



LEASE MANAGEMENT

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Project Overview

The **Lease Management System** is a Salesforce-based application designed to simplify and automate property lease operations. The project focuses on managing properties, tenants, leases, and payments efficiently through a centralized system.

This application enables property owners and administrators to track lease agreements, tenant details, and payment records. It ensures smooth communication between landlords and tenants through automated workflows, validation rules, approval processes, and scheduled notifications.

Objectives

The main goal of the Lease Management System is to digitalize and automate the lease lifecycle, from property registration to payment collection and lease termination.

Business Goals:

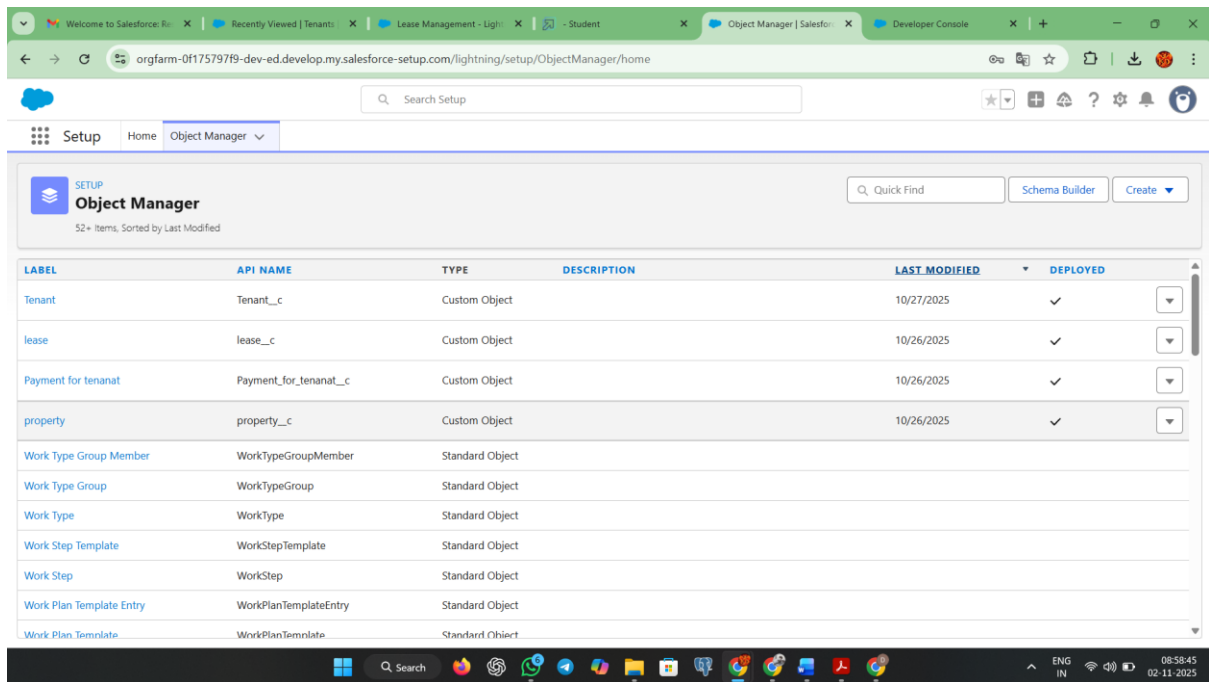
- **Efficient Property Management:** Maintain detailed records of properties, including type, address, and square footage.
- **Tenant Information Management:** Store tenant contact details and lease status for easy access and updates.
- **Automated Payment Tracking:** Record and monitor monthly payments with automated email alerts for due and successful payments.
- **Streamlined Lease Operations:** Manage lease start and end dates, ensure data validation, and prevent overlapping tenancies.
- **Communication Automation:** Use email templates, flows, and Apex classes to automatically notify tenants regarding payment and lease status.

Salesforce Key Features and Concepts Utilized

The system utilizes several key Salesforce features to provide a robust and automated environment:

Custom Objects:

Created four main objects — *Property*, *Tenant*, *Lease*, and *Payment for Tenant* — to store and manage all data related to lease operation.

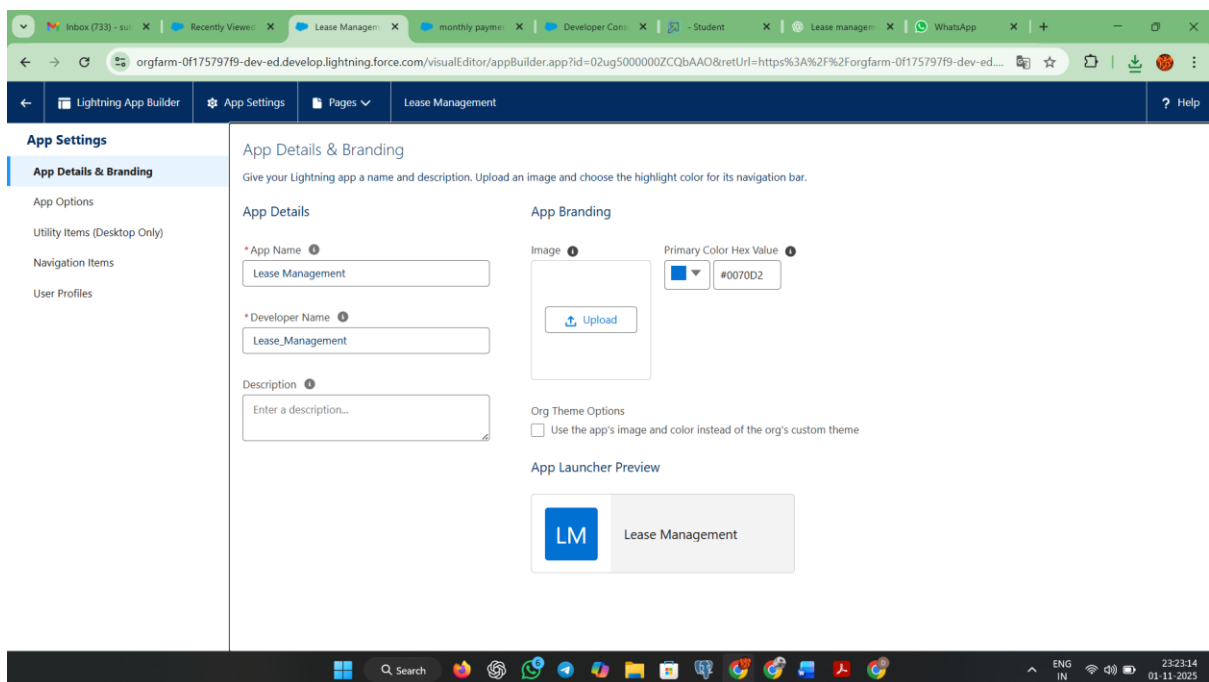


Custom Tabs:

Tabs were created for each object to ensure easy navigation within the Lightning App.

Lightning App:

Developed a custom app named **Lease Management** to bring together all the objects and features under a unified interface.

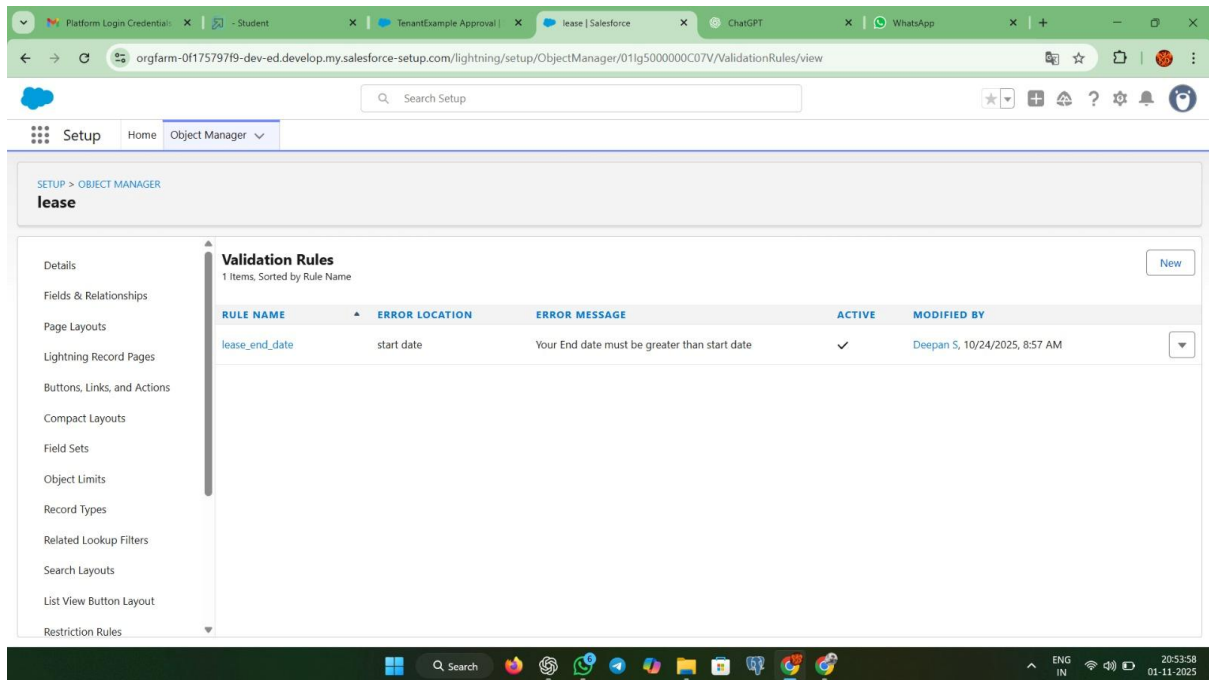


Relationships:

- *Lookup Relationships* between Lease and Property, and Payment for Tenant and Tenant.
- *Master-Detail Relationship* between Property and Payment for Tenant.

Validation Rule:

Ensured logical consistency by validating that the *End Date* of a lease is greater than the *StartDate*.



Approval Process:

Implemented an approval workflow for tenant status (“Stay” or “Leaving”) that triggers automated email alerts for approval or rejection.

When the tenant submits the request, an email using the “**Tenant Leaving**” template is sent for approval. If **approved**, a “**Leave Approved**” email confirms the tenant can vacate. If **rejected**, a “**Leave Rejected**” email notifies that the request is denied.

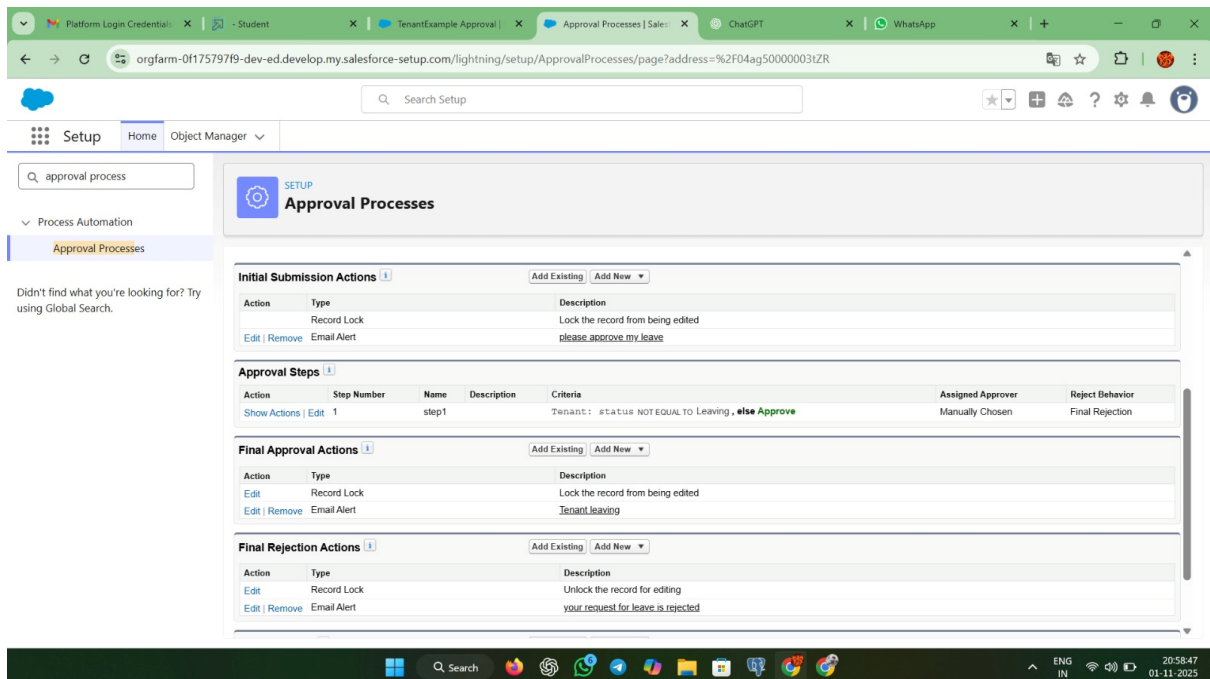
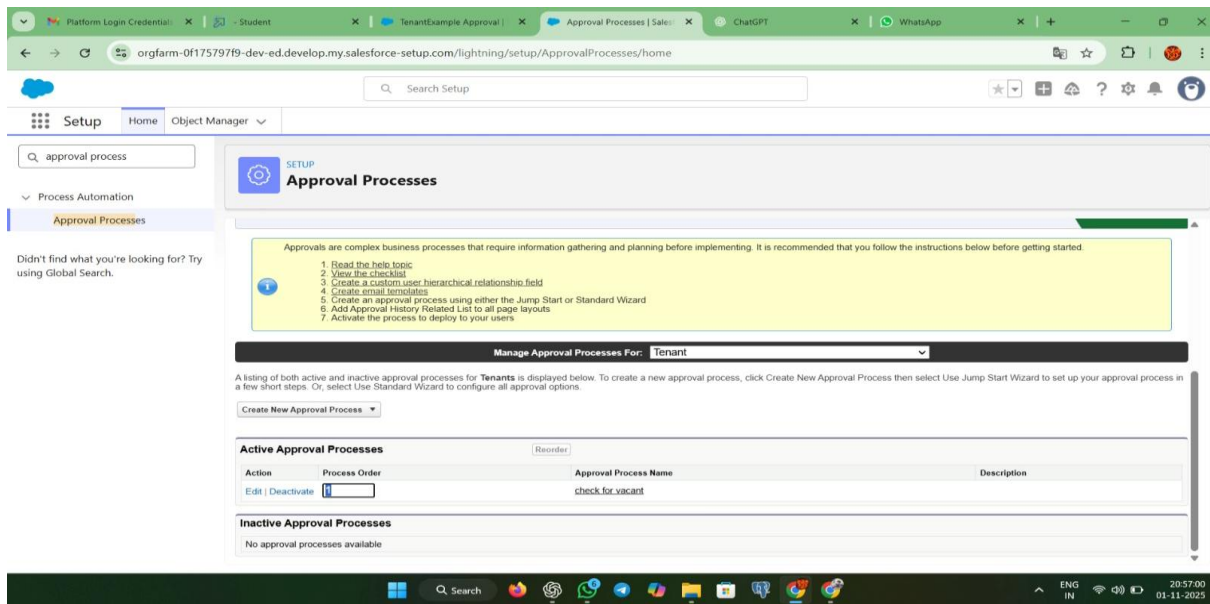
Email Templates Used Various email templates are used to automate communication:

Tenant Leaving: Request for leave approval.

Leave Approved / Leave Rejected: Notify decision on the request.

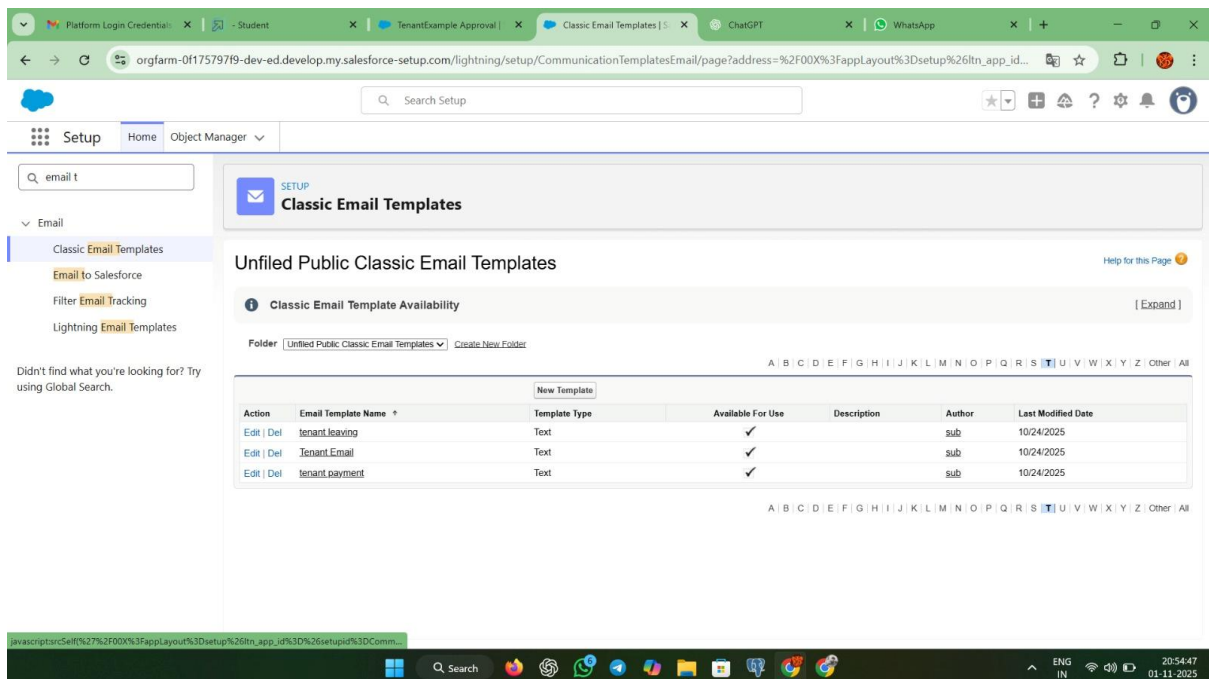
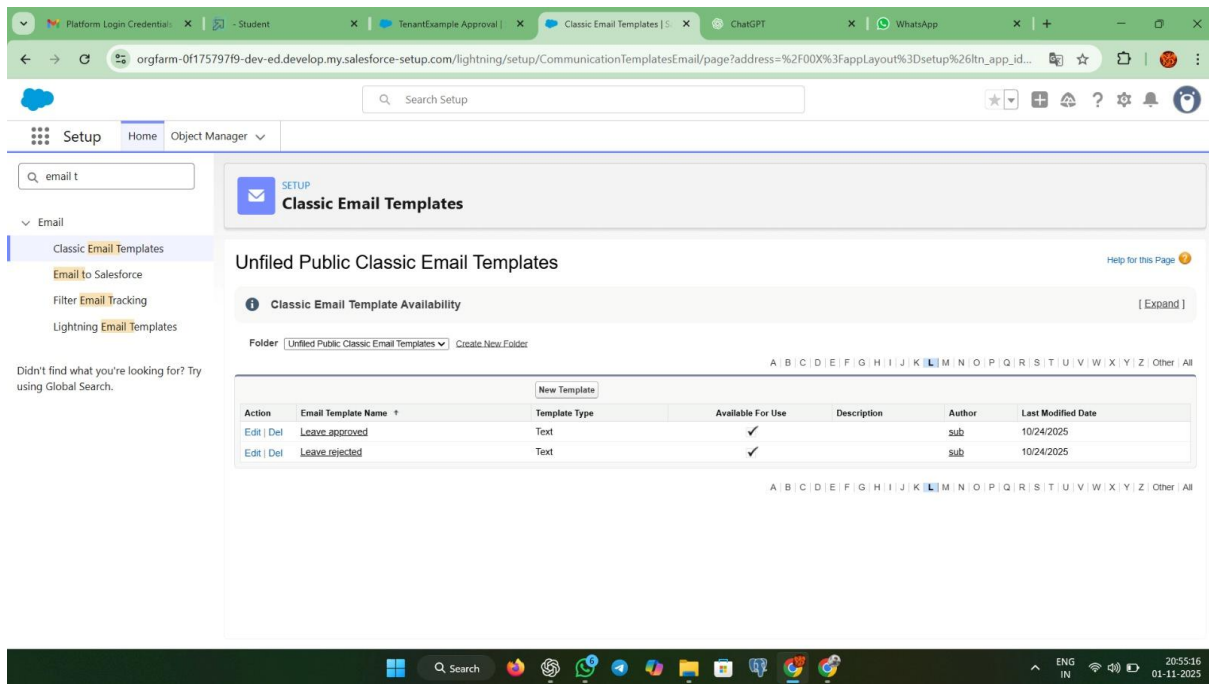
Monthly Payment Reminder: Sends payment reminders and auto-confirmation when marked as “Paid” (via Flow).

Successful Payment: Confirms the rent payment has been received



Email Templates:

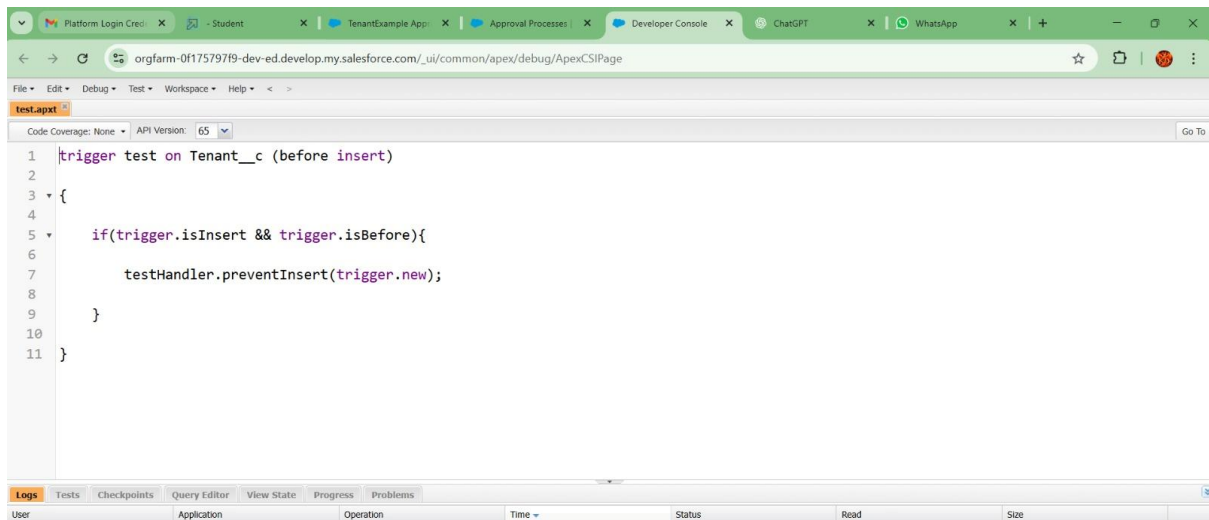
In this project, various email templates are created to automate communication between tenants and property managers. These templates help in managing tenant requests, approvals, and payments efficiently without manual effort.



Apex trigger and Handler class:

Implemented business logic to prevent multiple tenants from being assigned to the same property. An **Apex Trigger** and **Handler Class** are created to maintain data integrity between tenants and properties. The trigger, named “test”, runs **before inserting** a new tenant record. It ensures that each property can only be linked to **one tenant at a time**.

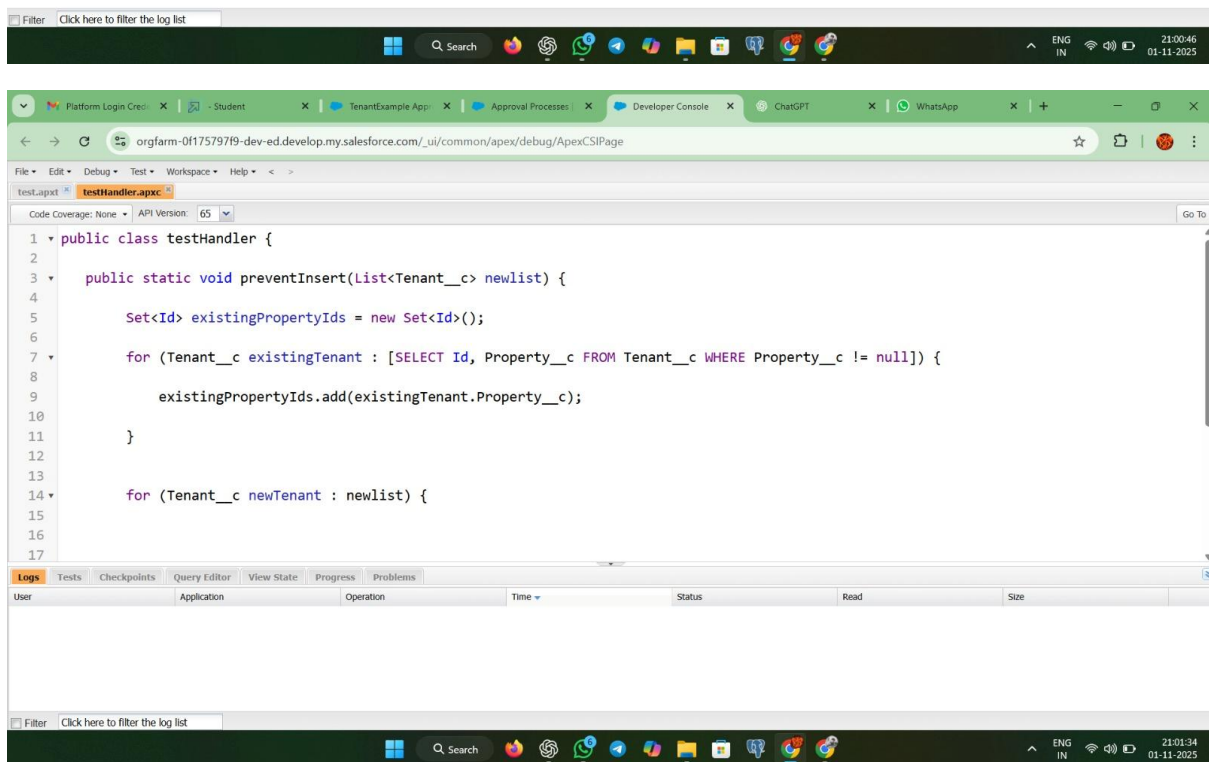
The **Handler Class (testHandler)** contains the main logic. It checks whether the property is already assigned to another tenant.



The screenshot shows the Salesforce Developer Console with the Apex trigger code for `Tenant__c`. The code is as follows:

```
1 trigger test on Tenant__c (before insert)
2
3 {
4
5     if(trigger.isInsert && trigger.isBefore){
6
7         testHandler.preventInsert(trigger.new);
8
9     }
10
11 }
```

The interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help), a toolbar with 'test.apxt', and a status bar showing 'Code Coverage: None' and 'API Version: 65'. Below the code editor is a 'Logs' tab with a table containing columns: User, Application, Operation, Time, Status, Read, and Size.



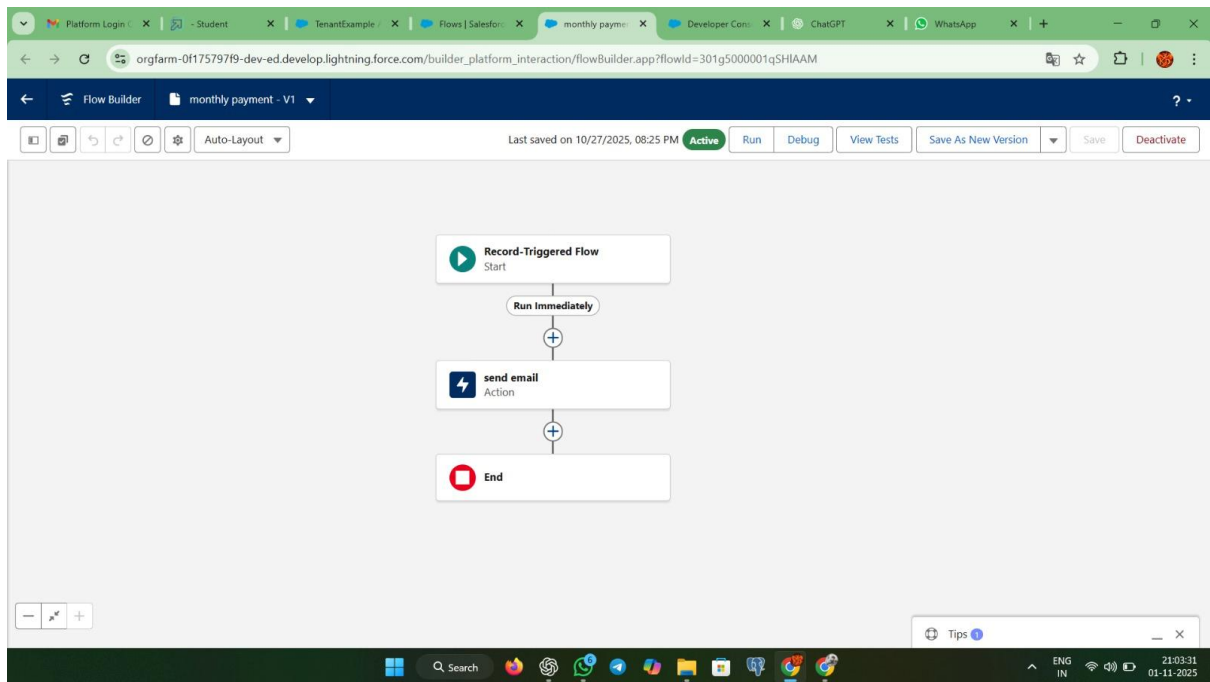
The screenshot shows the Salesforce Developer Console with the Apex testHandler class code. The code is as follows:

```
1 public class testHandler {
2
3     public static void preventInsert(List<Tenant__c> newList) {
4
5         Set<Id> existingPropertyIds = new Set<Id>();
6
7         for (Tenant__c existingTenant : [SELECT Id, Property__c FROM Tenant__c WHERE Property__c != null]) {
8
9             existingPropertyIds.add(existingTenant.Property__c);
10
11         }
12
13         for (Tenant__c newTenant : newList) {
14
15
16
17
18     }
19 }
```

The interface includes a menu bar (File, Edit, Debug, Test, Workspace, Help), a toolbar with 'test.apxt' and 'testHandler.apxc', and a status bar showing 'Code Coverage: None' and 'API Version: 65'. Below the code editor is a 'Logs' tab with a table containing columns: User, Application, Operation, Time, Status, Read, and Size.

Flows and scheduled classes:

Automated monthly payment reminders using Record-Triggered Flows and an Apex Scheduler to send emails on the 1st of each month.



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Notifications

[Mark all as read](#)

Approval request for the tenant is approved
TenantExample
Oct 27, 2025, 8:44 PM

New Guidance Center learning resource available
Set Up Accounts & Contacts
Start storing information about your customers with accounts and contacts.
Oct 24, 2025, 9:01 PM

New Guidance Center learning resource available
Define Your Sales Process
Learn how to guide reps through the sales process.
Oct 24, 2025, 9:01 PM

tes ago

	Active	Tem...	Package S
ler Flow	✓	✓	Managed-
ler Flow	✓	✓	Managed-
ler Flow	✓	✓	Managed-
ler Flow	✓	✓	Managed-
w	✓	✓	Managed-Instance

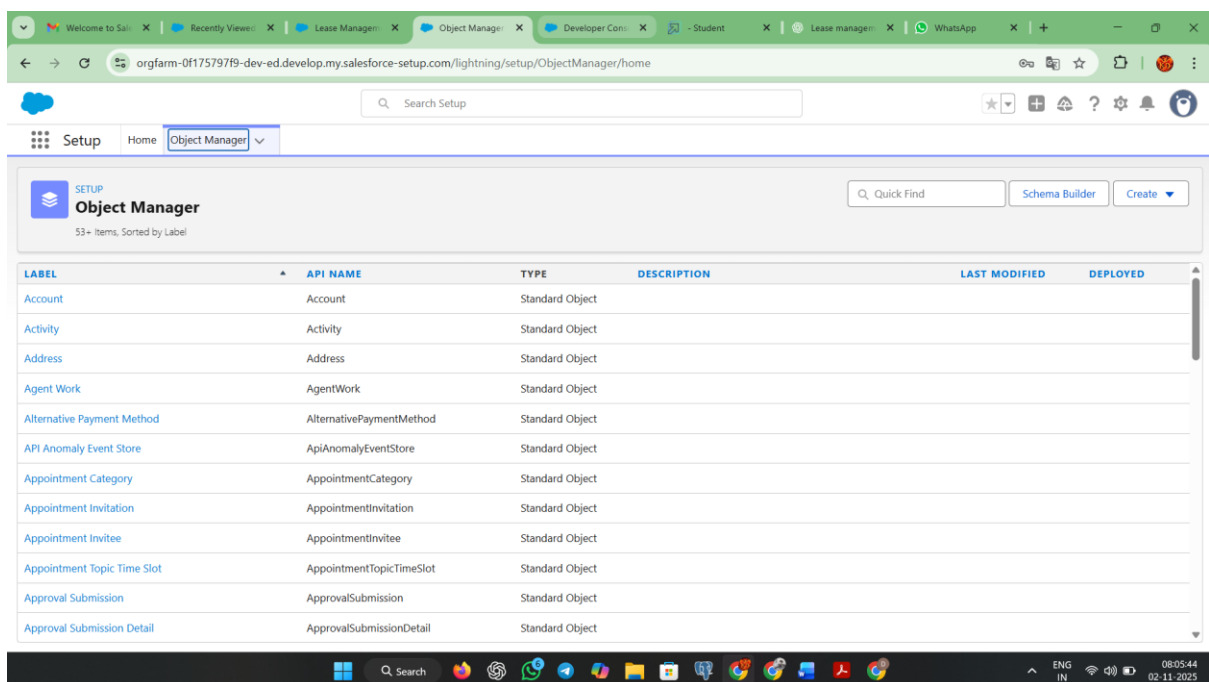
Detailed Steps to Solution Design

Step 1: Custom Object Creation

Created the following custom objects using the Object Manager:

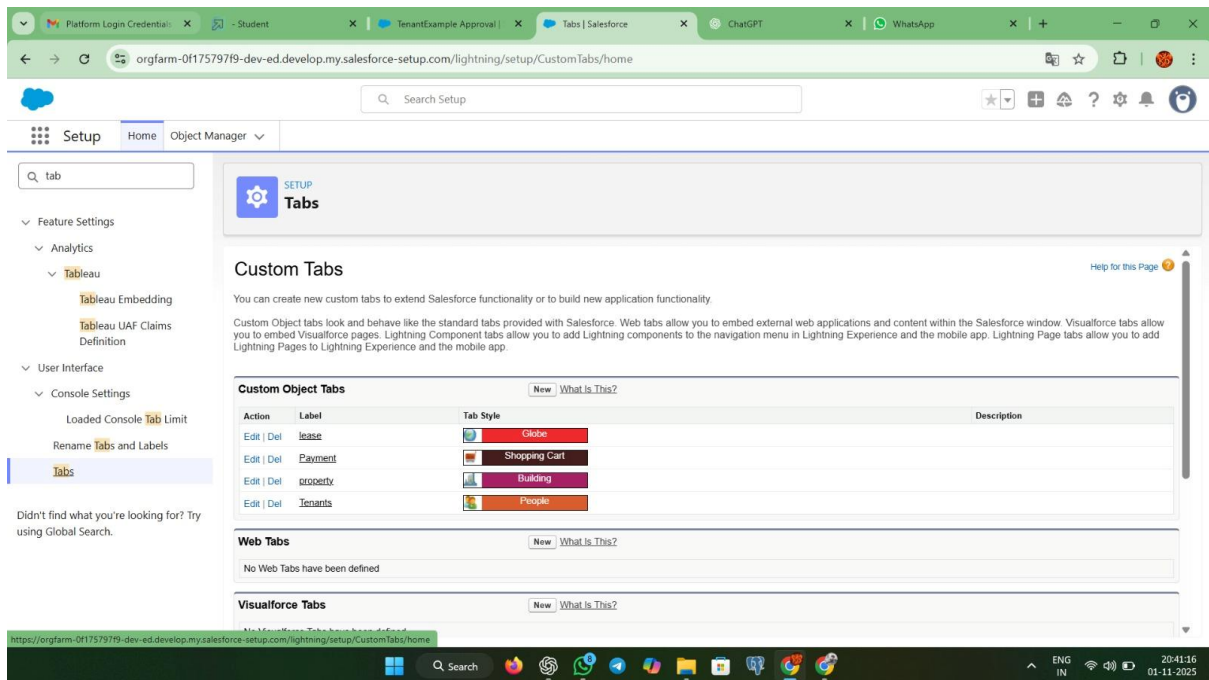
- **Property** – to store property details.
- **Tenant** – to record tenant information.
- **Lease** – to manage lease agreements.
- **Payment for Tenant** – to track rent payments.

Each object was configured with “Allow Reports,” “Track Field History,” “Allow Activities,” and “Allow Search.”



Step 2: Creating Custom Tabs

Custom tabs were created for all four objects (Property, Tenant, Lease, and Payment for Tenant) to allow easy navigation and data entry within the Lightning App.

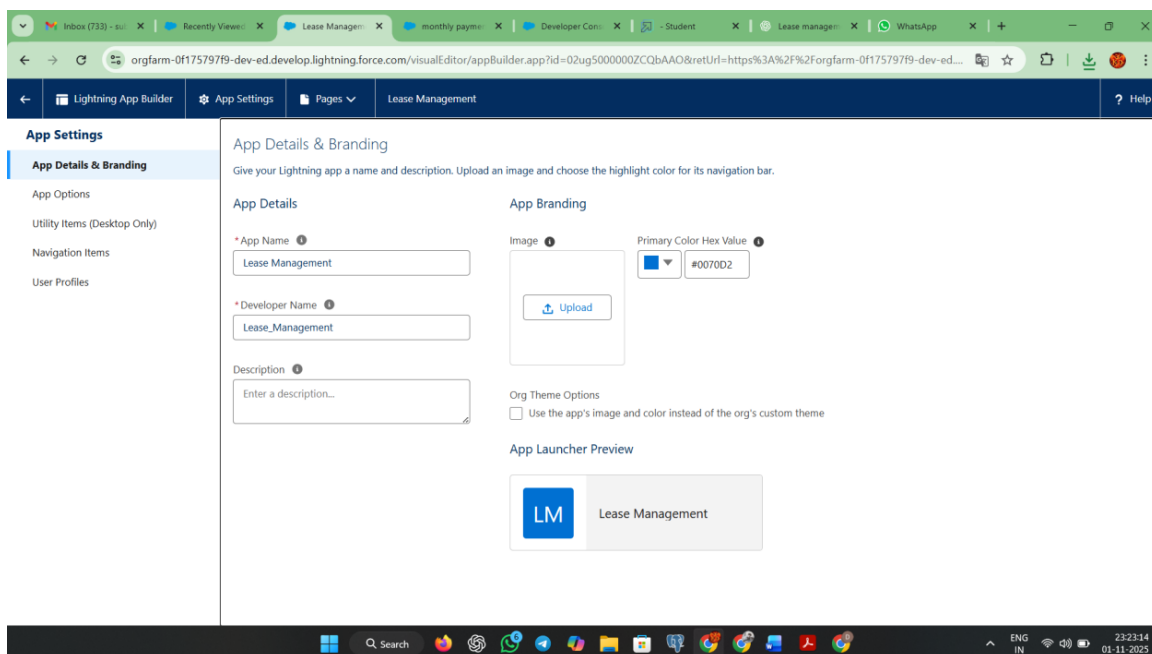


Step 3: Lightning App Creation

Developed a **Lightning App** named *Lease Management* with navigation items for:

- Property
- Tenant
- Lease
- Payment for Tenant

Set the navigation style as *Standard Navigation* and assigned the *System Administrator* profile for app access.



Step 4: Field Creation for Property Object

Added the following fields:

- **Name** (Text, Required)
- **Address** (Long Text Area)
- **Type** (Picklist: 1BHK, 2BHK, 3BHK)
- **Sqft** (Text, Length: 18)

The screenshot shows the Salesforce Setup interface for the 'property' object. The 'Fields & Relationships' section is active, displaying a table of 8 fields. The table has columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed. The fields listed are Address, Created By, Last Modified By, Name, Owner, property Name, sqft, and Type.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Long Text Area(32768)		
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Name	Name__c	Text(25)		
Owner	OwnerId	Lookup(User,Group)		✓
property Name	Name	Text(80)		✓
sqft	sqft__c	Text(18)		
Type	Type__c	Picklist		

Step 5: Field Creation for Tenant Object

Added key fields:

- **Email** (Email, Required)
- **Phone** (Phone)
- **Status** (Picklist: Stay, Leaving)

Platform Login Credentials | Student | TenantExample Approval | Tenant | Salesforce | ChatGPT | WhatsApp

orgfarm-0f175797f9-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lg5000000By0s/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER

Tenant

Details

Fields & Relationships

8 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Email	Email__c	Email		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Phone	Phone__c	Phone		
property	property__c	Lookup(property)		✓
status	status__c	Picklist		
Tenant Name	Name	Text(80)		✓

ENG IN 20:46:15 01-11-2025

Step 6: Field Creation for Lease Object

Configured:

- Start Date (Date)
- End Date (Date)

Platform Login Credentials | Student | TenantExample Approval | lease | Salesforce | ChatGPT | WhatsApp

orgfarm-0f175797f9-dev-ed.develop.my.salesforce-setup.com/lightning/setup/ObjectManager/01lg5000000C07V/FieldsAndRelationships/view

Setup Home Object Manager

SETUP > OBJECT MANAGER

lease

Details

Fields & Relationships

7 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

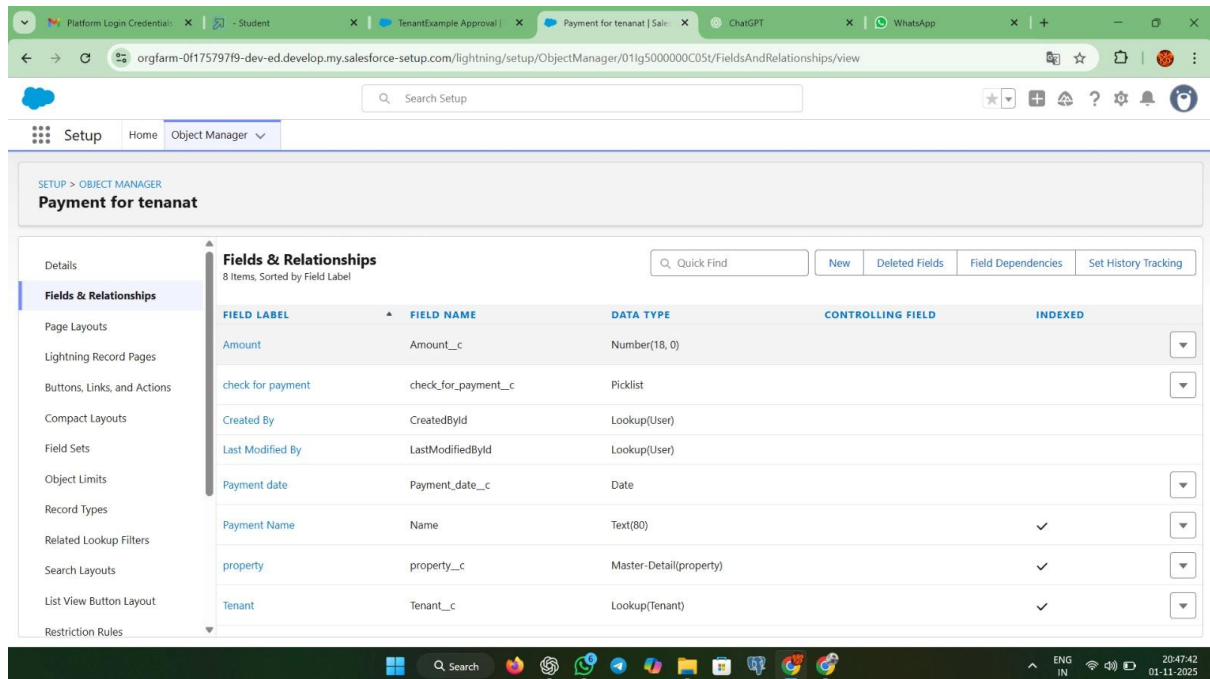
FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
End date	End_date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
lease Name	Name	Text(80)		✓
Owner	OwnerId	Lookup(User,Group)		✓
property	property__c	Lookup(property)		✓
start date	start_date__c	Date		

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Step 7: Field Creation for Payment for Tenant Object

Defined fields:

- **Payment Date** (Date)
- **Amount** (Number, Length: 18)
- **Check for Payment** (Picklist: Paid, Not Paid)



Step 8: Relationship Creation

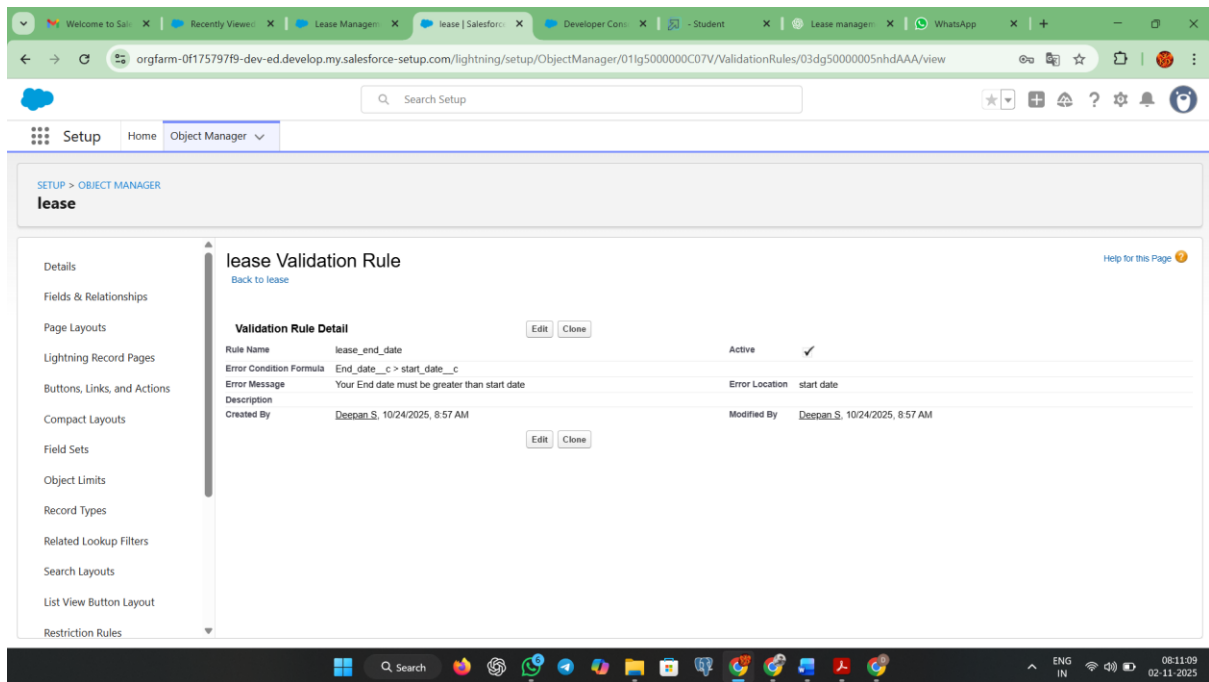
- **Lease → Property:** Lookup Relationship
- **Payment for Tenant → Tenant:** Lookup Relationship
- **Payment for Tenant → Property:** Master-Detail Relationship

These relationships ensure linked and consistent data across all objects.

Step 9: Validation Rule

Created a validation rule on **Lease Object**:

- **Rule Name:** lease_end_date
- **Condition:** End_date__c < Start_date__c
- **Error Message:** “Your End date must be greater than start date.”
- **Error Location:** Field → Start Date



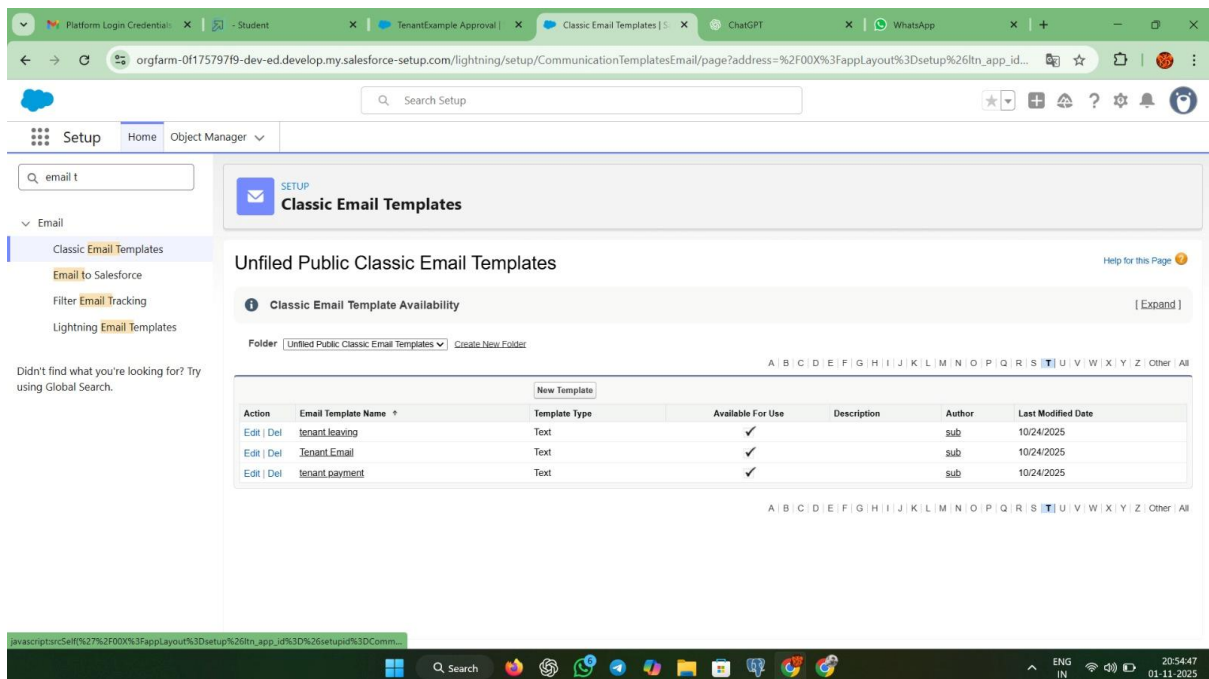
Step 10: Email Templates

Created multiple Classic Email Templates for communication:

Tenant Leaving – request approval for leave.

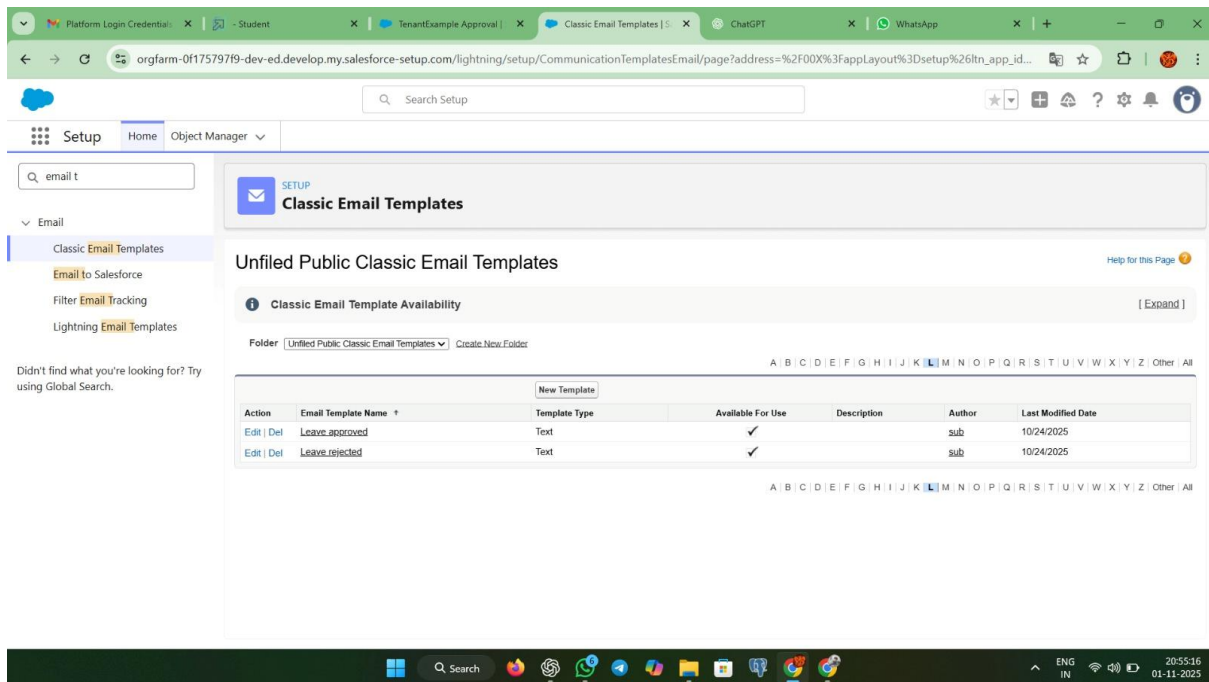
Leave Approved – confirmation email for approved leave.

Leave Rejected – notification for rejected leave.



Tenant Email – monthly rent payment reminder.

Tenant Payment – successful payment confirmation.

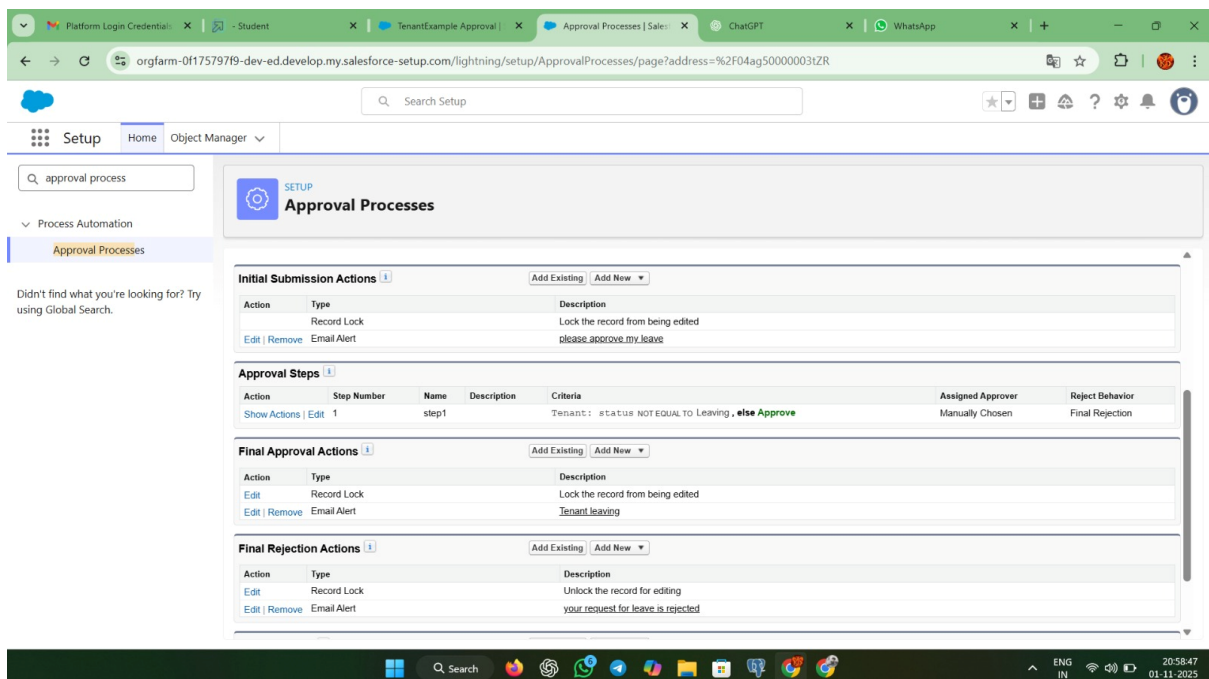


Step 11: Approval Process

Created an approval process named **Check for Vacant** for the *Tenant* object. It automates email notifications and record updates during the approval lifecycle using the templates created above.

Actions:

- **Initial Submission:** Sends *Tenant Leaving* email.
- **Final Approval:** Sends *Leave Approved* email
- **Final Rejection:** Sends *Leave Rejected* email



Step 12: Apex Trigger and Handler Implementation

- Created an **Apex Trigger** and **Handler Class** to ensure one property is assigned to only one tenant.
- Prevents duplicate tenant assignments and maintains clean, accurate data.

Step 13: Scheduled Apex Class

- Implemented a **Scheduled Apex Class (MonthlyEmailScheduler)** to send rent reminder emails automatically on the first day of every month.
- This helps maintain regular rent payments and consistent communication with tenants.

Key Scenarios Addressed by Salesforce

- **Property Management:** Salesforce custom objects simplify property record maintenance.
- **Tenant Tracking:** Ensures every tenant is linked to a property with no duplication.
- **Lease Validation:** Validation rule ensures accurate date management.
- **Automated Communication:** Email templates and flows improve tenant engagement.
- **Approval Workflow:** Automates tenant status updates with admin approval.

Payment Tracking: Payments and reminders are handled via flows and scheduled emails

Conclusion

The **Lease Management System** project demonstrates the effective use of Salesforce to streamline rental operations. Through automation, relationship management, and workflow logic, the system enhances accuracy, transparency, and communication.

Key accomplishments include:

- End-to-end automation of lease, payment, and tenant processes.
- Secure and relational data structure.
- Automatic email notifications for tenants.
- Validation and approval systems for better control.
- Improved operational efficiency for property administrators.

