



## **Project Title: Lease Management**

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Department of Computer Science and Engineering

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## **Project Name: Lease Management**

### **Project overview:**

This project is based on Lease Management System, which, in a strategic alliance with Salesforce.com, develops an application for managing properties. LMS is an application that incorporates all the functions necessary to manage different processes of the real estate sector with the best practices in mind.

It is delivered as a service (SaaS) and accessed via Internet from any device. Salesforce.com ([www.salesforce.com](http://www.salesforce.com)) provides the technological platform that supports the data storage, the security elements and protocols. This study aimed to design and develop a cloud-based Lease management system that provides detailed and summarized information on these critical areas to guide LMS administrators in planning and decision-making. It is accessible anywhere anytime as data is stored remotely and made available to users over the internet.

This project is user-friendly, usable, performance, and security; and good in terms of robustness. This implies that other owners may adopt this system for more efficient information management and more effective management decisions and to maintain good relationships with Clients LMS allows the management of real estate businesses.

### **Objective:**

The main objective of a leave management system is to help businesses manage employee absences in a fair and accurate way. This can be achieved by:



### **Business goal:**

Leasing assets is a common practice for companies of all sizes and industries. Among their many advantages, leases increase businesses' purchasing power, decrease maintenance costs (if the lessee isn't responsible for maintenance) and help better manage cash flow.

### **Specific outcome:**

Leasing assets is a common practice for companies of all sizes and industries.

Among their many advantages, leases increase businesses' purchasing power, decrease maintenance costs (if the lessee isn't responsible for maintenance) and help better manage cash flow.

### **Streamlining the leave process**

A leave management system acts as a channel between employees and employers to make the leave application and approval process more efficient.

### **Providing visibility and control**

Employees should be able to easily apply for leave, view their leave information, and track the status of their leave requests.

### **Eliminating paperwork**

Leave management systems automate the leave request process, reducing the need for manual intervention and paperwork.

### **Complying with statutory requirements**

A leave management system should be able to comply with the statutory requirements of the state.

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## **Salesforce Key Features and Concepts Utilized**

### **Organizing:**

Creating a sales plan and assigning responsibilities to team members

### **Sales strategy:**

Building and implementing strategies that are easy to understand and execute.

### **Customer relationship management:**

Maintaining meaningful relationships with key customers

### **Sales analytics:**

Analyzing data from past campaigns to create better and more optimized campaigns.

### **Coaching:**

Helping sales representatives improve their performance and reach their true potential.

### **Forecasting:**

Planning for the road ahead to ensure proper inventory and staff levels, and to plan for compensation.



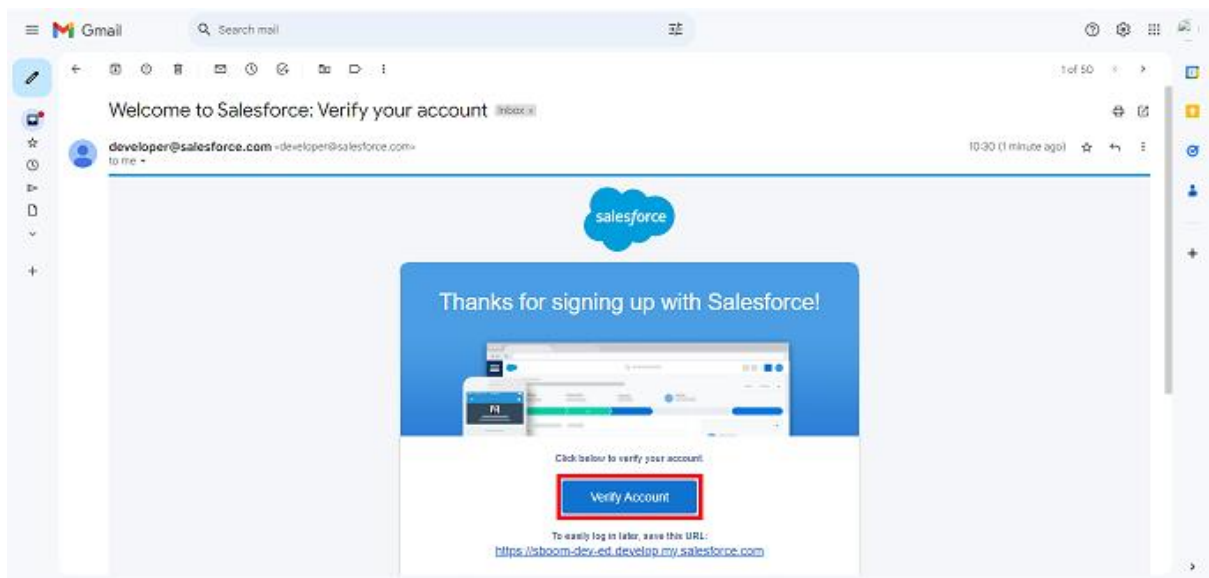
## Detailed steps to solution design

### Step 1: Creating Developer Account and Activation

Creating a developer org in salesforce.

To Activate the account, click on the verify account. Give a password and answer a security question and click on change password.

Give a password and answer a security question and click on change password. Then you will redirect to your salesforce setup page.

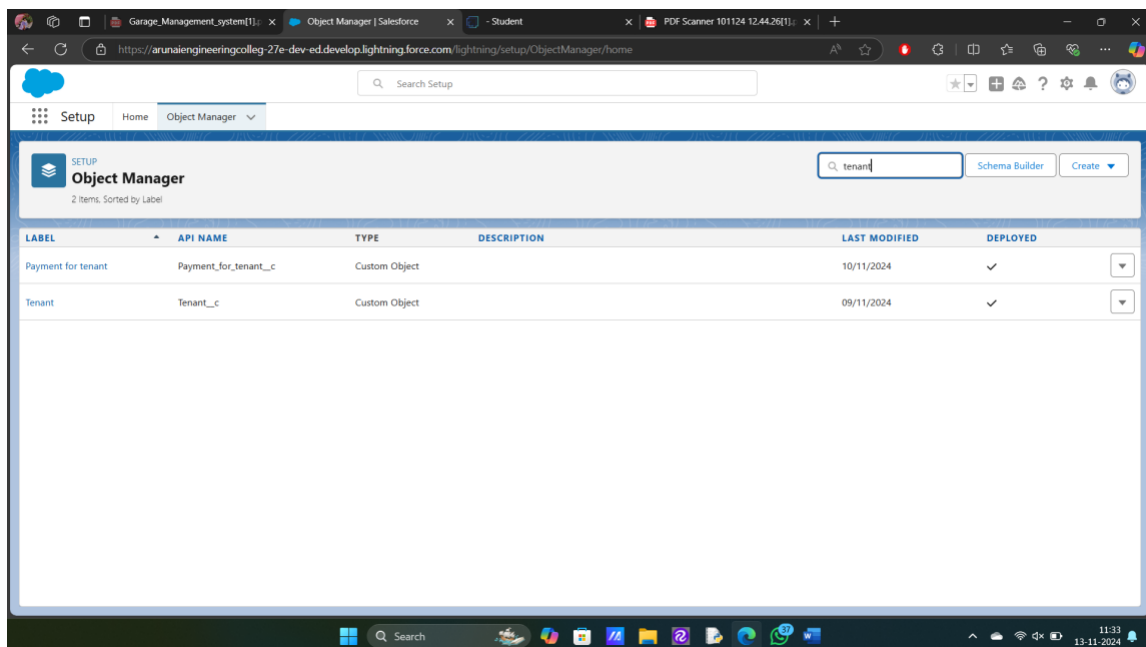




## Step 2: Create of objects

Create Property Object, tenant object, lease object and payment object.

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

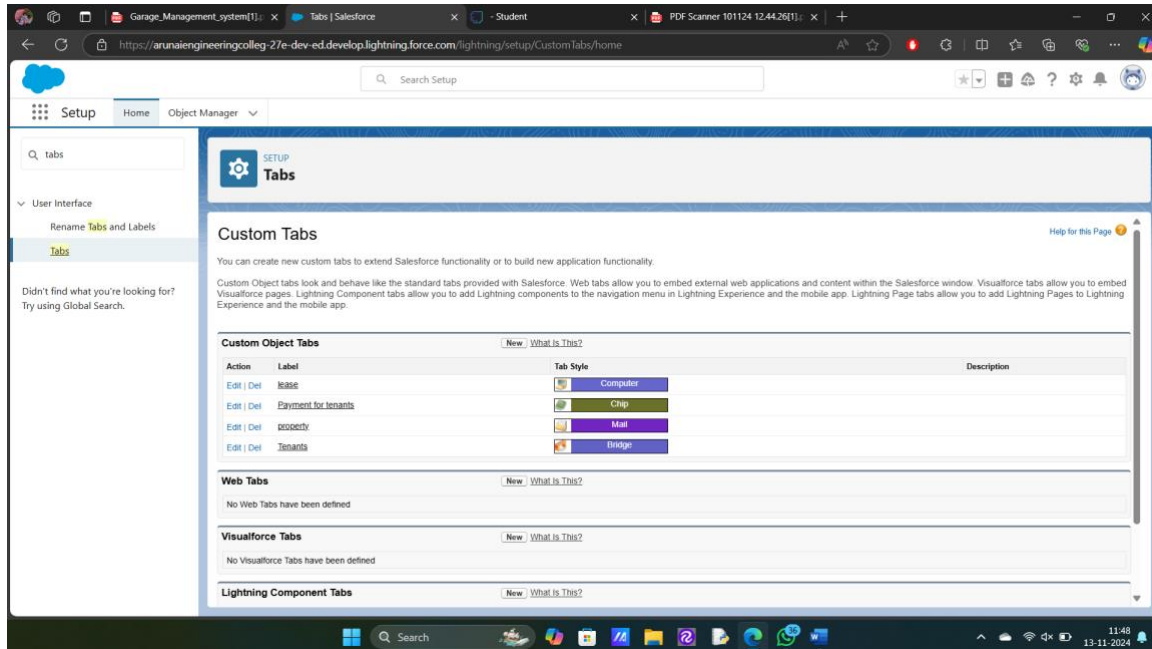


Enter the label name for the appropriate object. Then enter the Plural label name.

Enter Record Name Label and Format Record Name and Data Type.

## Step 3: Creating a Custom Tab

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

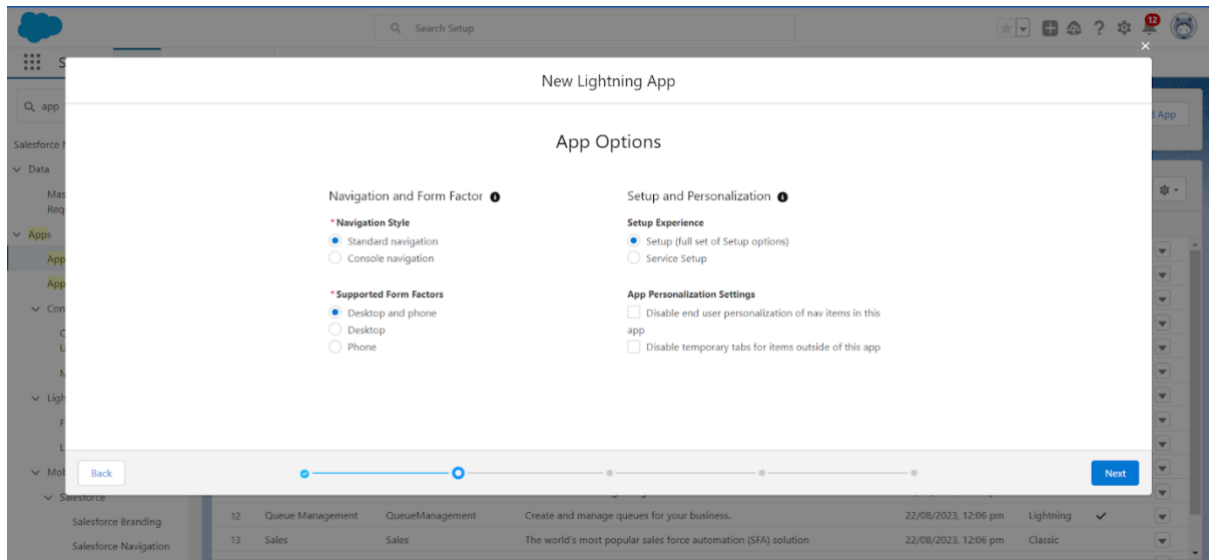


## Step 4: Create a Lightning App

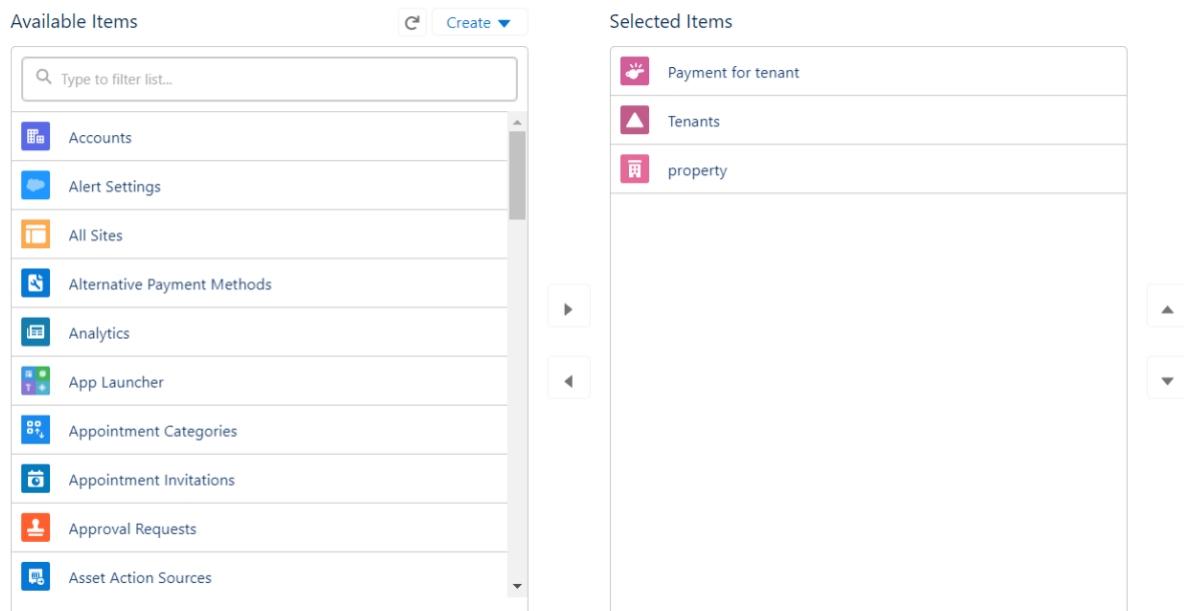
An app is a collection of items that work together to serve a particular function.

### To create a Tab:( Property)

- Goto set up page. Search tabs on quick find bar click new under custom tab.
- The first step is to select object property and tab style.
- Make sure that the Append tab to users' existing personal customizations is checked. Click save



Create a lightning app with an App Name of “Lease Management”



## Step 5: Field Creation

Creation of fields for the property object, Tenant object, Lease object, Payment for tenant object, Lookup object.





Go to setup then click on Object Manager to type object name(Tenant) in search bar and click on the object.

- Field Label : Email
- Field Name : gets auto generated
- Click on required check box
- Click on Next >> Next >> Save and new.

- Field Label : start date
- Field Name : gets auto generated
- Click on Next >> Next >> Save and new.

The screenshot shows the Salesforce Setup interface. The browser address bar indicates the URL: `anunaengineeringcolleg-2a0-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01INS000001Tkdb/FieldsAndRelationships/new`. The page title is "property" under "SETUP > OBJECT MANAGER". The left sidebar shows the "Fields & Relationships" section selected. The main content area is titled "New Custom Field" and shows "Step 2. Enter the details". The form fields are: "Field Label" (Name), "Length" (25), "Field Name" (Name), "Description", and "Help Text". The "Required" checkbox is checked. The "Unique" checkbox is unchecked. The "External ID" checkbox is unchecked. The "Help for this Page" link is visible in the top right corner. The bottom of the screen shows the Windows taskbar with the search bar and various application icons.

## Step 6: Validation rules

To create a validation rule to an Lease Object.

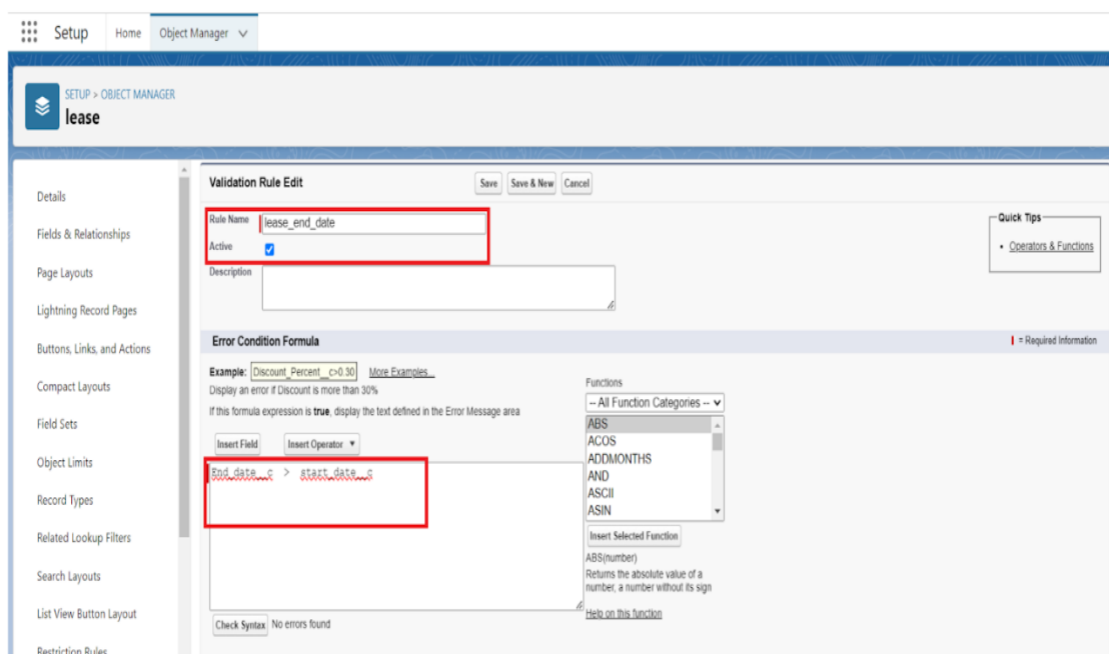
Go to the setup page click on object manager from drop down click edit for Lease object.

Click on the validation rule.click new

Rule name= lease\_end\_date

- Insert the Error Condition Formula as :  
$$\text{End\_date\_c} > \text{start\_date\_c}$$

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

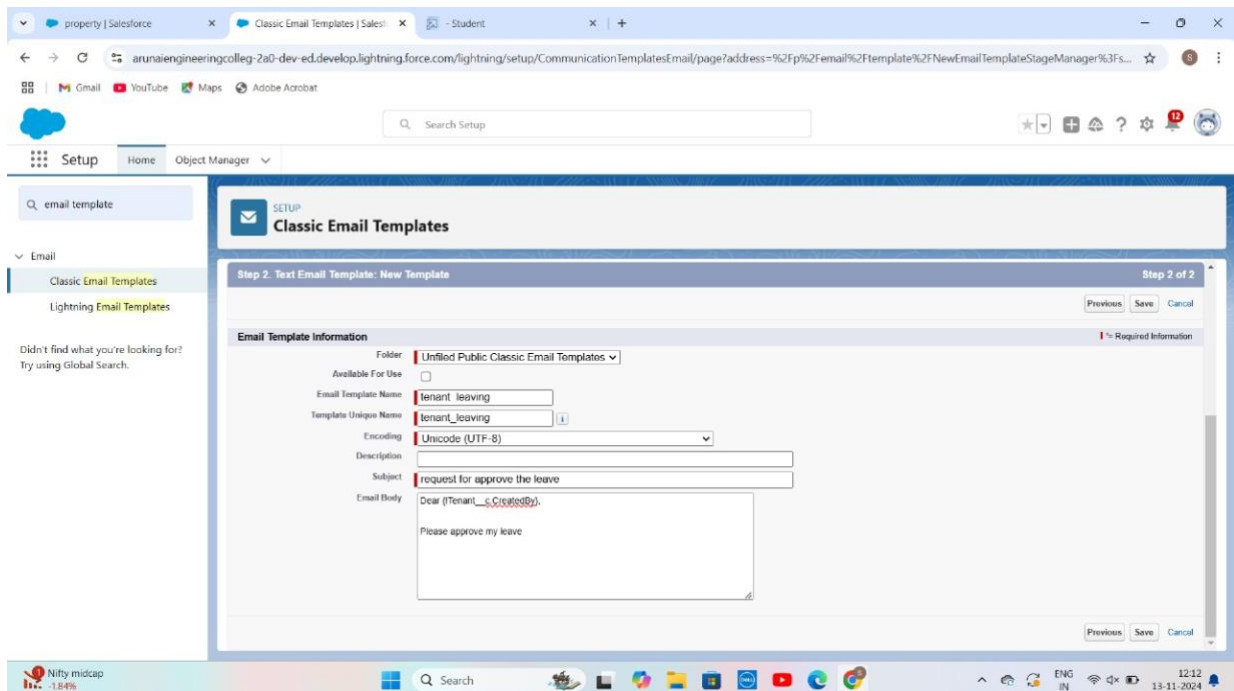


The screenshot displays the 'Validation Rule Edit' interface in Salesforce. The 'Rule Name' field is highlighted with a red box and contains the text 'lease\_end\_date'. The 'Active' checkbox is checked. The 'Error Condition Formula' section shows the formula 'End\_date\_\_c > start\_date\_\_c' entered in the 'Insert Field' area, also highlighted with a red box. The 'Functions' list on the right includes 'ABS', 'ACOS', 'ADDMONTHS', 'AND', 'ASCII', and 'ASIN'. The 'Check Syntax' button at the bottom indicates 'No errors found'.

## Step 7: Email templates

### 1.Create Email Template For Tenant Leaving

- Go to setup in quick find box enter email template, click on classic Email template.
- Then click on new email template choose text
- Email template name: tenant leaving
- Template unique name: Auto populated
- Subject: request for approve the leave
- Email body:  
Dear {!Tenant\_\_c.CreatedBy},  
Please approve my leave.
- Save.



The screenshot shows the Salesforce Classic Email Template setup page. The browser address bar indicates the URL: `arunaiengineeringcolleg-2a0-dev-ed.develop.lightning.force.com/lightning/setup/CommunicationTemplatesEmail/page?address=%2Fp%2FEmail%2FTemplate%2FNewEmailTemplateStageManager%3Fs...`. The page title is "Classic Email Templates". The left sidebar shows the "Setup" menu with "Email" selected. The main content area is titled "Step 2. Text Email Template: New Template" and "Step 2 of 2". It contains the "Email Template Information" section with the following fields:

- Folder: Unified Public Classic Email Templates
- Available For Use: ☐
- Email Template Name: tenant\_leaving
- Template Unique Name: tenant\_leaving
- Encoding: Unicode (UTF-8)
- Description:
- Subject: request for approve the leave
- Email Body: Dear {!Tenant\_\_c.CreatedBy},  
Please approve my leave.

At the bottom right of the form are buttons for "Previous", "Save", and "Cancel". The bottom of the screen shows the Windows taskbar with the time 12:12 and date 13-11-2024.



## 2.Create Email Template For Leave Approved

- Go to setup in quick find box enter email template >> click on classic Email Template.
- Click on >> New Email Template==>Choose text
- Email Template Name=Leave approved
- Template Unique Name : Auto populated
- Subject =Leave approved
- Email body :
- dear{!Tenant\_\_c.Name},

I hope this message finds you well. I am writing to inform you that I have received your email confirming the approval of my leave request. I would like to express my gratitude for considering and approving my time off.

Your leave is approved. You can leave now.

- Save

The screenshot shows the Salesforce Classic Email Template setup page. The browser address bar indicates the URL: `arunaiengineeringcolleg-2a0-dev-ed.develop.lightning.force.com/lightning/setup/CommunicationTemplatesEmail/page?address=%2Fp%2Femail%2Ftemplate%2FNewEmailTemplateStageManager%3Fs...`. The page title is "Classic Email Templates". The left sidebar shows the "Setup" menu with "Email" expanded, and "Classic Email Templates" selected. The main content area is titled "Step 2. Text Email Template: New Template" and "Step 2 of 2". It contains the "Email Template Information" section with the following fields:

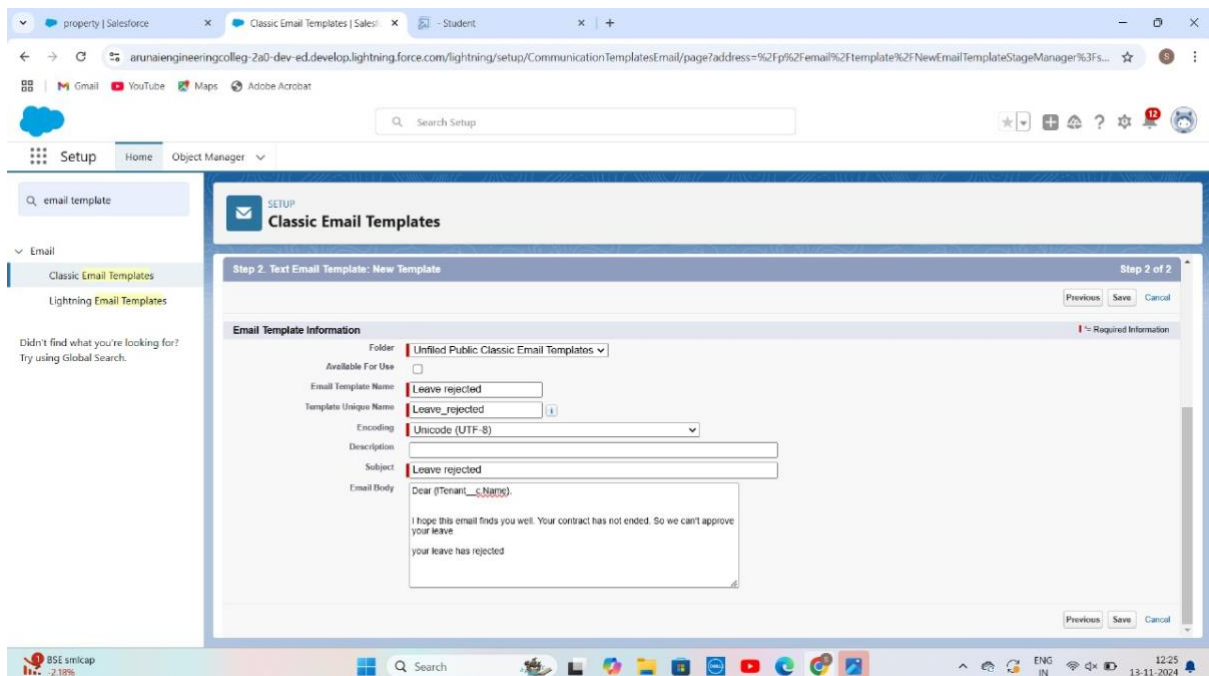
- Folder: Unfiled Public Classic Email Templates
- Available For Use: ☐
- Email Template Name: Leave approved
- Template Unique Name: tenant\_leaving
- Encoding: Unicode (UTF-8)
- Description:
- Subject: Leave approved
- Email Body: 

```
dear{!Tenant__c.Name},  
  
I hope this message finds you well. I am writing to inform you that I have received  
your email confirming the approval of my leave request. I would like to express my  
gratitude for considering and approving my time off.  
  
your leave is approved. You can leave now.
```

At the bottom right of the form, there are "Previous", "Save", and "Cancel" buttons. The Windows taskbar at the bottom shows the time as 12:21 on 13-11-2024.

### 3. Create Email Template For rejection for leave

- Go to setup in quick find box enter email template >> click on classic Email Template.
- Click on >>New Email Template===>Choose text
- Email Template Name=Leave rejected
- Subject : " Leave rejected"
- Email body :
- Dear {!Tenant\_\_c.Name},
- I hope this email finds you well. Your contract has not ended. So we can't approve your leave
- your leave has rejected
- Saved



The screenshot shows the Salesforce Classic Email Template setup page. The browser address bar indicates the URL: `arunaiengineeringcolleg-2a0-dev-ed.develop.lightning.force.com/lightning/setup/CommunicationTemplatesEmail/page?address=%2Fp%2Femail%2Ftemplate%2FNew%2FemailTemplateStageManager%3Fs...`. The page title is "Classic Email Templates". The left sidebar shows the "Setup" menu with "Email" expanded, and "Classic Email Templates" selected. The main content area is titled "Step 2. Text Email Template: New Template" and "Step 2 of 2". It contains the "Email Template Information" section with the following fields:

- Folder: Unfiled Public Classic Email Templates
- Available For Use: ☐
- Email Template Name: Leave rejected
- Template Unique Name: Leave\_rejected
- Encoding: Unicode (UTF-8)
- Description:
- Subject: Leave rejected
- Email Body: Dear {!Tenant\_\_c.Name},  
I hope this email finds you well. Your contract has not ended. So we can't approve your leave  
your leave has rejected

At the bottom right of the form, there are buttons for "Previous", "Save", and "Cancel". The bottom of the screen shows the Windows taskbar with the date and time as 12:25 on 13-11-2024.



## Step 8:Approval Process

### What Is Approval Process In Salesforce?

The Approval Process is an automated process that an org uses to approve records in Salesforce. For example, When In the organization, someone is not able to decide a particular thing then he can ask someone else for approval. So, for such frequent cases or situations, one can define the approval process. So, Users can take benefit of such an approval process whenever needed.

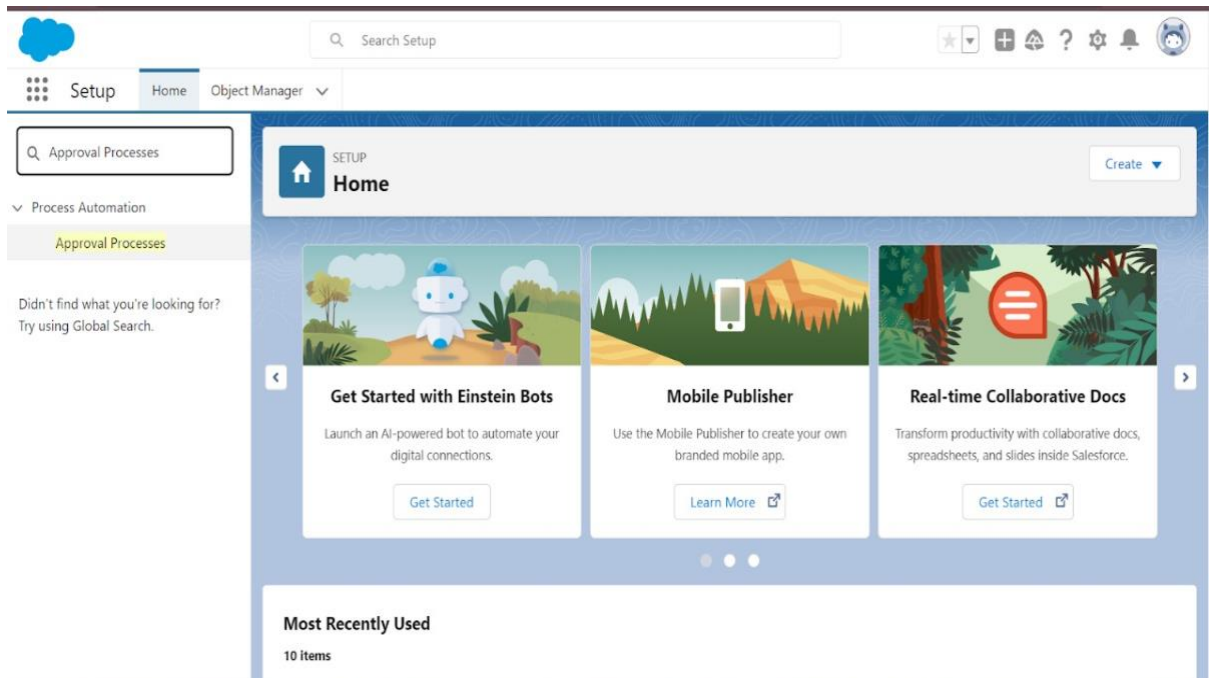
There are 4 actions,

1. Initial Submission Actions
2. Final Approval Actions
3. Final Rejection Actions
4. Recall Actions.


An approval process consists of finalizing the basic properties of the approval process (as shown in the below image), approval steps, and actions to be executed.

#### 1. Create Approval Process For check for vacant.

- Go to setup >> Approval Processes in quick find bar>>click on it.
- Manage Approval Process For >> “Tenant” from the drop down.
- Click on “Create New Approval Process” >> Use standard setup wizard
- Process Name “check for vacant” >> Click Next.
- Field “Tenant:status” >> Operator : Not equals , Value >> Click on the lookup filter icon and select “Leaving”.
- 6.Click insert field,then click Next.



- Next Automated Approver determined by “None” from the drop down.
- Select the “Administrators ONLY can edit records during the approval process”. Then Next.


**Approval Processes**

Approval Process Edit  
check for vacant

[Help for this Page](#)

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

Previous Save Next Cancel

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

**Select Field Used for Automated Approval Routing**

Next Automated Approver Determined By --None--

☐ Use Approver Field of property Owner

**Record Editability Properties**

☒ Administrators **ONLY** can edit records during the approval process.

☐ Administrators **OR** the currently assigned approver can edit records during the approval process.

Previous Save Next Cancel



- Click on next leave the email template click on next
- Submitter type Search>>Owner, Allowed Submitters>>Property Owner. Then Next.
- Then click on Save.

SETUP **Approval Processes**

What Would You Like To Do Now? [Help for this Page](#)

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

☐ Yes, I'd like to create an approval step now.

☐ I'll do this later. Take me to the approval detail page to review what I've just created.

☒ I'll do this later. Take me back to the listing of all approval processes for this object.

[Go!](#)

- Click on “I’ll do this later. Take me back to the listing of all approval process for this object”
- Click go.

## 2.Initial Submission Action:

- Under initial submission action click on add new and then select email alert.
- Description: “please approve my leave”.
- Unique name: auto populated.
- Email template: tenant leaving.
- Recipient type: Email field.

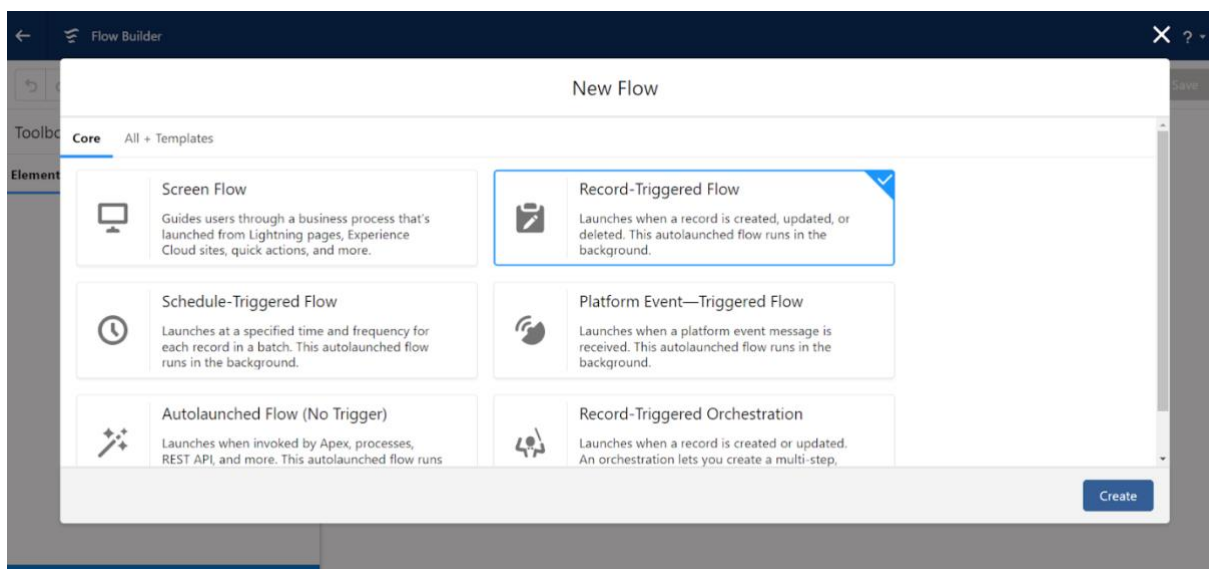


## Step 8: Flows

In Salesforce, a flow is a tool that automates complex business processes. Simply put, it collects data and then does something with that data. Flow Builder is the declarative interface used to build individual flows.

### Create Flow for monthly payment

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



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



### Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements

All Conditions Are Met (AND)

Field

check\_for\_paymet\_c

Operator

Equals

Value

paid

+ Add Condition

#### When to Run the Flow for Updated Records ⓘ

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

#### \* Optimize the Flow for:

##### Fast Field Updates

Update fields on the record that triggers the flow to run. This high-performance flow runs *before* the record is saved to the database.

##### Actions and Related Records ✓

Update any record and perform actions, like send an email. This more flexible flow runs *after* the record is saved to the database.

## Test and validation:

Testing and validation in lease management can involve a variety of activities, including:

### Lease validation services:

Help property management companies ensure that lease agreements are legal and enforceable. These services can help identify issues and verify the terms and conditions of a lease.

### Test planning and execution:

This involves executing and monitoring validation tests according to a test plan and design. It also includes verifying and validating the test results, and recording and reporting any issues or defects.



### **Test objectives and criteria:**

These should be defined clearly and explicitly before starting testing and validation. They should align with the project's goals, scope, specifications, and the needs and expectations of the stakeholders and users.

### **Validation testing:**

This is used to verify that the final product meets the expectations and requirements of the customers and stakeholders. It usually happens after the product is fully developed and focuses on confirming that it works as intended in real-world scenarios.

### **conclusion:**

Lease financing is the best option for those who cannot raise the fund with debt financing, assets can lease their assets to the companies those who required such assets.

Thus, leasing become constructive for both the parties the lessor and the lease also using our lease management system which is CRM based application an can find a customer and anyone can find a good place for the business or for residential purpose. our project is useful for both residential people as well as a business person.