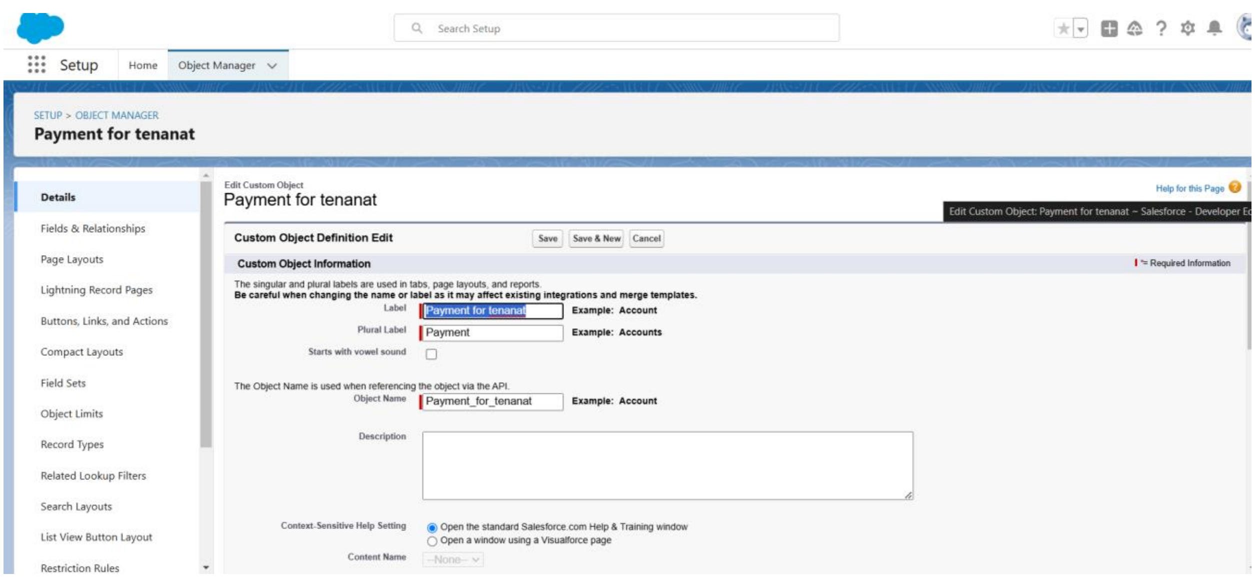
Create Tenant Object:

To create an object:

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



Create Payment Object

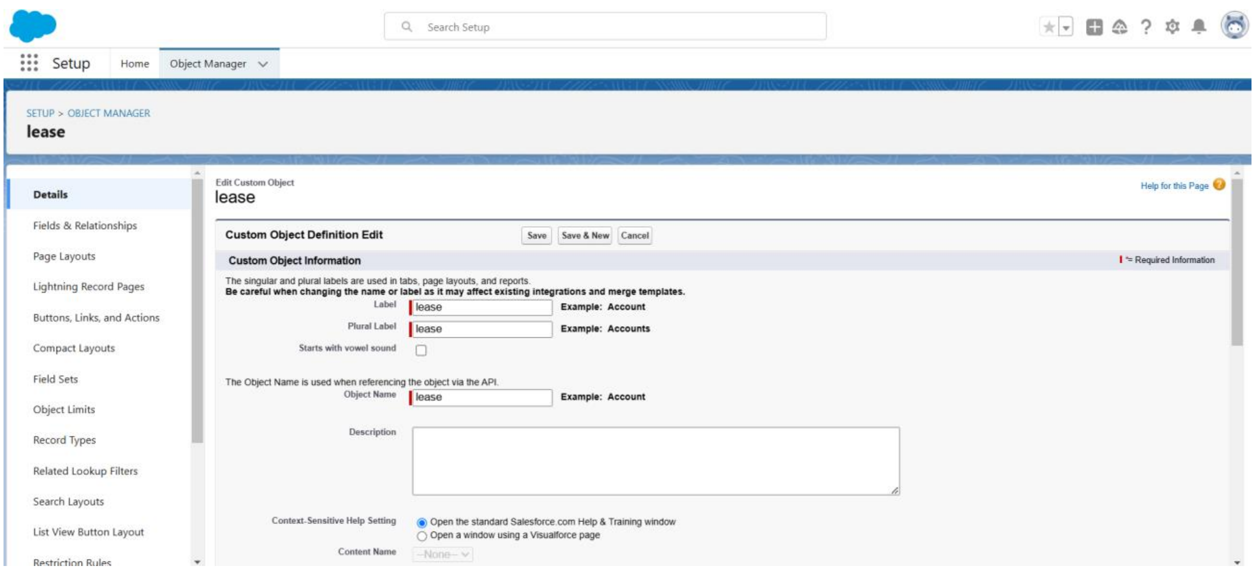


1. Enter the label name>> Payment for tenanat
2. Plural label name>> Payment
3. Enter Record Name Label and Format
4. Record Name >> Payment Name
5. Data Type >> Text

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.

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.

Types of Tabs:

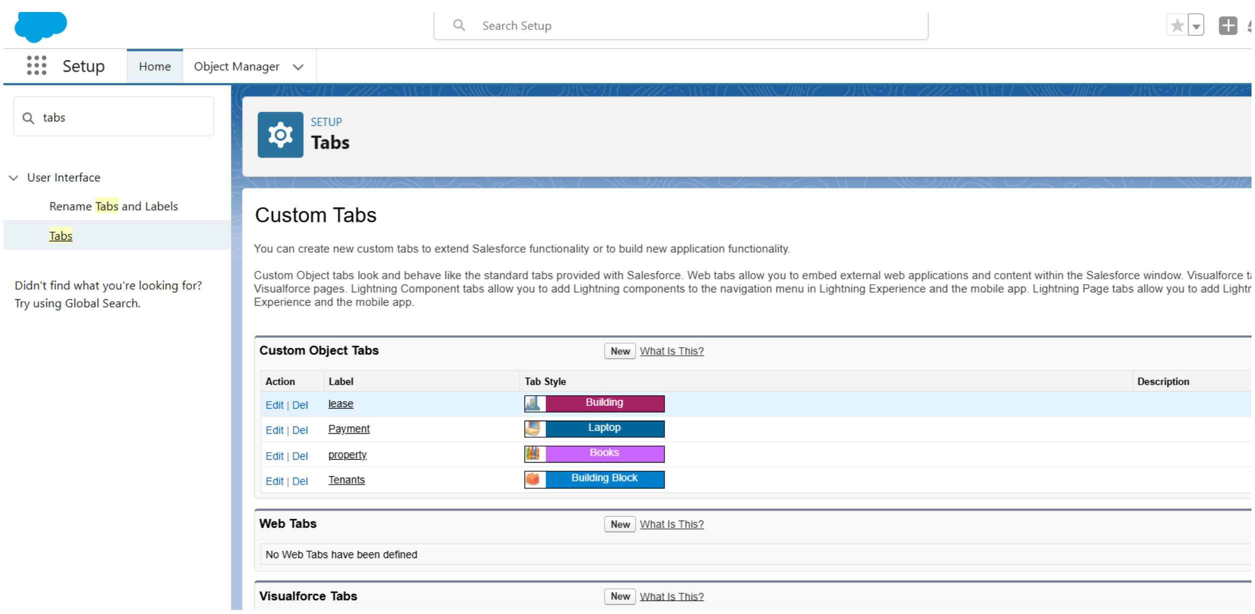
1. Custom Tabs

Custom object tabs are the user interface for custom applications that you build in salesforce.com. They look and behave like standard salesforce.com tabs such as accounts, contacts, and opportunities.

Creating a Custom Tab

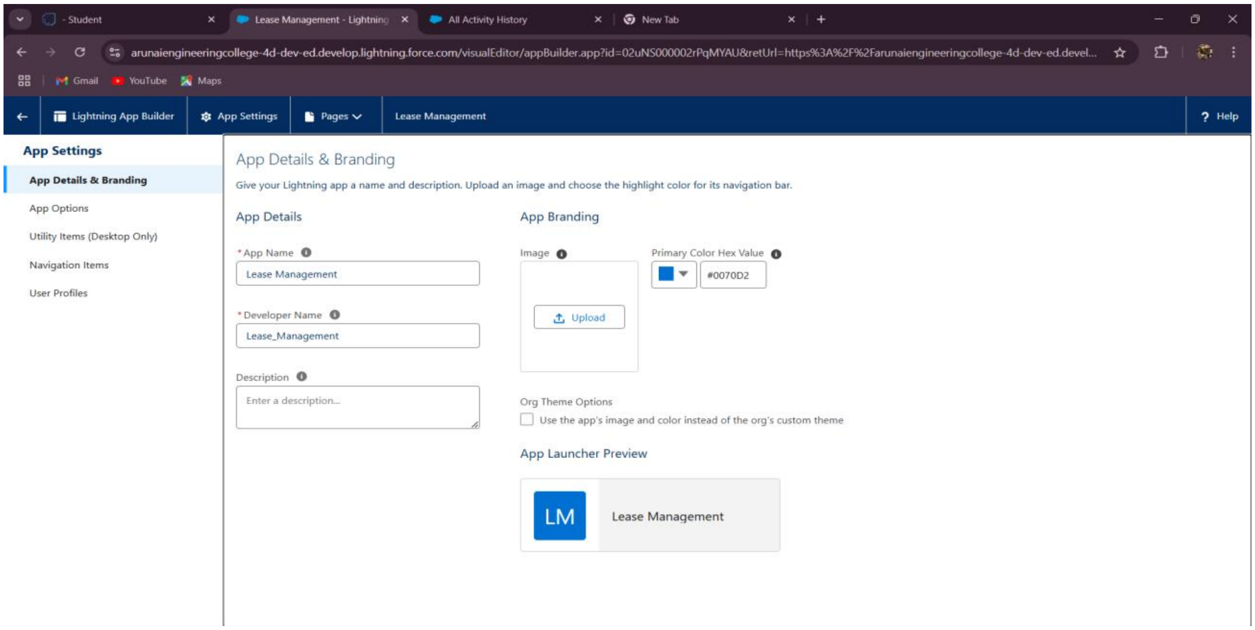
To create a Tab:(Property)

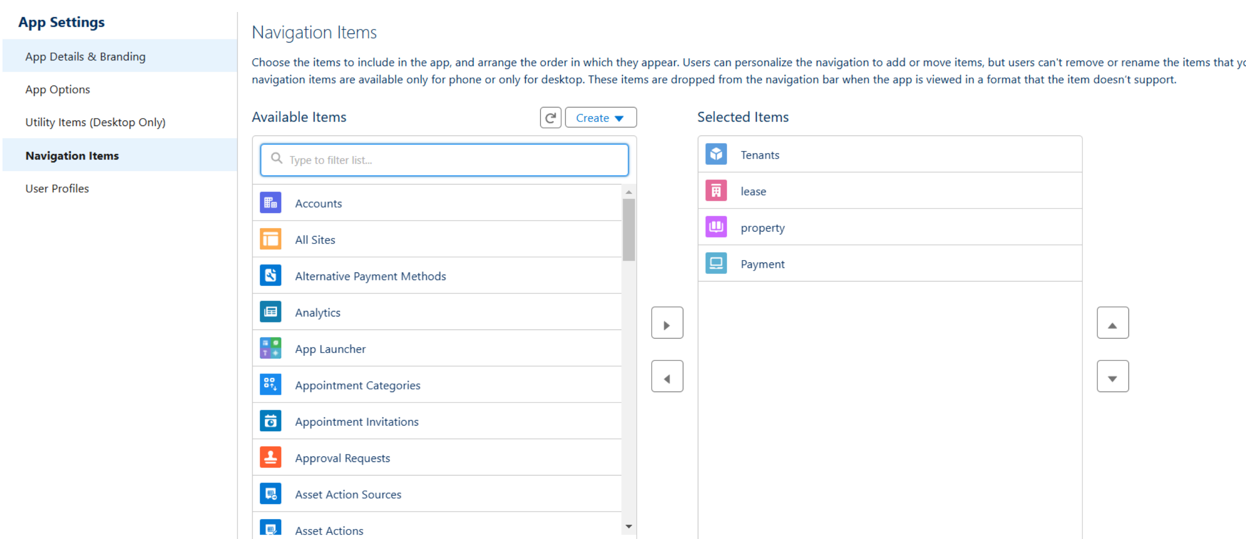
1. Go to setup page >>type Tabs in Quick Find bar >> click on tabs >> New (under custom object tab)



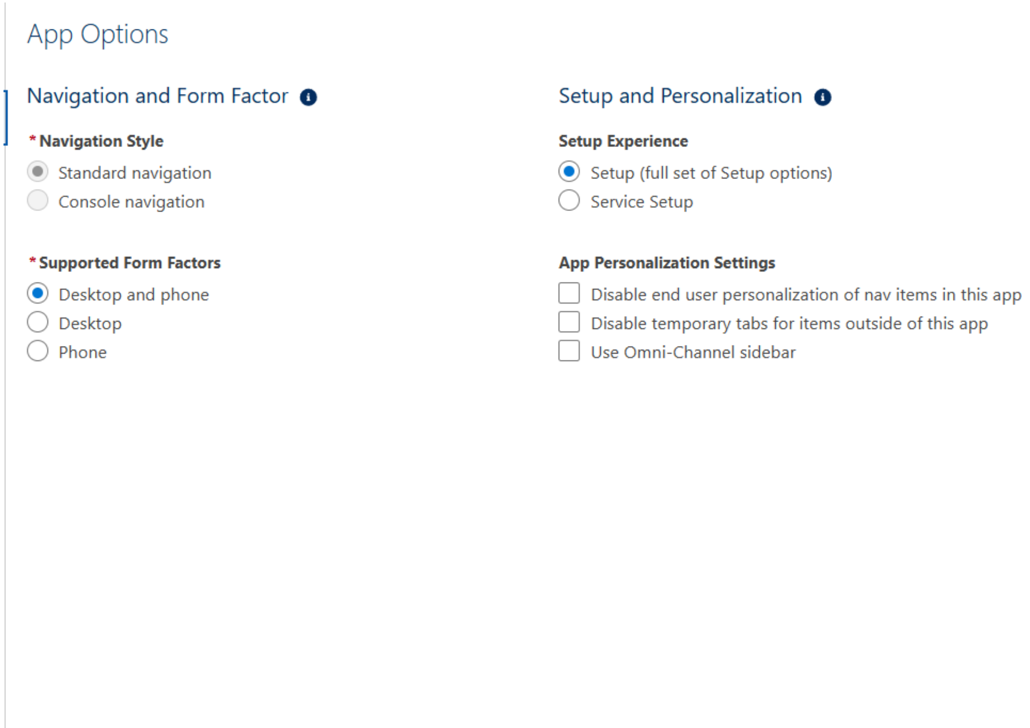
The Lightning App

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.





Fill the app name in app details and branding as follow
App Name : Lease Management
Developer Name : This will auto populated
Image : optional (if you want to give any image you can otherwise not mandatory)
Primary colour hex value : keep this default.



+Then click Next >> (App option page)Set Navigation Style as Standard Navigation >> Next.

Fields

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can also hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

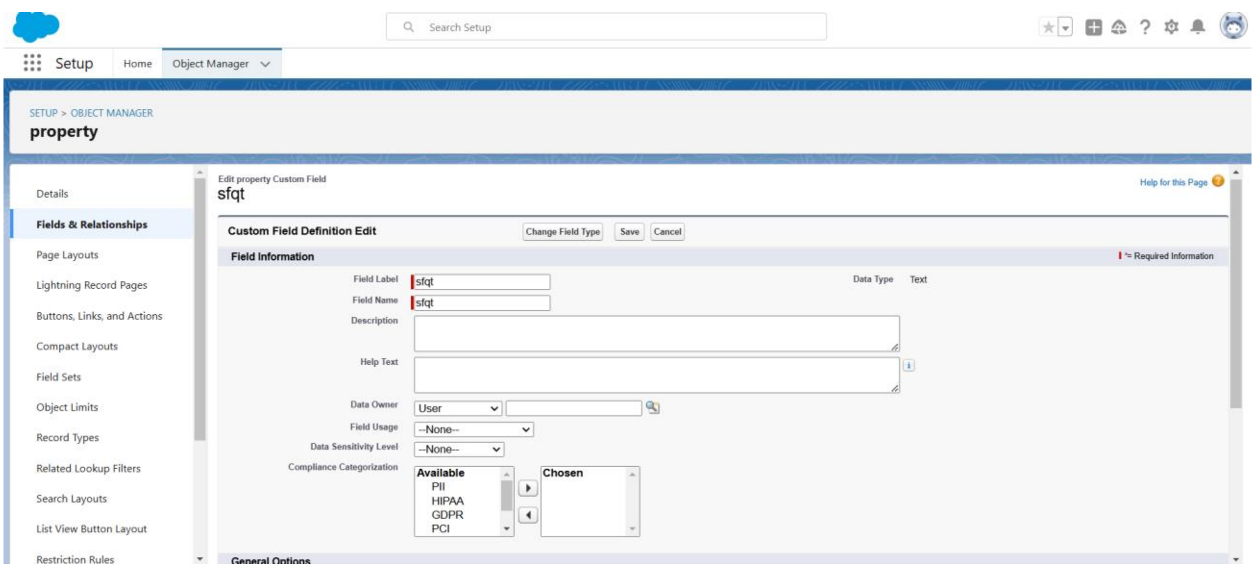
Types of Fields

1. Standard Fields
2. Custom Fields

Standard Fields:

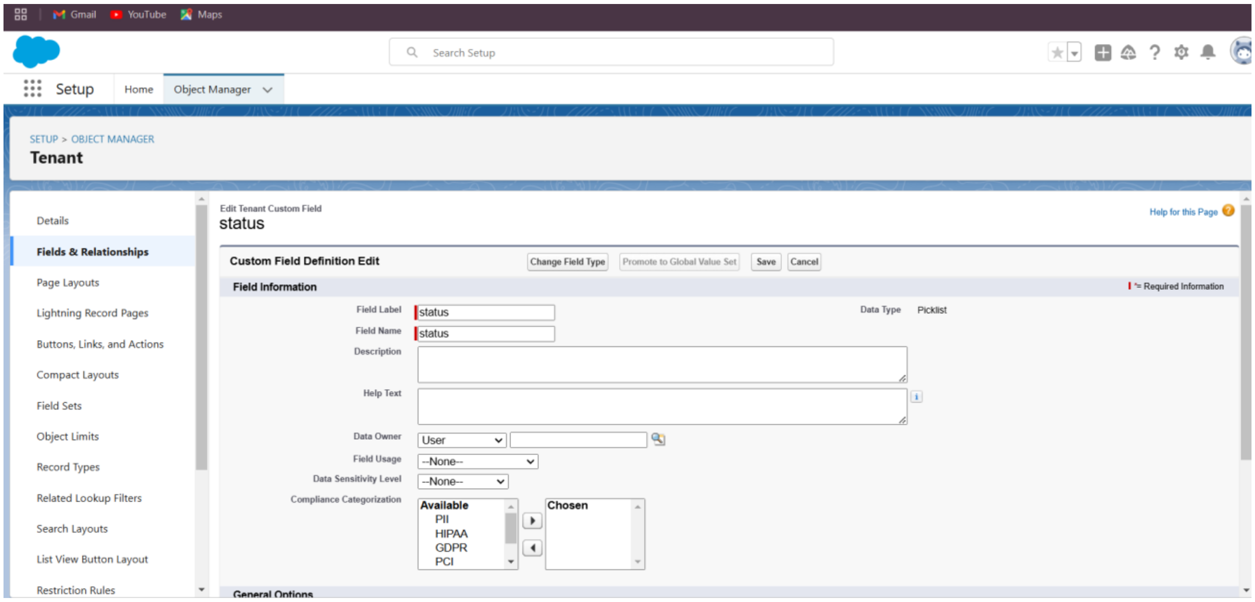
As the name suggests, the Standard Fields are the predefined fields in Salesforce that perform a standard task. The main point is that you can't simply delete a Standard Field until it is a non-required standard field. Otherwise, users have the option to delete them at any point from the application freely. Moreover, we have some fields that you will find common in every Salesforce application.

Creation of fields for the property object



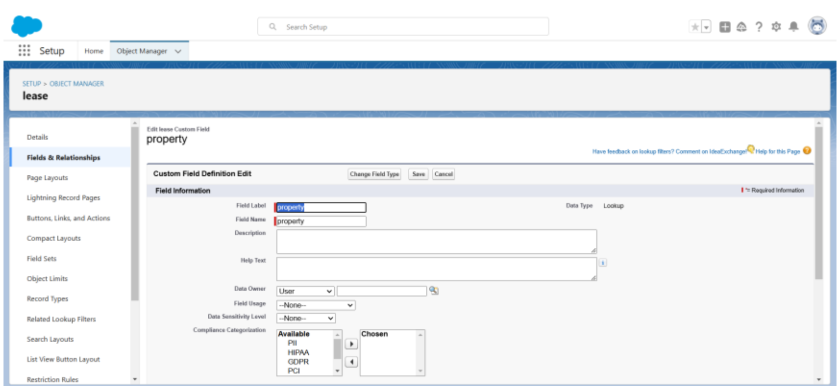
Creation of fields for the Tenant object

1. Go to setup >> click on Objec Now click on “Fields & Relationships” >> New
2. Select Data type as a “phone” and Click on Next
3. t Manager >> type object name(Tenant) in search bar >> click on the object.



Creation of fields for the Lease object

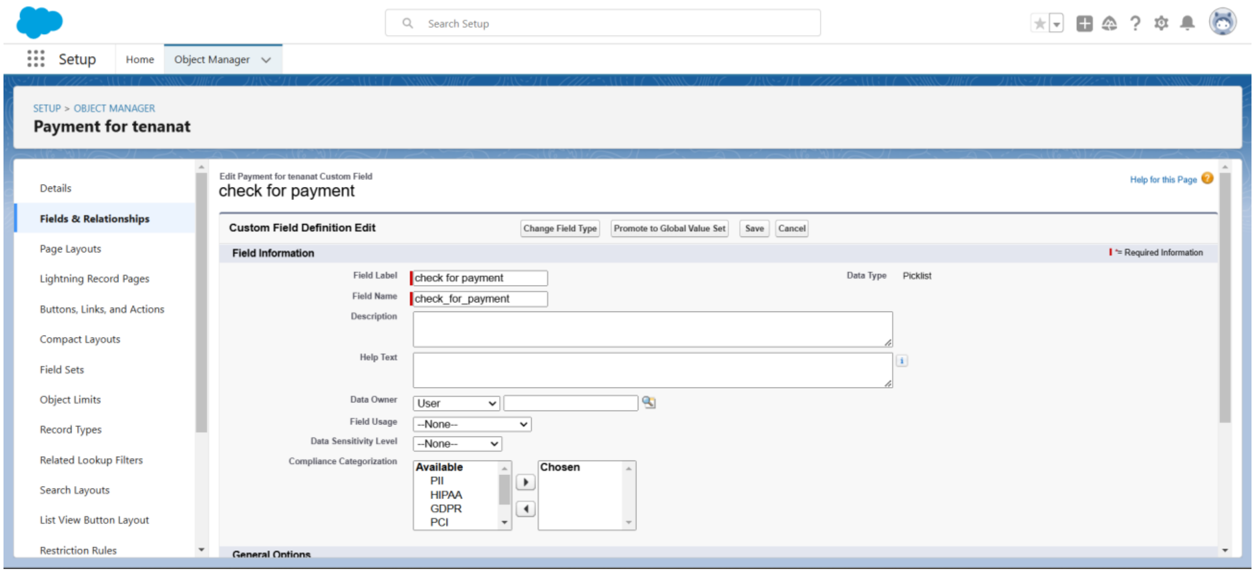
1.Go to setup >> click on Object Manager >> type object name(Lease) in search bar >> click on the object.
2. Now click on "Fields & Relationships" >> New



Creation of fields for the Payment for tenant object

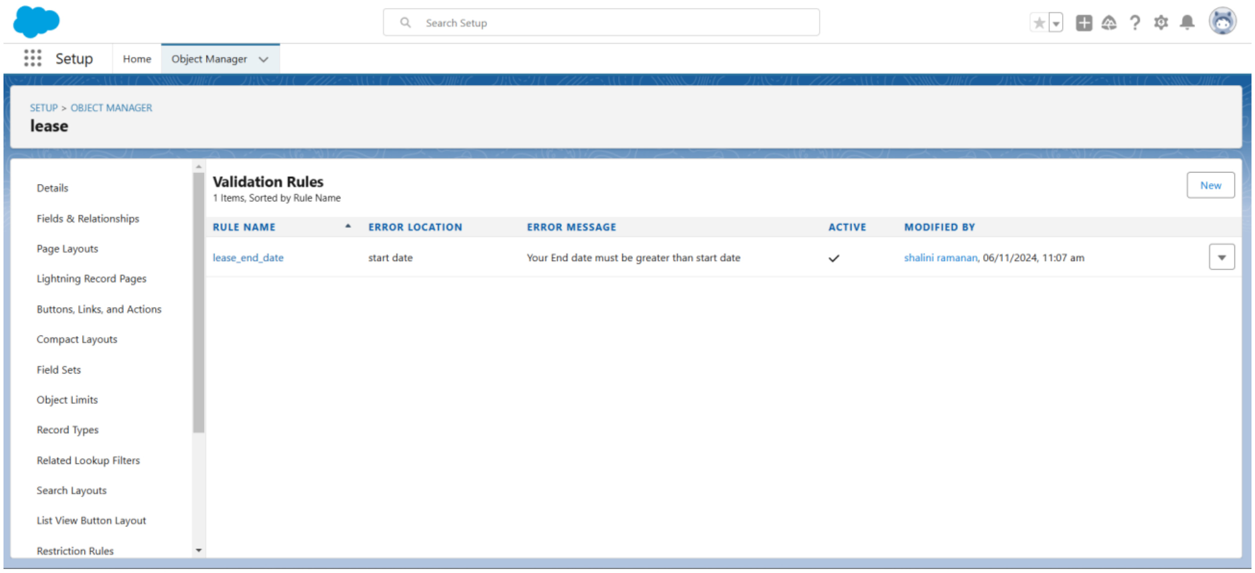
1.Go to setup >> click on Object Manager >> type object name(Payment for tenant) in search bar >> click on the object.

2. Now click on “Fields & Relationships” >> New
3. Select Data type as a “Date” and Click on Next



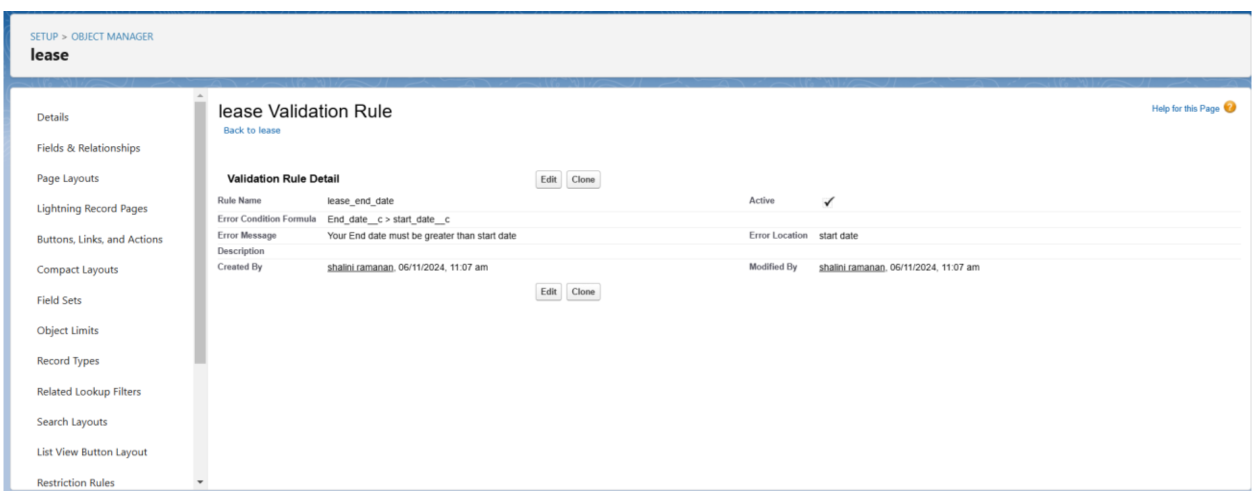
Validation rule

Validation rules are applied when a user tries to save a record and are used to check if the data meets specified criteria. If the criteria are not met, the validation rule triggers an error message and prevents the user from saving the record until the issues are resolved.



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.



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

Email Templates

Create Email Template For Tenant Leaving

To create Email Template:

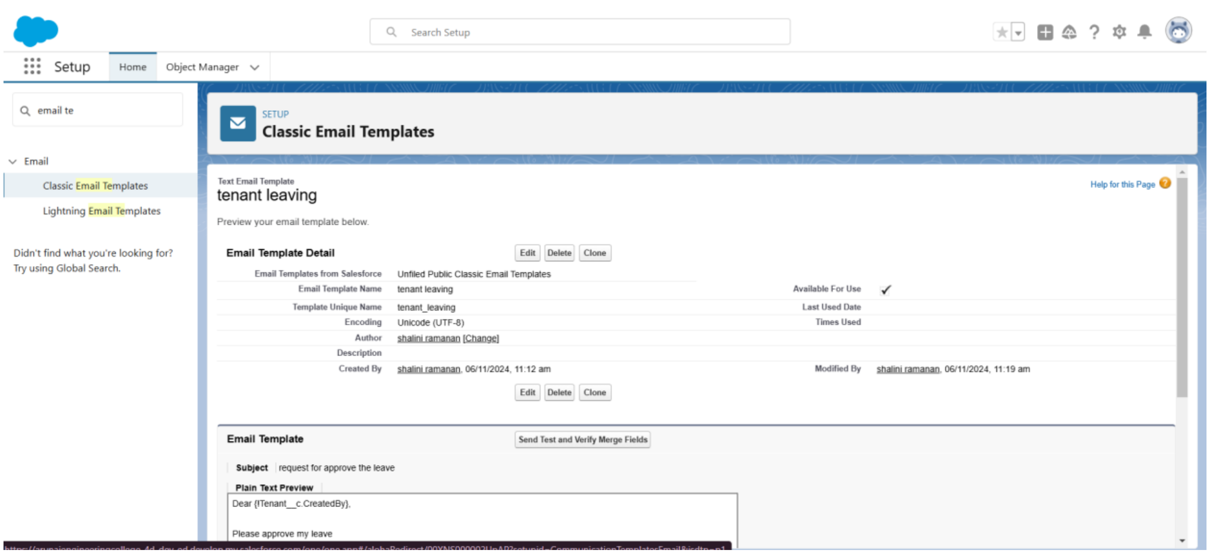
1. Go to setup in quick find box enter email template >> click on classic Email Template.

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

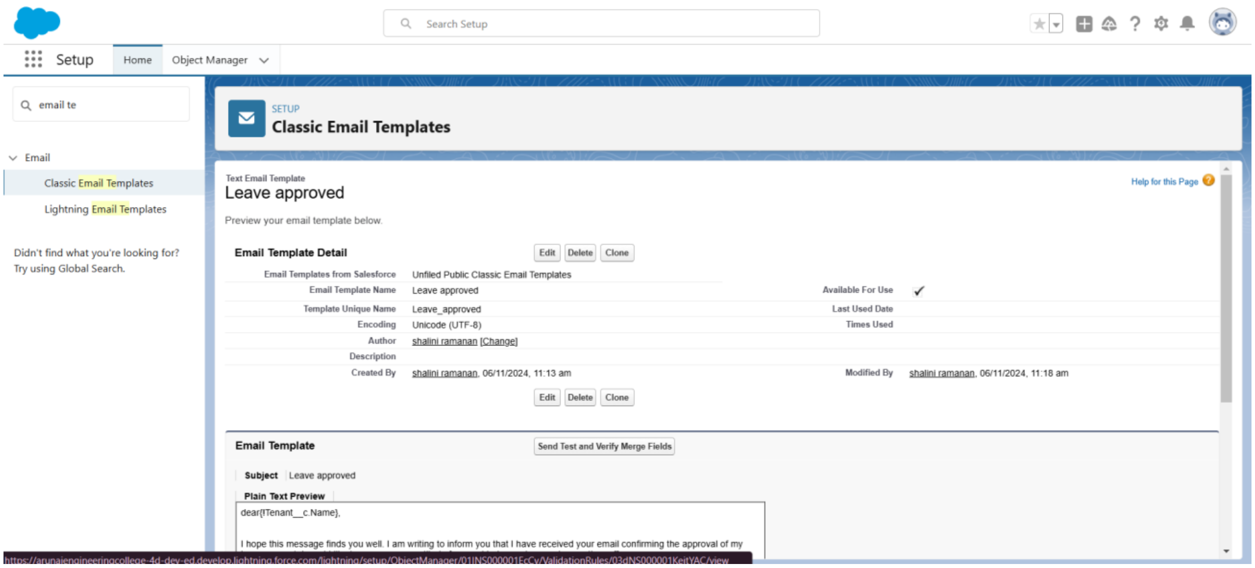
    Folder : Unfiled public Classic Email templates

Click on available for use

3. Email Template Name is “tenant leaving”



Create Email Template For Leave Approved

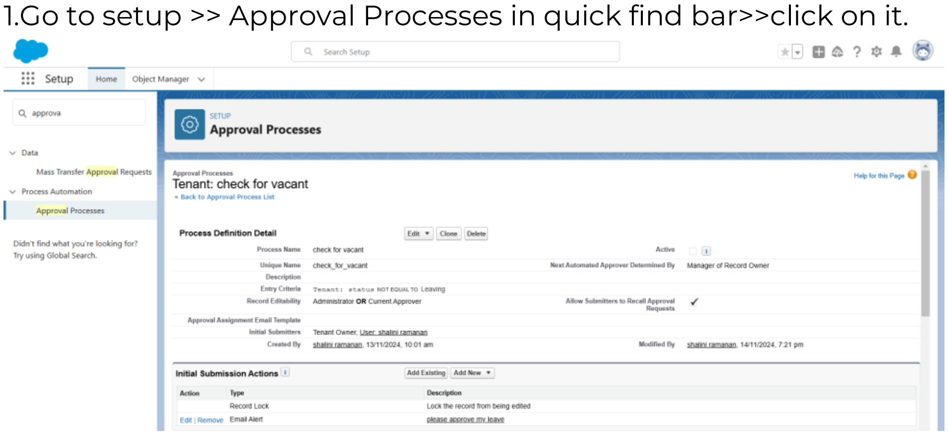


Approval Process

Create Approval Process For check for vacant

To create fields in an object:

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



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

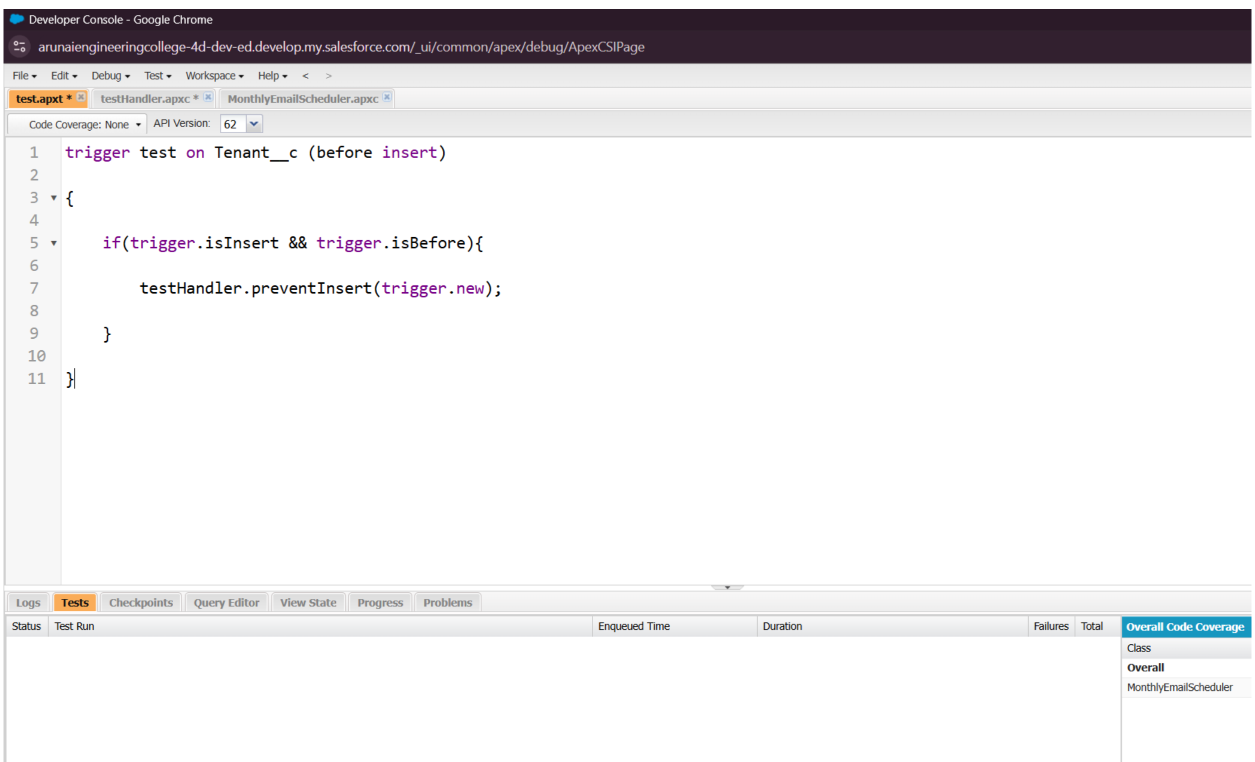
5. Testing and Validation

UNIT TESTING

Apex Trigger

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

Click on the file >> New ? Apex Class.

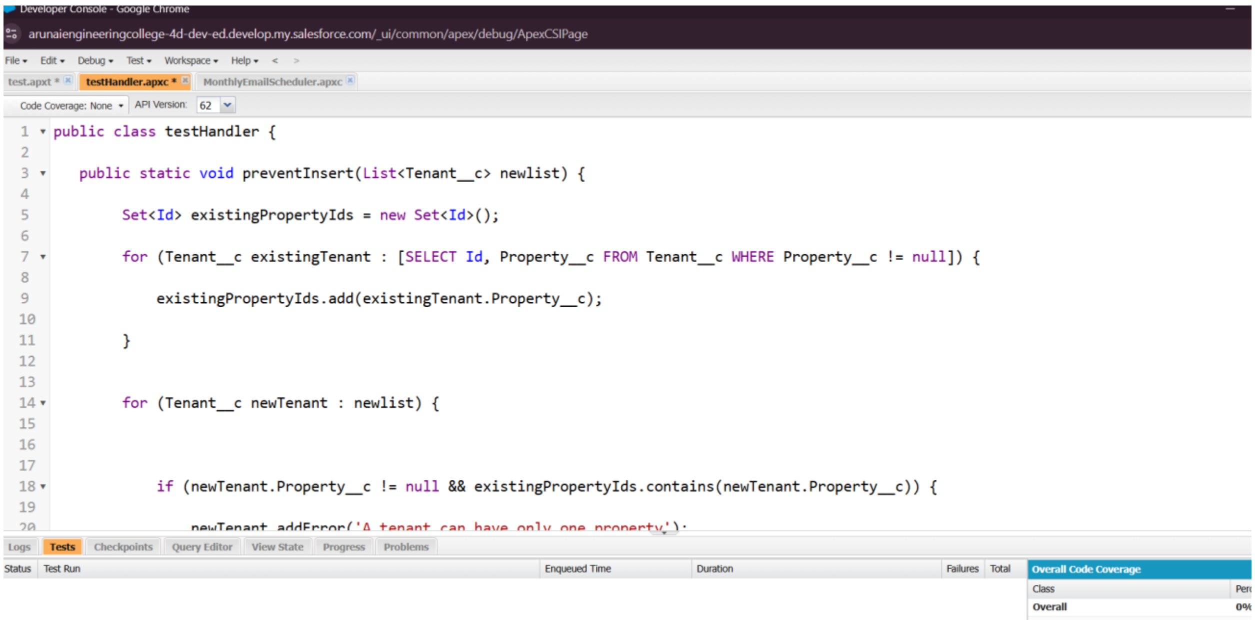


Trigger Code:

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

an Apex Handler class

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



Apex logic:

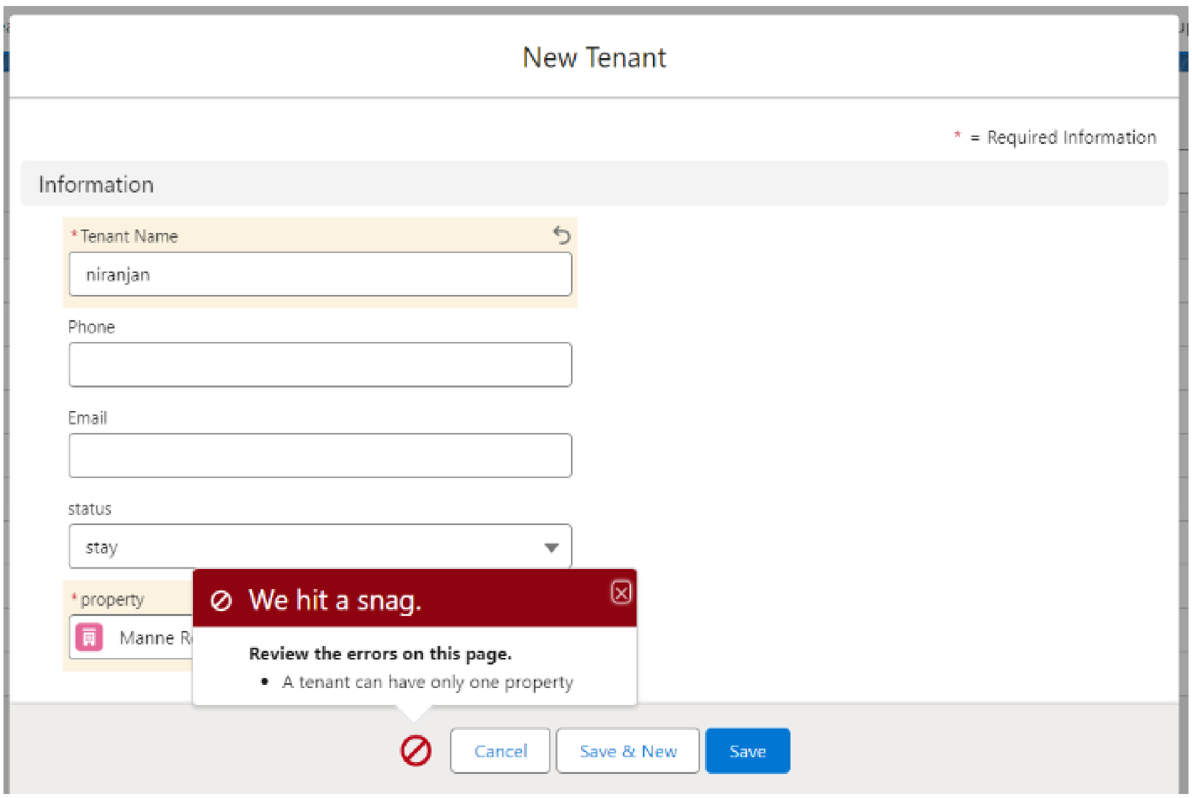
```
public class testHandler {
  public static void preventInsert(List<Tenant__c> newlist) {
      Set<Id> existingPropertyIds = new Set<Id>();
      for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE
Property__c != null]) {
          existingPropertyIds.add(existingTenant.Property__c);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

      for (Tenant__c newTenant : newlist) {

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

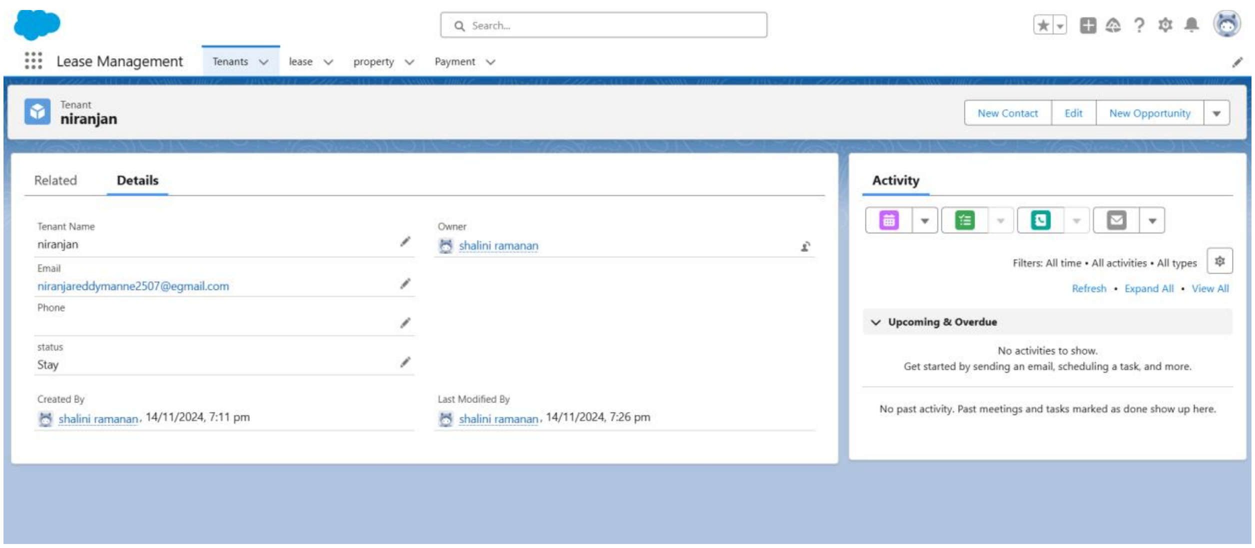
Testing the Trigger

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



User Interface Testing.

Testing the approval process



1. UI Testing Objectives

- Verify that the interface is intuitive and easy to navigate.
- Ensure that all UI components such as forms, buttons, and dashboards work as intended.
- Confirm that data input and retrieval are accurate and user interactions trigger the appropriate backend processes.
- Check for visual consistency and adherence to design standards.

2. Components to Test

2.1 Lease Record Page

- **Forms**: Verify that input forms for lease details capture data correctly and validate fields as per business requirements (e.g., required fields like *Lease Start Date* and *End Date*).
- **Tabs and Sections**: Ensure that sections displaying property and tenant information load correctly and show accurate, real-time data.

6. Key Scenarios Addressed by Salesforce in the Implementation Project

Salesforce provides a robust platform to address a variety of use cases and scenarios in lease management, ensuring efficient, automated, and transparent processes. Here, we outline the key scenarios Salesforce can handle during the implementation of lease management:

1. Lease Creation and Onboarding

- **Use Case**: Streamlining the process of creating and onboarding new lease agreements.
- **Solution**: Salesforce automates data capture through customizable forms, dynamic fields, and workflows that simplify lease creation. The platform ensures that all necessary lease terms, tenant details, and property information are accurately documented.

2. Lease Renewal and Extension Management

- **Use Case**: Managing timely renewals and lease extensions.
- **Solution**: Salesforce's automated reminders and scheduling features notify leasing managers and tenants of upcoming expirations. Custom processes and workflows can be configured to automatically extend or create new leases based on predefined criteria.

3. Payment Tracking and Invoicing

- **Use Case**: Ensuring timely and accurate billing, along with tracking payment statuses.
- **Solution**: With Salesforce, invoices are generated automatically according to lease payment schedules. Integration with payment gateways allows tracking and logging of payment receipts, overdue notices, and late fees, enhancing transparency and financial accuracy.

4. Tenant Communication and Engagement

- **Use Case**: Facilitating seamless communication with tenants for updates and notifications.
- **Solution**: Salesforce provides multiple channels for tenant engagement, such as automated emails and notifications regarding lease terms, payment schedules, and maintenance updates. The platform's communication tools ensure tenants are informed and interactions are logged for easy follow-up.

5. Lease Compliance and Regulatory Checks

- **Use Case**: Adhering to lease regulations and legal compliance.
- **Solution**: Salesforce incorporates validation rules and automated workflows to check that leases comply with local and federal regulations. These include rent increase limits, notification requirements, and other legal standards to minimize risk.

6. Maintenance and Issue Tracking

- **Use Case**: Managing and tracking maintenance requests related to leased properties.
- **Solution**: Salesforce allows for the creation of cases tied to lease records for maintenance requests, ensuring they are prioritized and resolved efficiently. The platform tracks service-level agreements (SLAs) and provides visibility into issue status and resolution.

7. Reporting and Analytics

- **Use Case**: Generating detailed reports for lease performance, tenant payment history, and occupancy rates.
- **Solution**: Salesforce's built-in reporting and dashboard features enable real-time insights into key performance indicators (KPIs). Customizable reports provide leasing managers with data on revenue forecasts, upcoming renewals, and outstanding payments.

7. Conclusion

Summary of Achievements:

The implementation of Salesforce for lease management has led to significant improvements in the approval request testing process. Automated workflows, custom validation rules, and structured approval paths ensure that lease-related approval requests are handled with speed and accuracy.

- **Organized Data Management:**
  Custom objects, fields, and tabs were created for structured and efficient lease tracking.
- **Process Automation:**
  Triggers, validation rules, and scheduled classes were implemented to streamline recurring tasks, including monthly payments and notifications.
- **Enhanced Communication:**
  Approval workflows and email templates were designed to automate tenant communications, improving clarity and tenant satisfaction.
- **Data-Driven Decision-Making:**
  Custom reports and dashboards provide stakeholders with real-time insights, enabling faster and more informed decision-making.