Capstone Project Report

On

“**Travel Approval App**”

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Date: 27/02/2023

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Abstract

The Travel Approval App for Salesforce is a comprehensive solution designed to streamline the travel approval process for sales teams. With this app, sales representatives can quickly and easily submit travel requests, including details on travel dates, destinations, and budgets, all from within the Salesforce platform. The app automates the approval process, ensuring that requests are routed to the appropriate approvers based on pre-defined rules and workflows. The app also provides real-time visibility into travel requests and approvals, helping sales managers make informed decisions about their teams' travel plans. Overall, the Travel Approval App for Salesforce enables sales teams to save time, increase efficiency, and improve collaboration, all while ensuring that travel is managed in a compliant and cost-effective manner.

Introduction

In today's fast-paced business environment, sales teams often need to travel frequently to meet with clients, attend conferences, and conduct business. However, managing travel requests and approvals can be a time-consuming and error-prone process, particularly when done manually. To address this challenge, many organizations are turning to technology solutions such as the Travel Approval App for Salesforce

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This app is a powerful tool that allows sales teams to easily submit and manage travel requests directly within the Salesforce platform. By automating the travel approval process, the app saves time and reduces the risk of errors and delays. It also provides sales managers with real-time visibility into their teams' travel plans, enabling them to make informed decisions about resource allocation and budgeting.

In this report, we will provide an overview of the Travel Approval App for Salesforce, including its features, benefits, and potential use cases. We will also explore how this app can help organizations improve their travel management processes, increase efficiency, and reduce costs. Finally, we will discuss best practices for implementing and using the app effectively.

Flow of the Project

The flow of the Travel Approval App for Salesforce typically involves several steps, which are as follows:

1.**Travel Request Submission**: Sales representatives submit travel requests using the Travel Approval App within the Salesforce platform. The request includes details such as travel dates, destinations, budgets, and purpose.

2.Automated Routing of Requests: The app automatically routes the travel request to the appropriate approvers based on pre-defined rules and workflows. This ensures that requests are reviewed by the right people, in the right order.

3.Review and Approval: Approvers receive notifications when a travel request requires their approval. They can review the request details and approve or reject it within the app.

4.Notification and Feedback: Sales representatives are notified of the approval or rejection of their travel request. If rejected, the app may allow the representative to revise and resubmit the request.

5.Real-Time Reporting: The app provides real-time visibility into travel requests and approvals, allowing sales managers to monitor travel spend and make informed decisions about their teams' travel plans.

Overall, the Travel Approval App for Salesforce automates and streamlines the travel request and approval process, providing a seamless experience for sales representatives and managers while ensuring compliance and cost-effectiveness.

Software Requirements

For the fastest and most stable experience, we recommend:

- An Octane 2.0 score of 30,000 or greater
- Network latency of 150 ms or less
- Download speed of 3 Mbps or greater
- At least 8 GB of RAM, with 3 GB available for Salesforce browser tabs

Minimum requirements are:

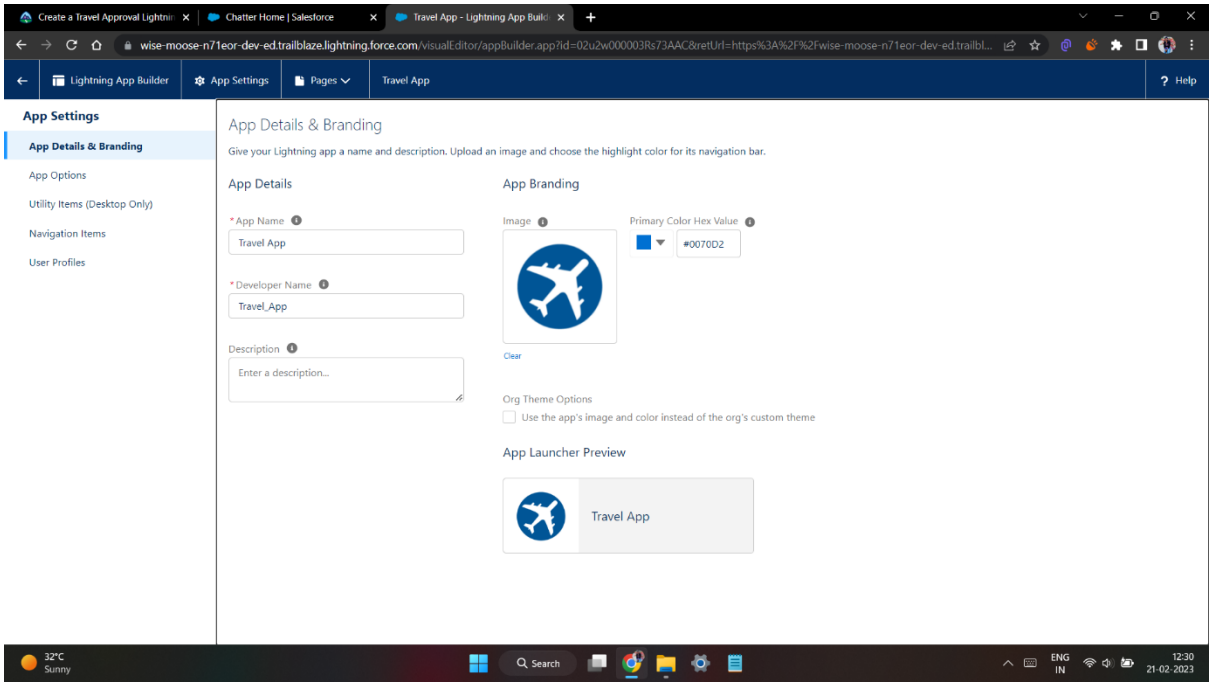
- An Octane 2.0 score of 20,000 or greater
- Network latency of 200 ms or less
- Download speed of 1 Mbps or greater
- At least 5 GB of RAM, with 2 GB available for Salesforce browser tabs

MODULE 1

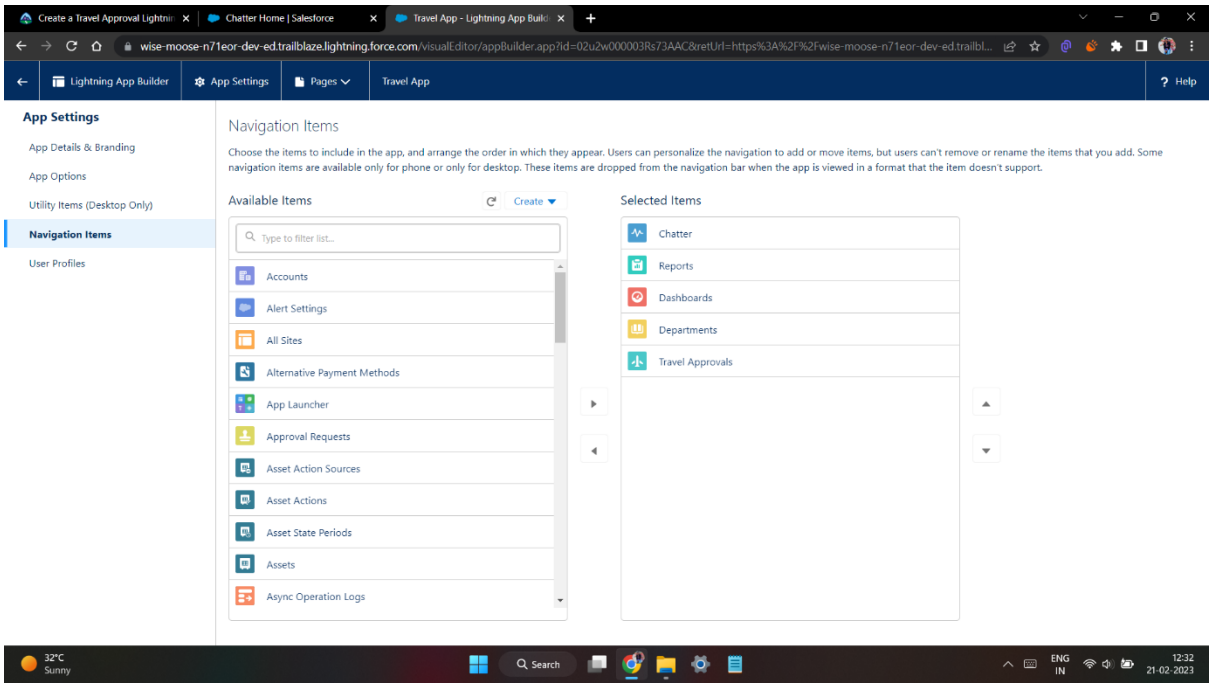
EXERCISE 1

STEP 1

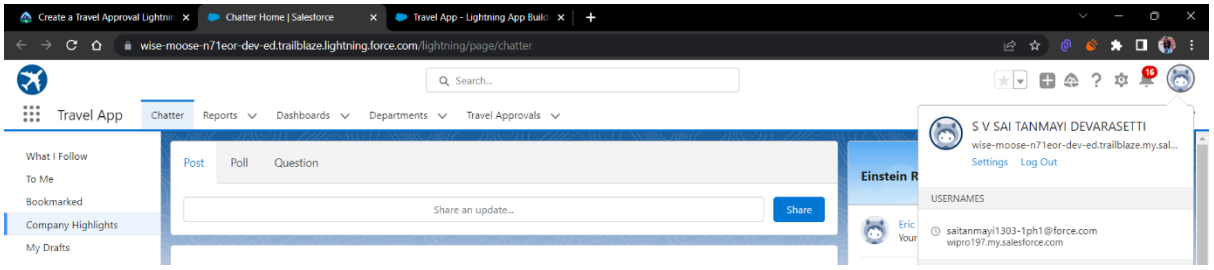
Creating Lightning App: Travel App.



Select and add Navigation items to app

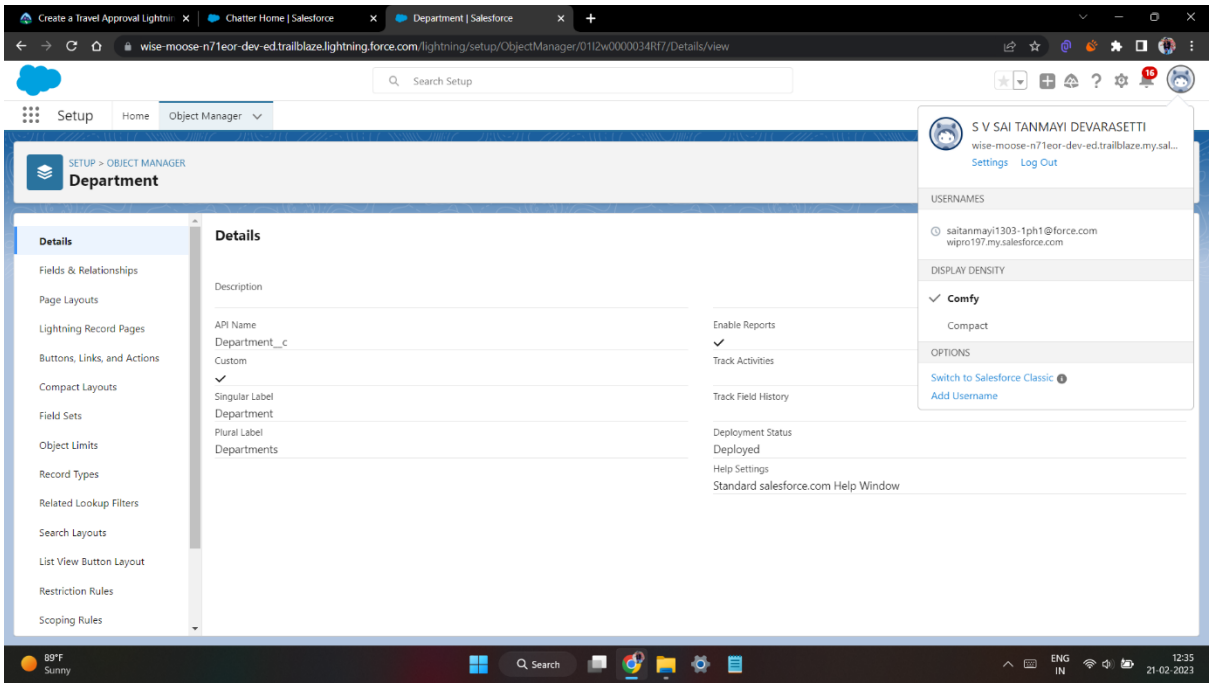


Giving user profile as System Administrator



STEP 2

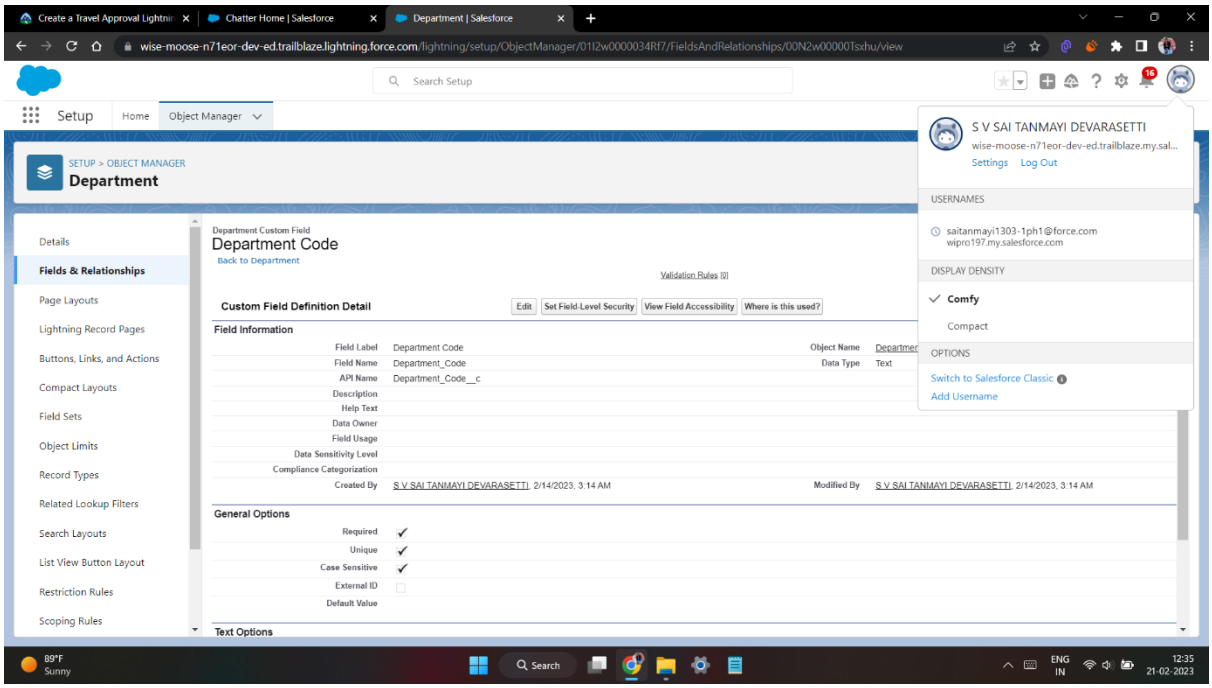
Custom object Department



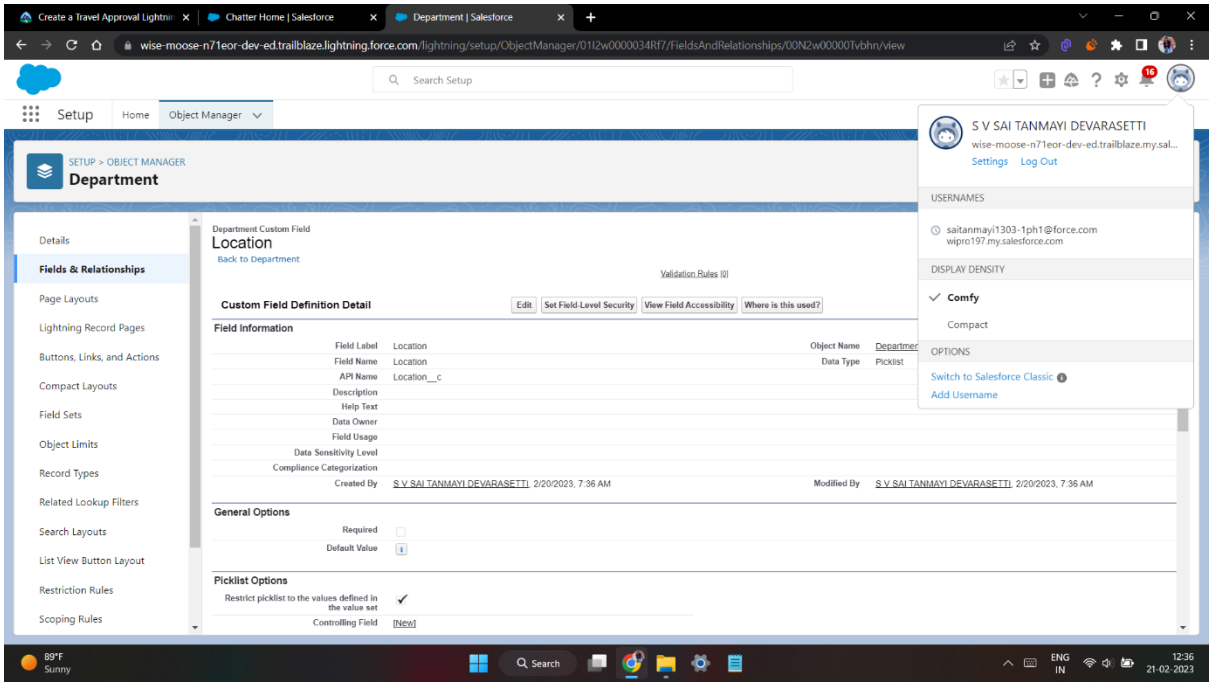
STEP 3

Creating custom fields in Department object

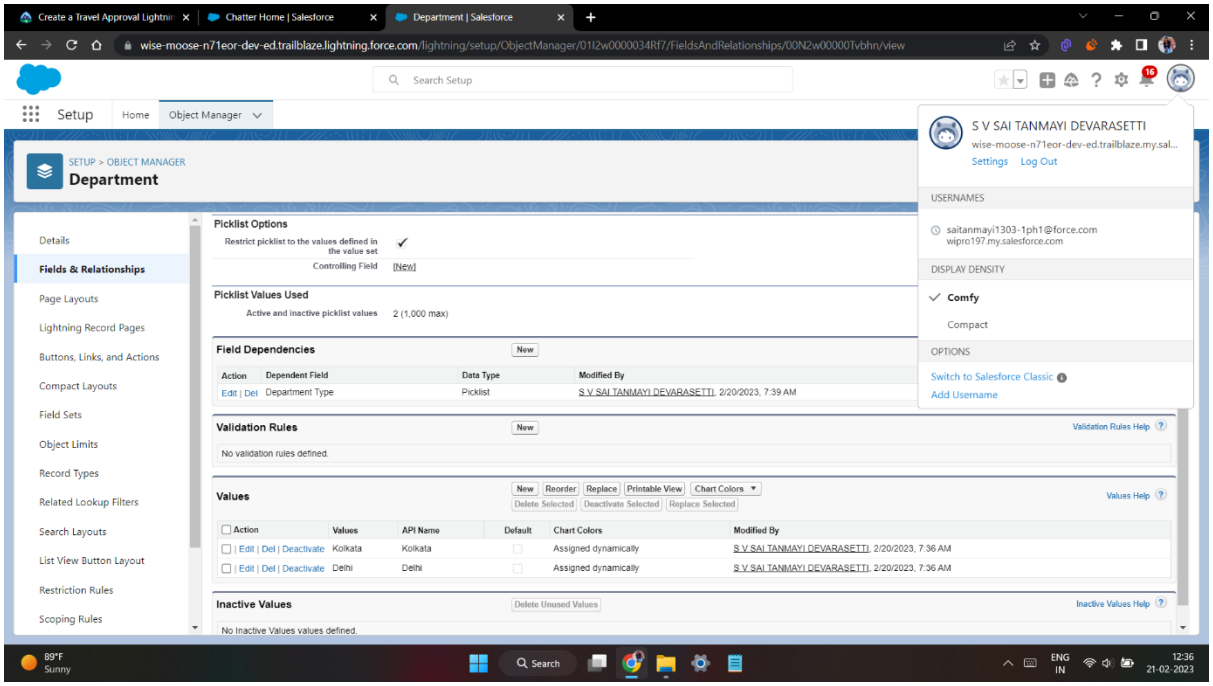
Department Code Field



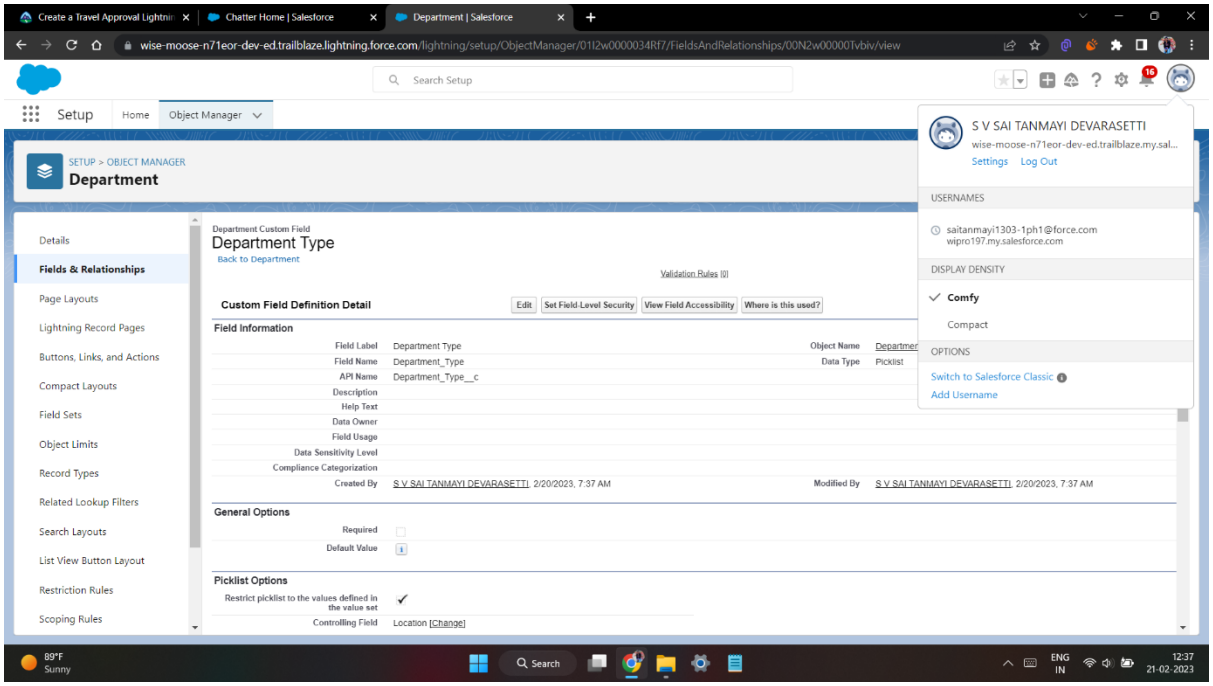
Location Field



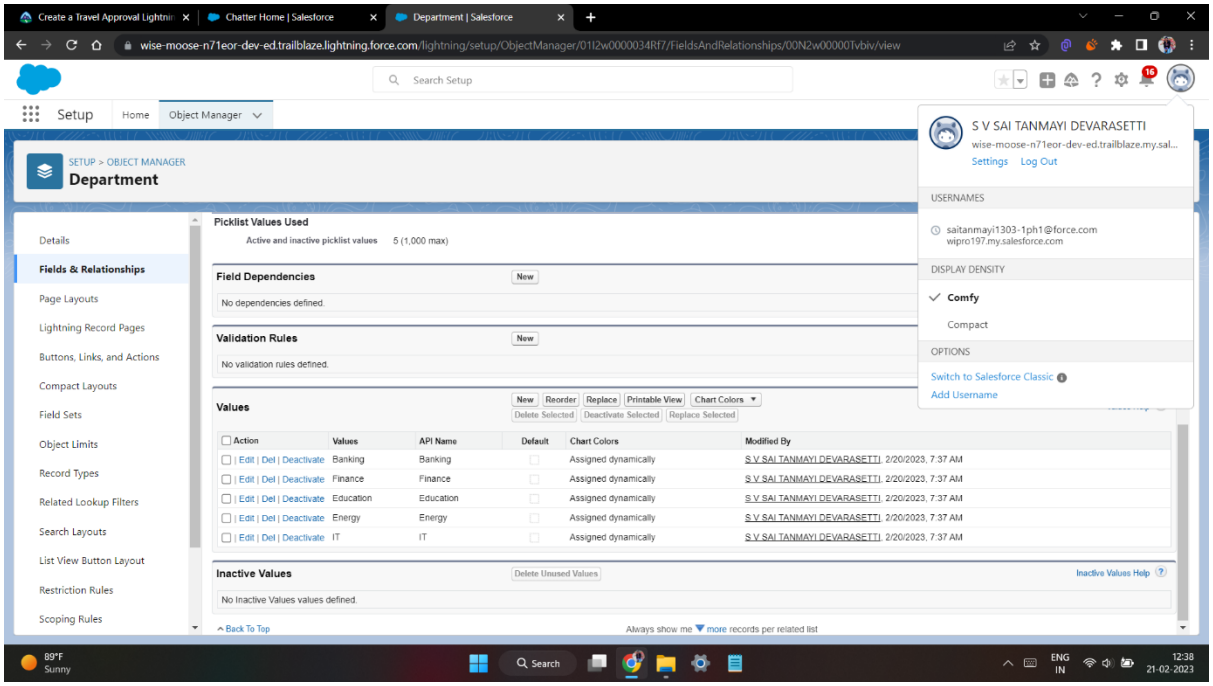
Location Picklist Values



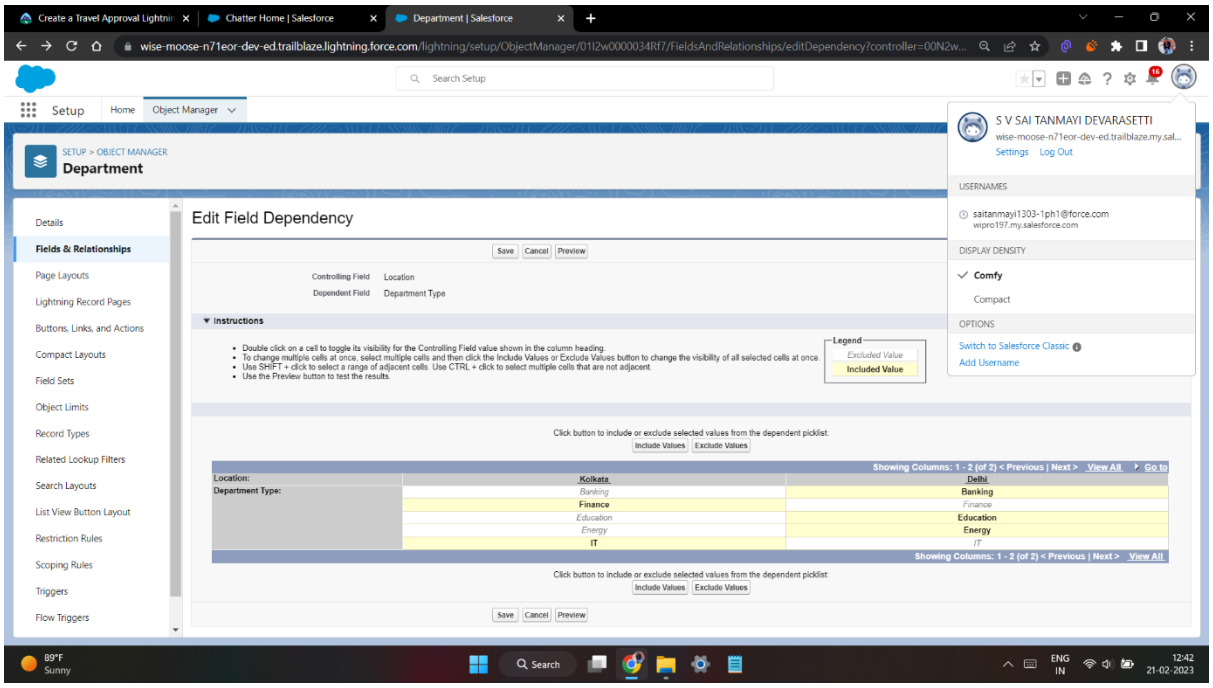
Department Type Field



Department Type Picklist

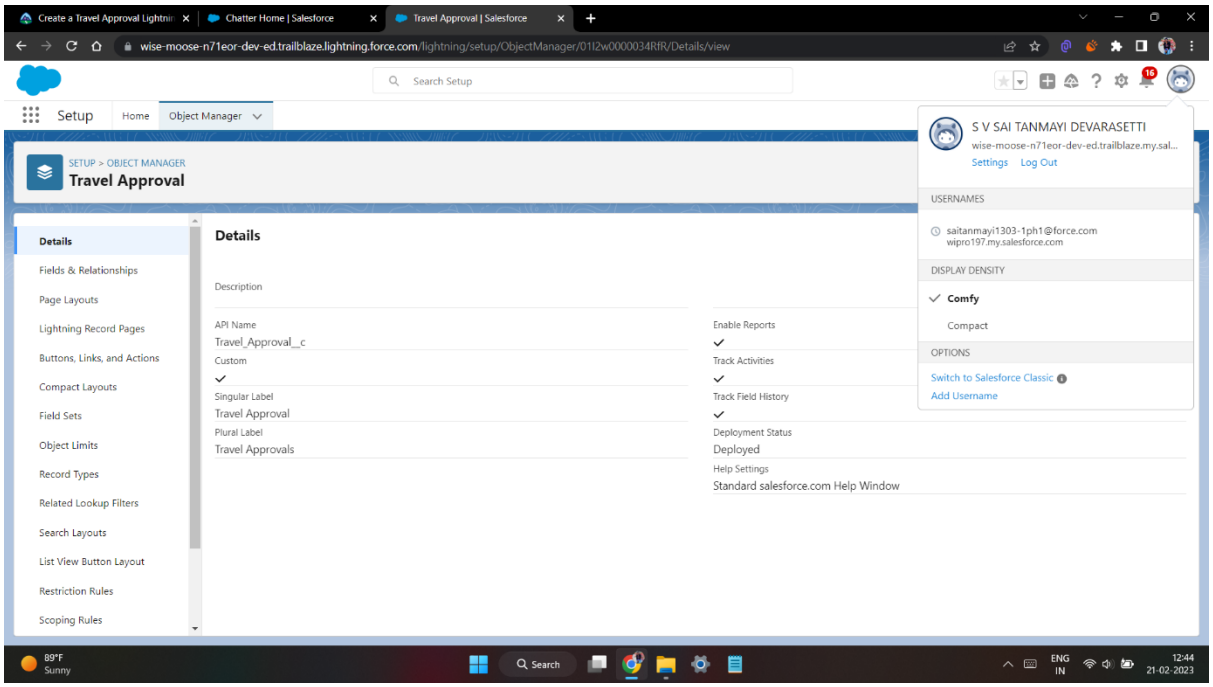


Field Dependency



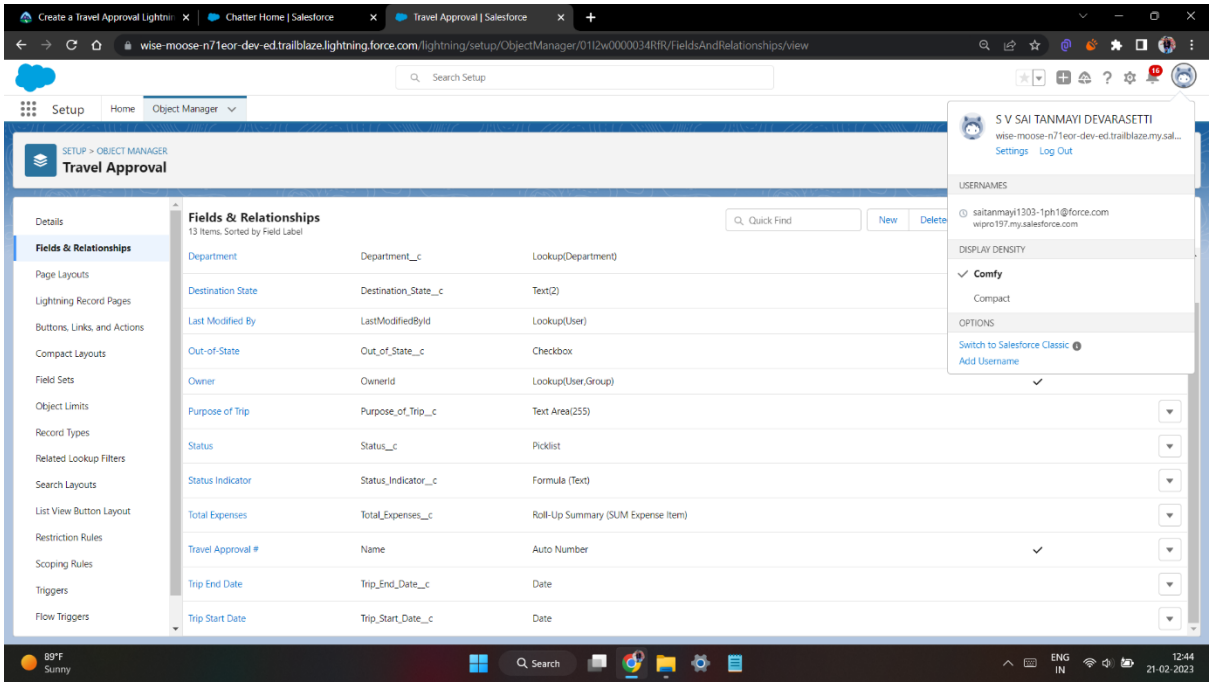
STEP 4

Creating Custom Object Travel Approval

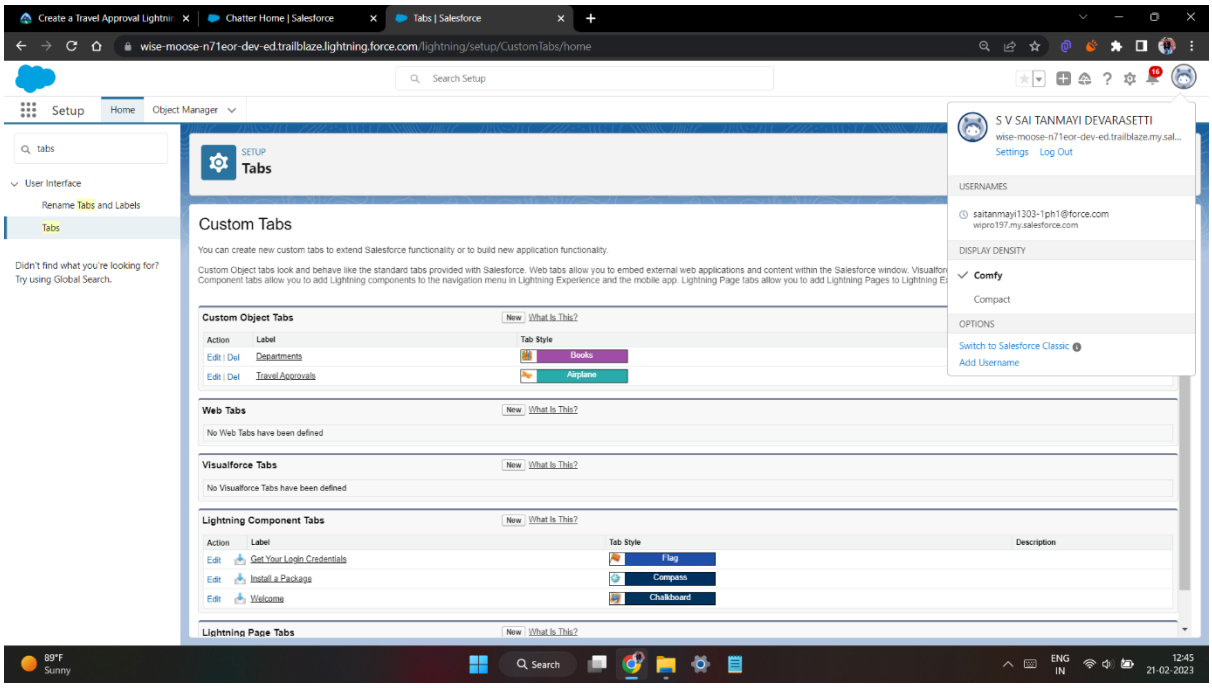


Custom Fields in Travel Approval Object

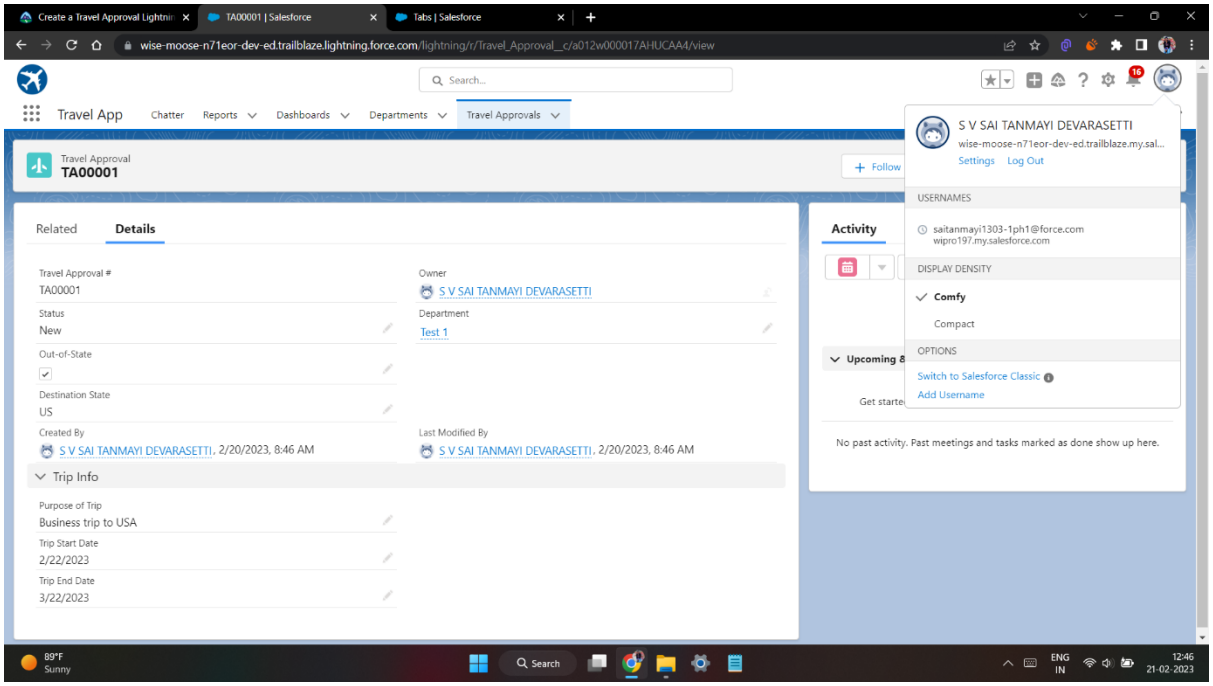
Contains purpose of trip, status, trip start date, trip end date, out of state, destination state, department(lookup)



Custom tabs for custom objects

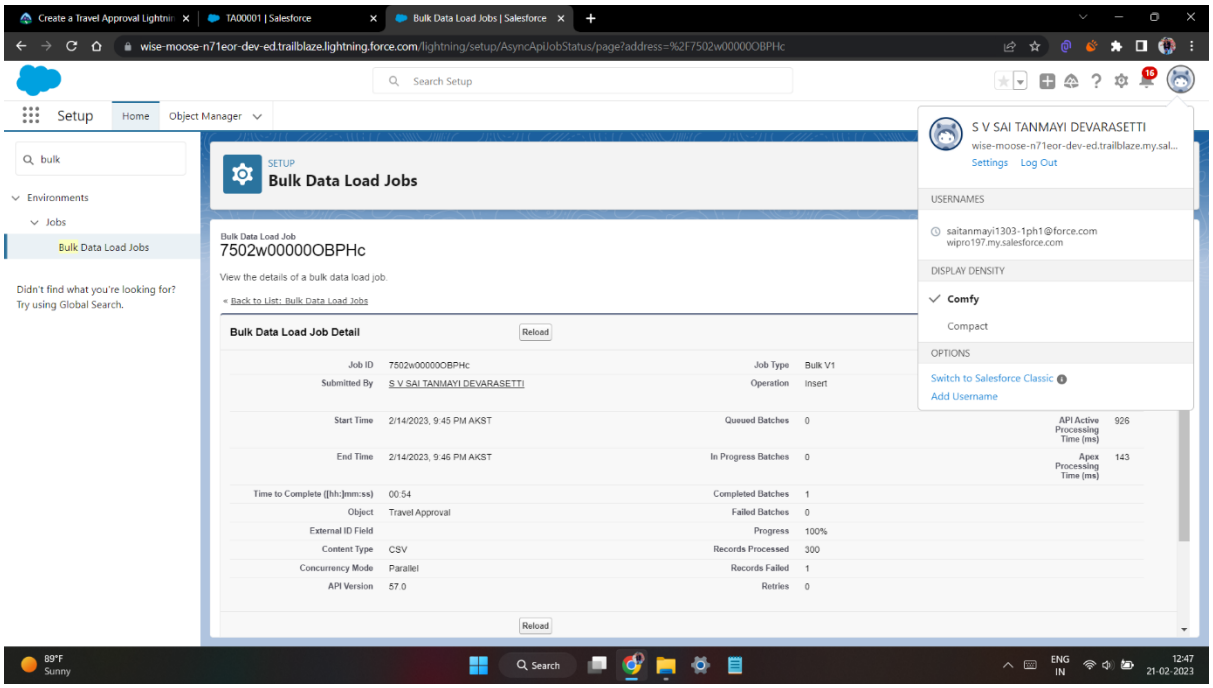


After creating travel approval object with fields, it looks as shown below.

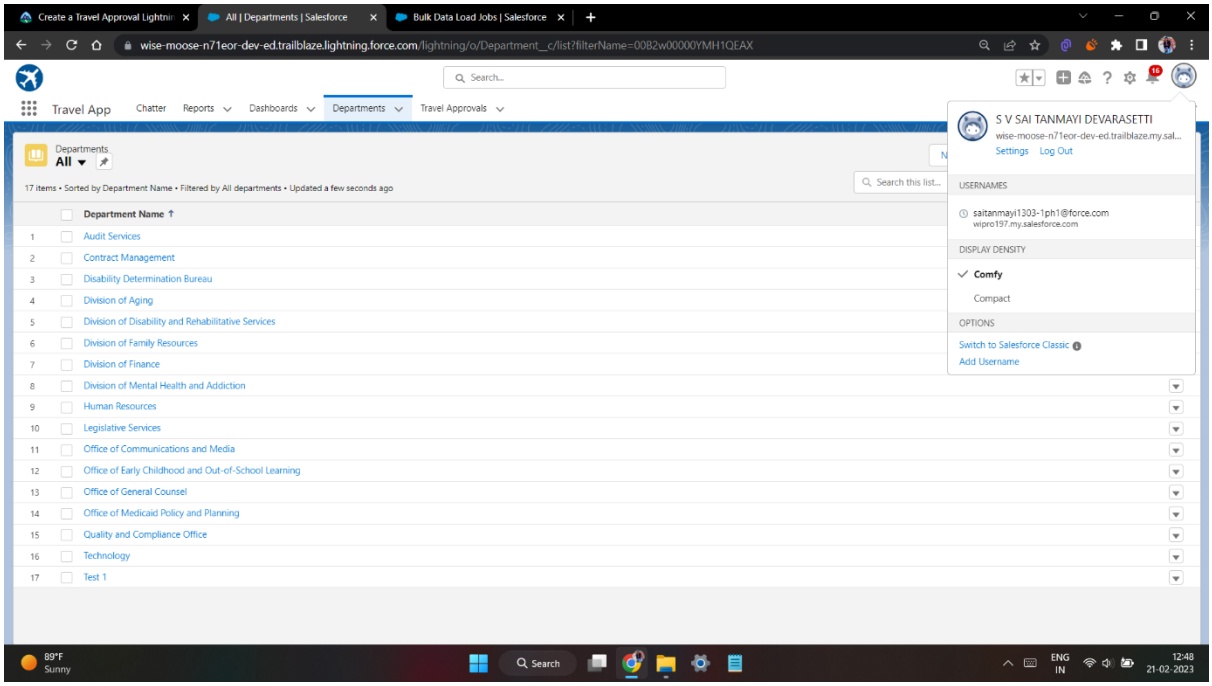


STEP 5

Importing Department records using data import wizard And imported record data status can view in Bulk Data Load Jobs as shown



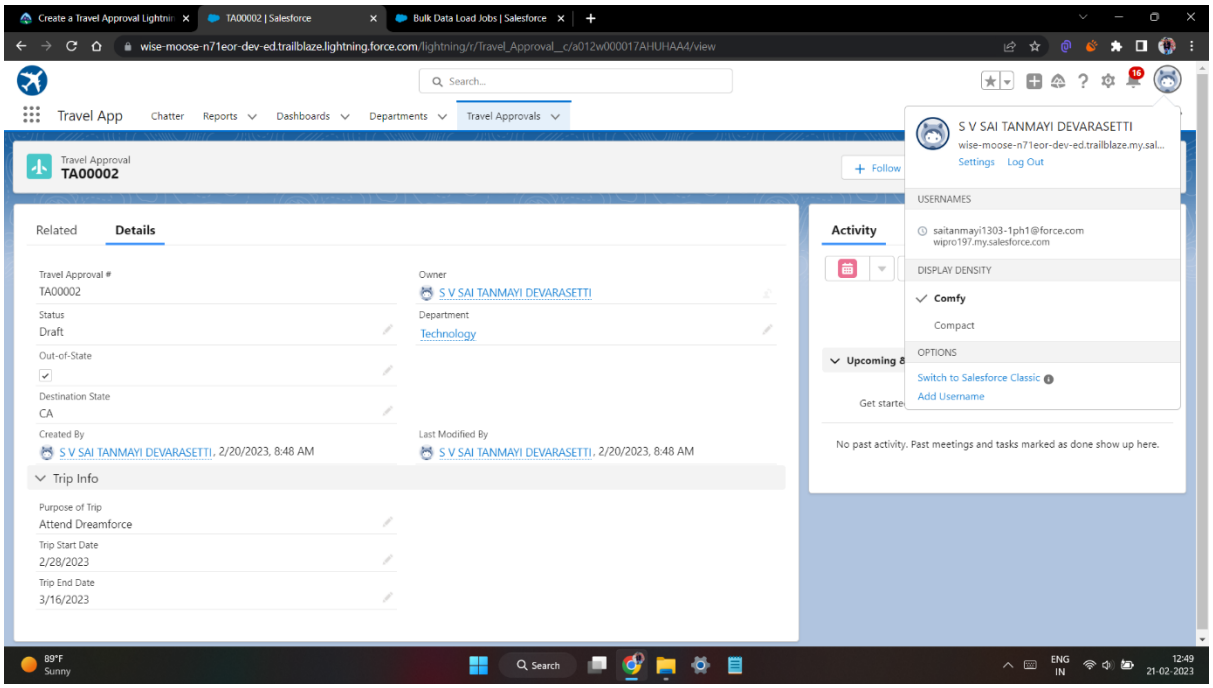
Imported records



EXERCISE 2

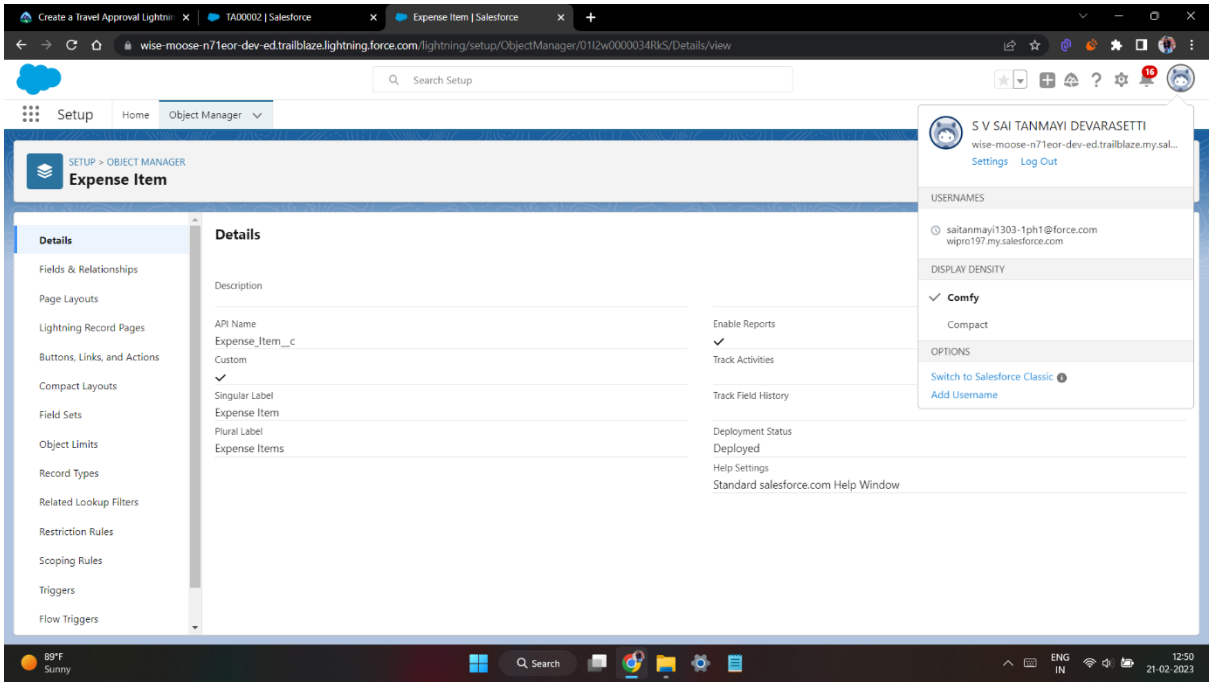
STEP 1

Creating travel approval record



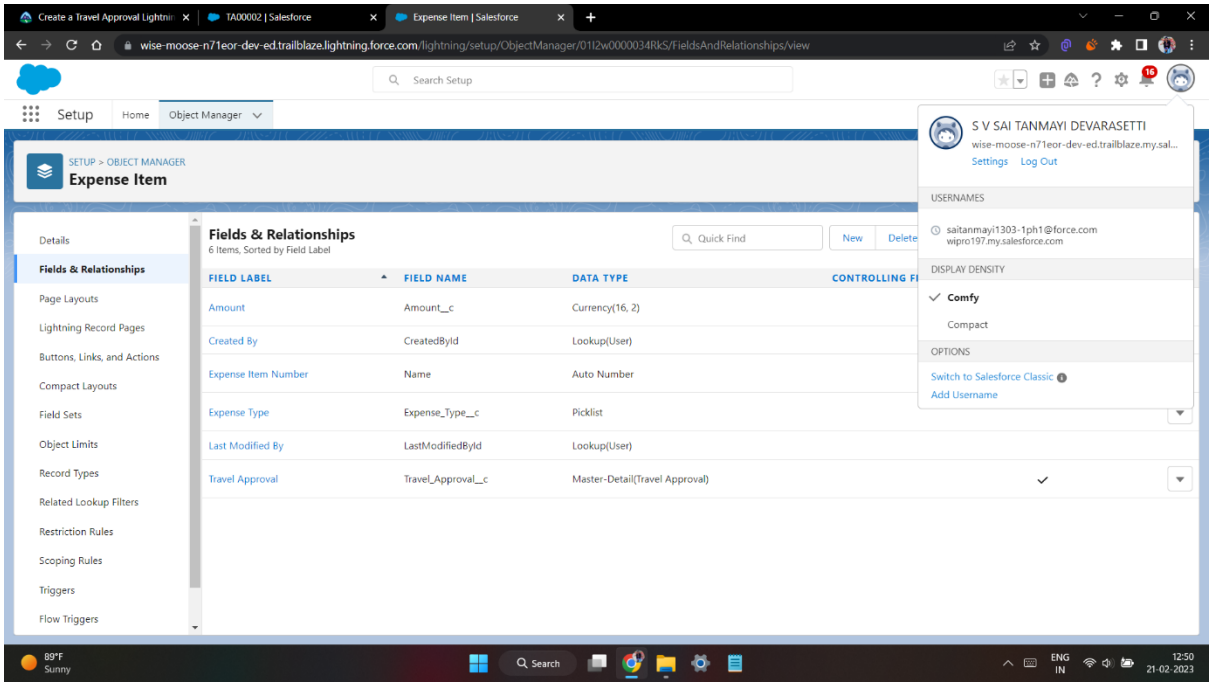
STEP 2

Creating Expense Item custom object



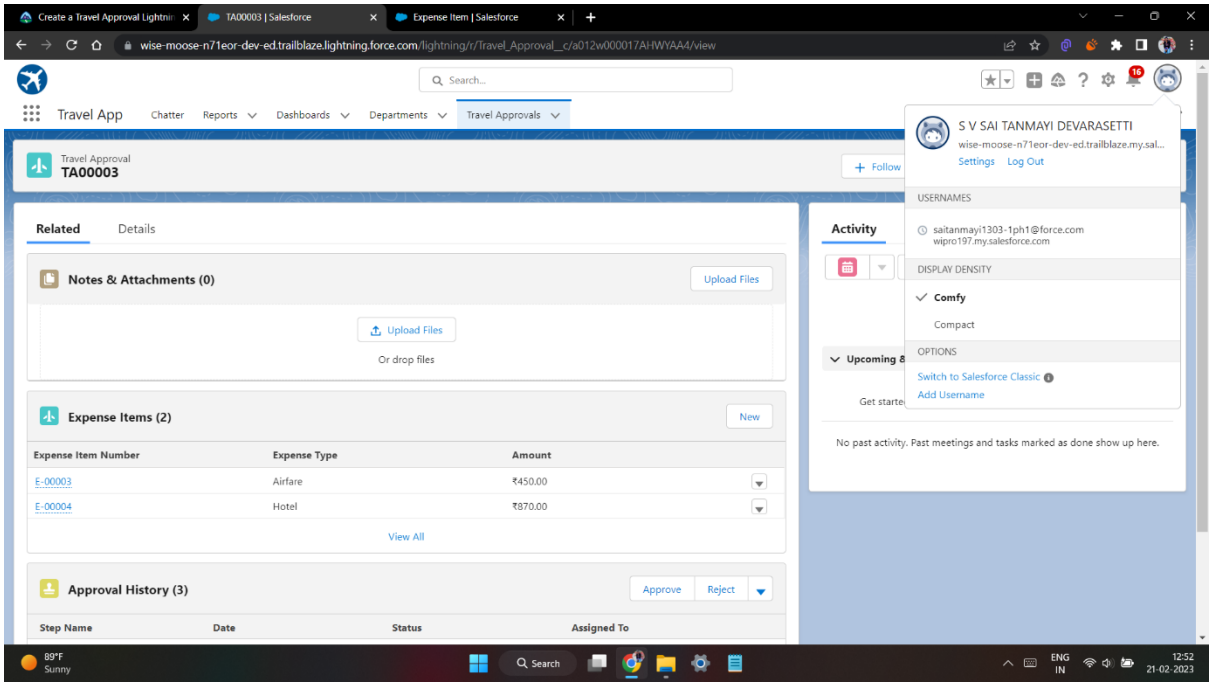
STEP 3

Custom fields in Expense Item object



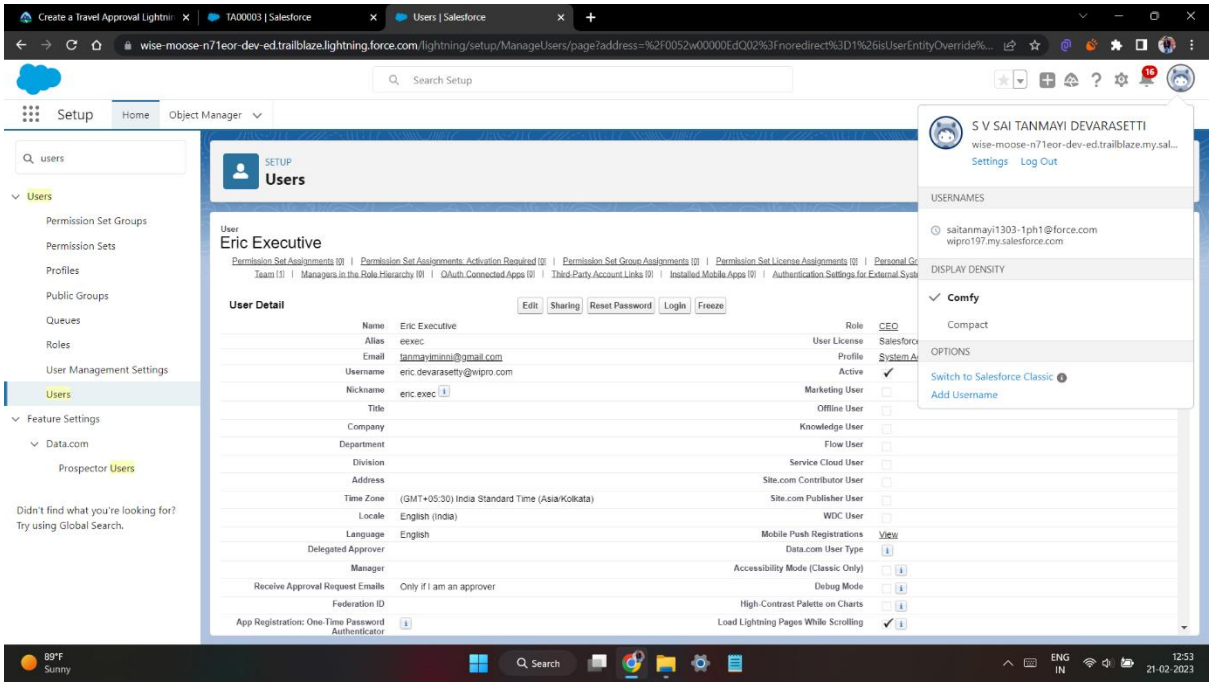
STEP 4

Creating Records in Expense Item



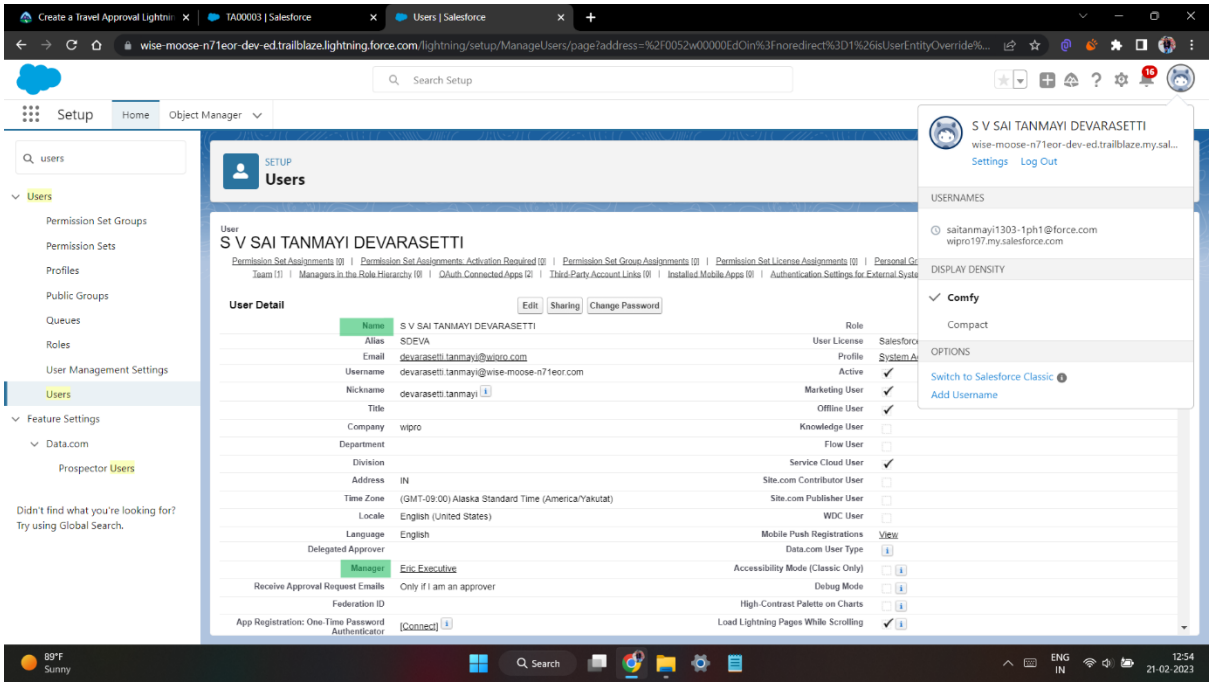
STEP 5

Creating User with system admin license



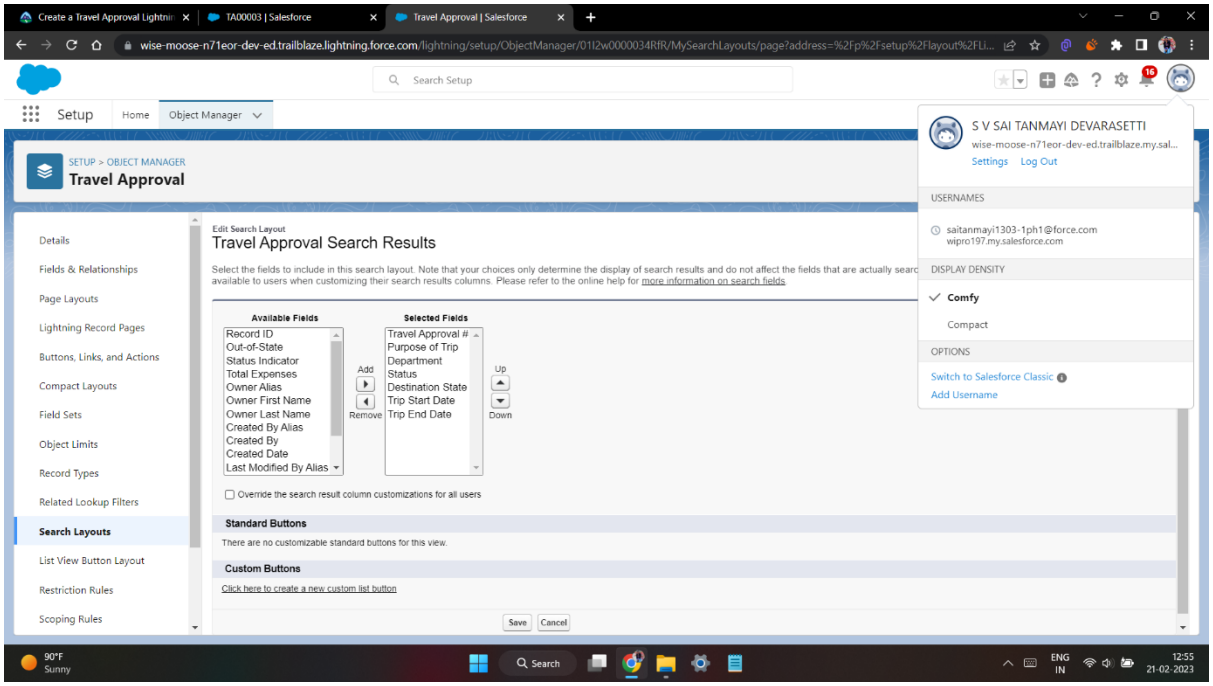
STEP 6

Add user eric as manager own account user



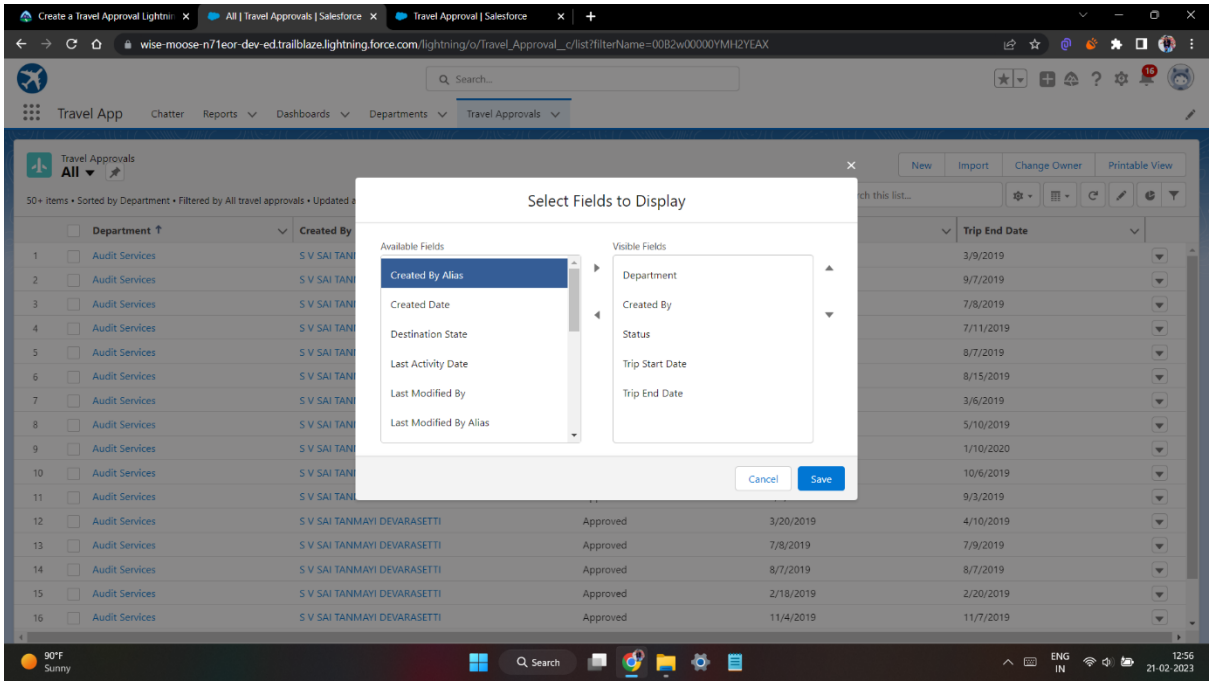
STEP 7

Customize the Travel Approval Default search layout



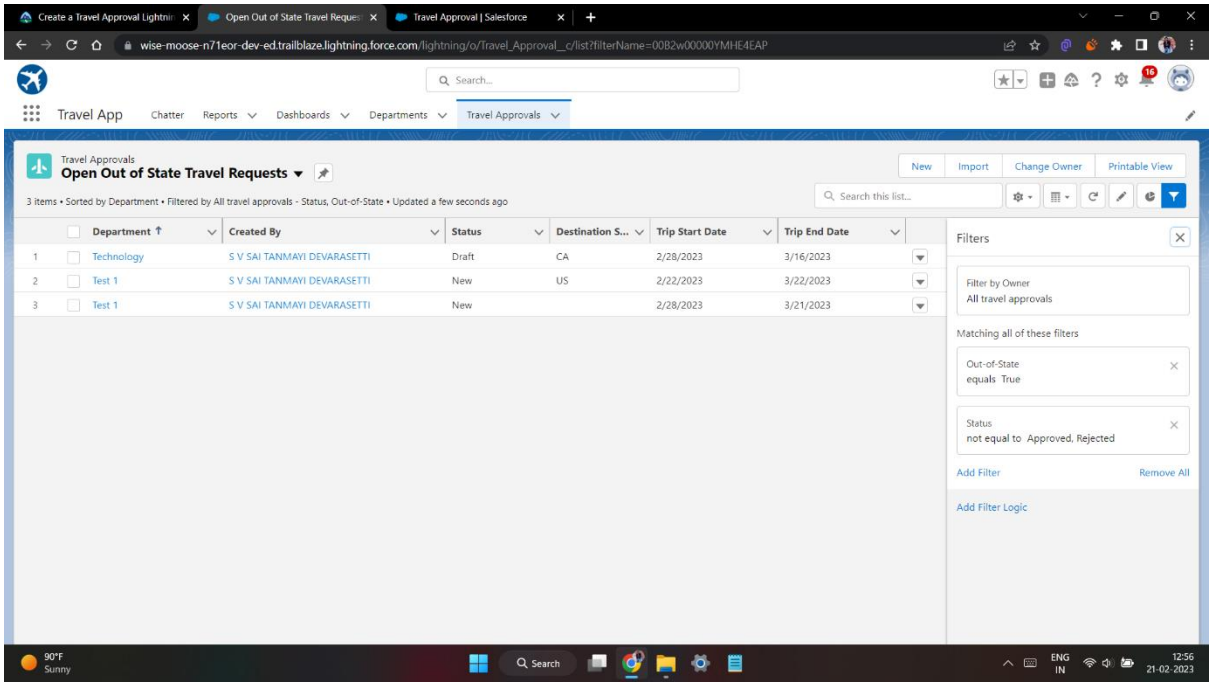
STEP 8

Select fields to display in the Travel Approval "All" List view



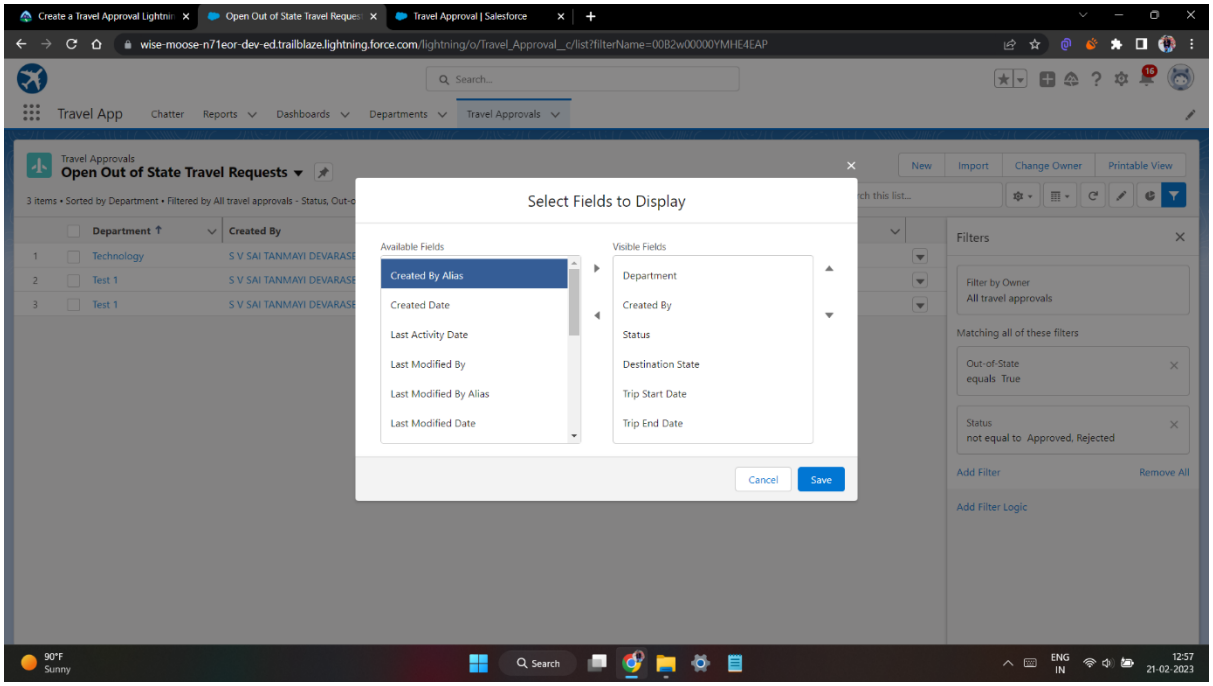
STEP 9

Select fields to display in the Travel Approval “All” List view



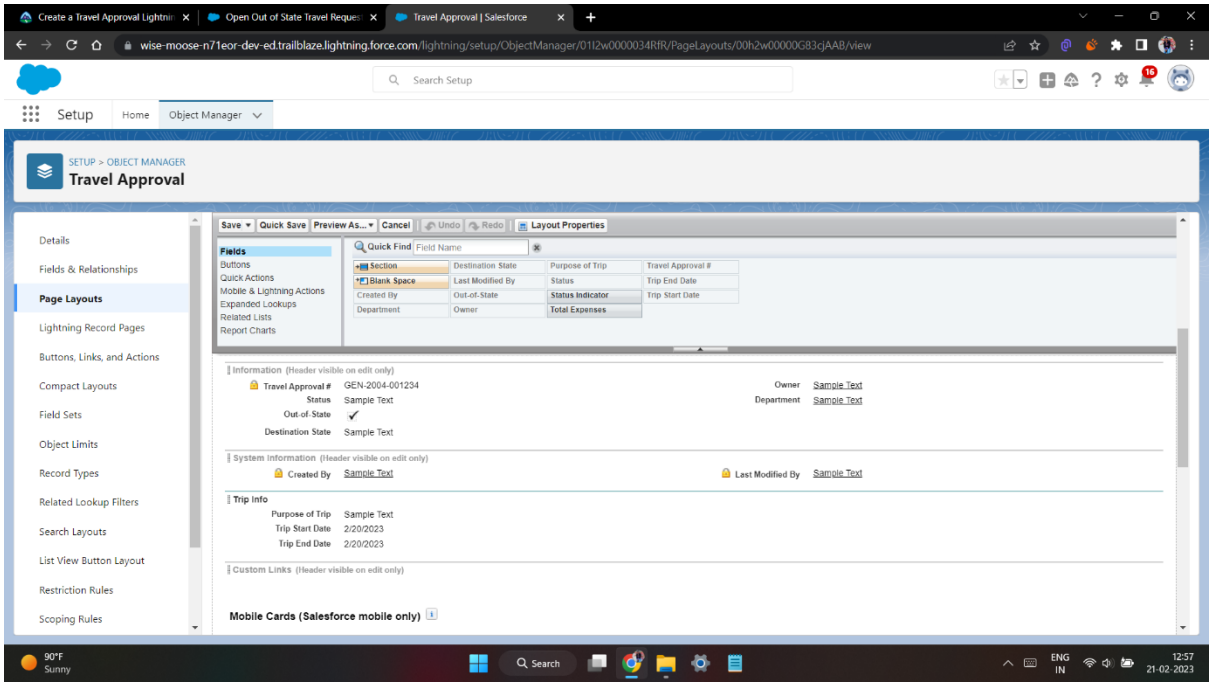
STEP 10

Select fields to display in the Travel Approval “Open Out of State Travel Requests” List view



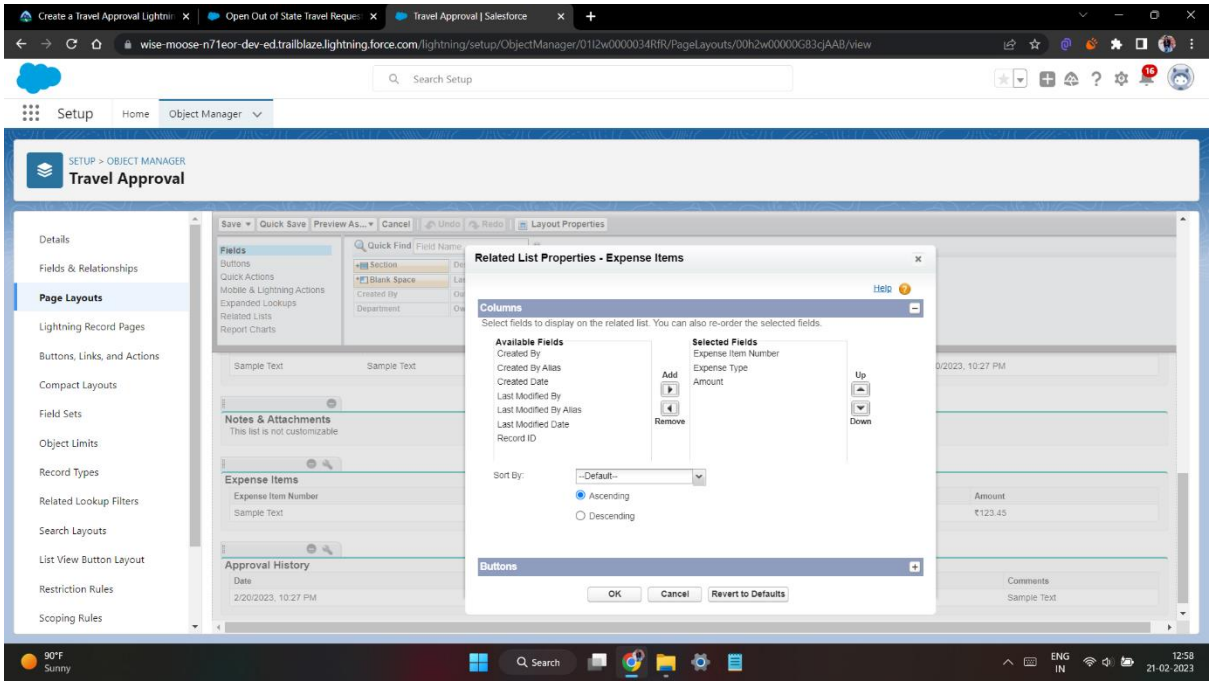
STEP 11

Customizing page layout

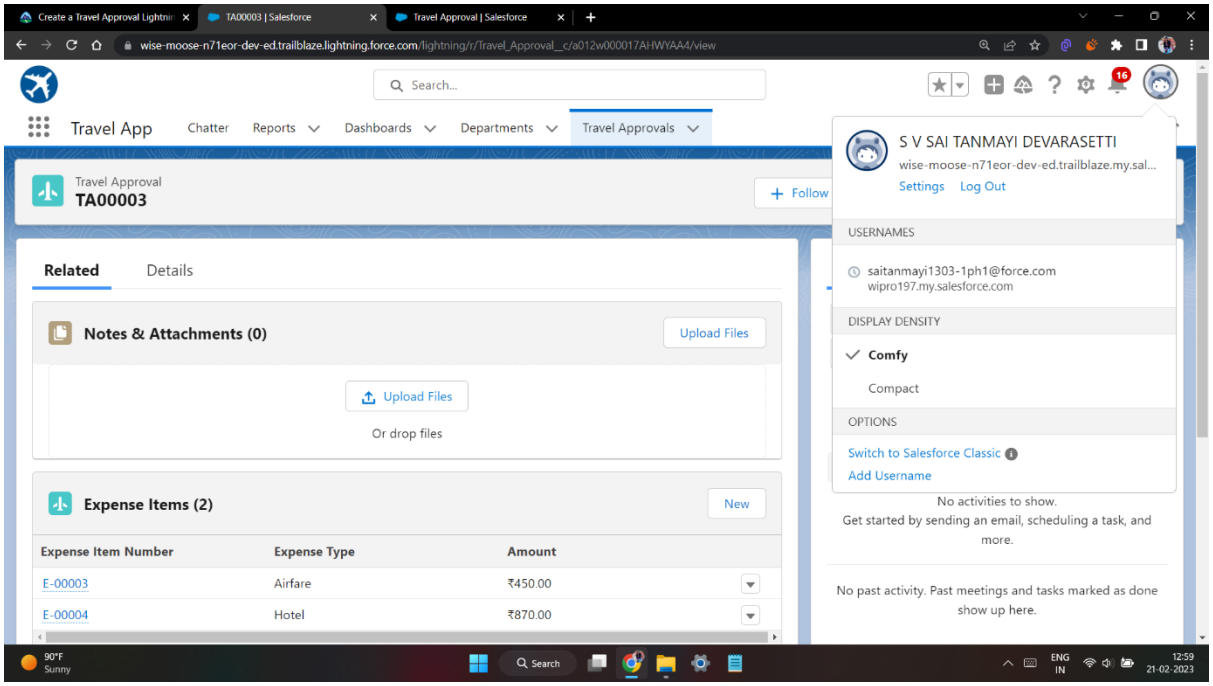


STEP 12

Customize the Expense Item Related List under the Travel Approval

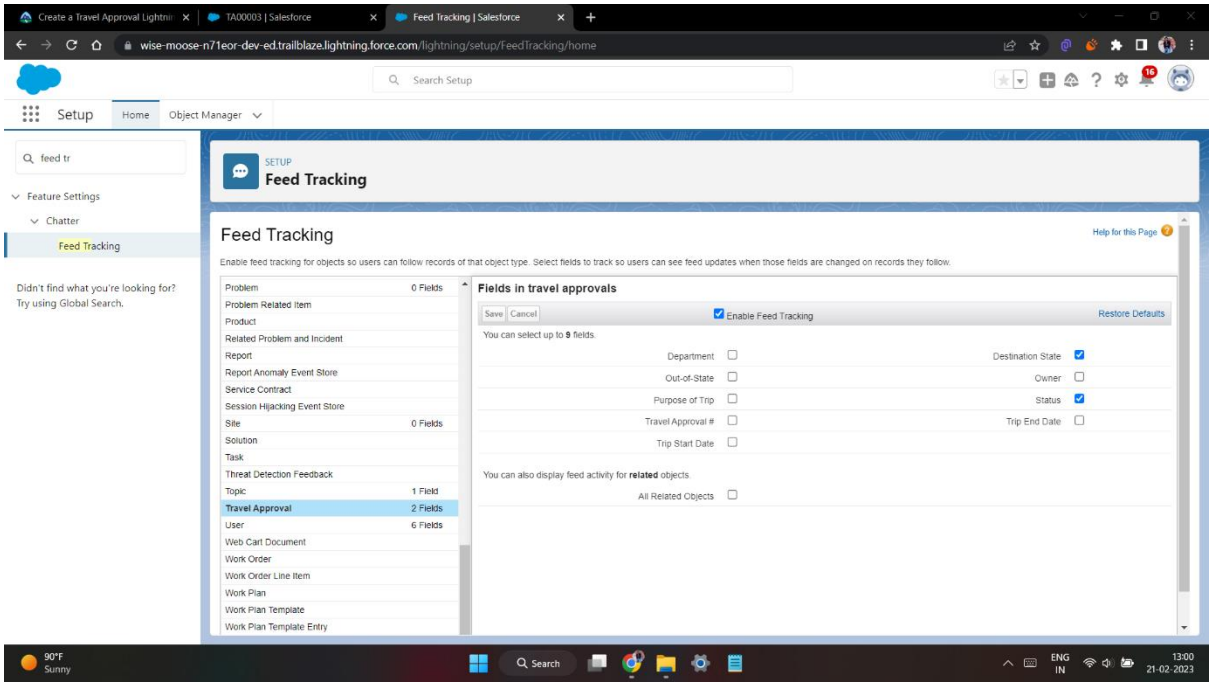


It looks as shown below

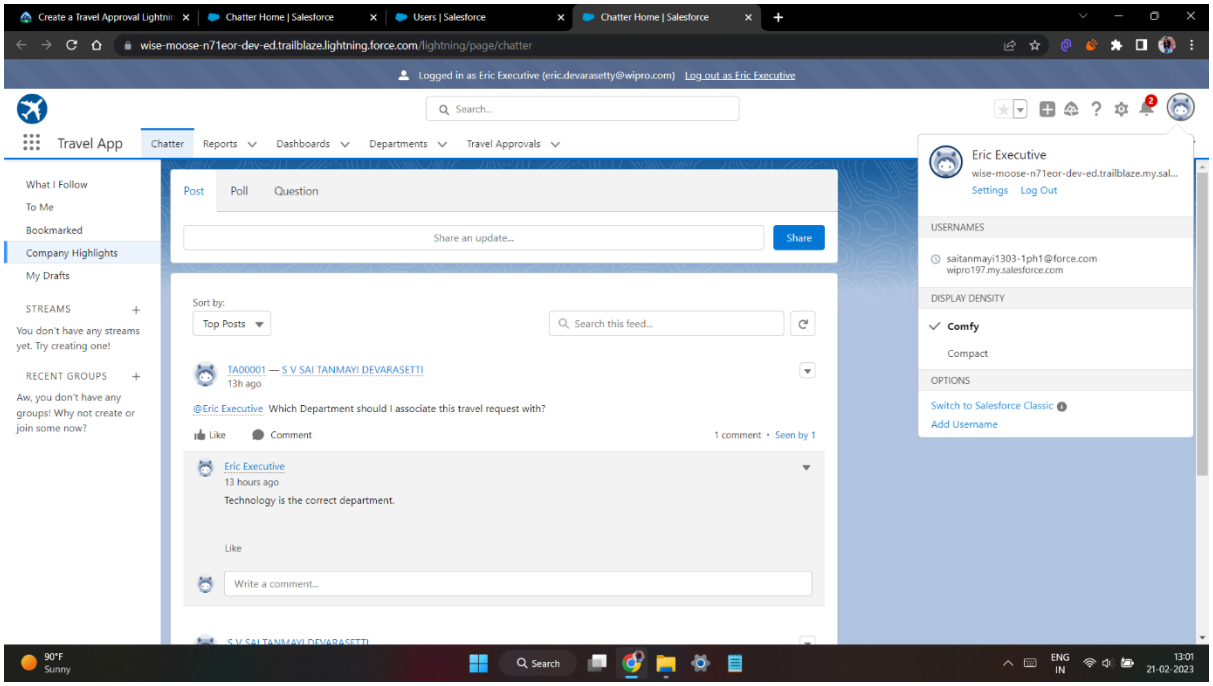


STEP 13

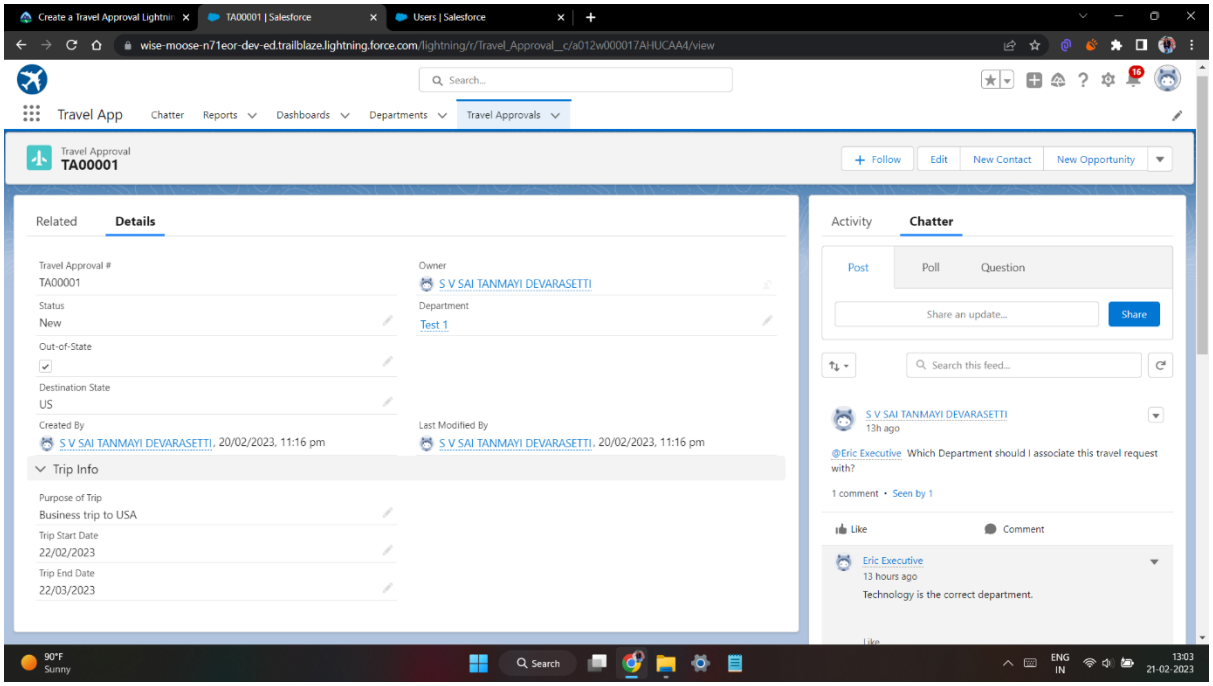
Enable feed tracking for travel approval object

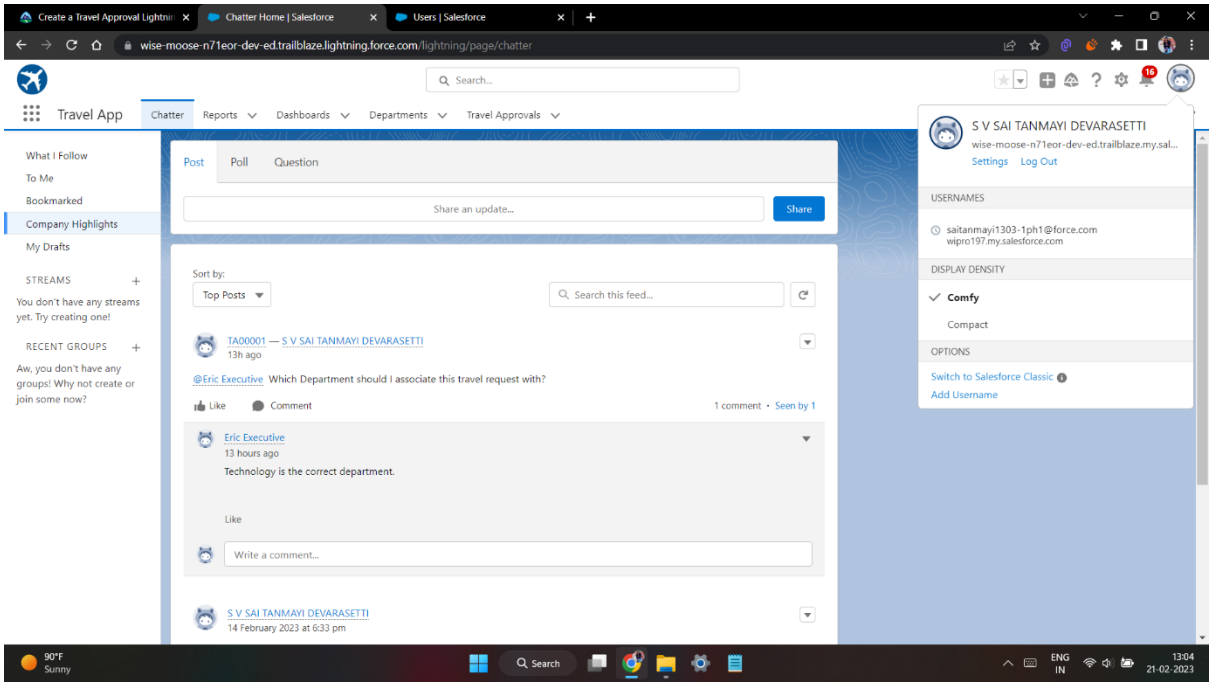


Test Collaboration



Response



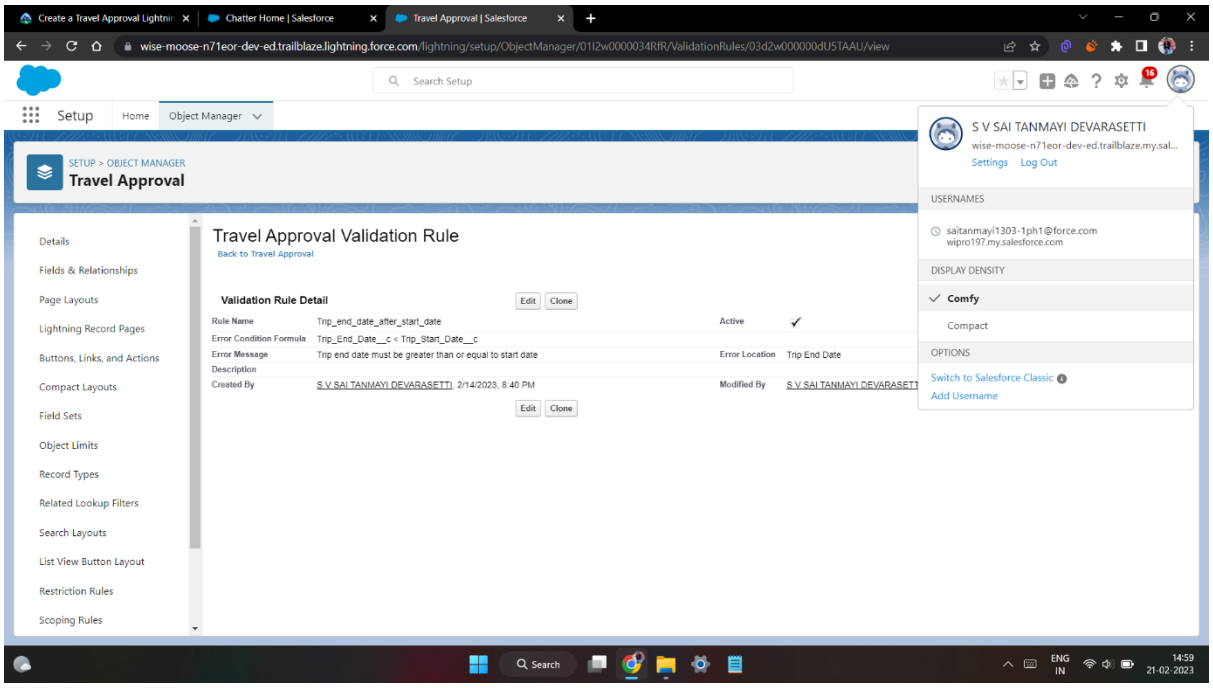

Create a Travel Approval Lightnin
Chatter Home | Salesforce
Users | Salesforce
wise-moose-n71eor-dev-ed.trailblaze.lightning.force.com/lightning/page/chatter
Search...
Travel App
Chatter
Reports
Dashboards
Departments
Travel Approvals
What I Follow
To Me
Bookmarked
Company Highlights
My Drafts
STREAMS
You don't have any streams yet. Try creating one!
RECENT GROUPS
Aw, you don't have any groups! Why not create or join some now?
Post
Poll
Question
Share an update...
Share
Sort by:
Top Posts
Search this feed...
TA00001 — S V SAI TANMAYI DEVARASETTI
13h ago
@Eric Executive Which Department should I associate this travel request with?
Like
Comment
1 comment • Seen by 1
Eric Executive
13 hours ago
Technology is the correct department.
Like
Write a comment...
S V SAI TANMAYI DEVARASETTI
14 February 2023 at 6:33 pm
S V SAI TANMAYI DEVARASETTI
wise-moose-n71eor-dev-ed.trailblaze.my.sal...
Settings
Log Out
USERNAMES
saitanmayi1303-1ph1@force.com
wipro197.my.salesforce.com
DISPLAY DENSITY
Comfy
Compact
OPTIONS
Switch to Salesforce Classic
Add Username
90°F
Sunny
Search
ENG
IN
13:04
21-02-2023

Module 2

EXERCISE 1

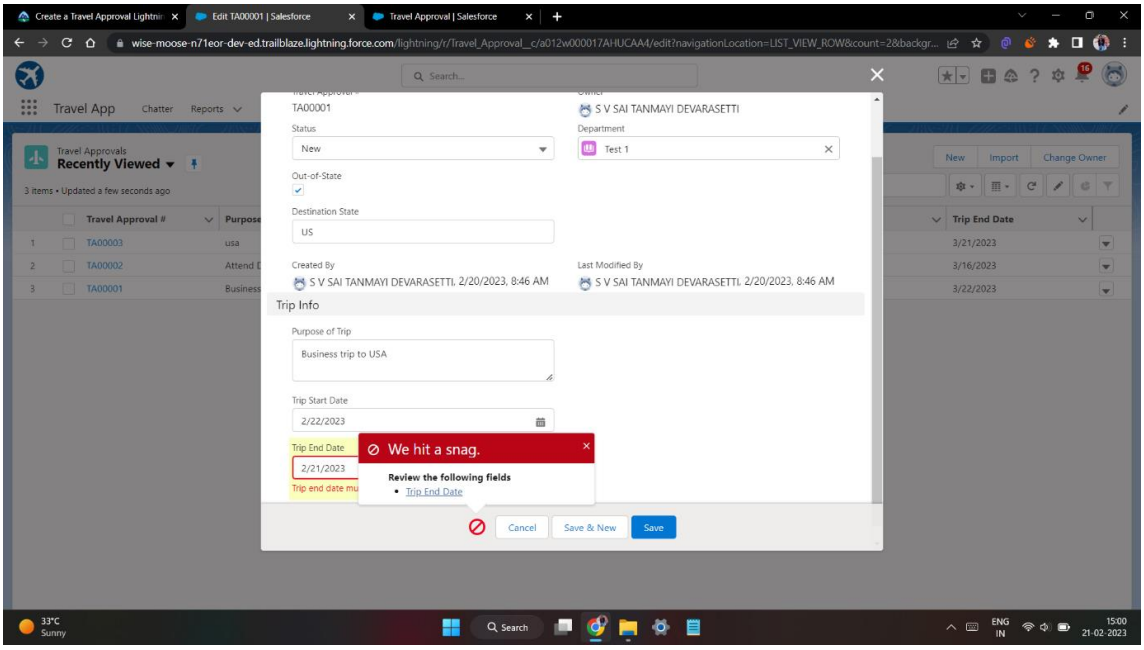
STEP 1

Validation Rule that trip end date always >= start date

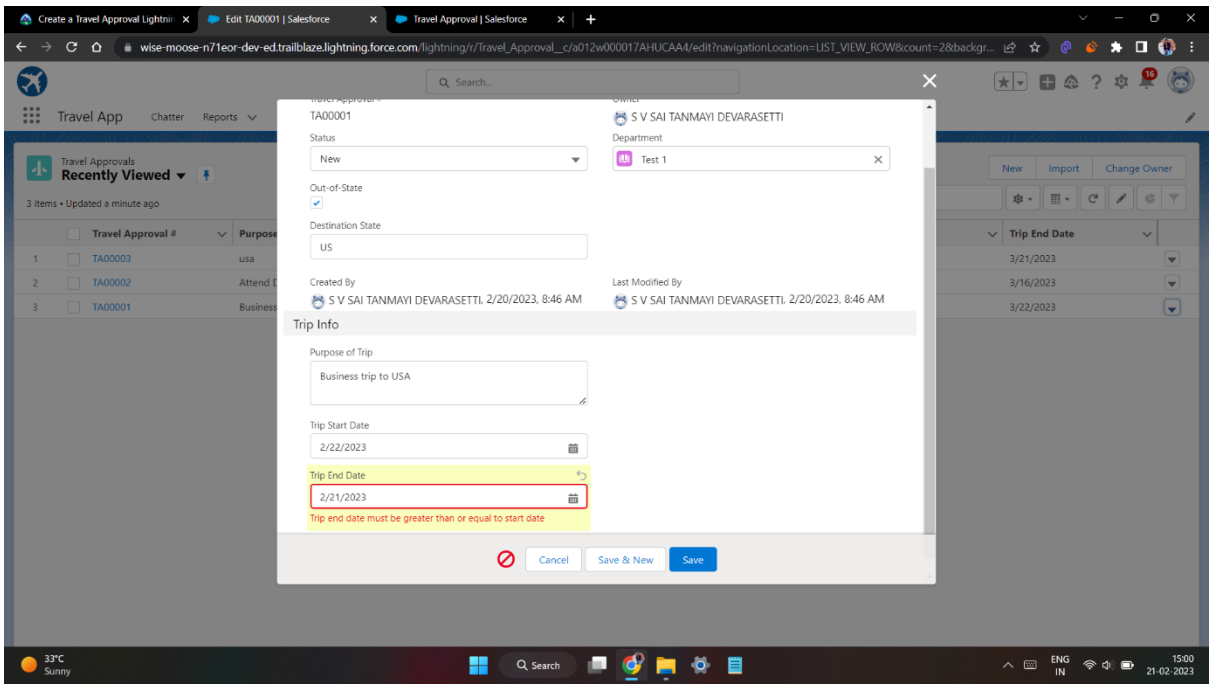


Working of validation rule

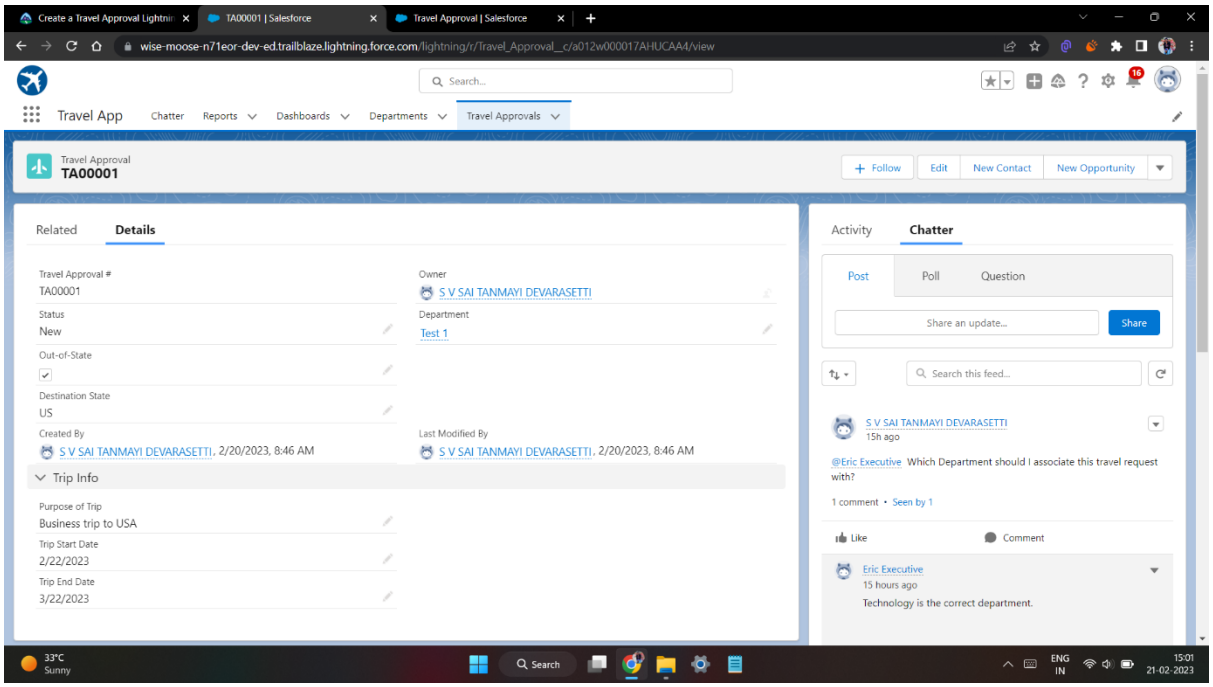
In end date if we give date less than start date it show error



Error Message

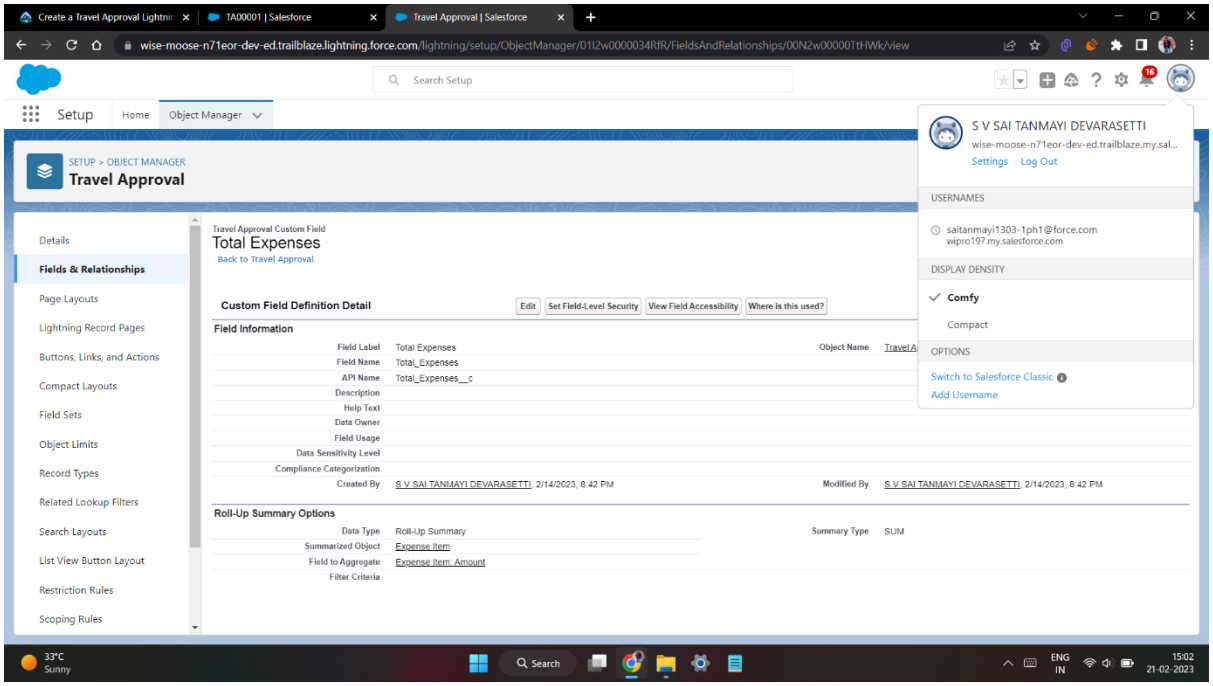


If we give greater than start date it will save and not throw error



STEP 2

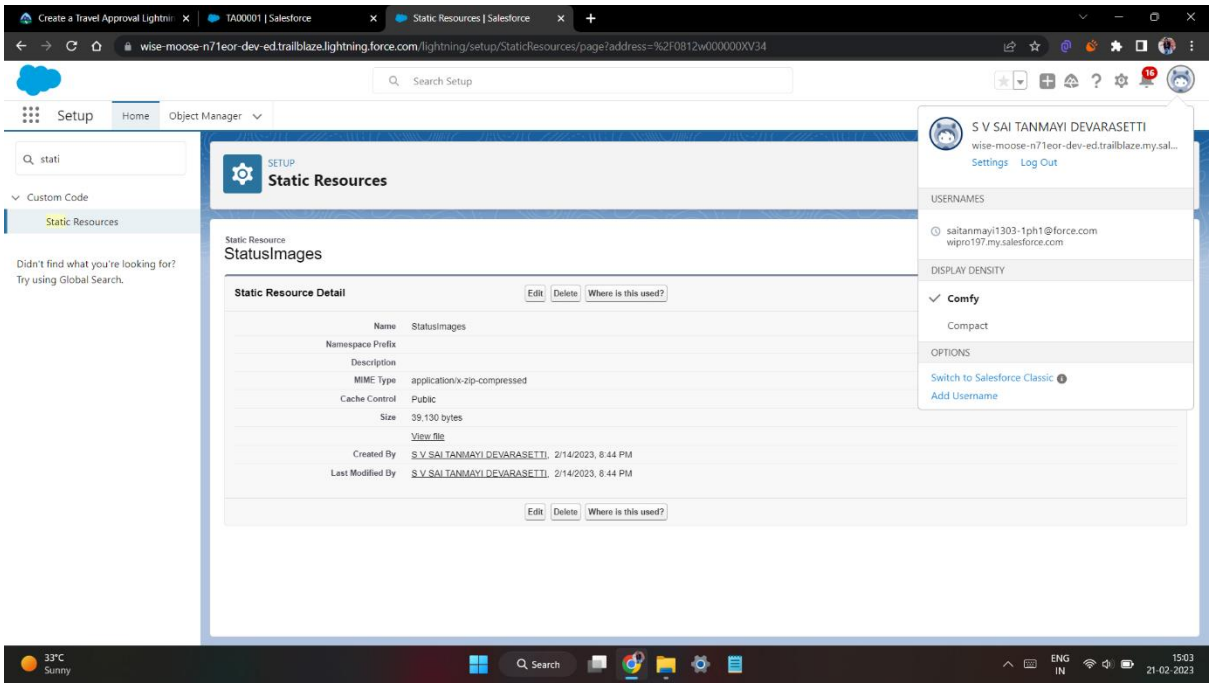
Create Roll-up Summary Field on travel Approval object



STEP 3

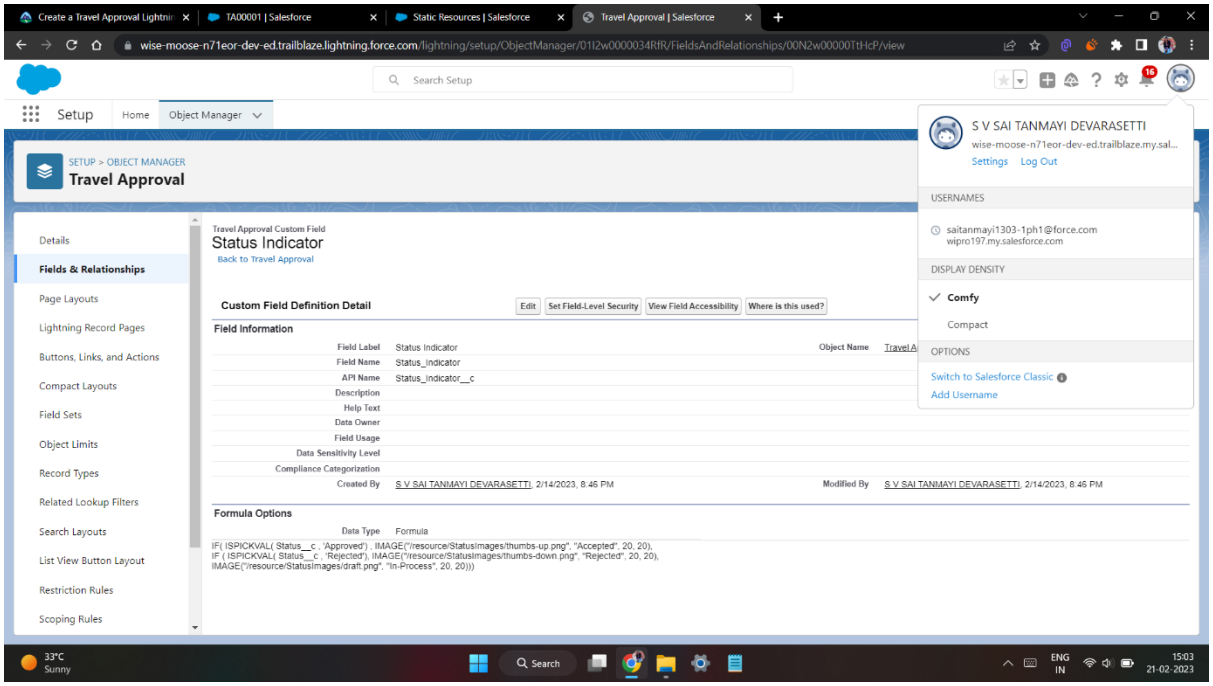
Creating Formula Fields

Static Resource with name StatusImages



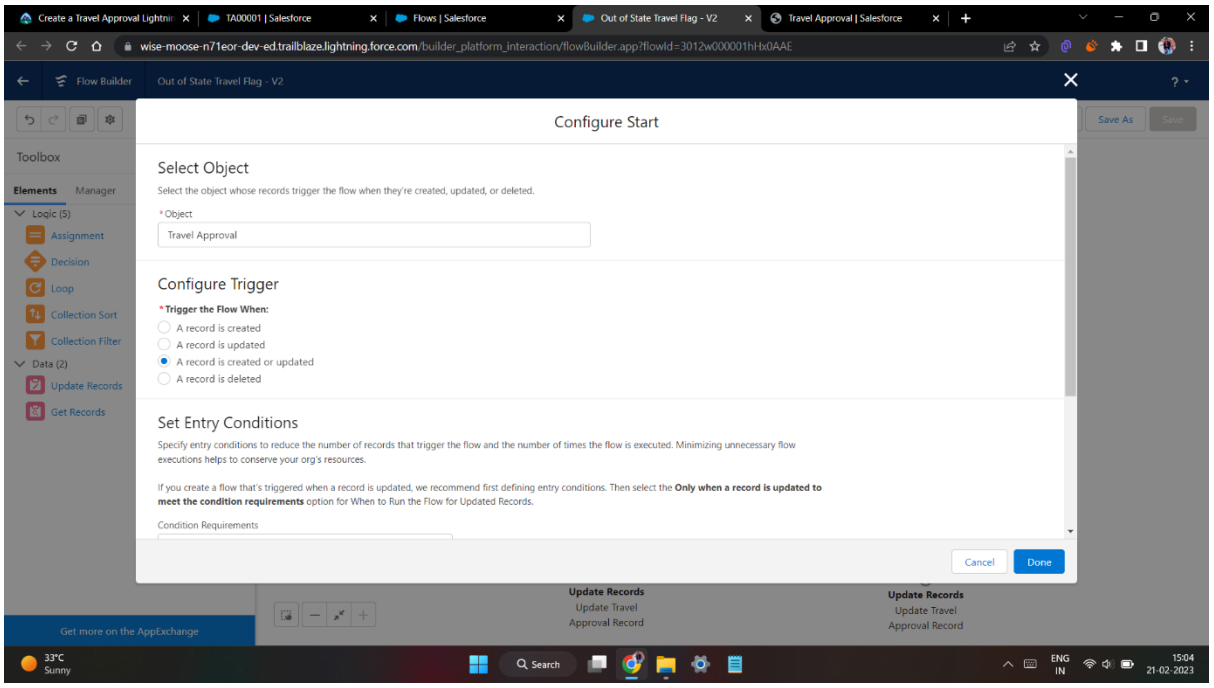
STEP 4

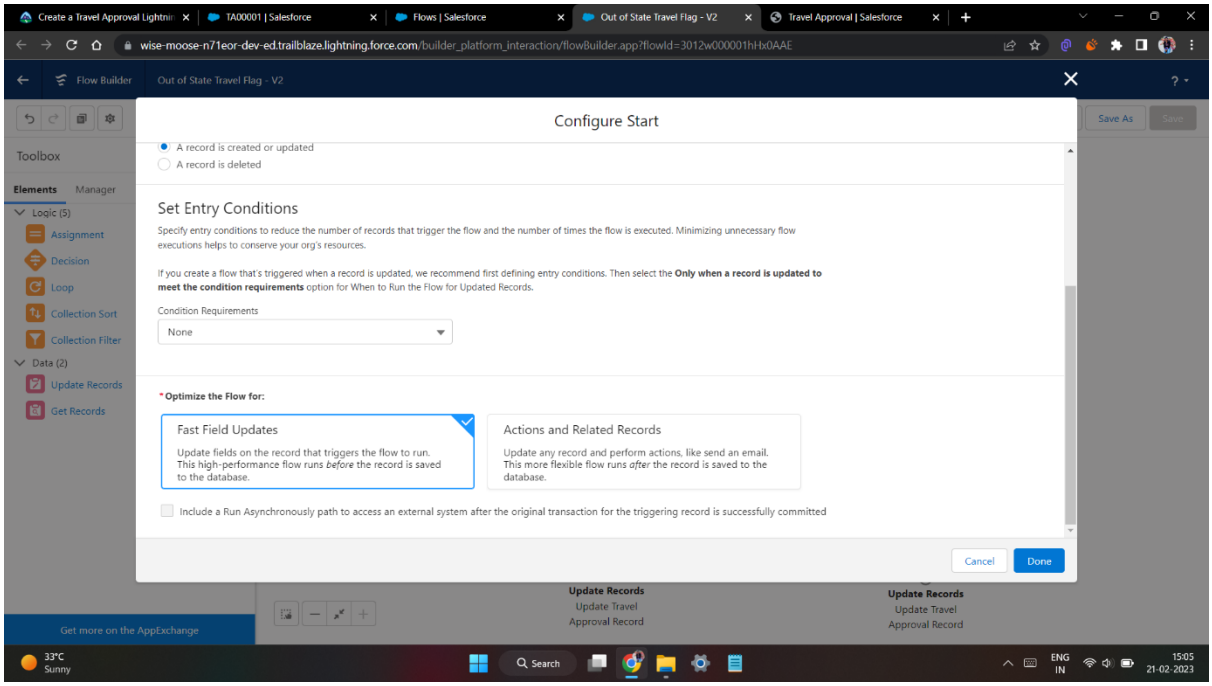
Create Status formula field on travel approval



STEP 5

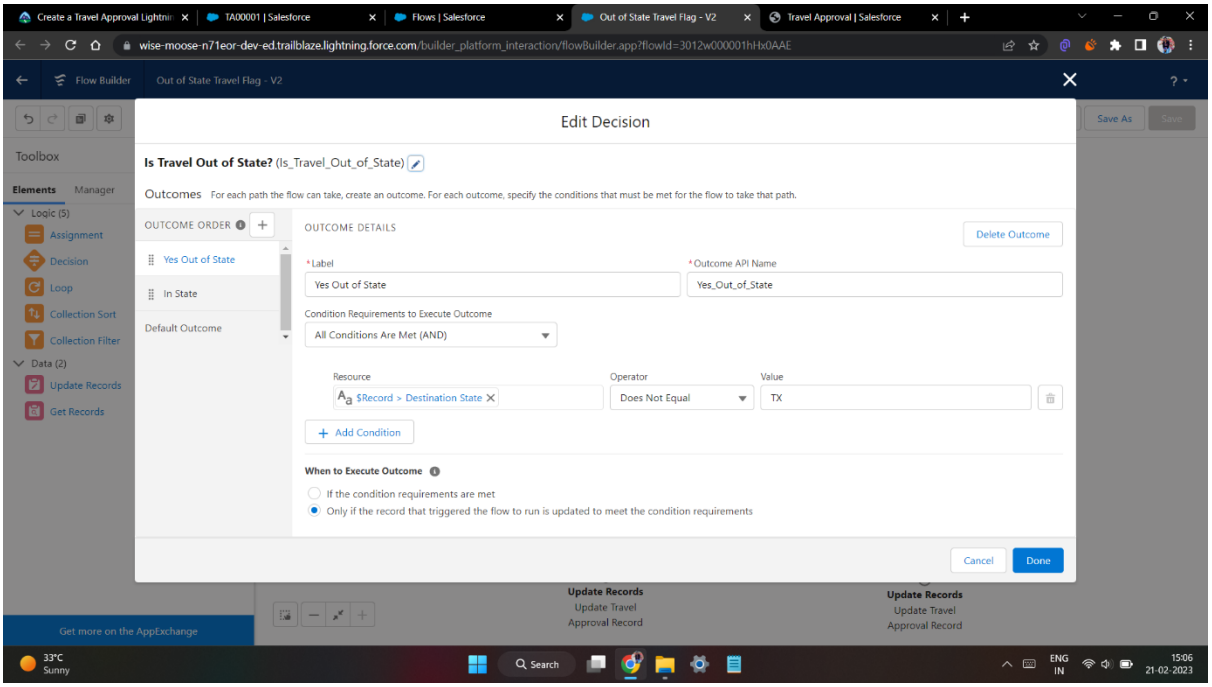
Record Triggered Flow



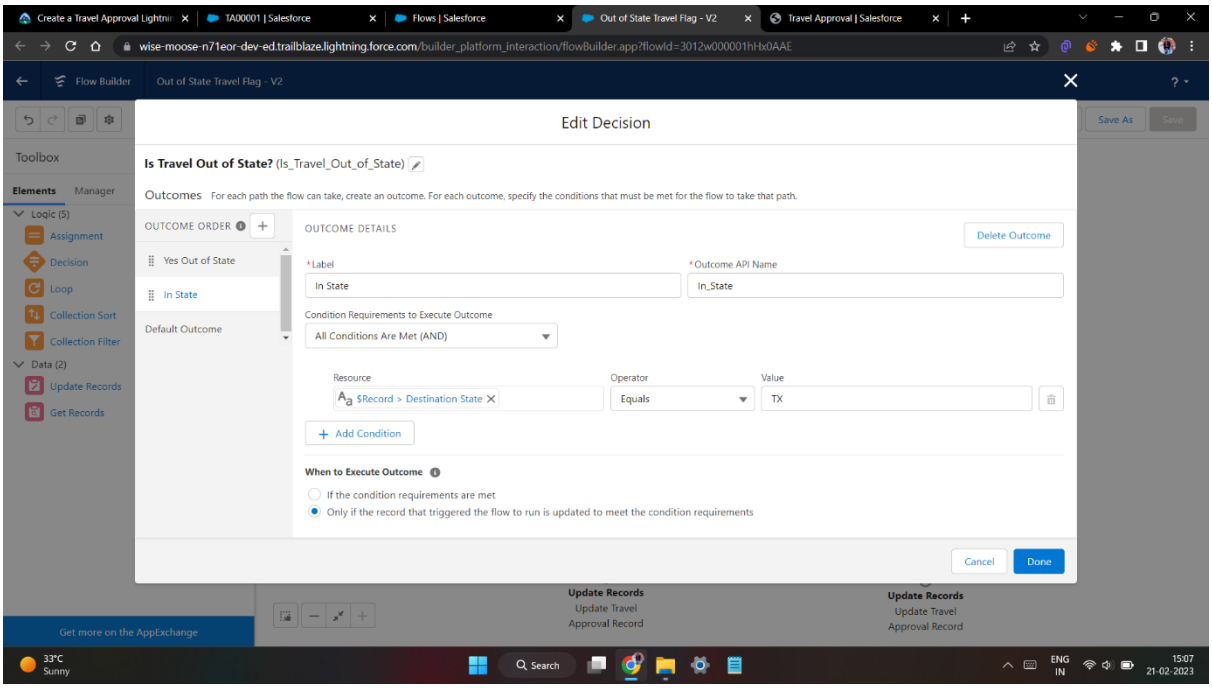


And add Decision element to flow

1. For Is travel out of state?

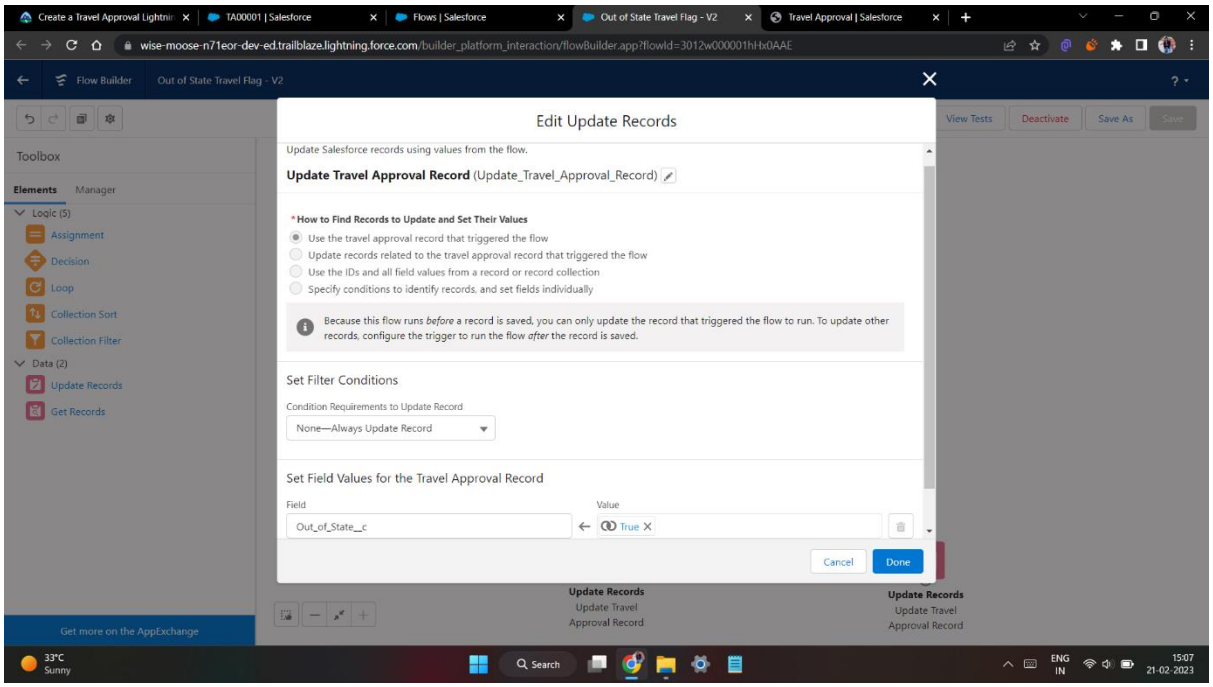


2. For in state

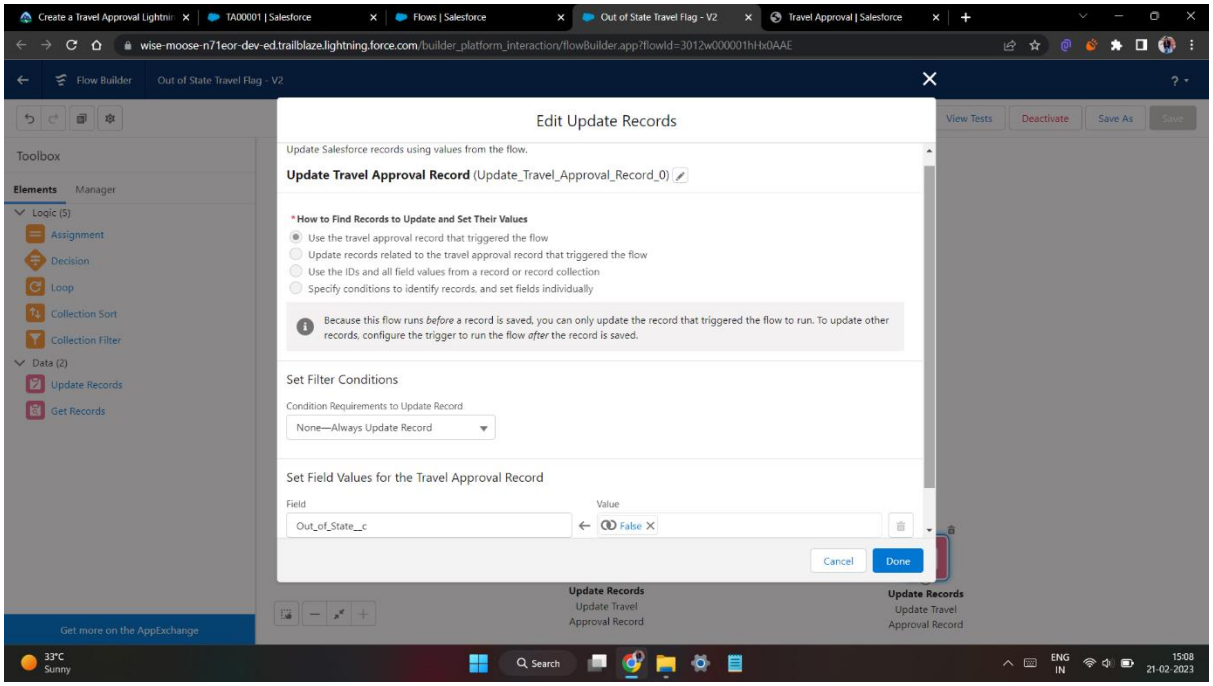


Creating action for flow using Update Record Element

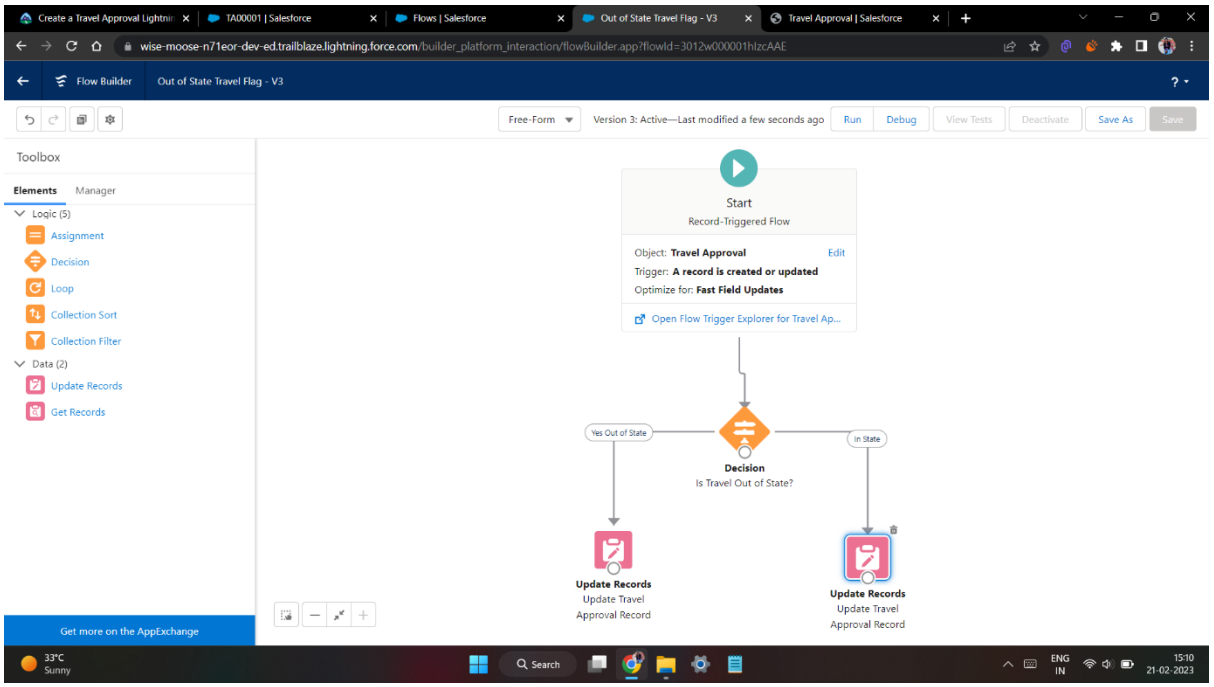
This action work if decision- Is out of state?



This decision works for- In State

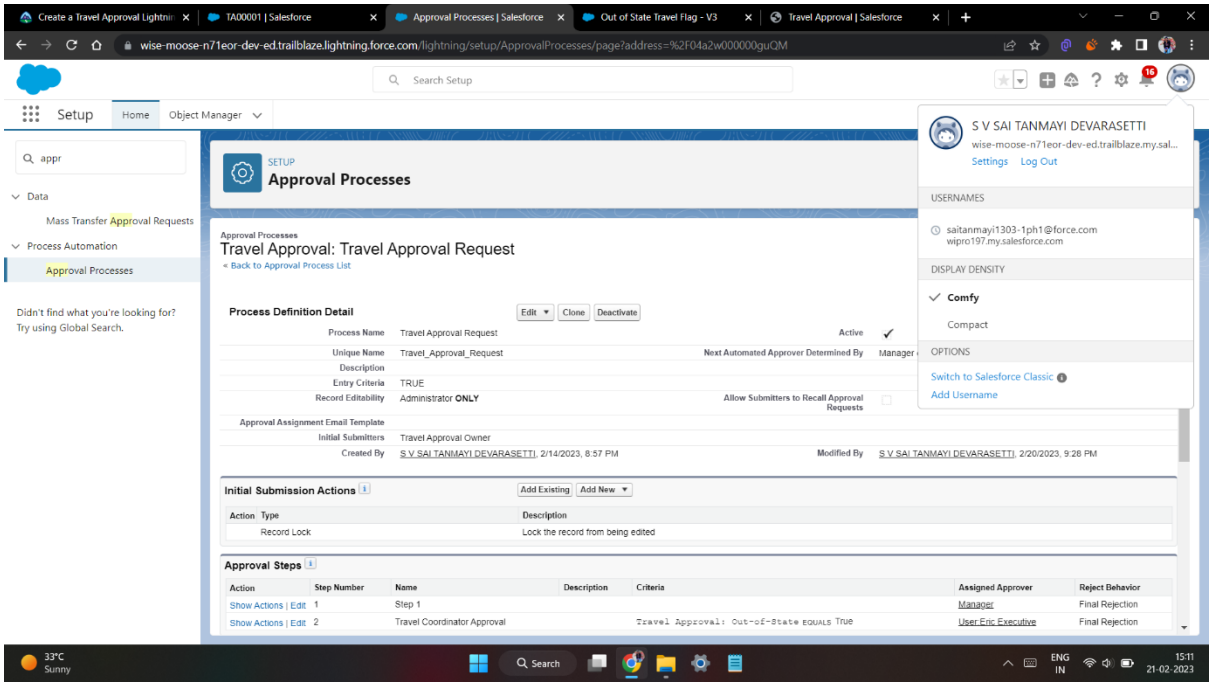


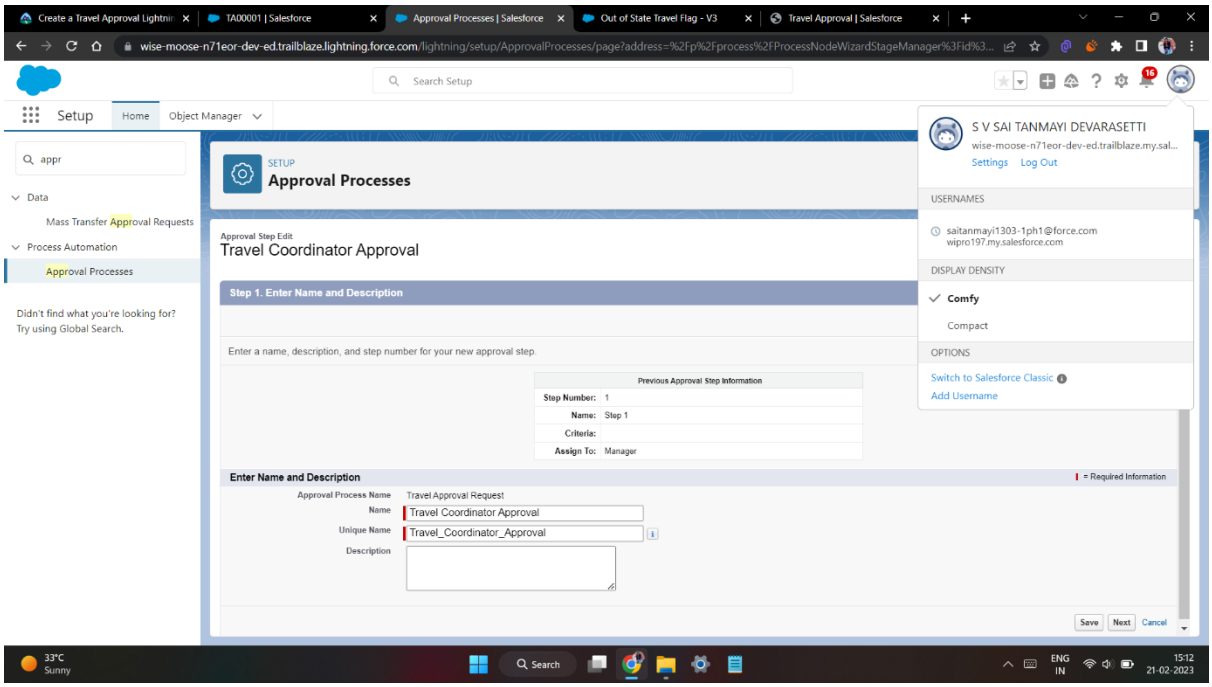
Finally, the flow looks as shown, save and activate



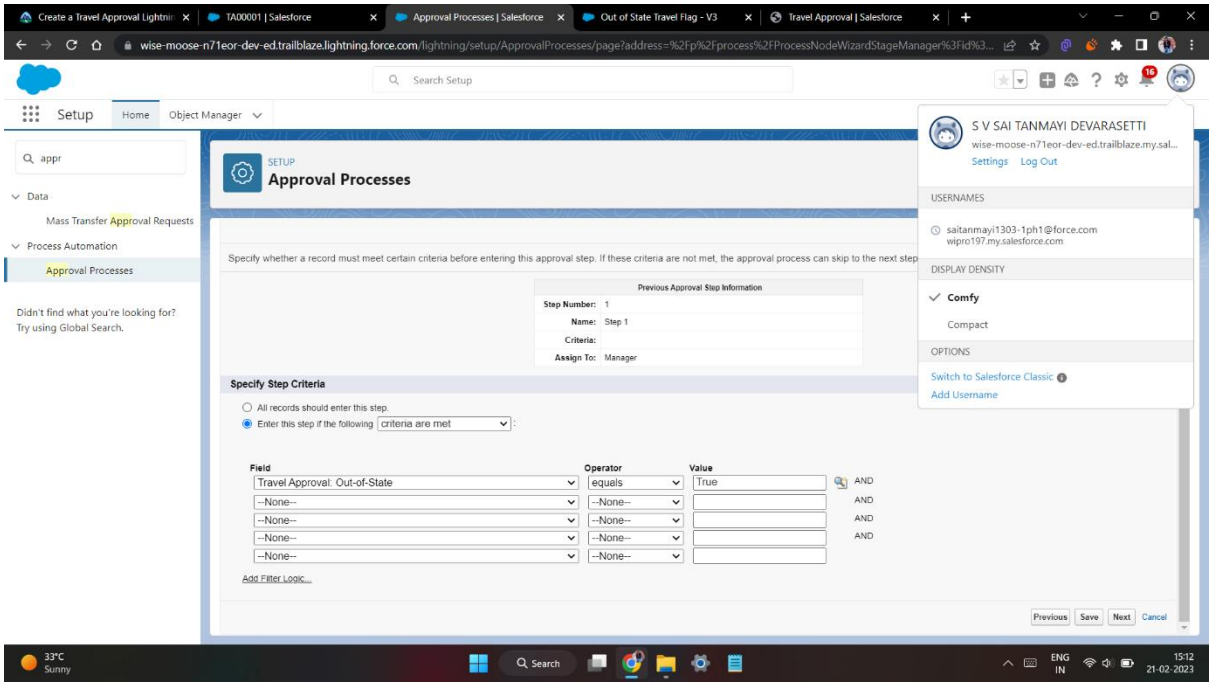
STEP 6

Creating an Approval Process to send travel approvals to manager or travel coordinator.

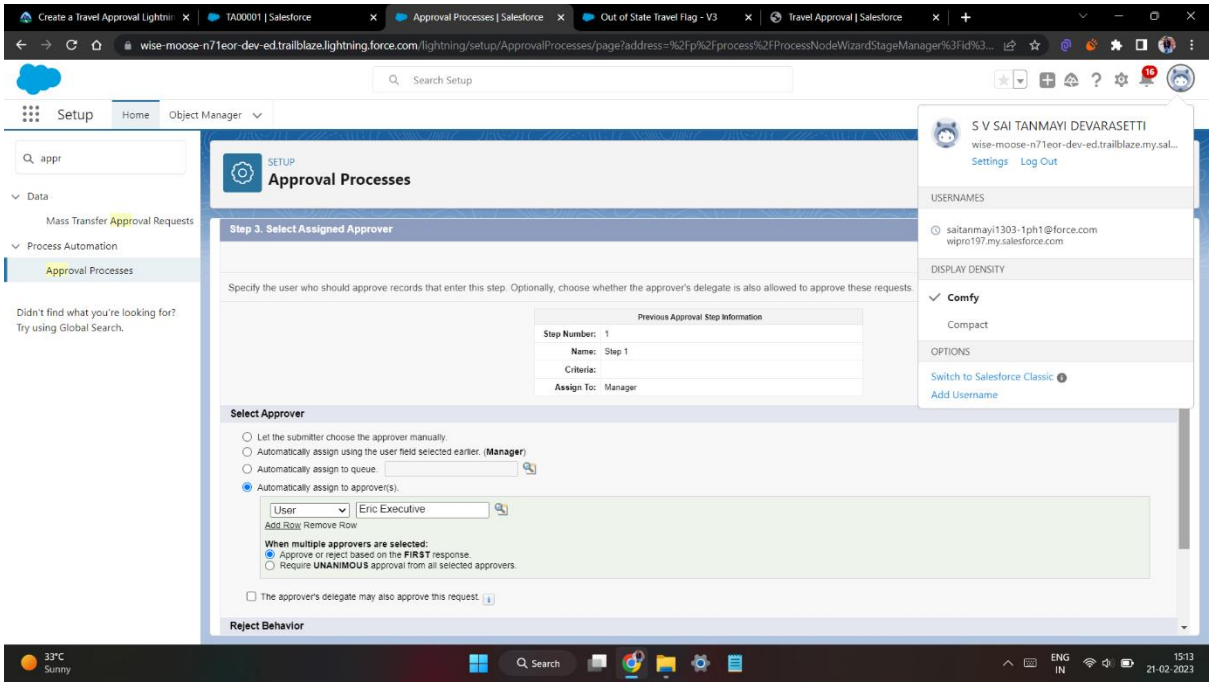




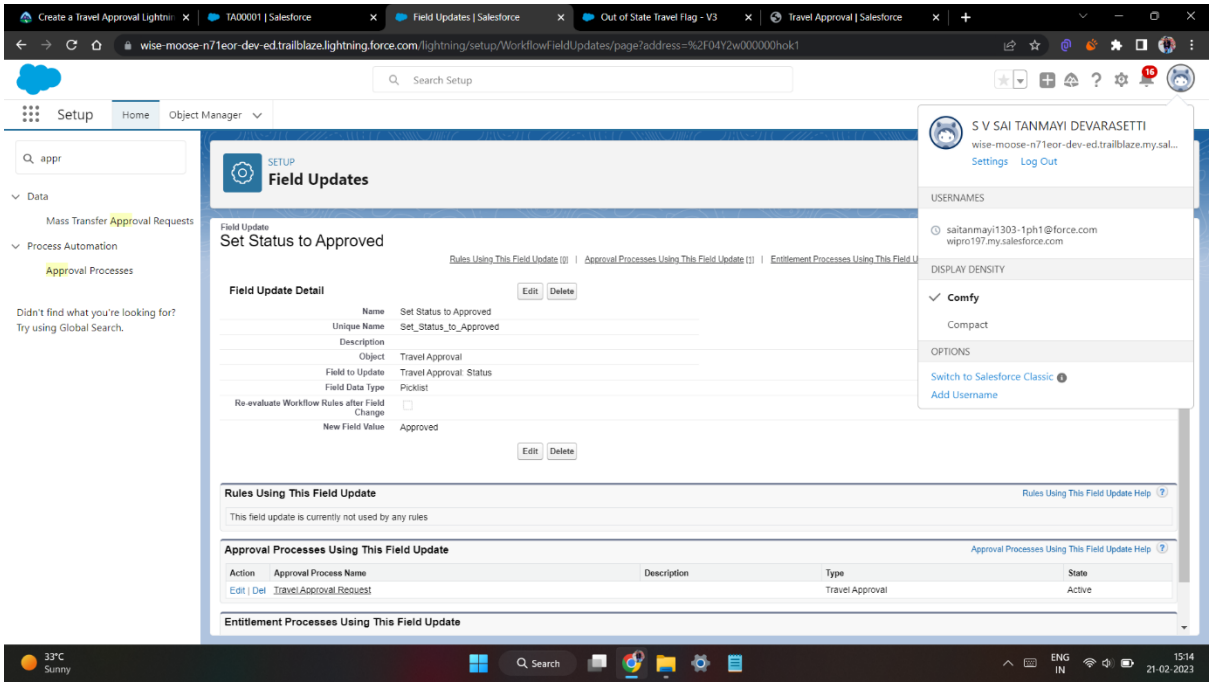
Criteria are met : out of state = true



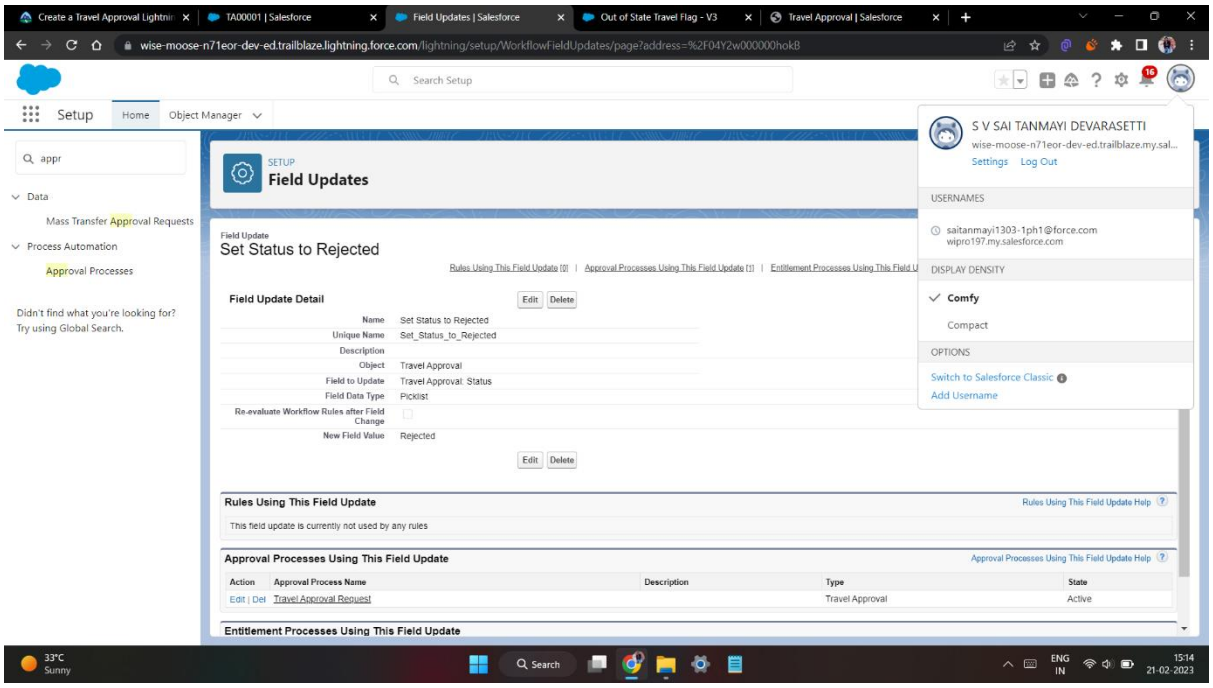
Selecting eric as manager



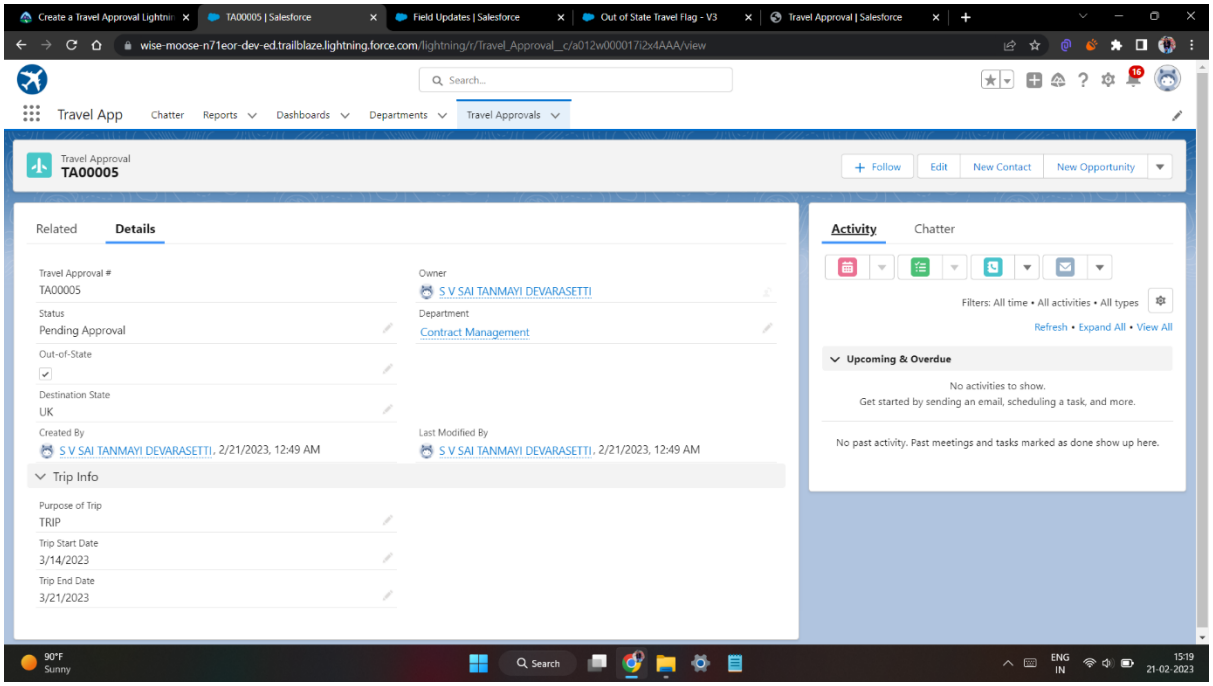
Final Approval Action



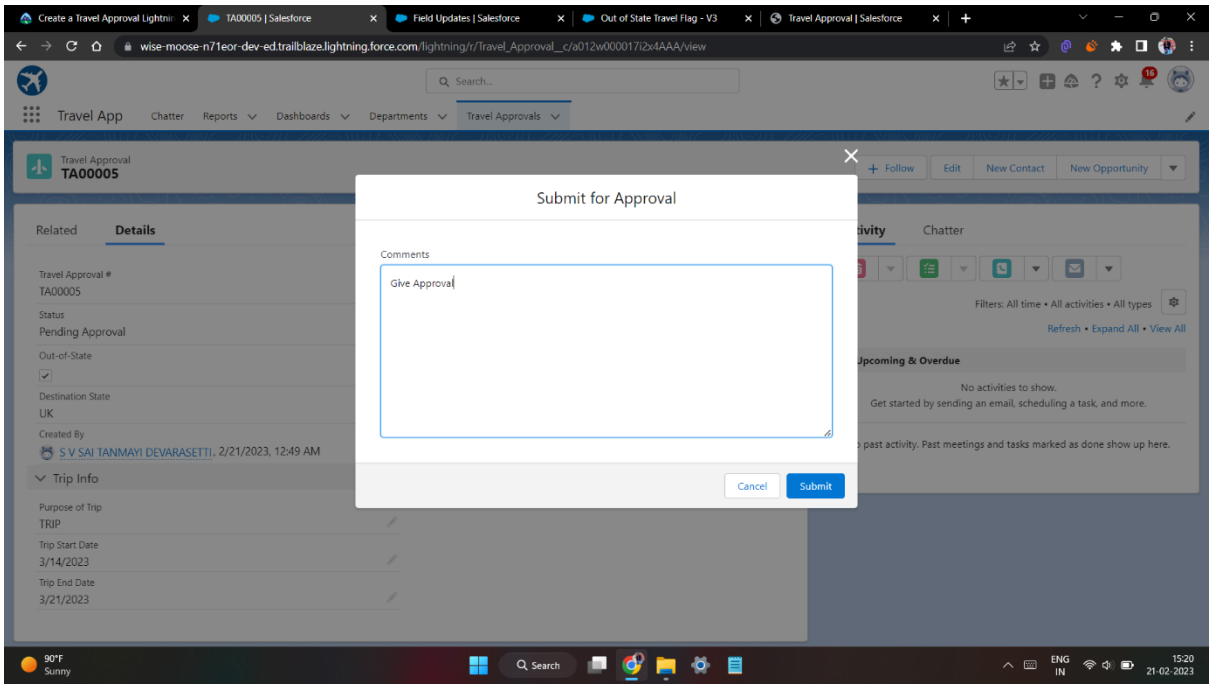
Final Rejection Action



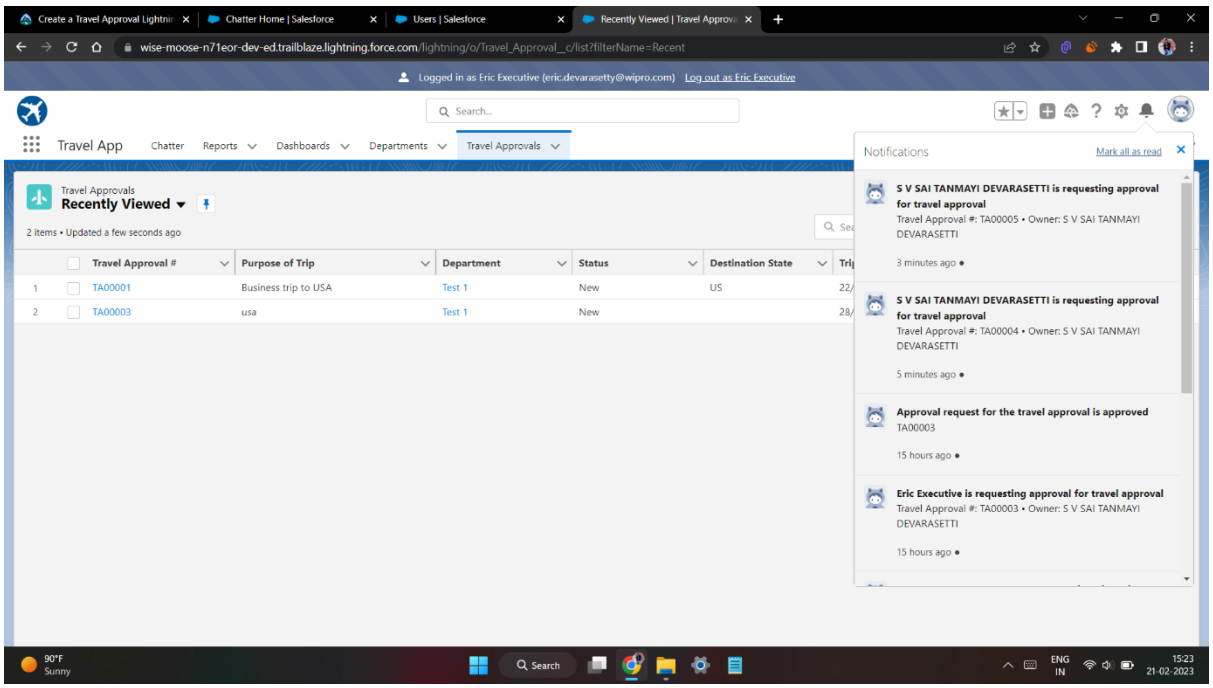
Testing the approval process Status is pending here



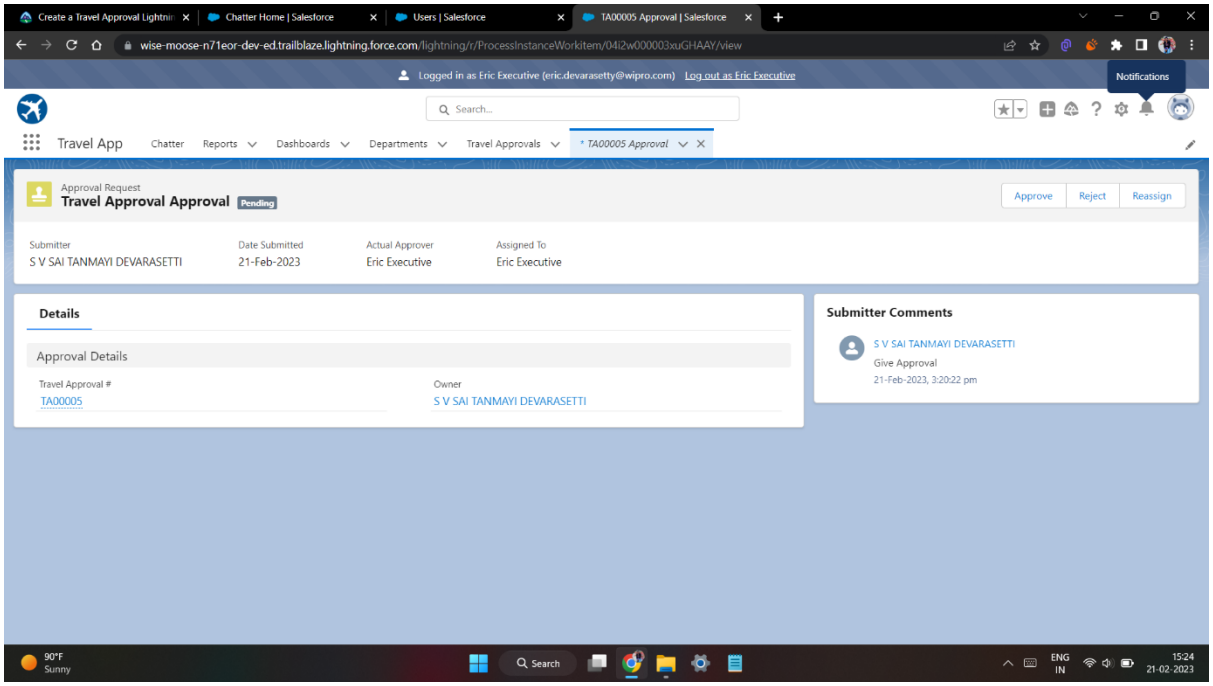
Submit for approval with comment



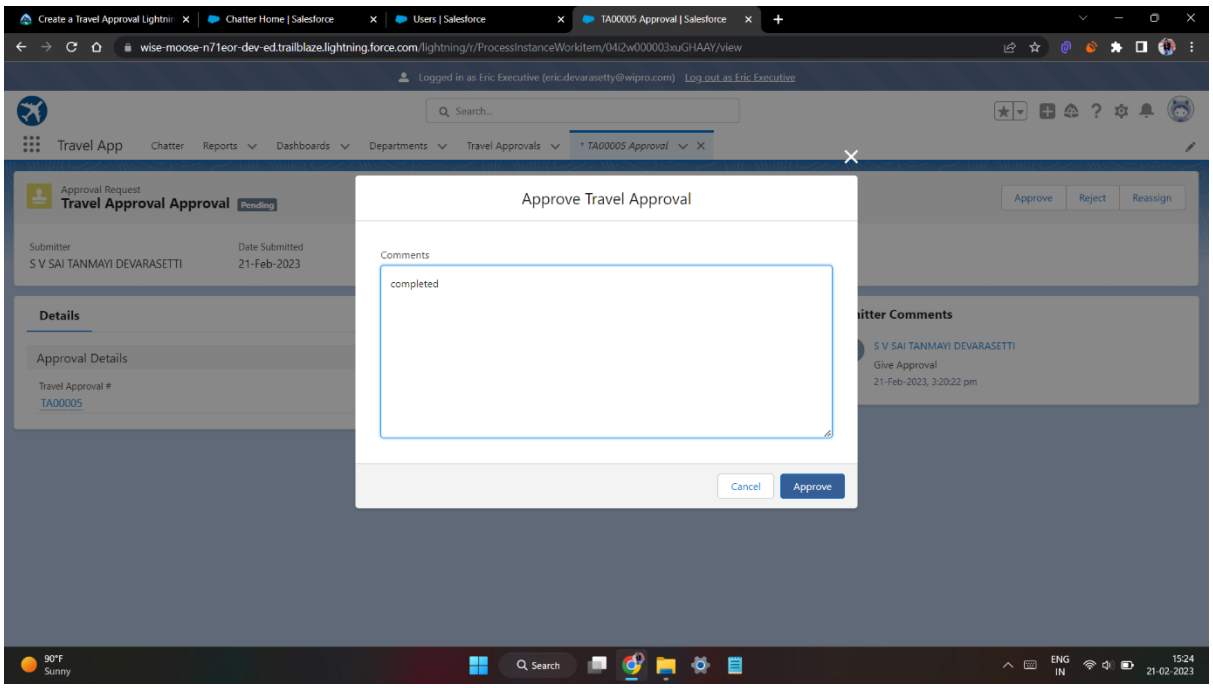
Login as Eric to give Approval

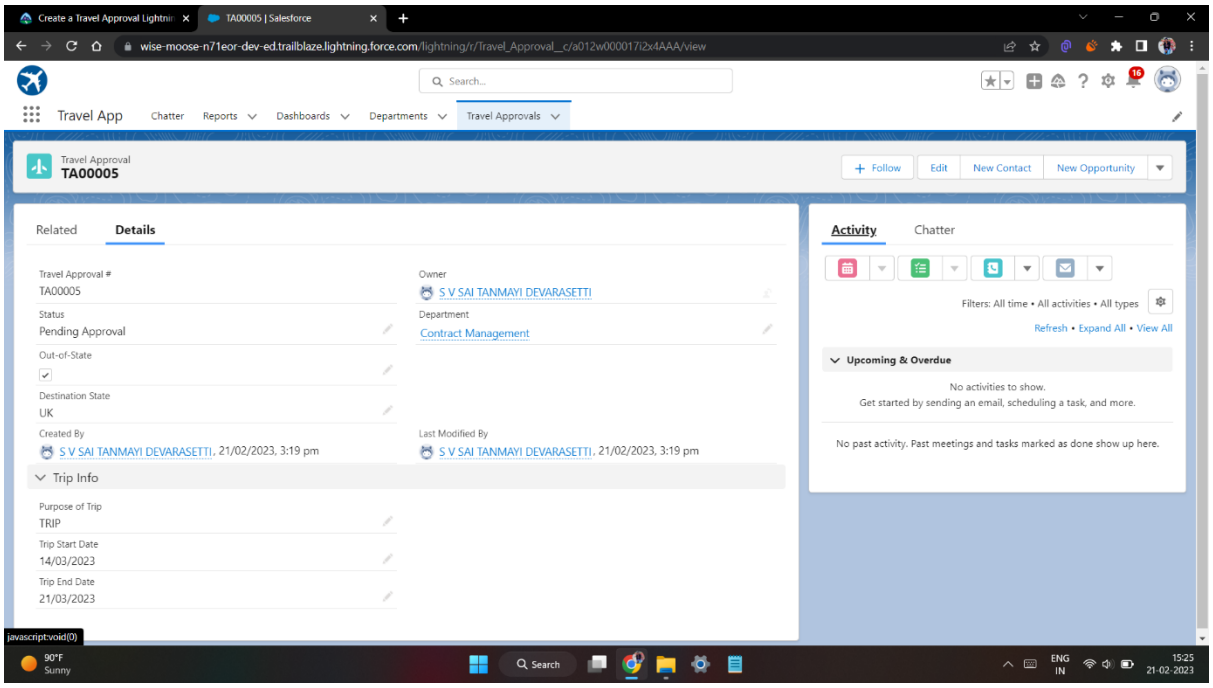


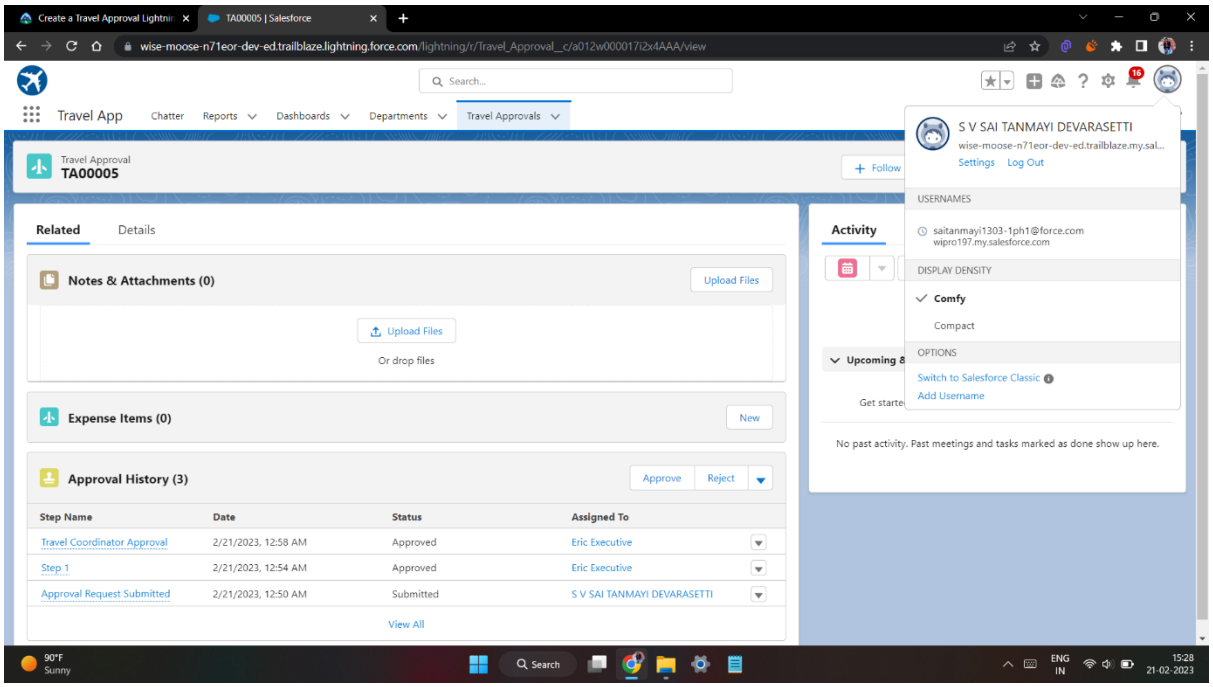
Can Approve or Reject



After giving Approval



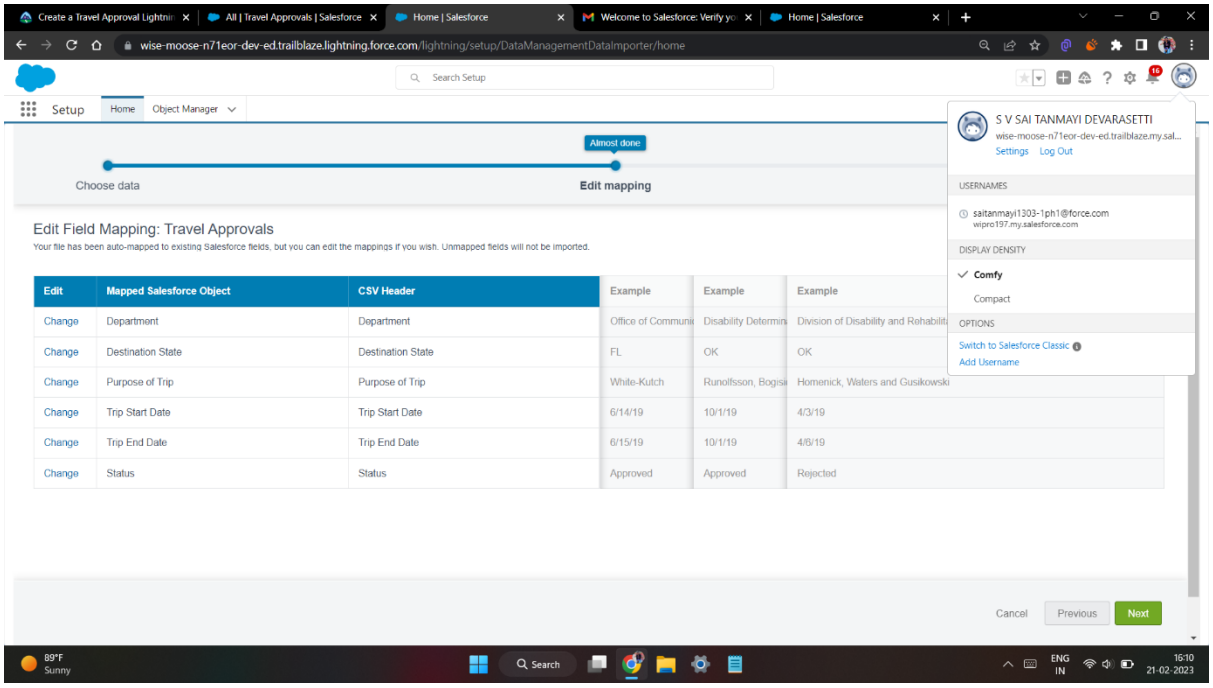


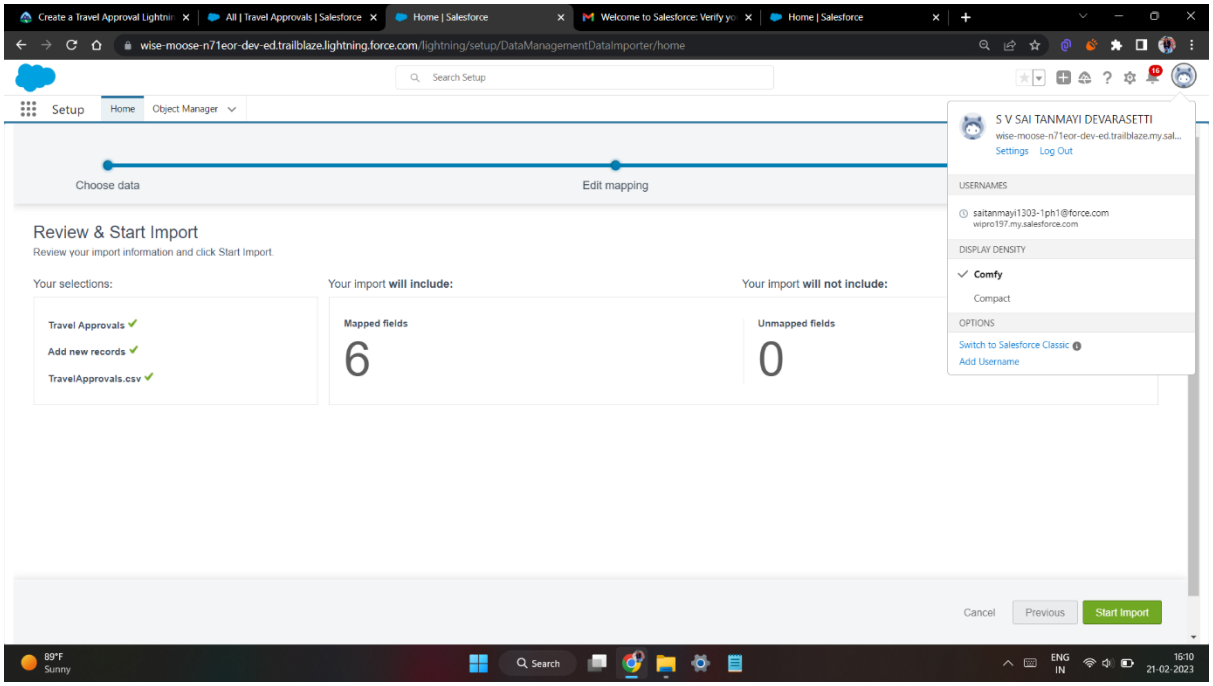


EXERCISE 2

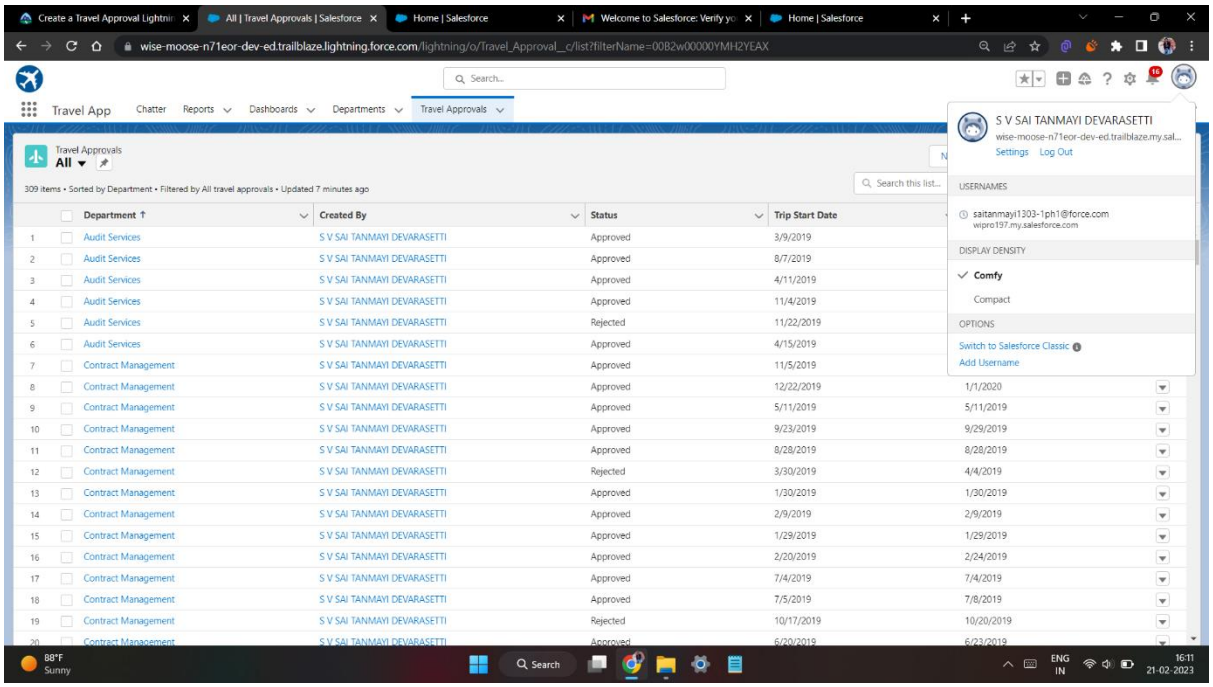
STEP 1

Using Data import wizard to import travel approval records



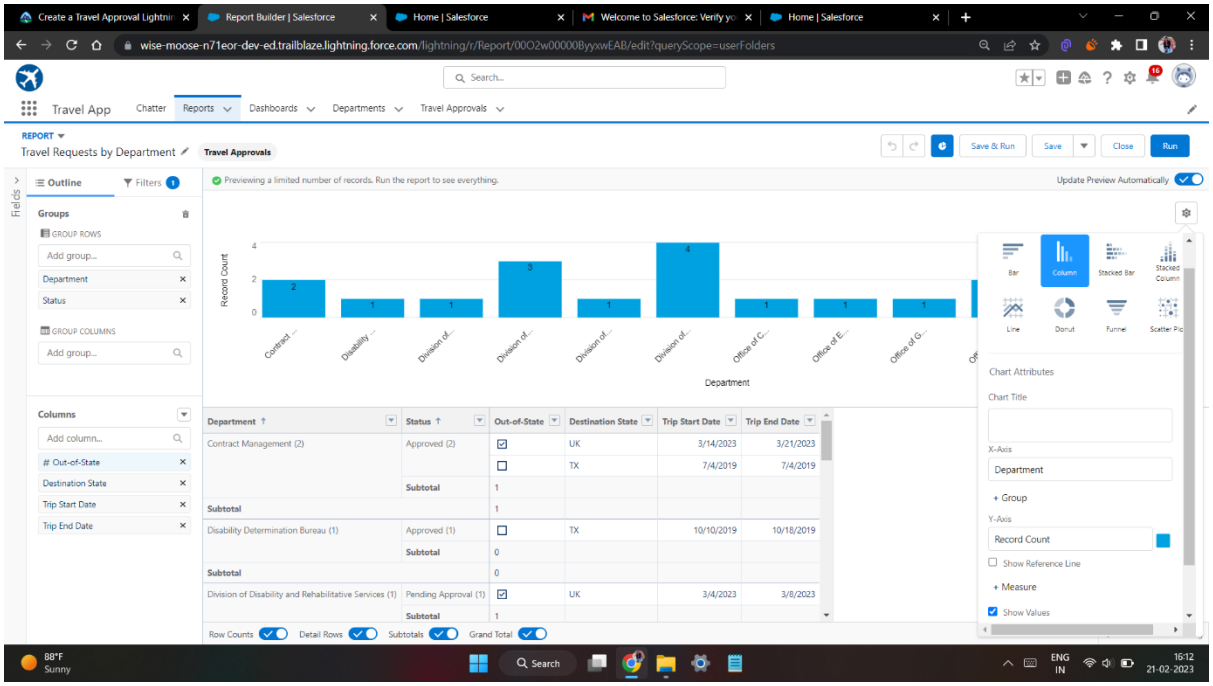


Records imported successfully

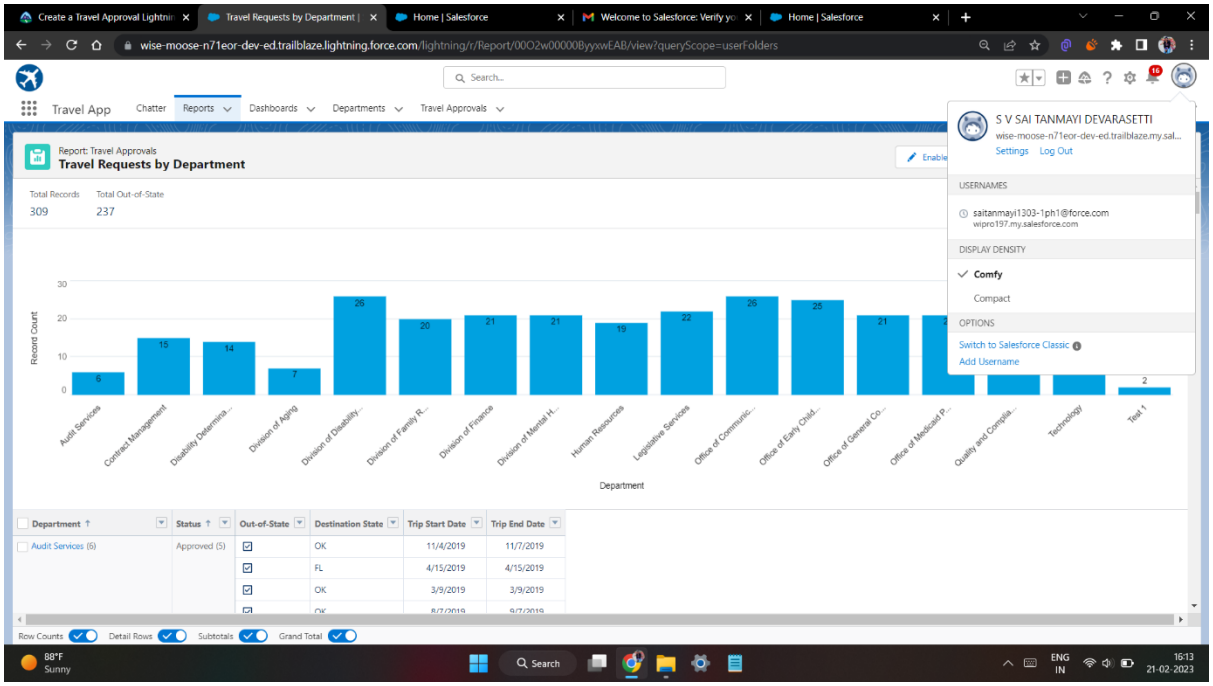


STEP 2

Creating Travel Request by Department report and add chart properties

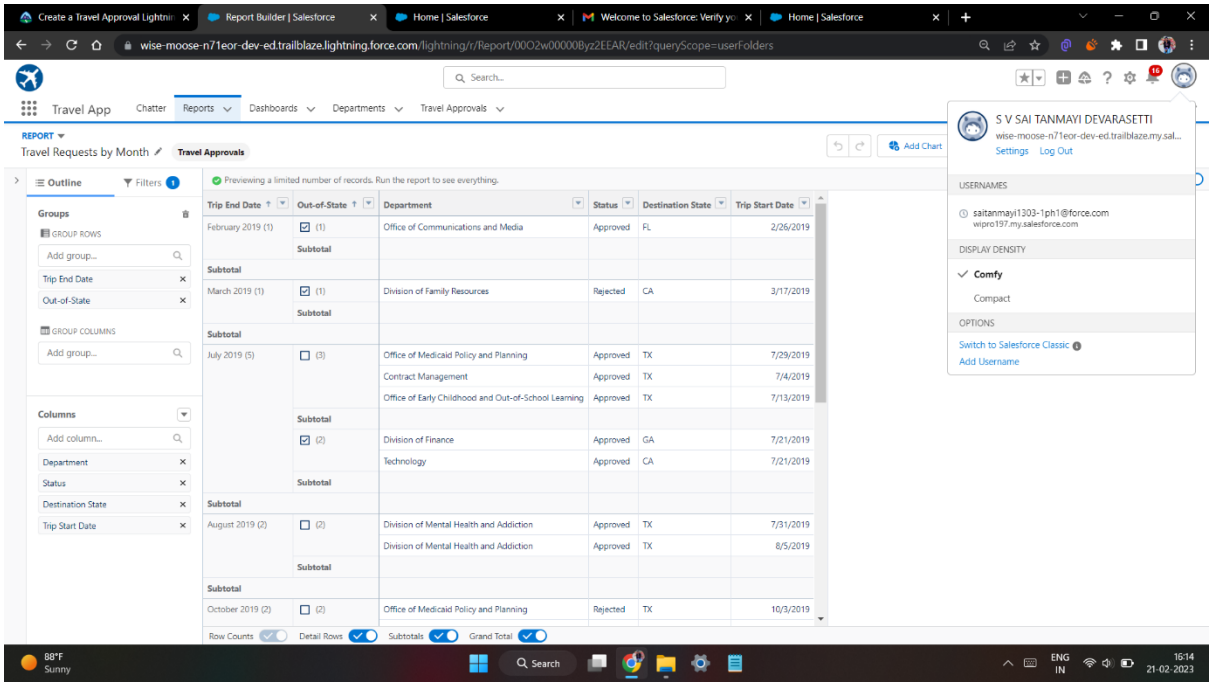


Final Report

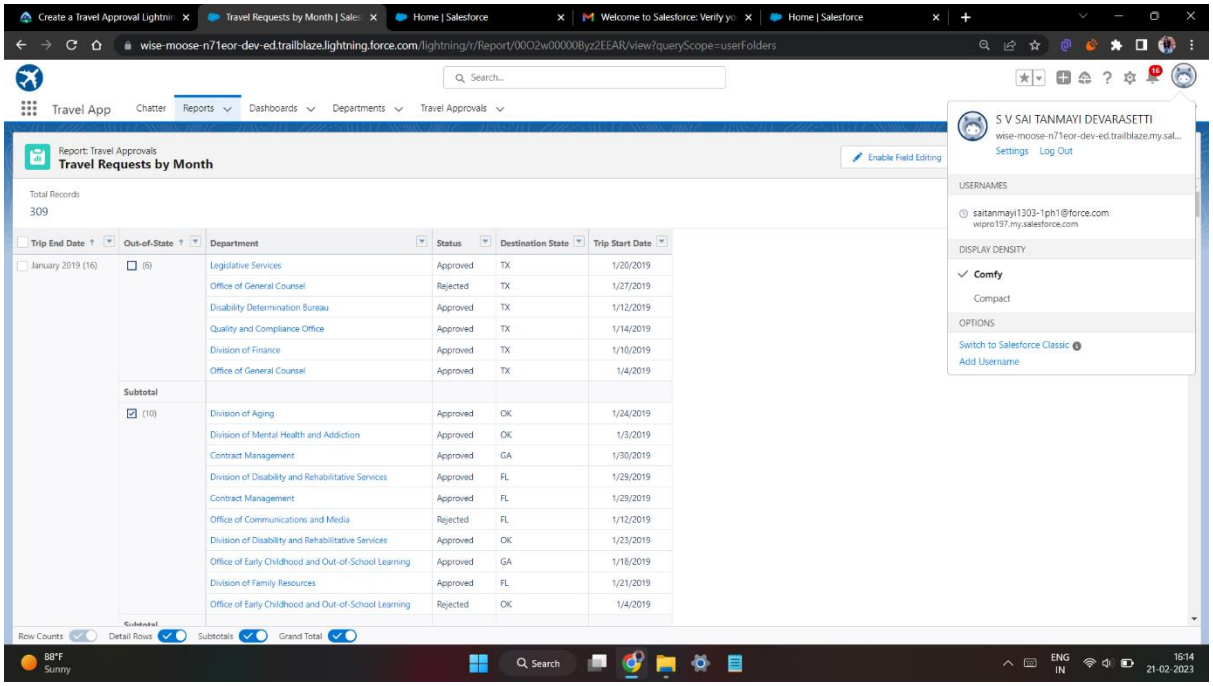


STEP 3

Creating Travel request by Month Report

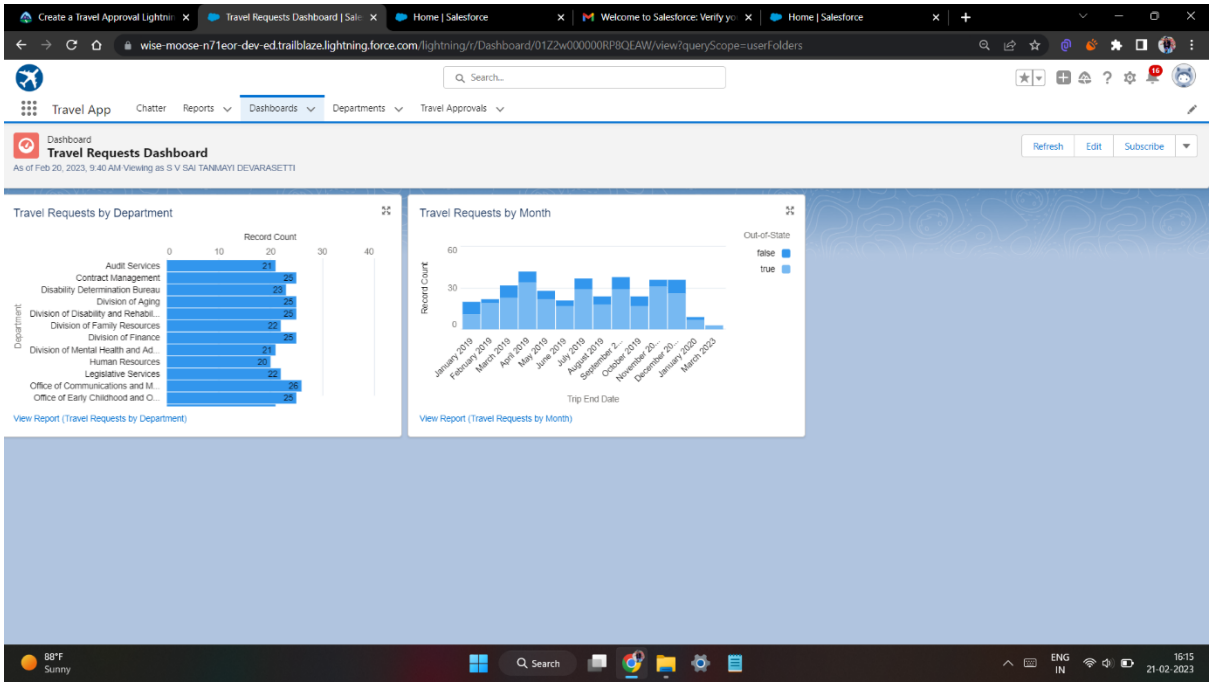


Final report



STEP 4

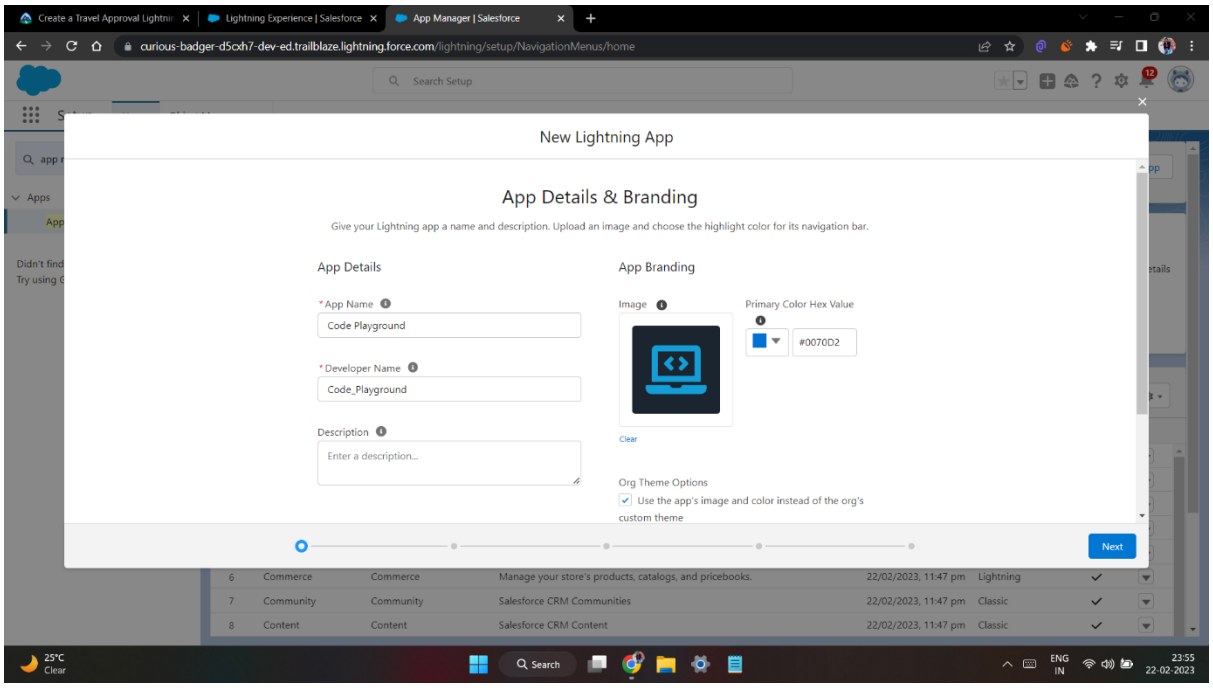
Final Dashboard

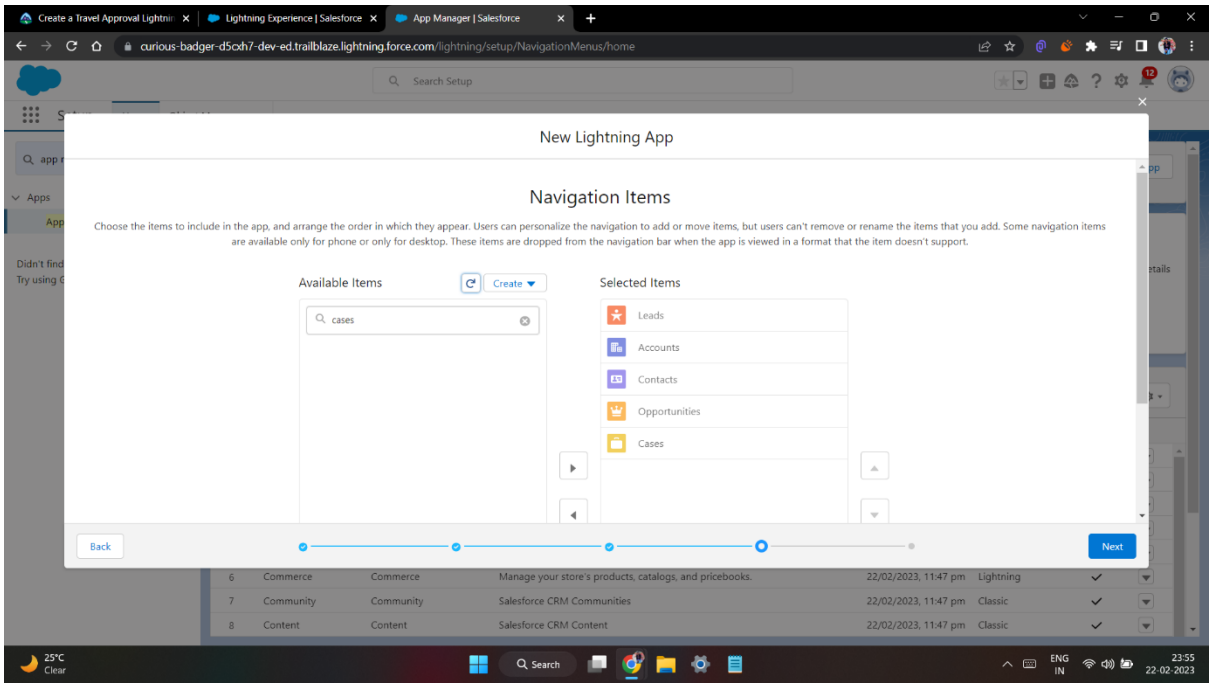


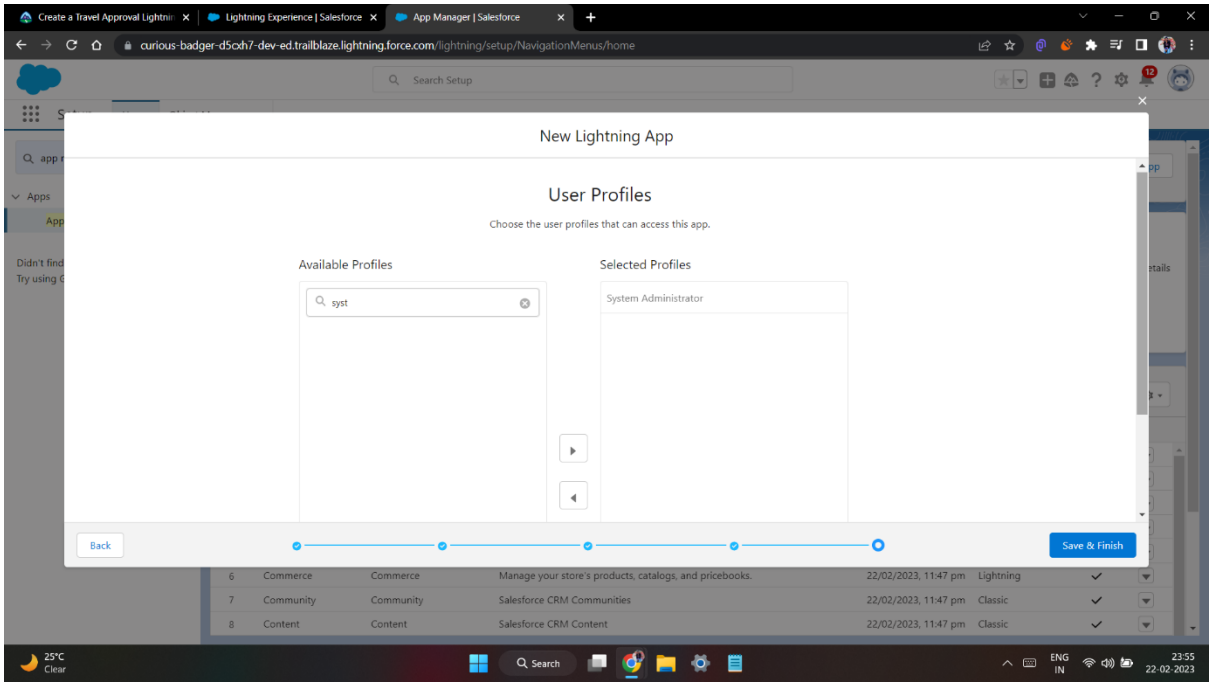
Module 3

Exercise 1

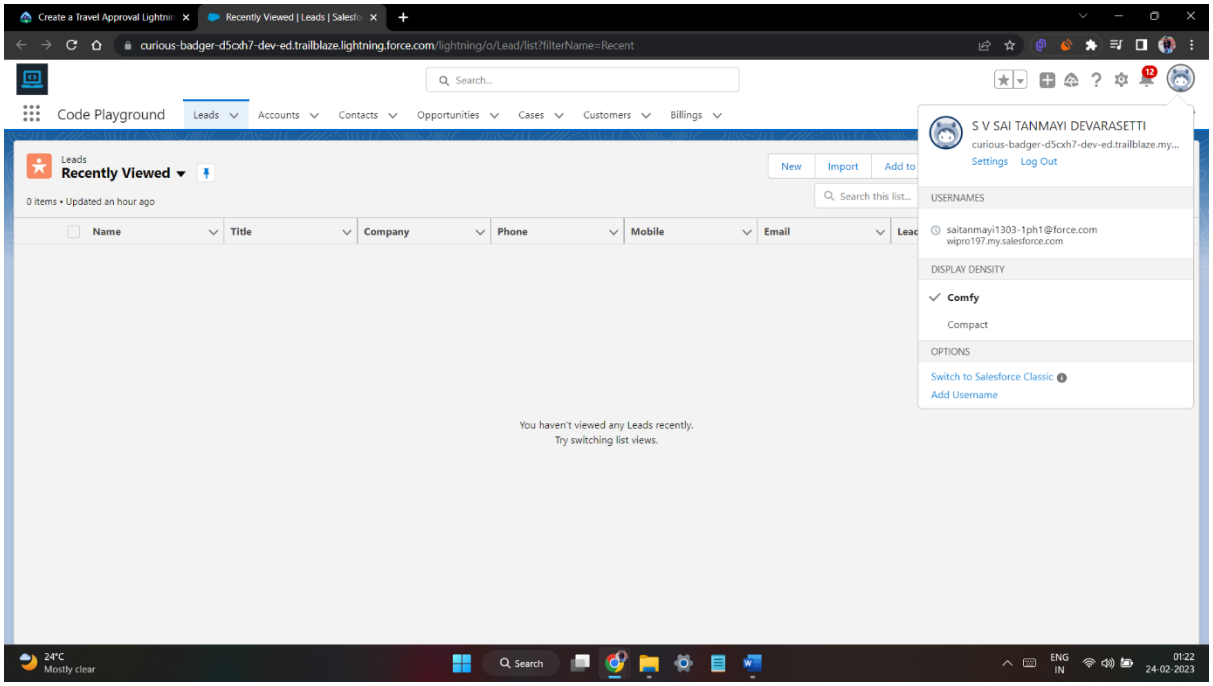
Creating Code Playground Lightning App with Lead, Account, Contact, Opportunity, Case to navigation profile as system admin.



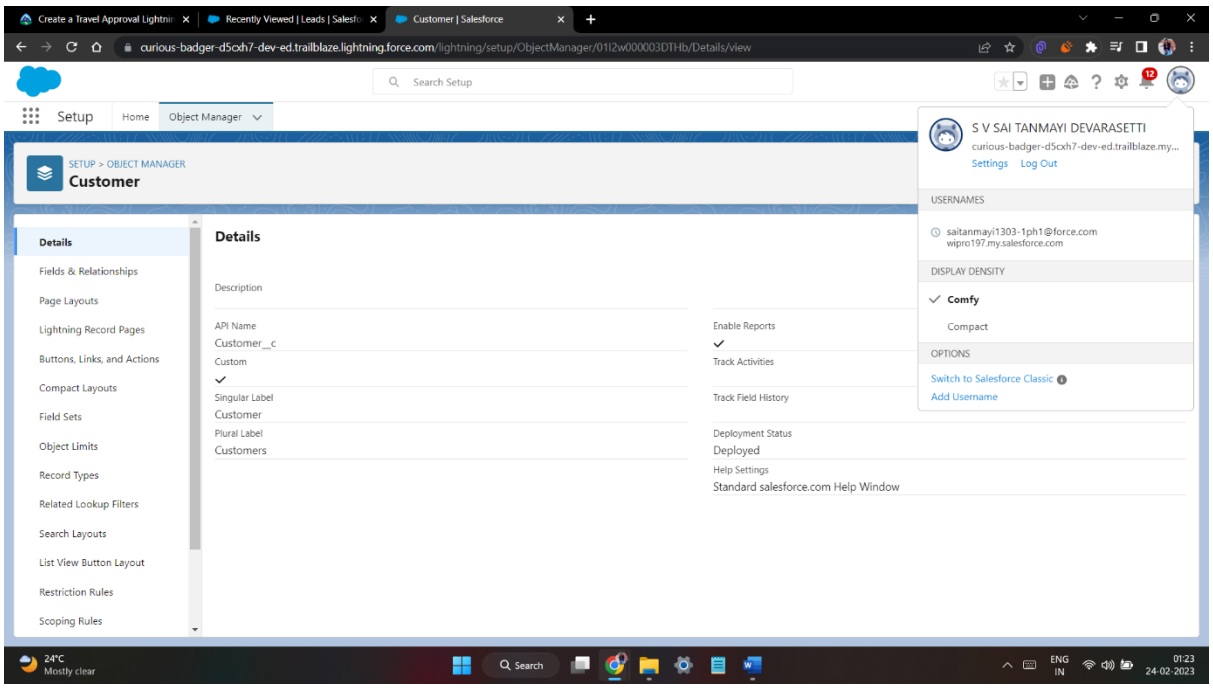




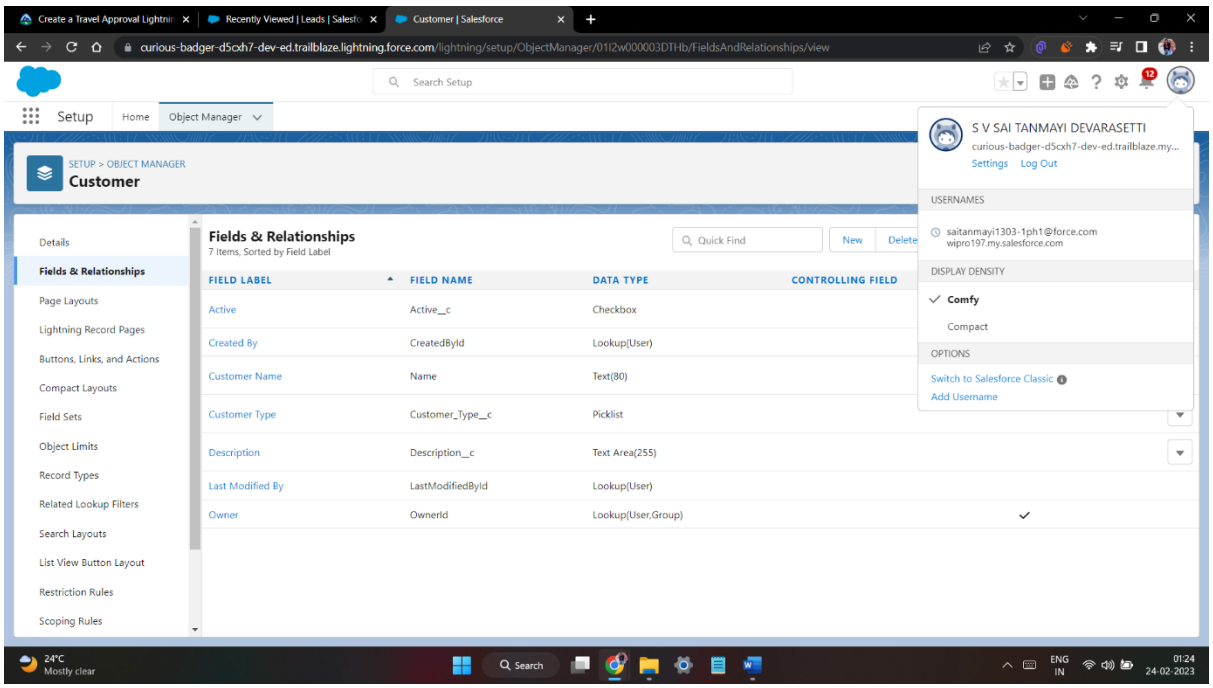
Finally, it looks Like as shown below



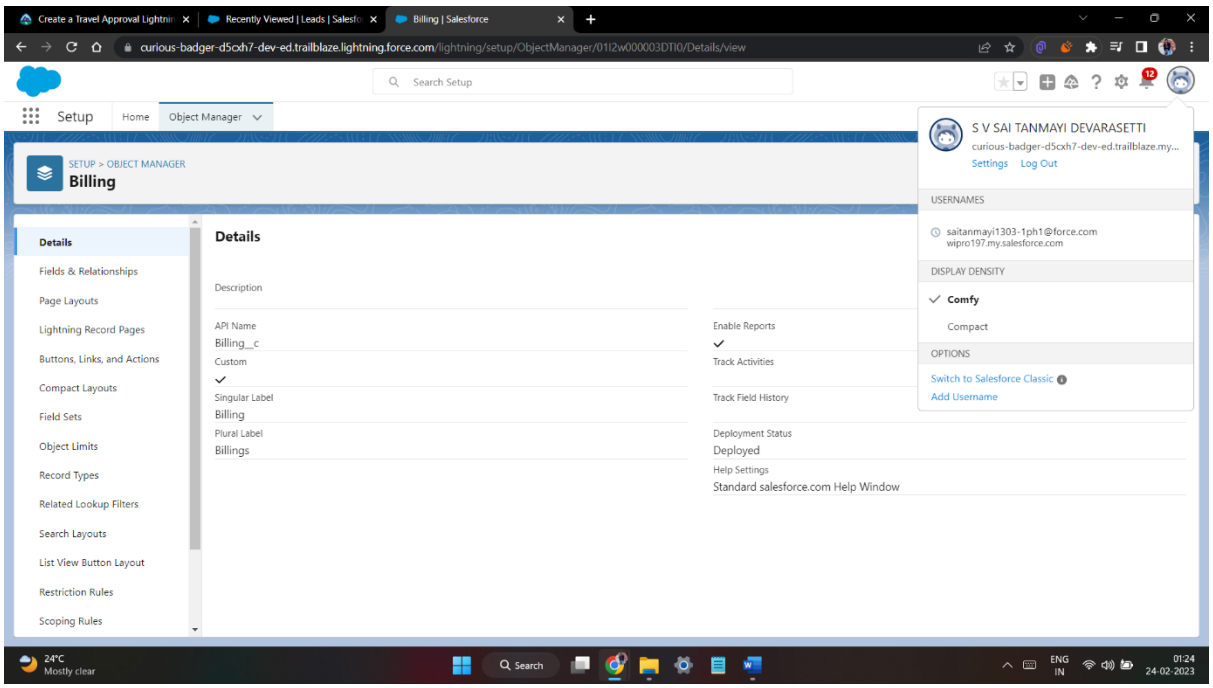
Creating custom objects



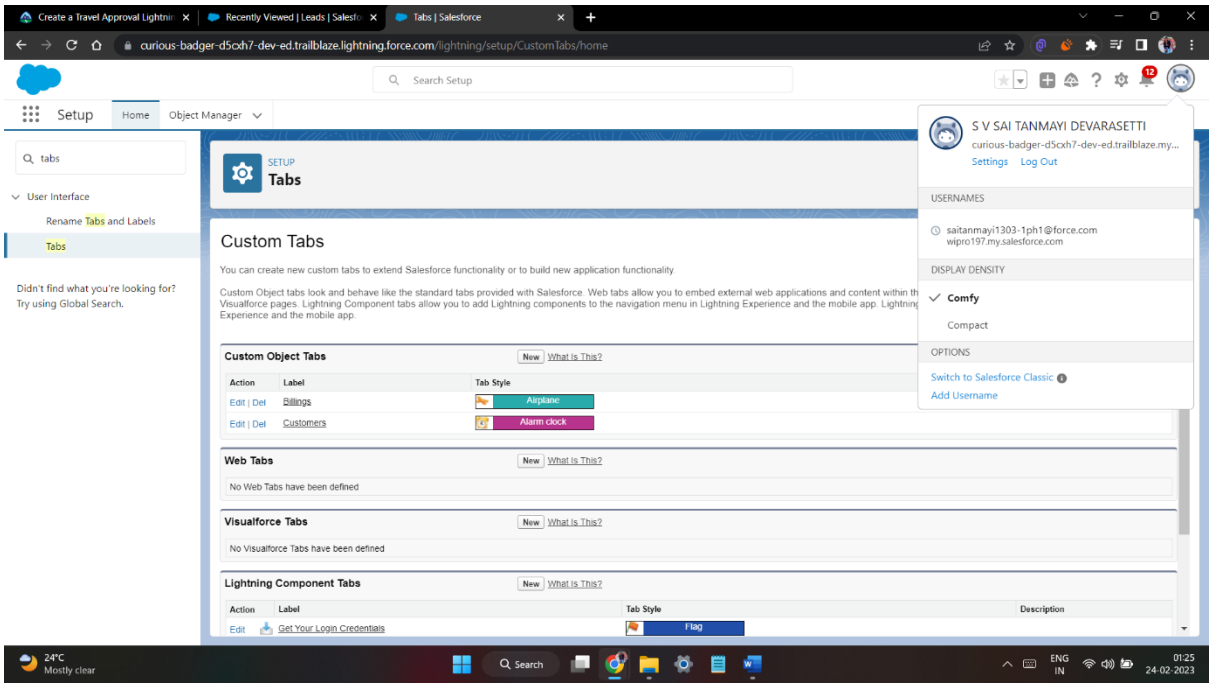
Custom fields on Customer custom object



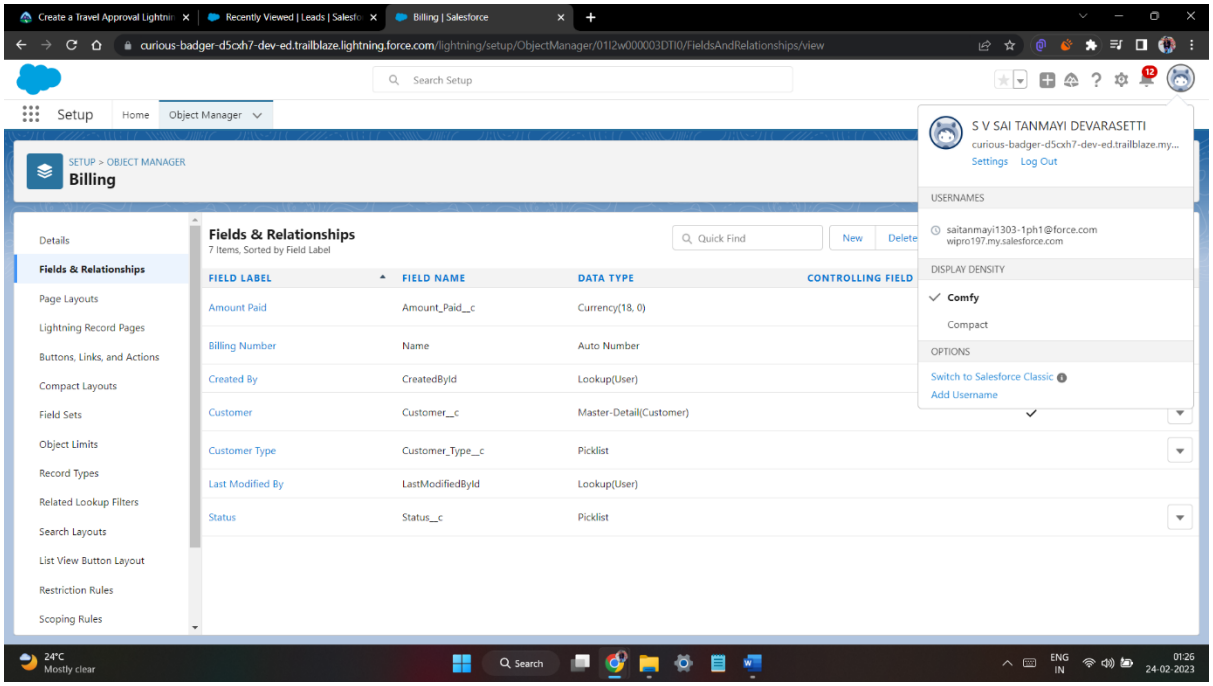
Creating Billing Object



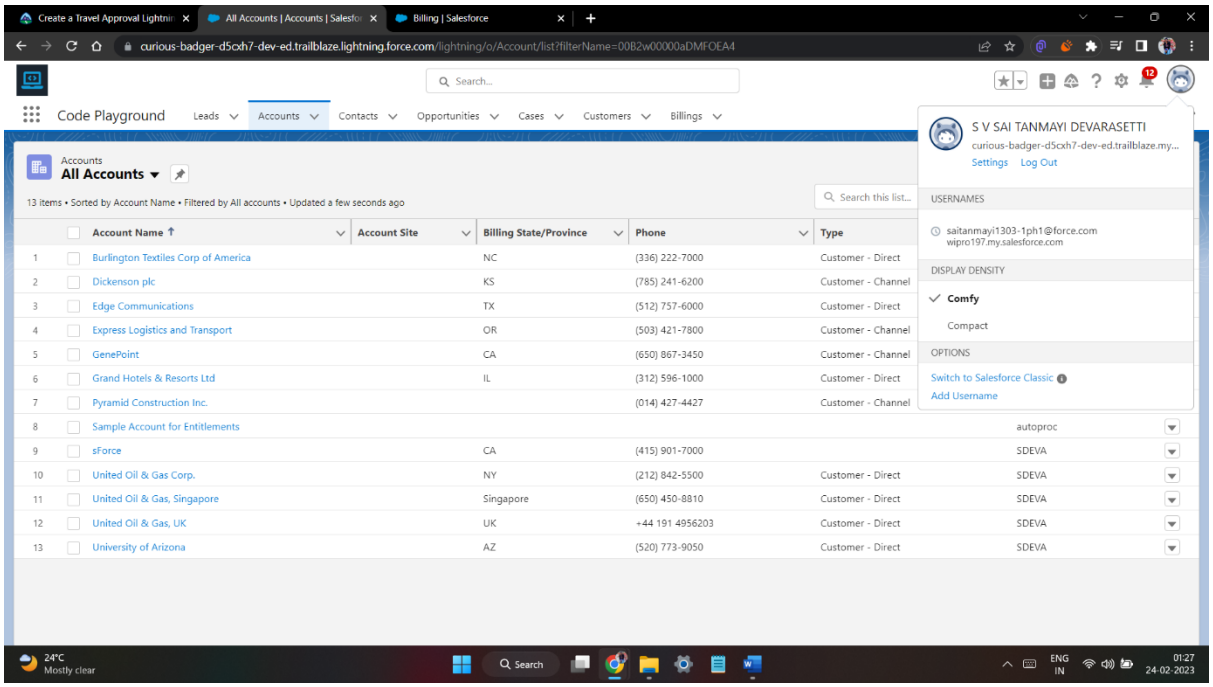
Tabs for Customer and Billing Objects



Custom fields on billing



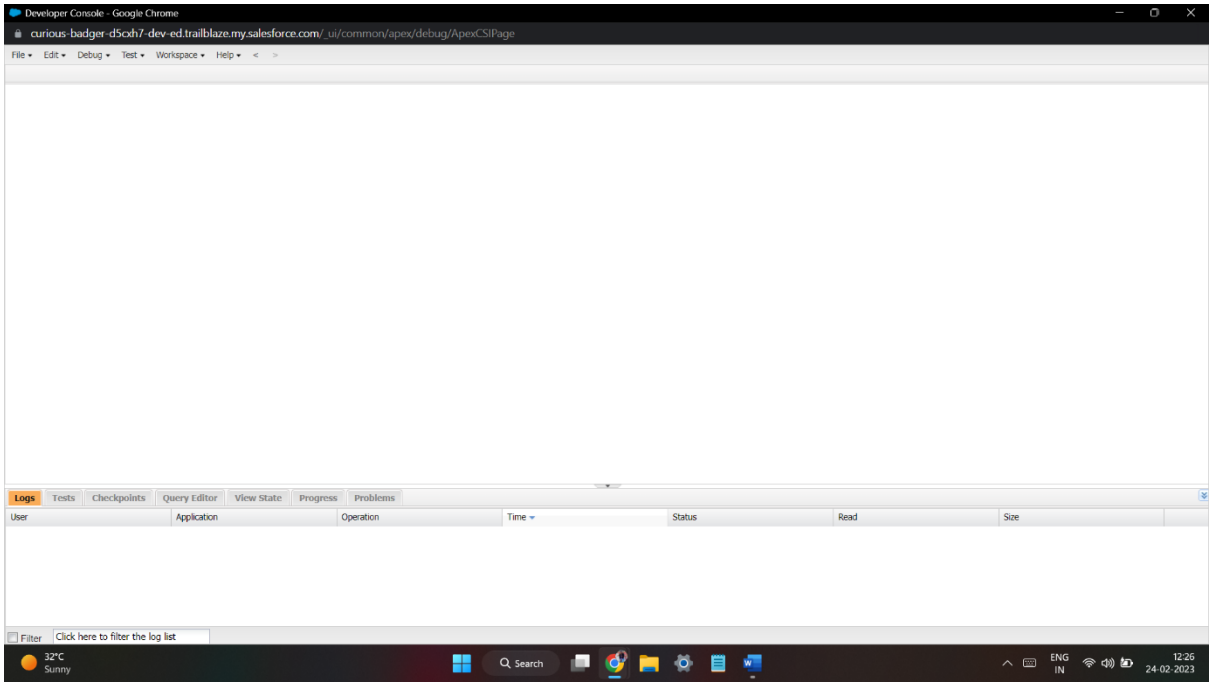
Finally, it looks as shown below



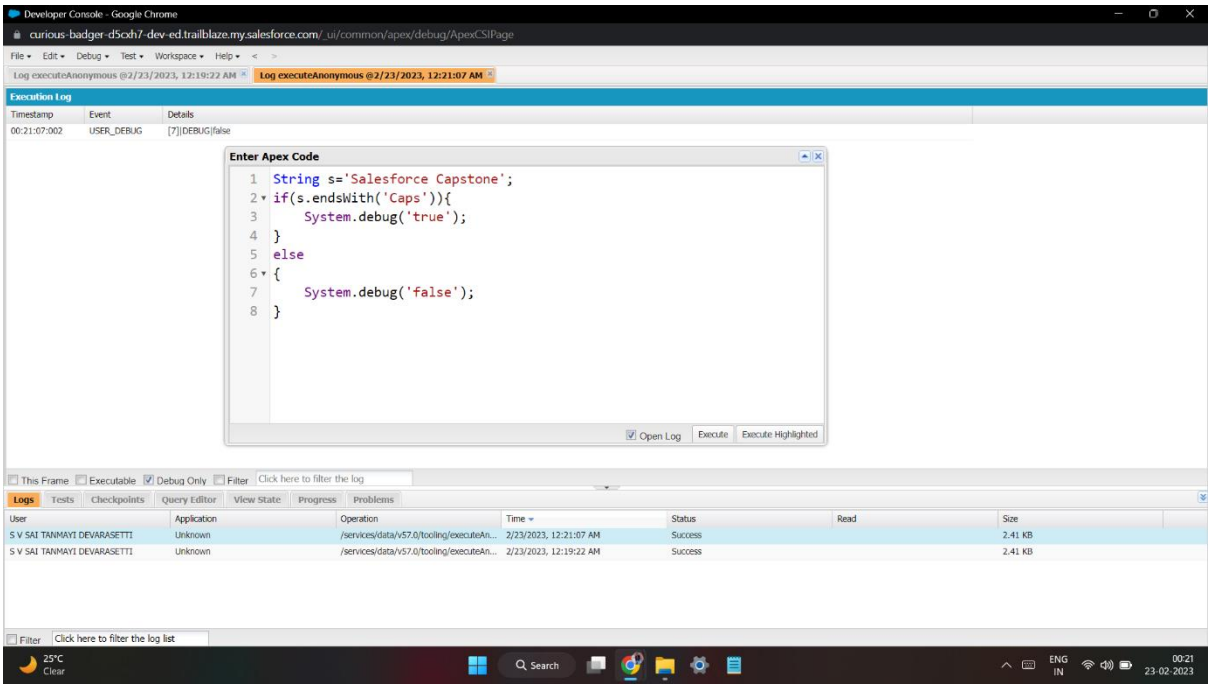
Exercise 2

Use Execute Anonymous to define and execute the following code:

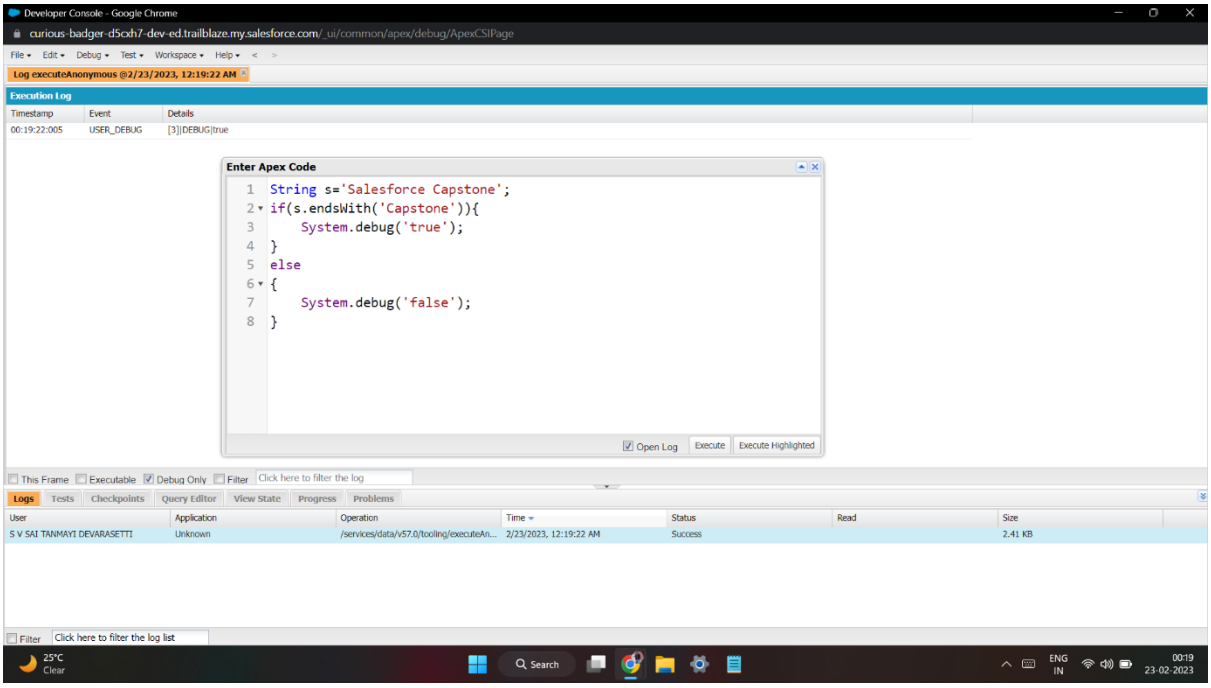
Developer Console



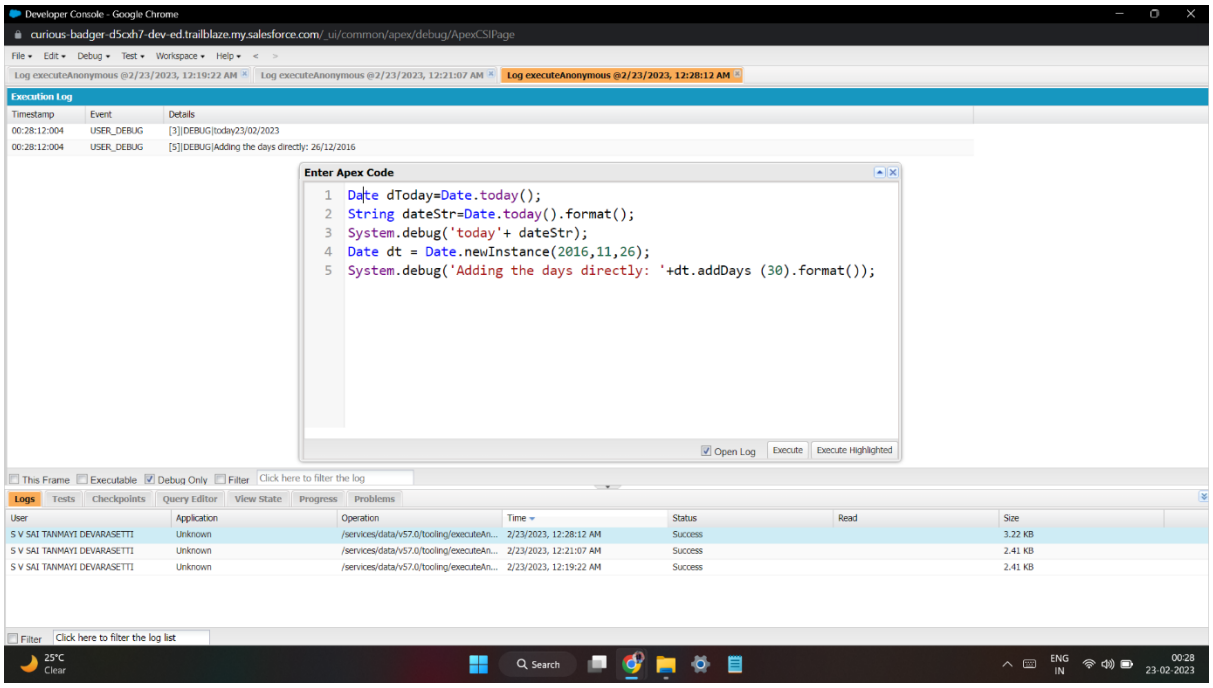
1.Define a String Variable & use string method ‘endsWith’ to display the output. By clicking oh Debug and select open Anonymous window



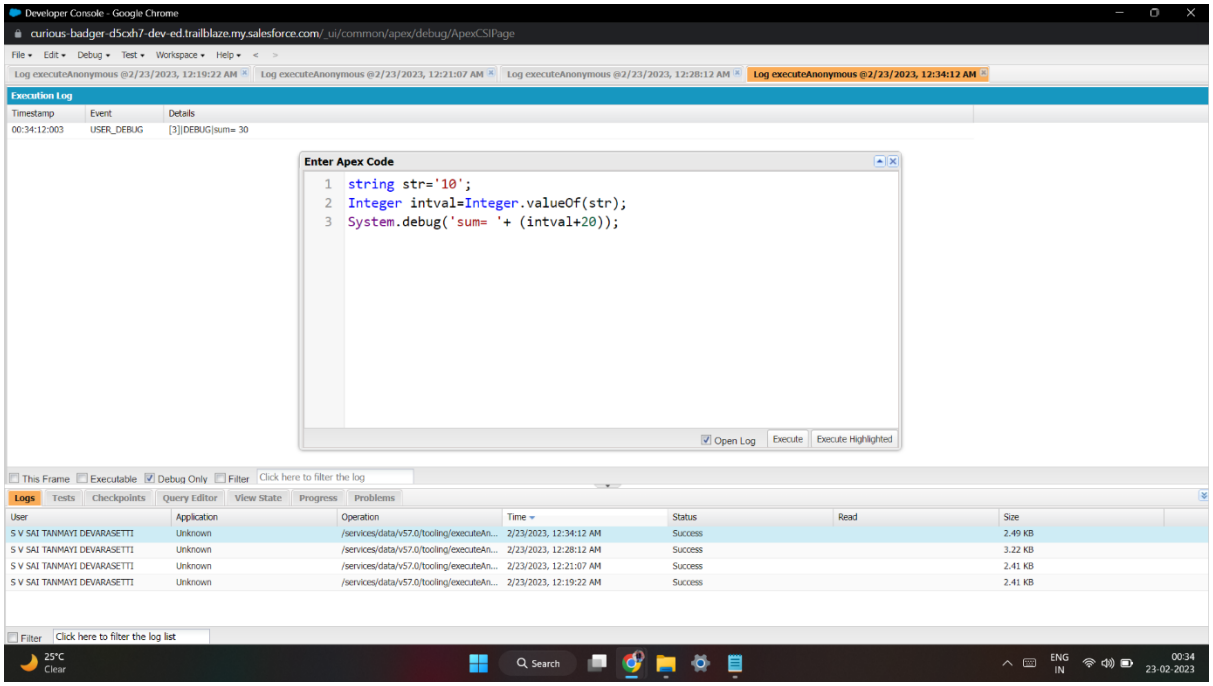
.



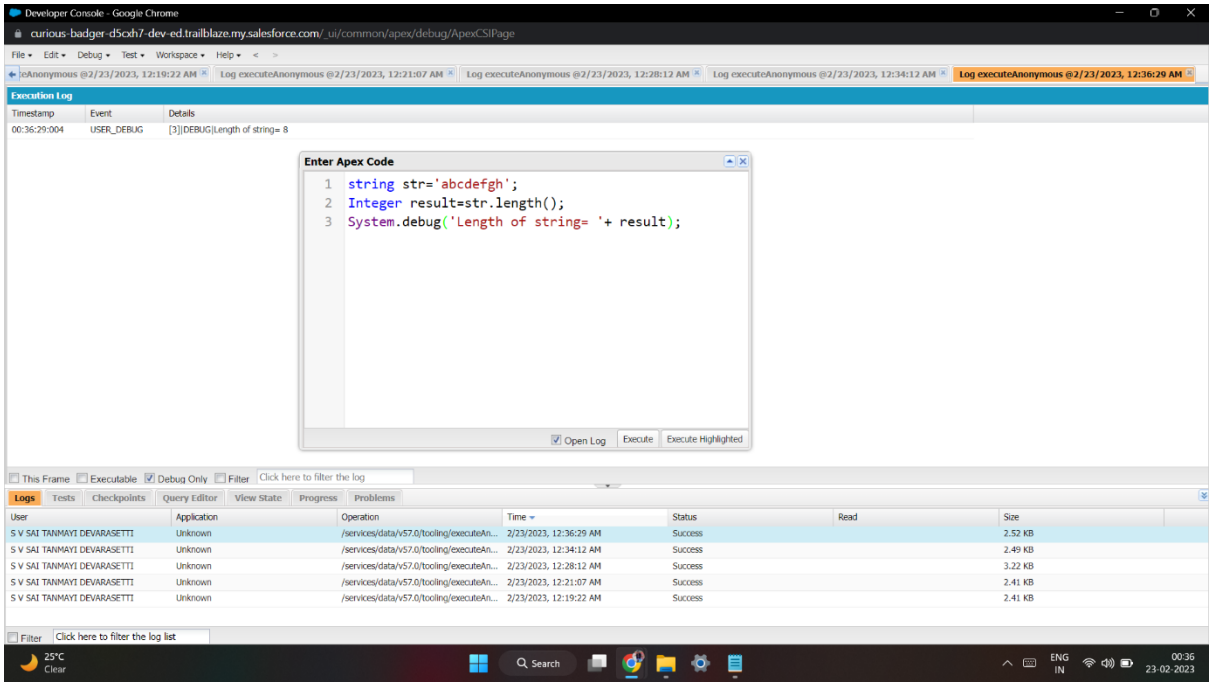
2. Define 2 Date type variables, use Date method today() & addDays(30) to display the output.



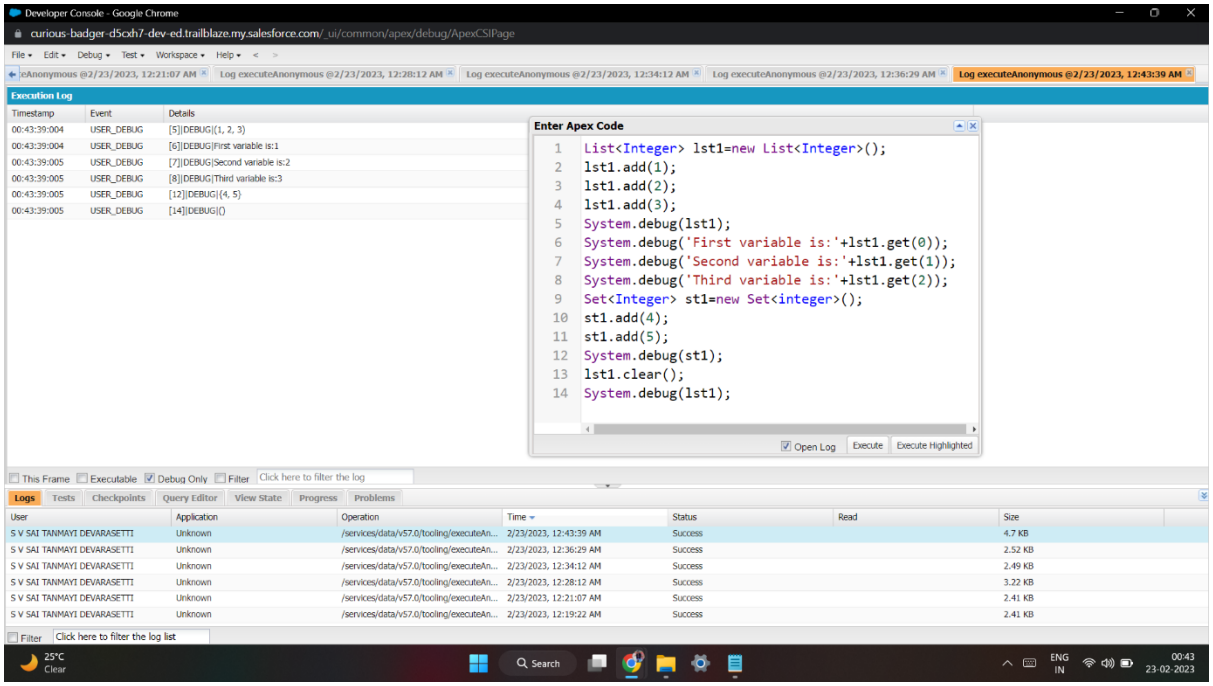
3. Display the output of an Integer variable from string ‘10’ and then add 20 to it.



4. Define a String Variable & use string method length() to display the output.

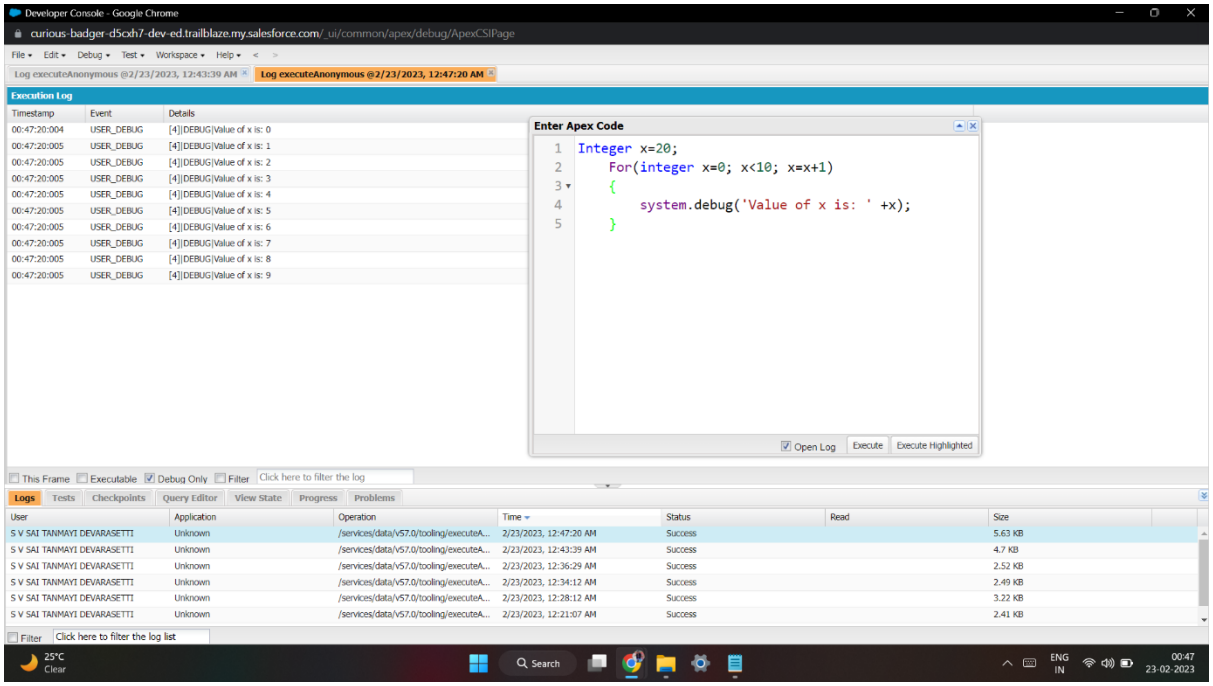


5. Define a List of integer and display the output using add(), get(), set(), clear(), methods.



Exercise 2

Use Execute Anonymous to define and execute the following code to display the value of x = 0 to 9.

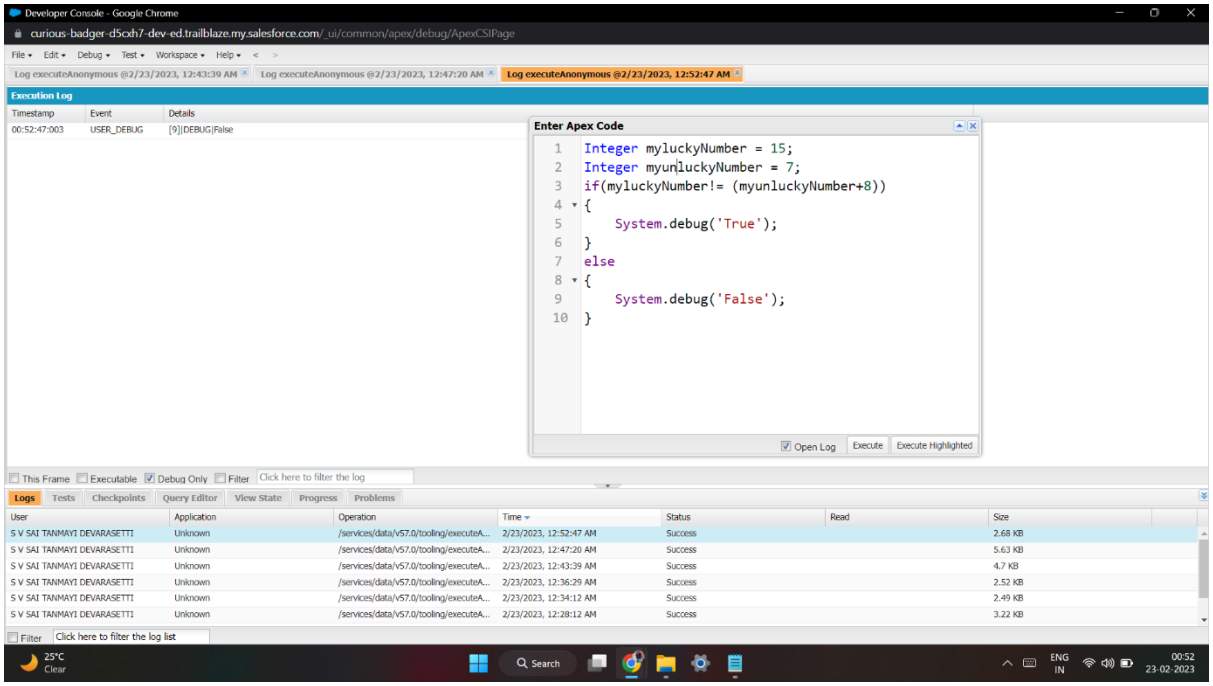


Exercise 3

Answer the following in True or False:

Integer myunlucklyNumber = 7; Integer myluckyNumber = 15;

myluckyNumber != myunlucklyNumber + 8.

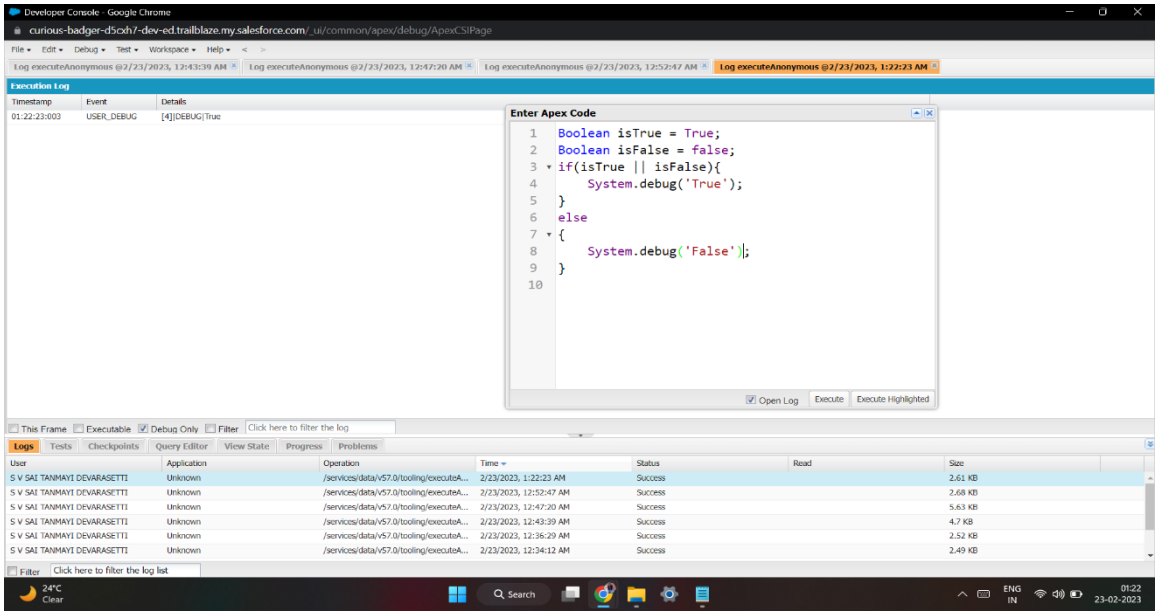


Exercise 4

Answer the following in True Or False:

Boolean isFalse = false;

Boolean isTrue = True;



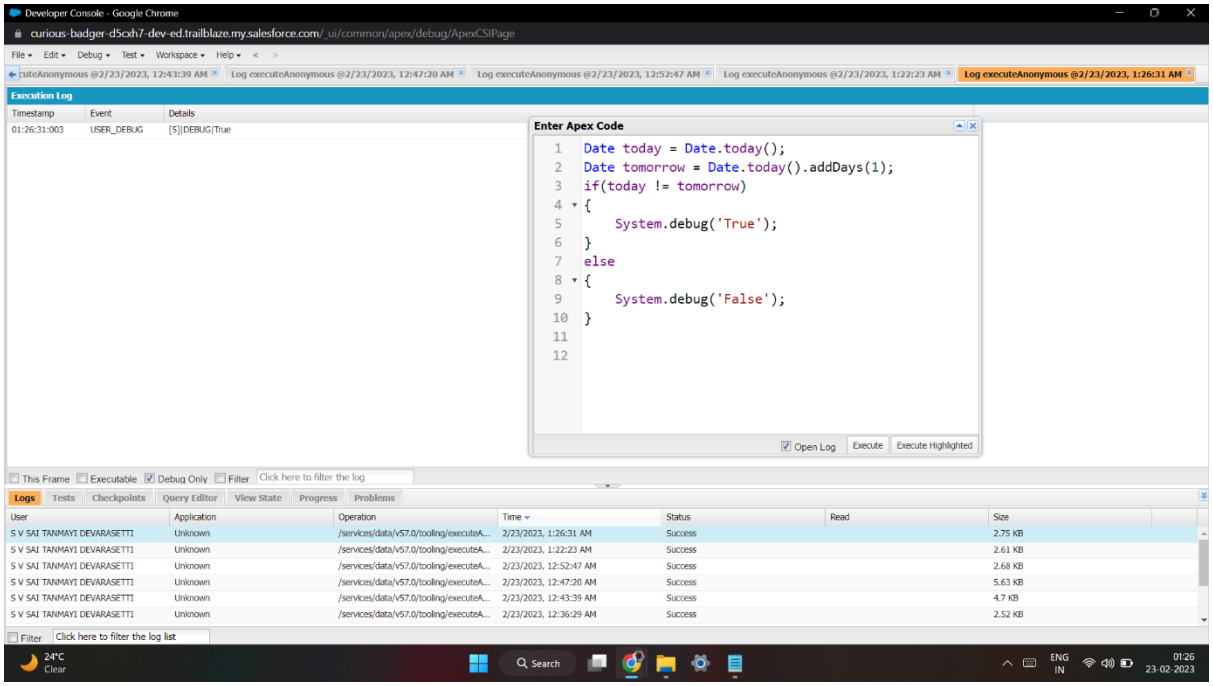
Exercise 5

Answer the following in True Or False:

Date tomorrow = Date.today().addDays(1);

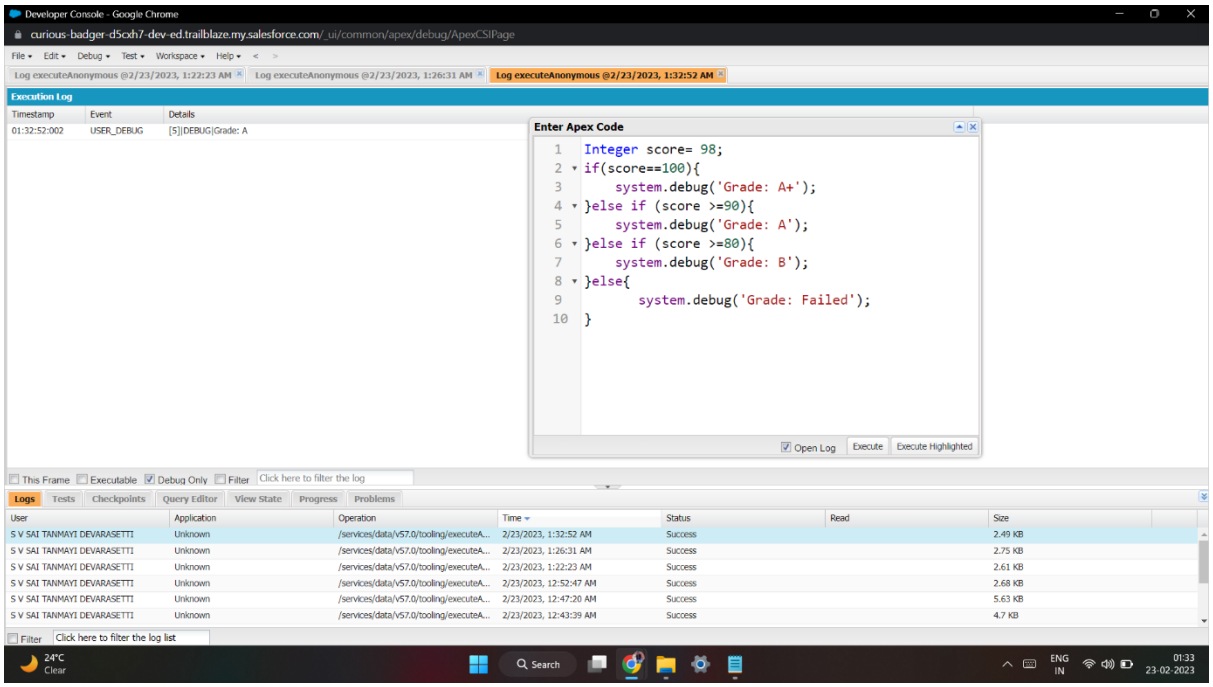
Date today = Date.today();

today != tomorrow



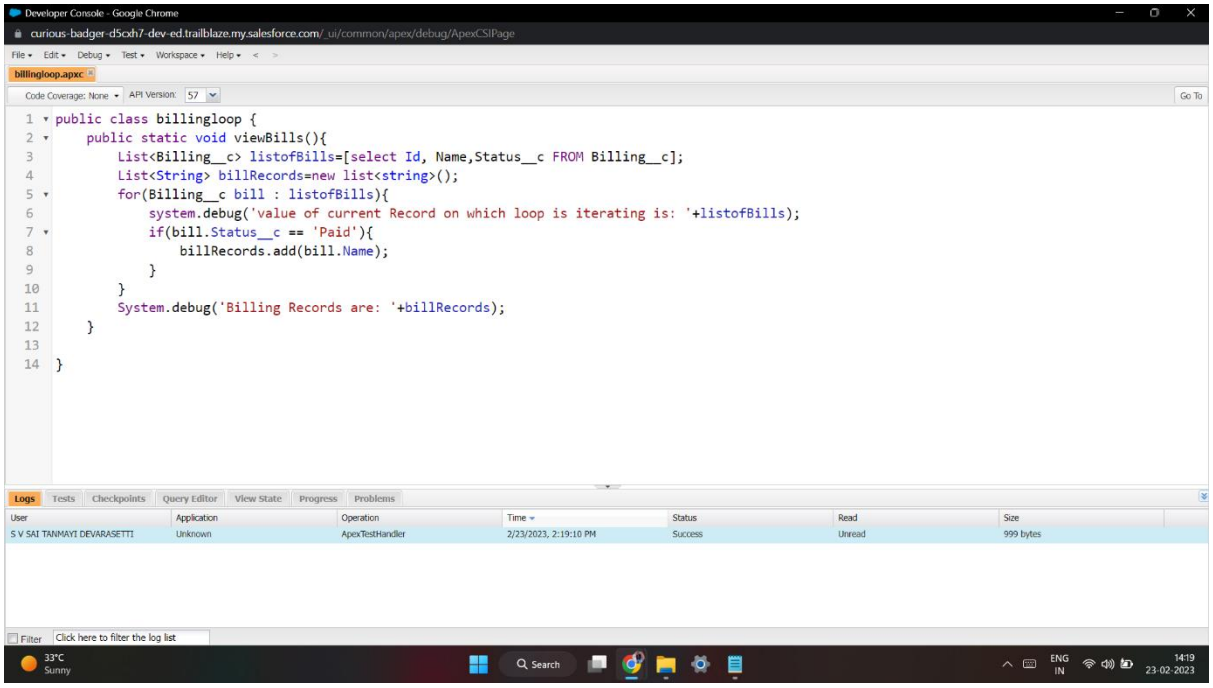
Exercise 6

Write a program and execute to demo the use of “If..else if...else”

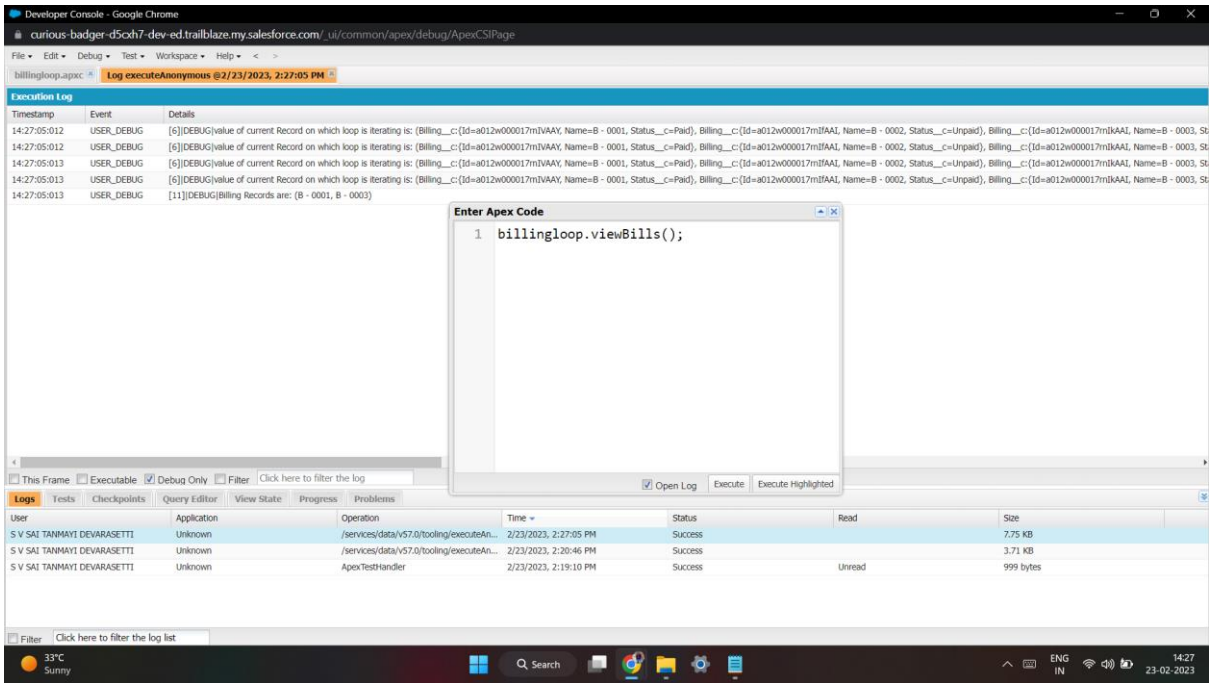


Exercise 7

Write a program to execute and demo the use of “Apex – for Loop”

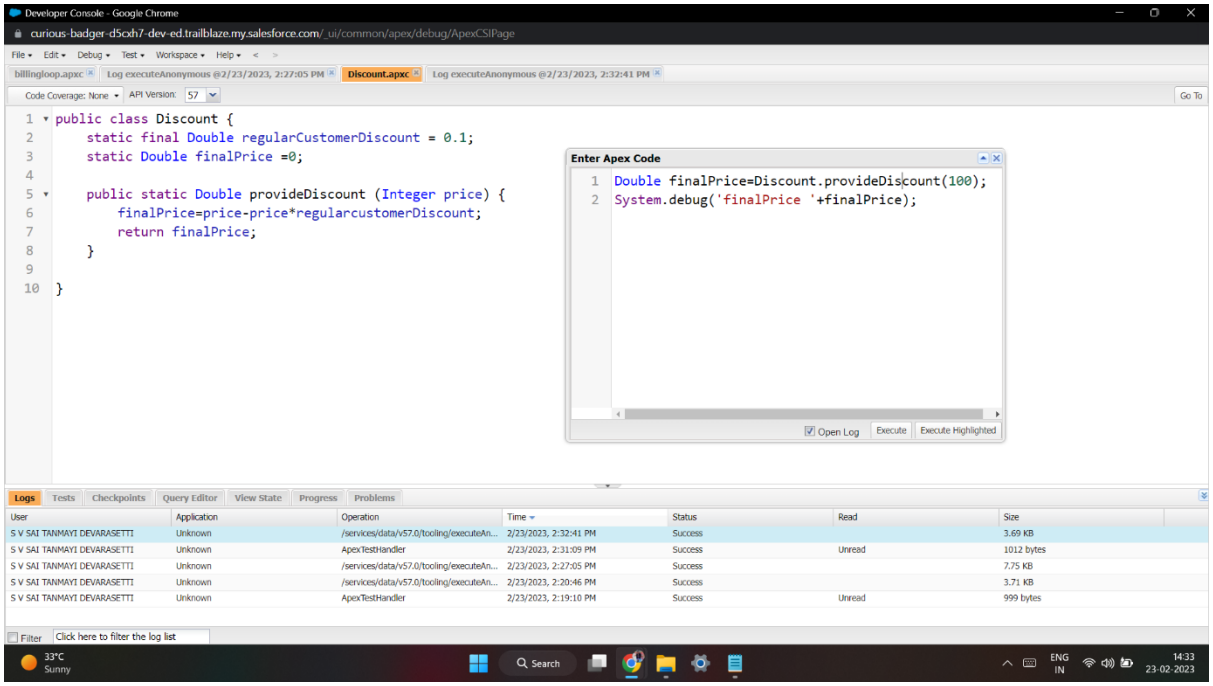


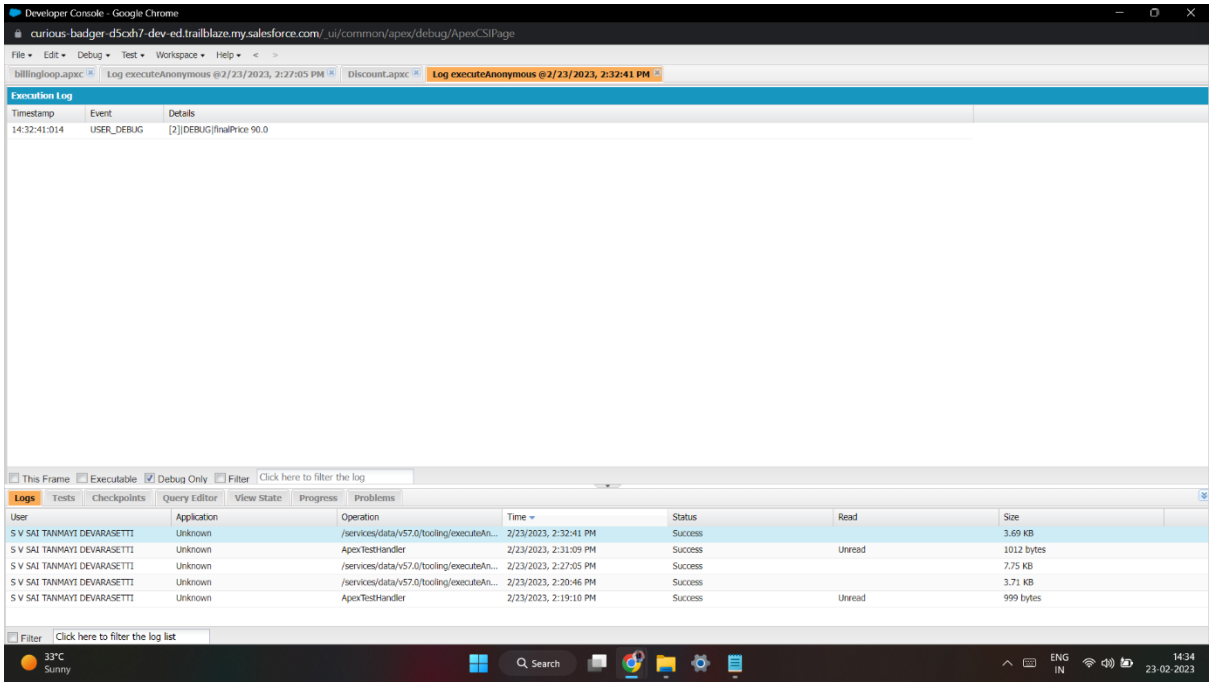
OUTPUT



Exercise 8

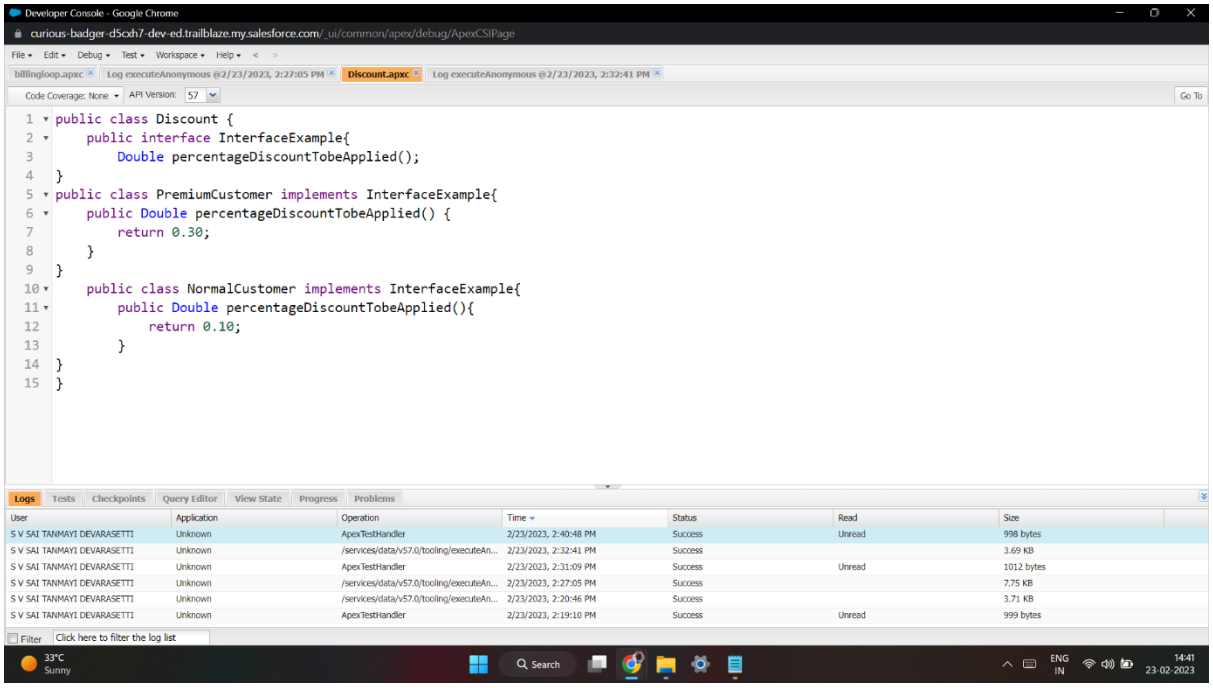
Write a Class to demo the use of Constants in Apex





Exercise 9

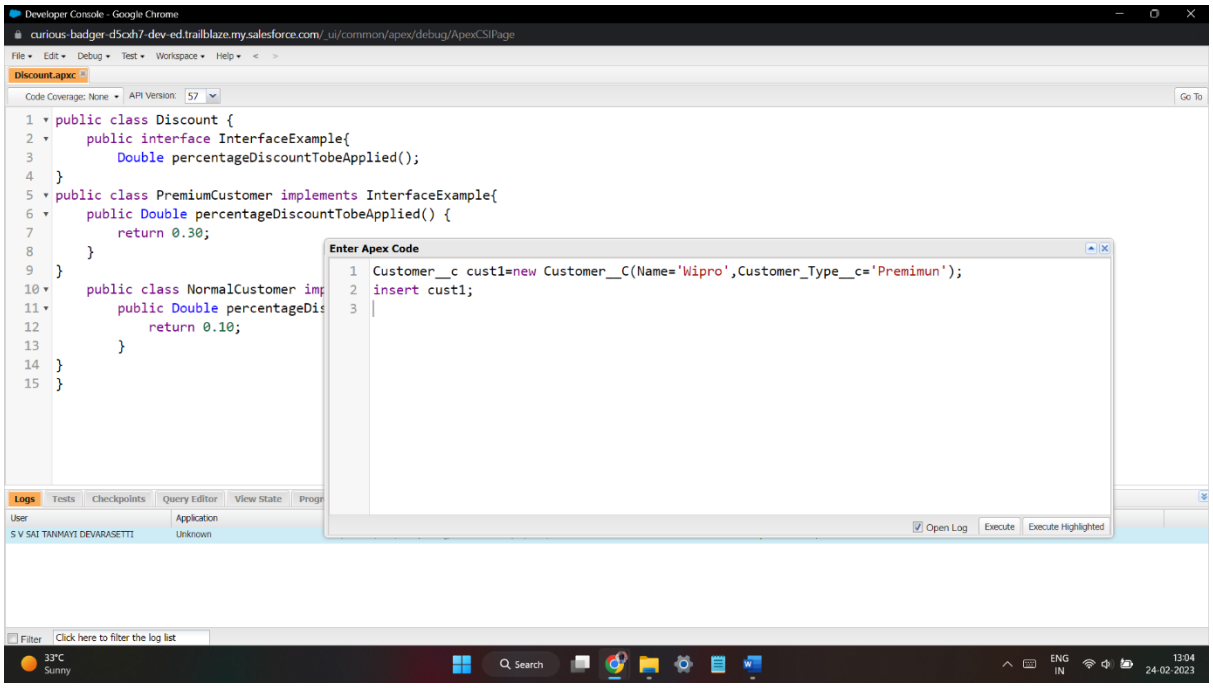
Write a Class to demo the use of Interface in Apex



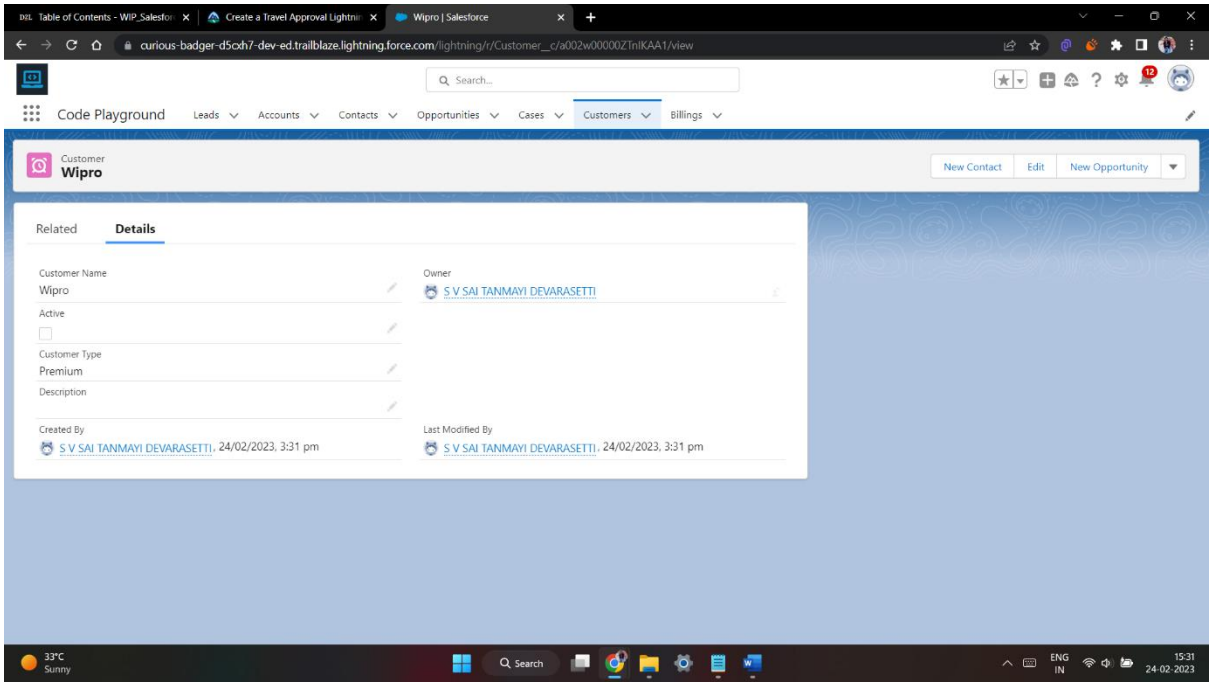
Exercise 10

Demo on DML Insert Operation Using Database methods

1. Insert a Customer Record First using simple DML Statement

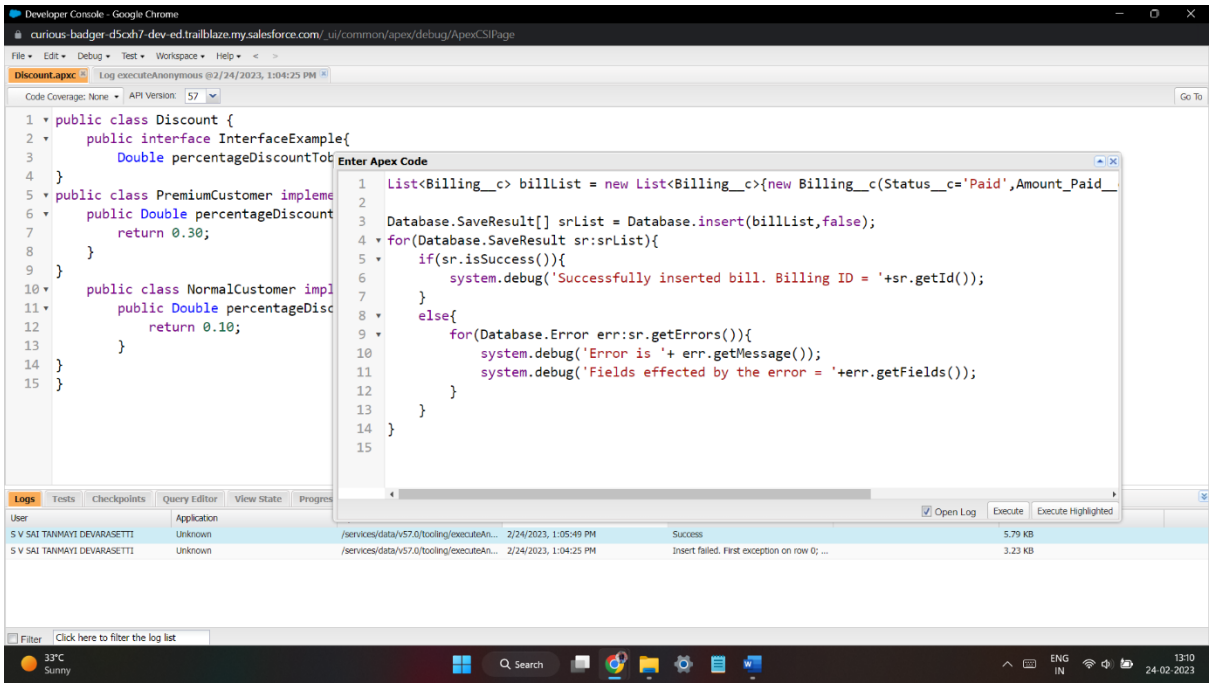


Result in UI record inserted into customer

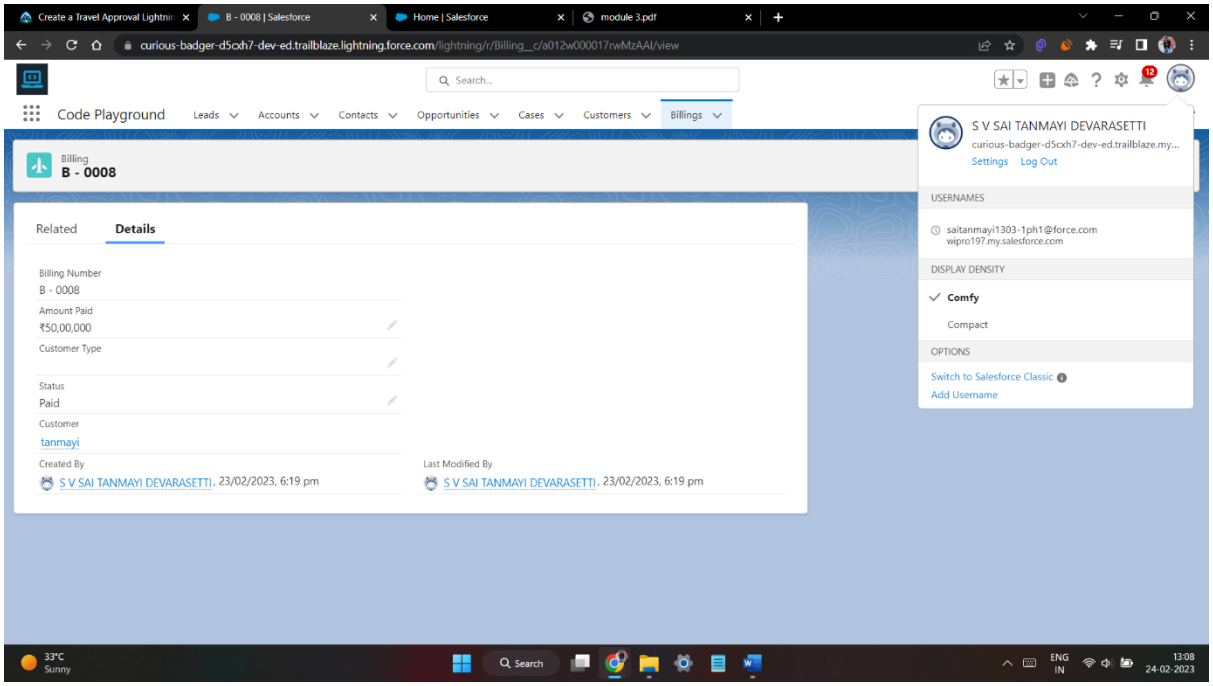


2. Insert Billing record using Database methods

   Here use record id to insert customer



Output in UI



Exercise 11

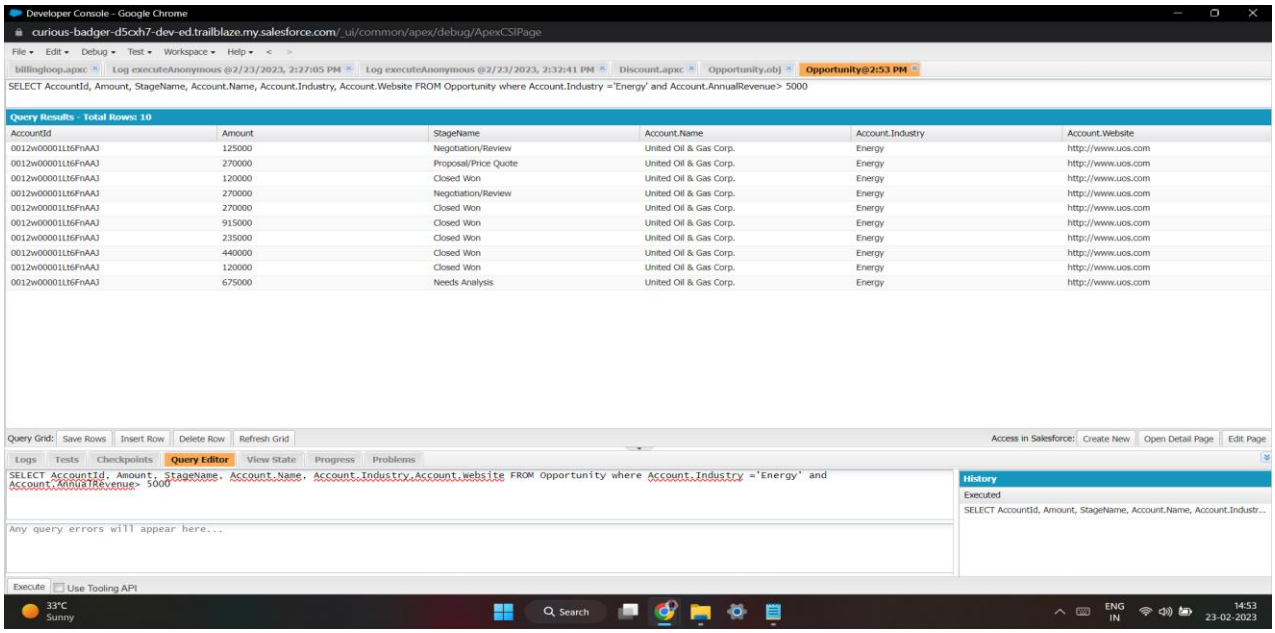
Write and execute SOQL queries from Developer Console

Display ID, Amount, Stage, Account Name, Account Industry, Account Website

From Opportunity

AND “Account Annual Revenue > 5000”

Add a Where Clause “Account Industry = Energy”

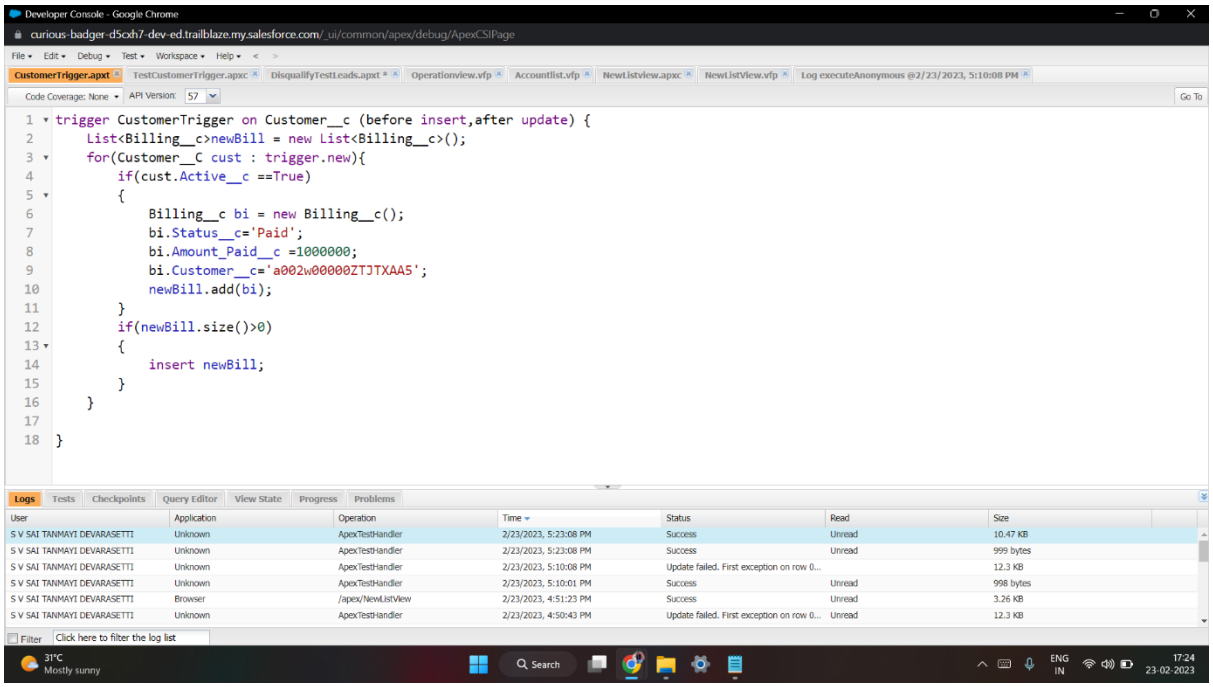


Exercise 12

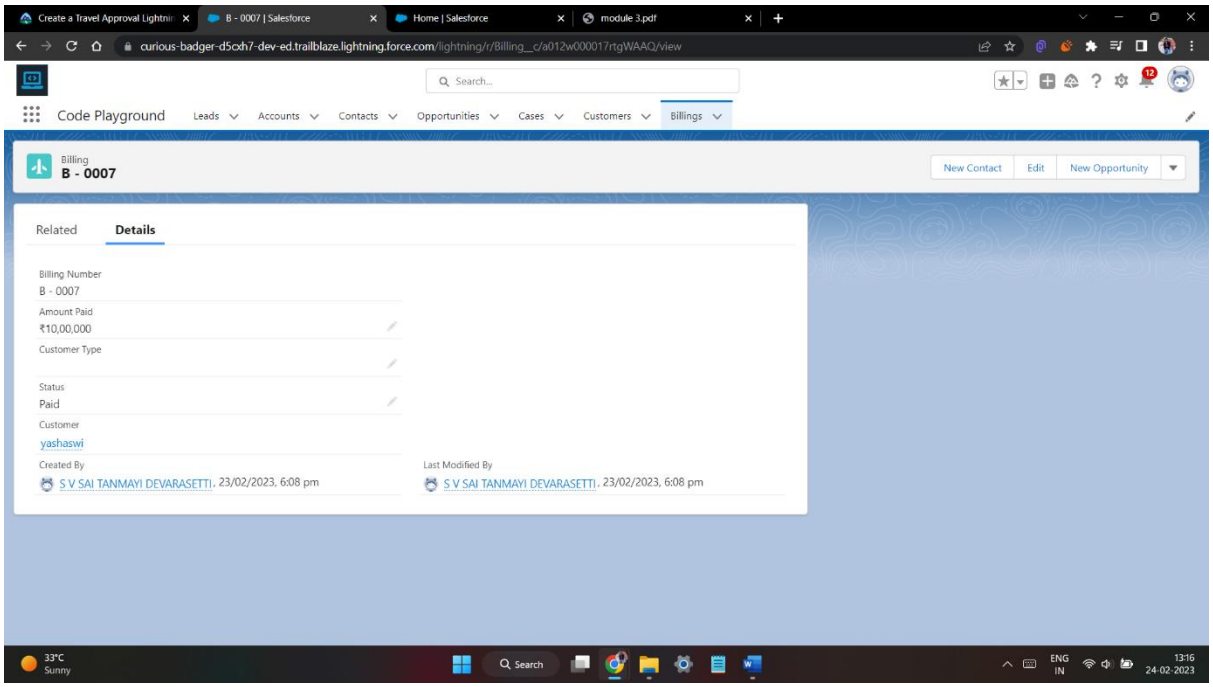
Write an Apex Trigger, Name = CustomerTrigger.

Create a Billing Record when on Customer Object the 'Status' field changes to Active from Inactive. Billing “Status” must be: Paid, Amount Paid = 1000000

Perform the DML on a List.



A new record is created when we created a customer record with active is true



Exercise 13

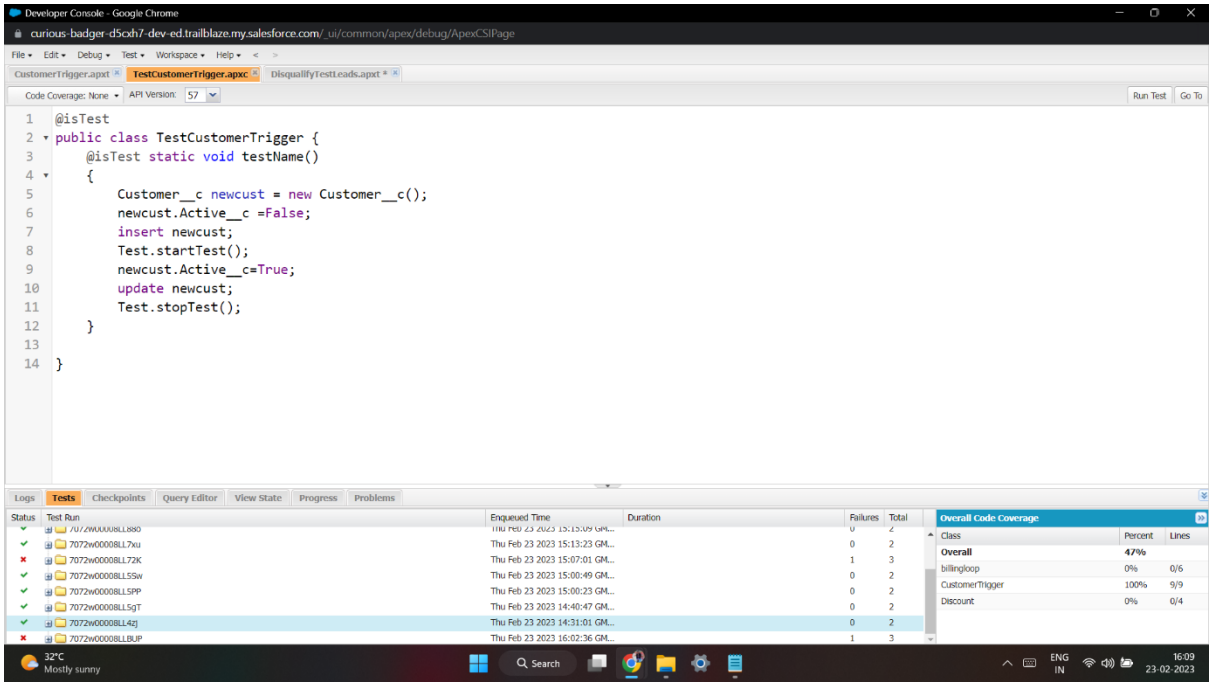
Write a Test Class for CustomerTrigger.

Create the Data for the Customer custom Object

Use Test.startTest() & Test.stopTest().

Use assert statement to validate the output,

Test Class must have full code coverage.



Exercise 14

Developer Console - Google Chrome

curious-badger-d5cxh7-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help

DisqualifyTestLeads.apxt DisqualifyTestLeads.apxc

Code Coverage: None API Version: 57 Go To

```
trigger DisqualifyTestLeads on Lead (before insert,before update,after insert) {

    List<Lead> li = new List<Lead>();
    if(Trigger.isBefore && Trigger.isInsert){
        for(Lead myLead : Trigger.New){
            if(( String.isNotBlank(myLead.FirstName) && String.isNotBlank(myLead.LastName)) && (myLead.FirstName=='Test' || myLead.LastName=='Test'
                System.debug(myLead.FirstName + ' ' + myLead.LastName + 'Will be disqualified!');
                li.add(myLead);
            }

            else{
                myLead.addError('Enter Name');
            }
        }

        for(Lead myLead : li){
           myLead.Status = 'Disqualified';
        }
    }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
S V SAI TANMAYI DEVARASETTI	Unknown	ApexTestHandler	2/23/2023, 5:32:08 PM	Success	Unread	999 bytes
S V SAI TANMAYI DEVARASETTI	Unknown	ApexTestHandler	2/23/2023, 5:32:06 PM	Success	Unread	10.44 KB
S V SAI TANMAYI DEVARASETTI	Unknown	ApexTestHandler	2/23/2023, 5:32:05 PM	Insert failed. First exception on row 0; ...	Unread	18.85 KB

Filter Click here to filter the log list

31°C Mostly sunny Search ENG IN 17:32 23-02-2023

Exercise 15

Developer Console - Google Chrome

curious-badger-d5cxh7-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help

DisqualifyTestLeads.apxt DisqualifyTestLeads.apxc

Code Coverage: None API Version: 57 Run Test Go To

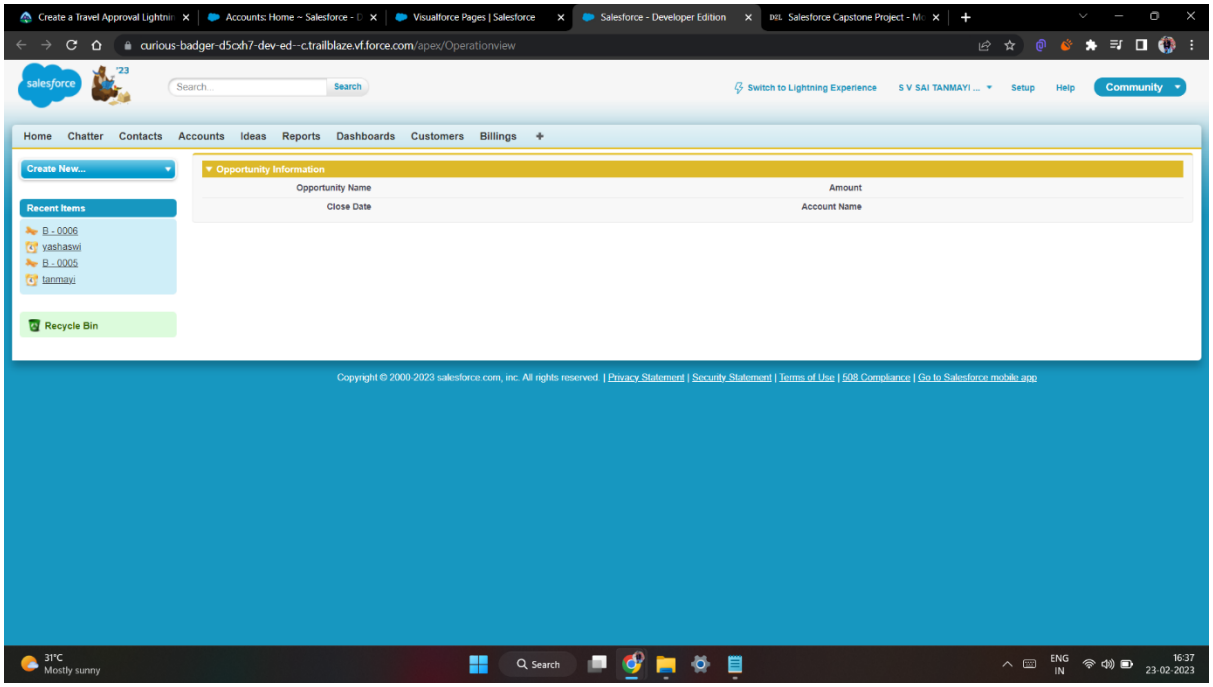
```
@isTest
public class DisqualifyTestLeads {

    @isTest
    private static void insertData1(){
        Lead l1 = new Lead();
        l1.FirstName = 'Test';
        l1.LastName = 'Test';
        l1.Company = 'Test';
        Test.startTest();
        insert l1;
        Test.stopTest();
        System.assertEquals('Test', l1.FirstName);
        System.assertEquals('Test', l1.LastName);
        System.assertEquals('Test', l1.Company);
    }
```

Exercise 16

```
<apex:page standardController="Opportunity" tabStyle="Opportunity">
    <apex:pageBlock>
        <apex:pageBlockSection title ="Opportunity Information">
            <apex:outputField value ="{!Opportunity.name}"/>
            <apex:outputField value ="{!Opportunity.amount}"/>
            <apex:outputField value ="{!Opportunity.closeDate}"/>
            <apex:outputField value ="{!Opportunity.account.name}"/>
        </apex:pageBlockSection>
    </apex:pageBlock>
</apex:page>
```

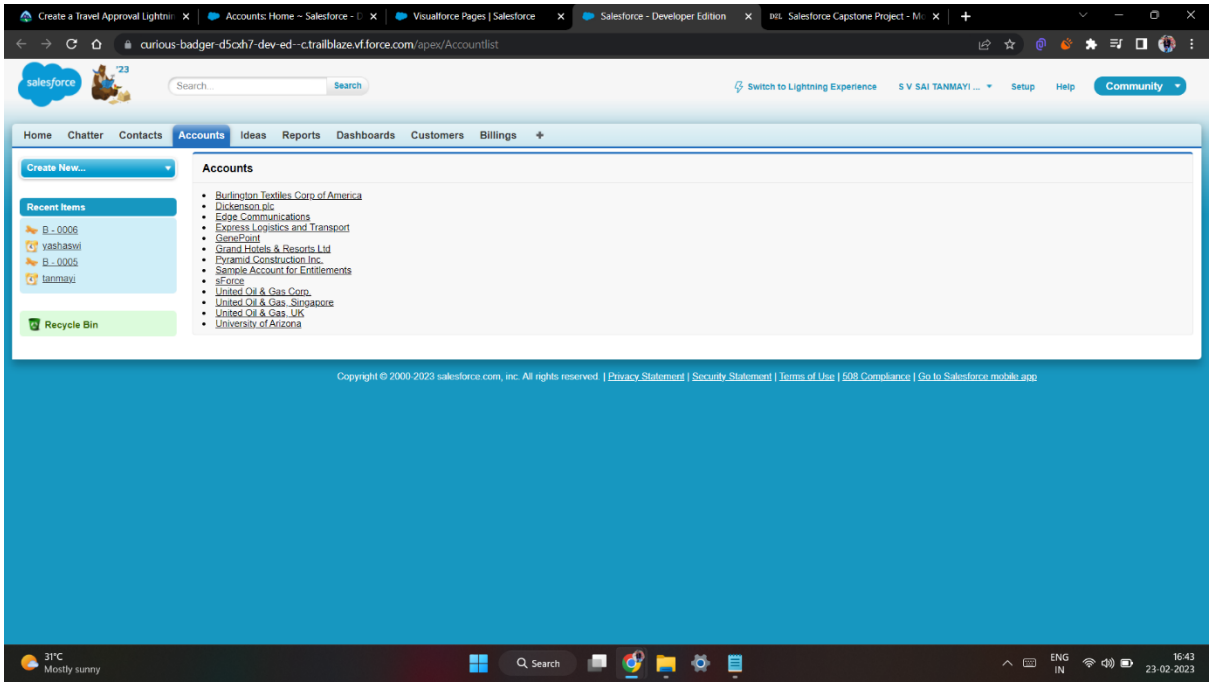
Output in Visualforce Page



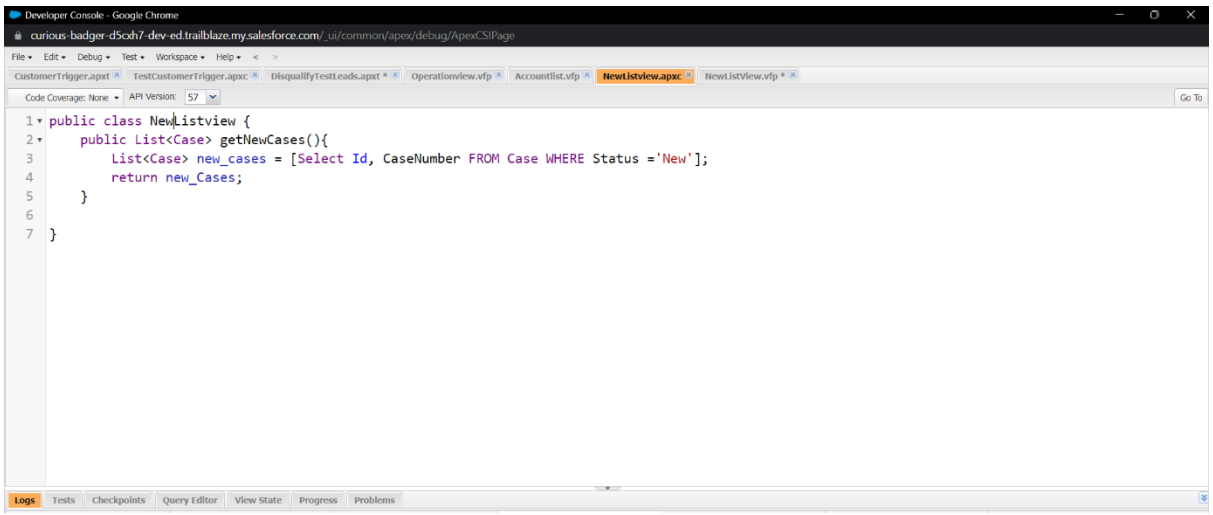
Exercise 17

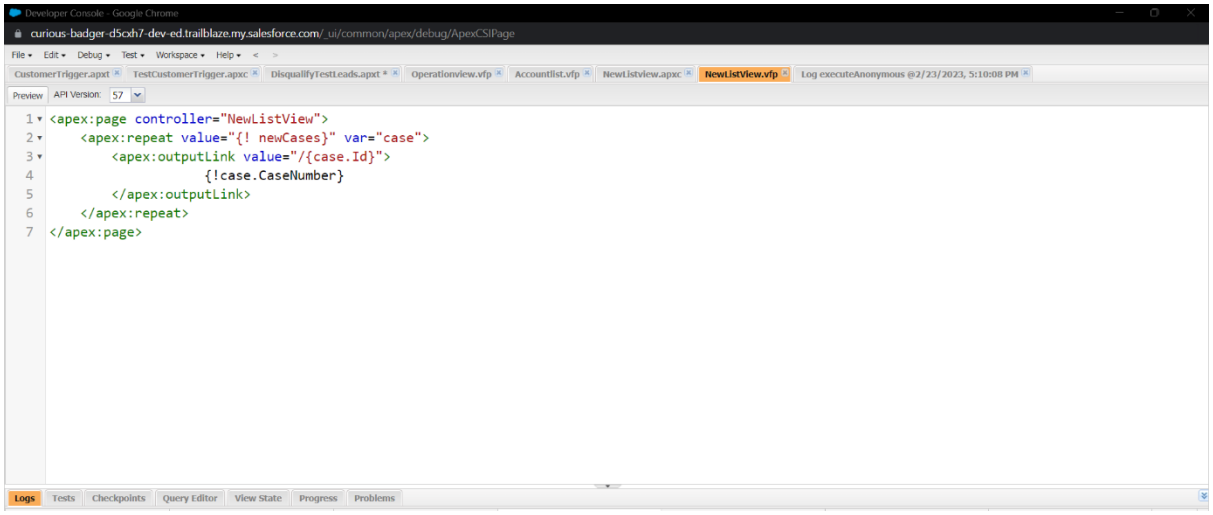
```
<apex:page standardController="Account" recordSetVar="accounts">
    <apex:pageBlock title="Accounts">
        <ul>
            <apex:repeat value="{!Accounts}" var="a">
                <li><apex:outputLink value ="/{!a.id}">{!a.Name}</apex:outputLink></li>
            </apex:repeat>
        </ul>
    </apex:pageBlock>
</apex:page>
```

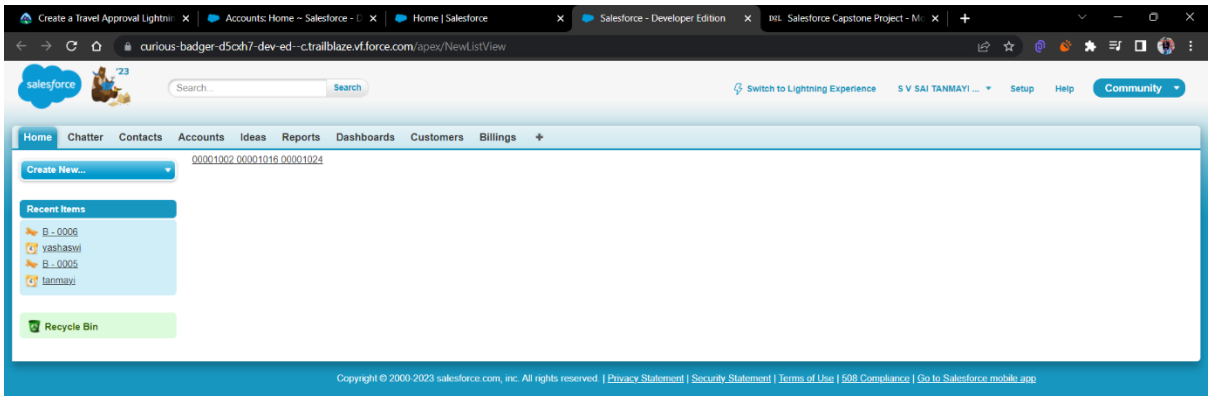
Output in Visualforce Page



Exercise 18


Developer Console - Google Chrome
curious-badger-d5oxh7-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
CustomerTrigger.apxt
TestCustomerTrigger.apxc
DisqualifyTestLeads.apxt
Operationview.vfp
Accountlist.vfp
NewListview.apxc
NewListView.vfp
Code Coverage: None
API Version: 57
Go To
public class NewListview {
public List<Case> getNewCases(){
List<Case> new_cases = [Select Id, CaseNumber FROM Case WHERE Status ='New'];
return new_Cases;
}
}
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems


Developer Console - Google Chrome
curious-badger-d5oxh7-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
CustomerTrigger.apxt
TestCustomerTrigger.apxc
DisqualifyTestLeads.apxt
Operationview.vfp
Accountlist.vfp
NewListview.apxc
NewListView.vfp
Log executeAnonymous @2/23/2023, 5:10:08 PM
Preview
API Version: 57
<apex:page controller="NewListView">
<apex:repeat value="{! newCases}" var="case">
<apex:outputLink value="/{case.Id}">
{!case.CaseNumber}
</apex:outputLink>
</apex:repeat>
</apex:page>
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems


Create a Travel Approval Lightnin
Accounts: Home ~ Salesforce -
Home | Salesforce
Salesforce - Developer Edition
Salesforce Capstone Project - Mo
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salesforce
Search...
Search
Switch to Lightning Experience
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Setup
Help
Community
Home
Chatter
Contacts
Accounts
Ideas
Reports
Dashboards
Customers
Billings
Create New...
00001002 00001016 00001024
Recent Items
B - 0006
yashaswi
B - 0005
tanmayi
Recycle Bin
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References

1. **Trailhead :** https://trailhead.salesforce.com/
2. **Developer Guide:** https://developer.salesforce.com/docs/atlas.enus.apexcode.meta/apexcode/apex_dev_guide.htm