Capstone Project Report

On

"Travel Approval App"

GitHub Link:- https://github.com/LavanyaMadamboina/Salesforce-capstone.git

Submitted by:

Name: Madamboina Lavanya

Batch WIP-SF-13

LMS Id: MGSA_537

Date: 27/02/2023

Table of contents

1. Abstract……

2. Introduction……...

3. Flow of the project……

4. Software Requirements…….

5. Screen shots…….

6. References…….

Abstract

Every travel organization requires a Travel Approval Application. This department deals with the approval of travel requests. It also allows for prime levels of control and oversight over travel bookings, policy and budget. The approval process is usually often lengthy and requires a lots of paperwork. It requires so much of time and work efforts to complete it. To eradicate human errors and achieve perfect data and procedures, the use of software is considered a smart choice.

Therefore, with the help of Customer Relation Management (CRM) software services provided by Salesforce, we are making a travel approval application.

It starts with building of data model where the objects and fields comes into picture follows by customizing the user interface where we use list views and page layouts to streamline an app user's experience. Every application generally needed a business logic so in this it is achieved by validation rules , formula fields and approval process. Finally, to analyze travel approvals we add reports and dashboards. This application will help them in keeping track of the complete travel approval process.

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

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.

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

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

2. **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.

3. **Real-Time Reporting**: The app provides real-time visibility into travel requests and approvals, allowing sales managers to monitor travel spend and make informeddecisions 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

OR

Requirements	
Windows	
Operating system	Windows 8.1 64-bit, Windows 8 64-bit, Windows 7 Service Pack 1 64-bit, Windows Vista Service Pack 2 64-bit
CPU	Core 2 Quad Q6600 at 2.4 GHz or AMD Phenom 9850 at 2.5 GHz
Memory	4 GB RAM
Free space	65 GB of free space
Graphics hardware	DirectX 10-compatible GPU: GeForce 9800GT 1GB or ATI Radeon HD 4870 1GB
Sound hardware	DirectX 10 compatible sound card

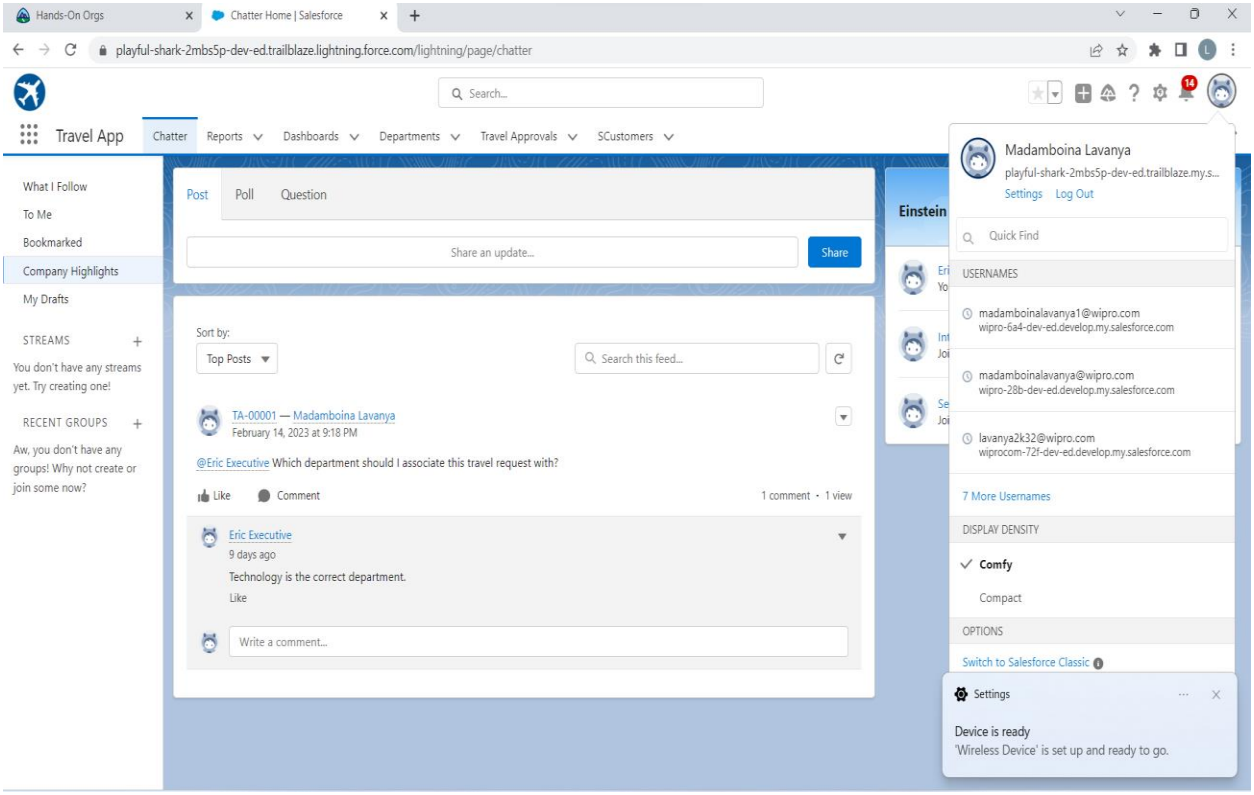
Screen shots

MODULE 1

Exercise 1

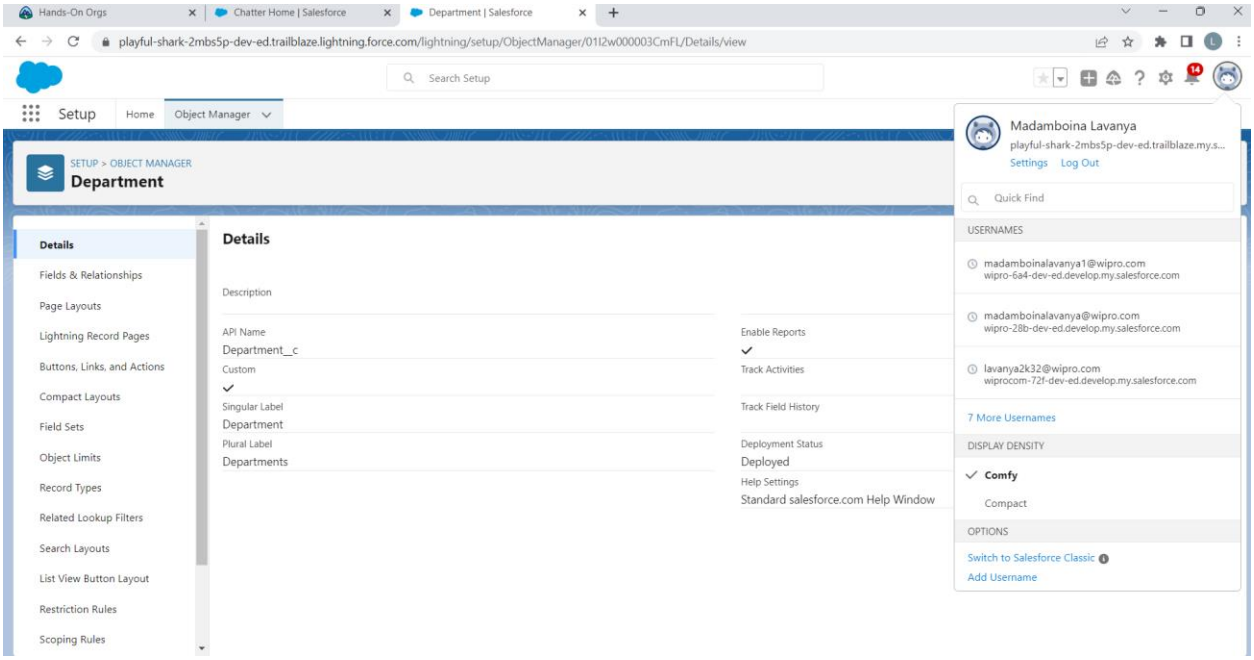
STEP:1

Create a new custom lightning App, name: Travel App

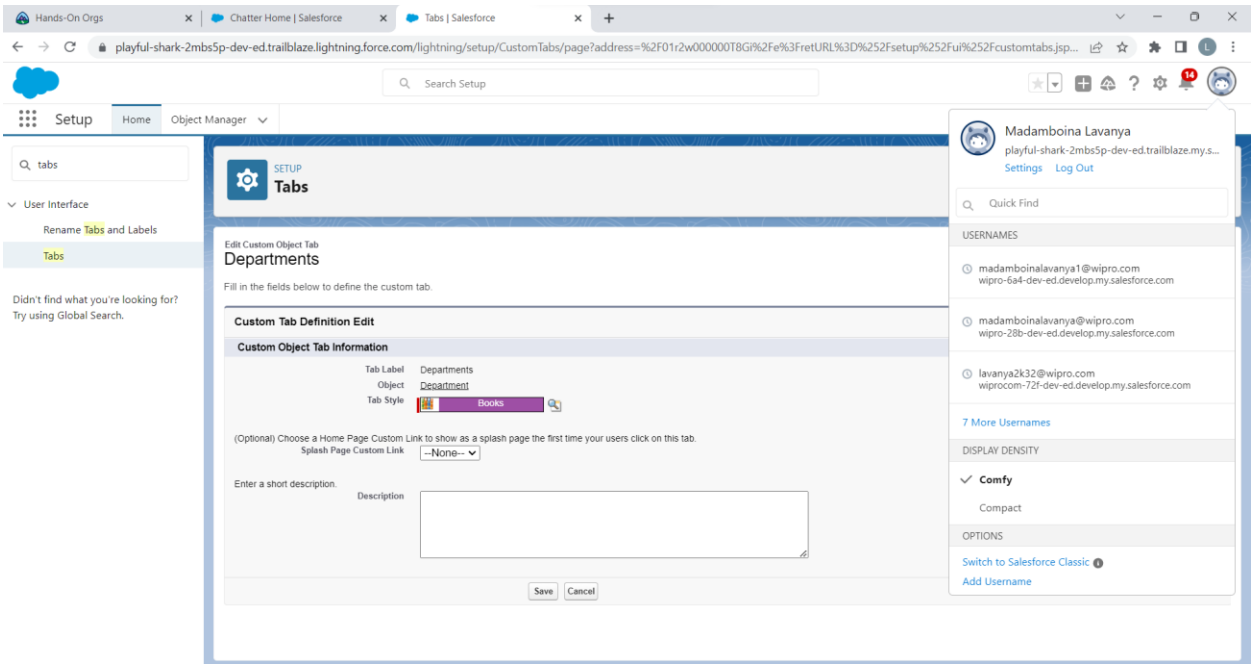


STEP:2

Created Department custom object

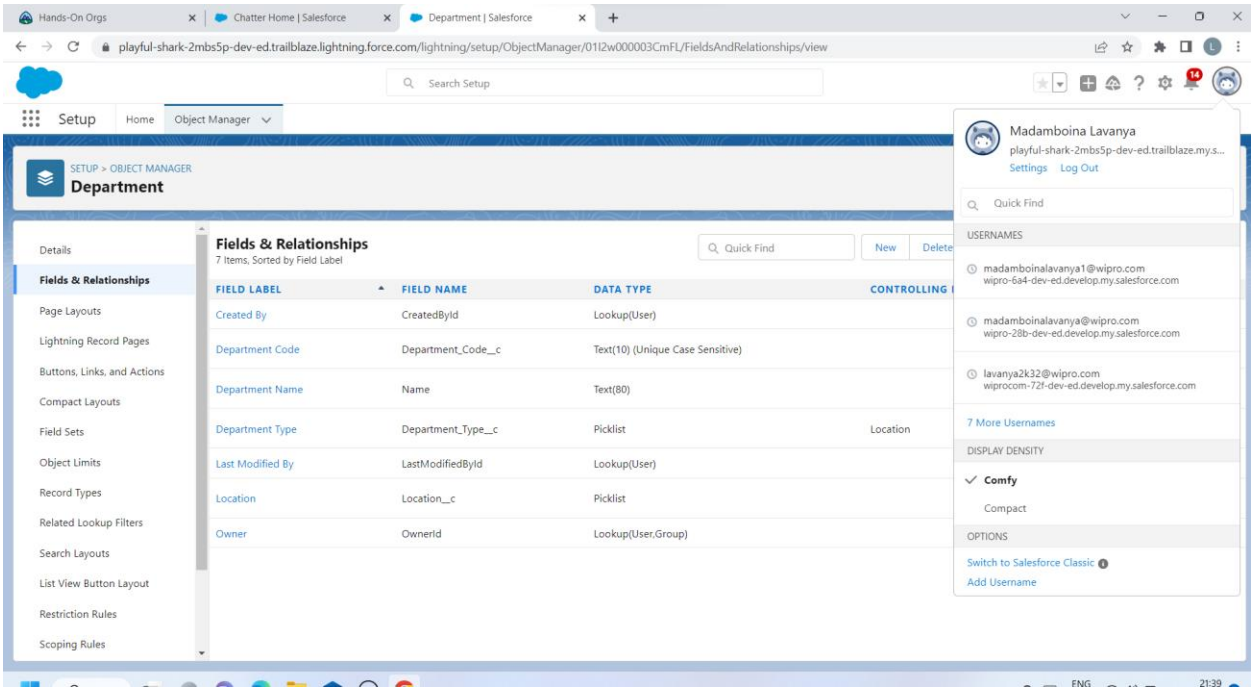


Created new custom object tabs

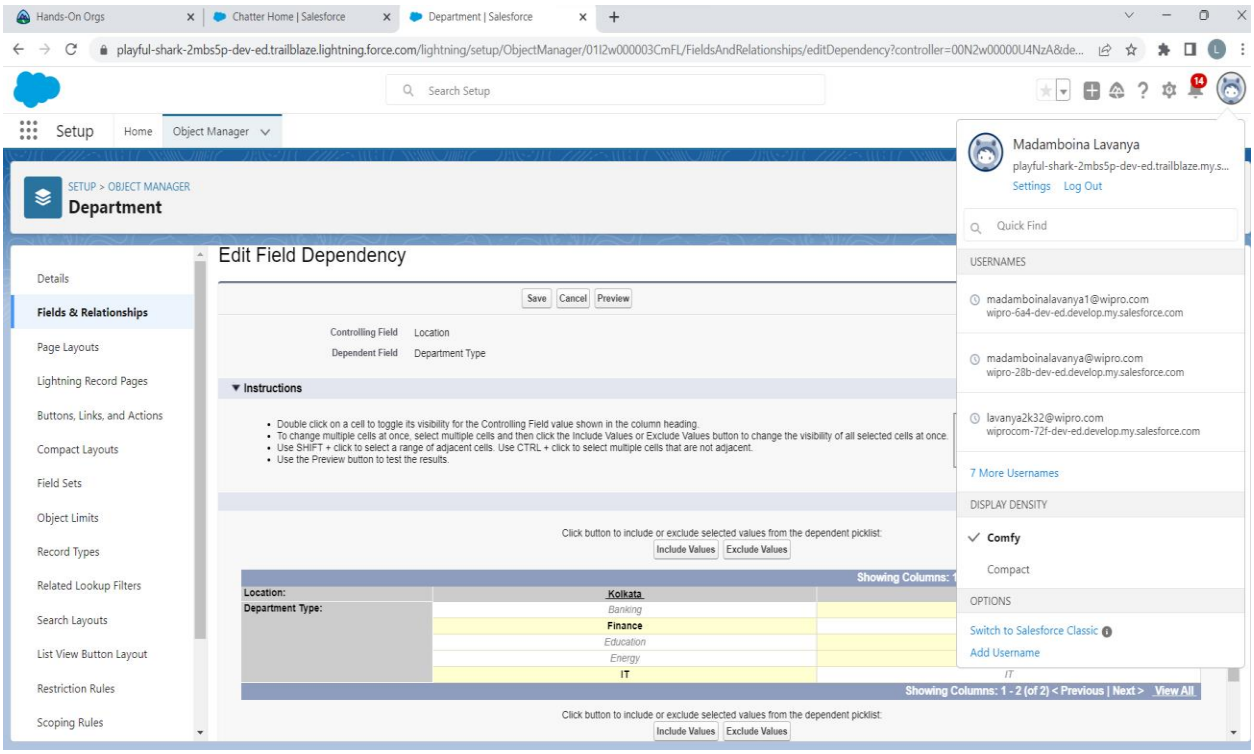


STEP:3

Created all the required Custom Fields

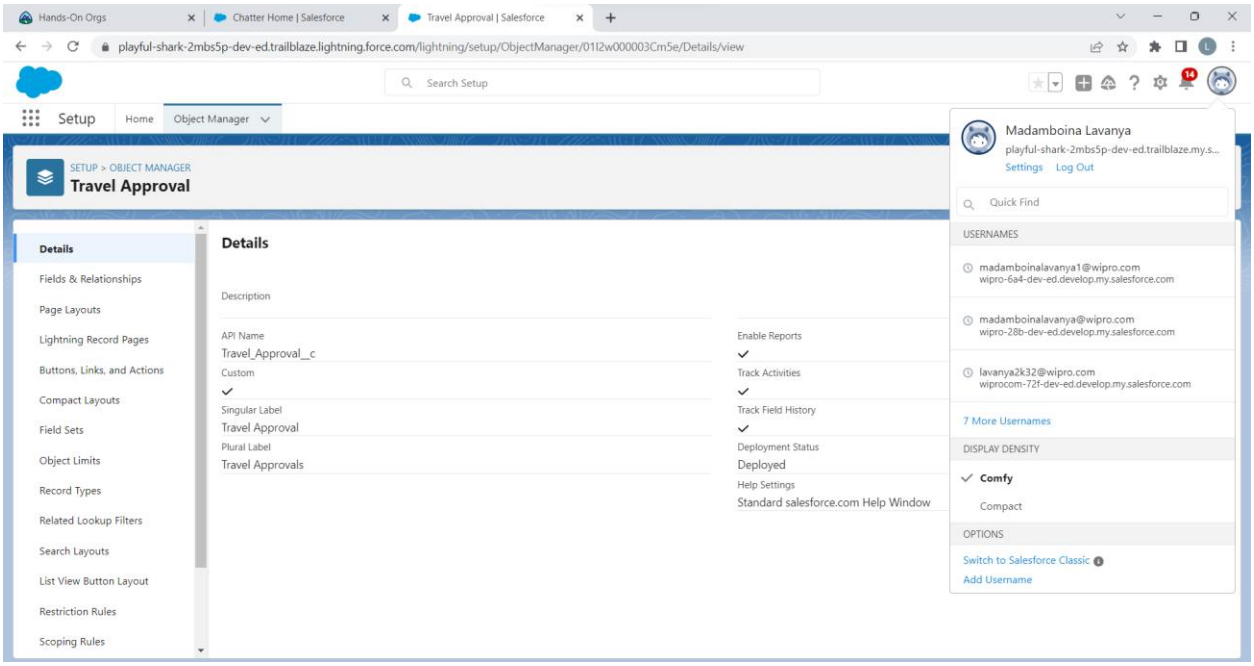


Created Field Dependency

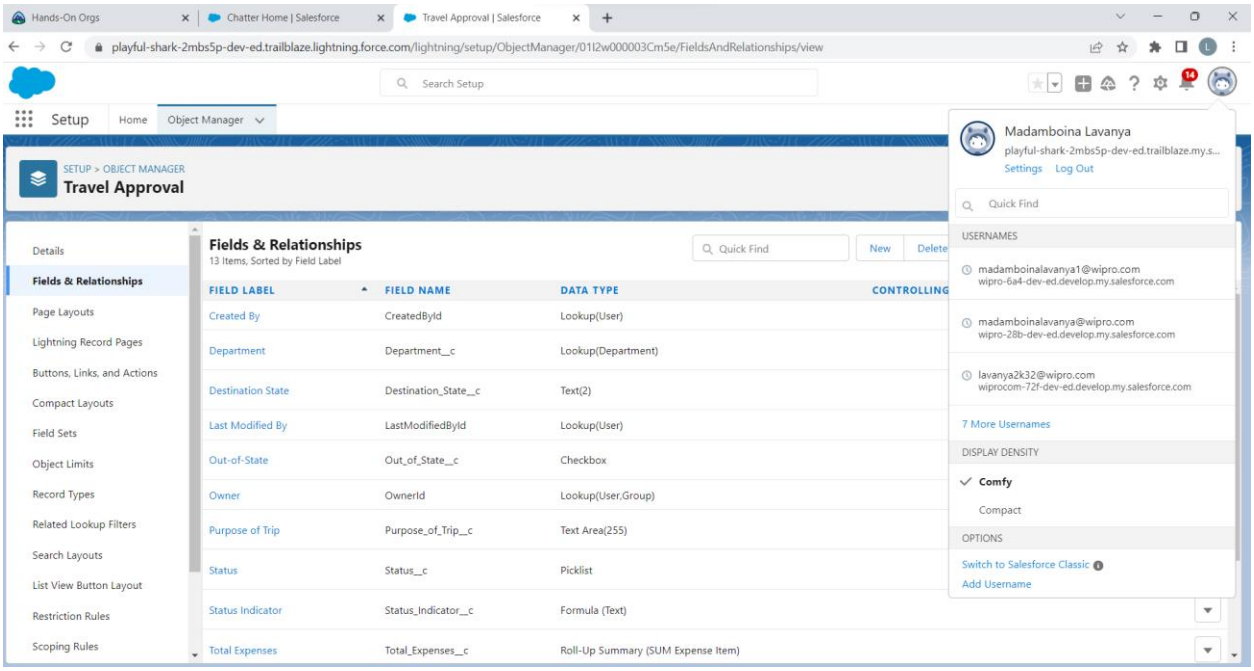


STEP:4

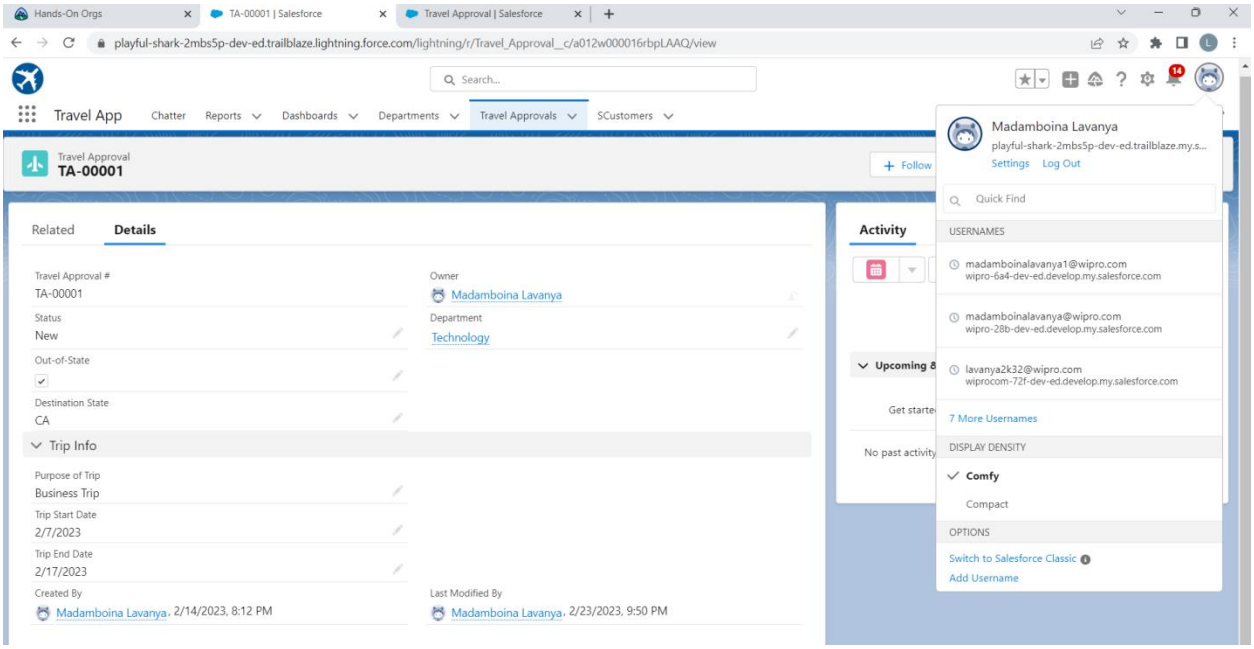
Created Custom Object Travel Approval



Custom Fields in Travel Approval Object

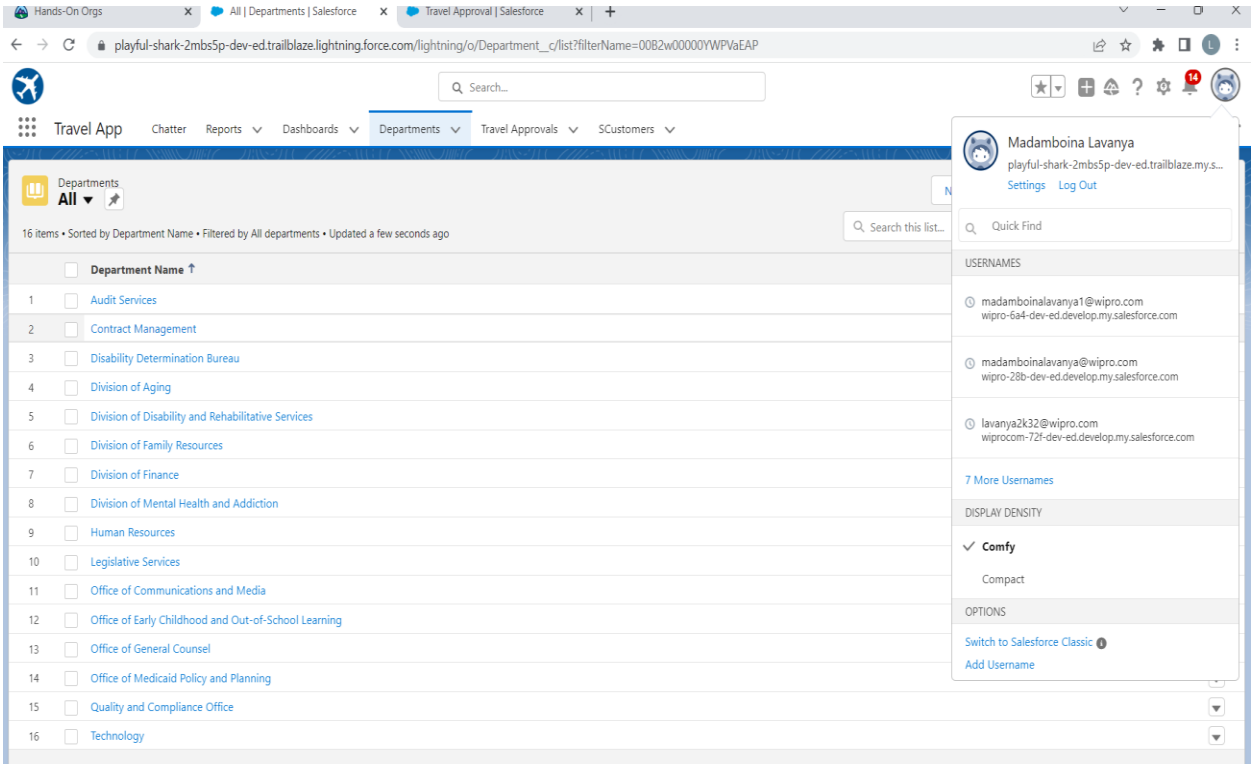


After testing the App



STEP:5

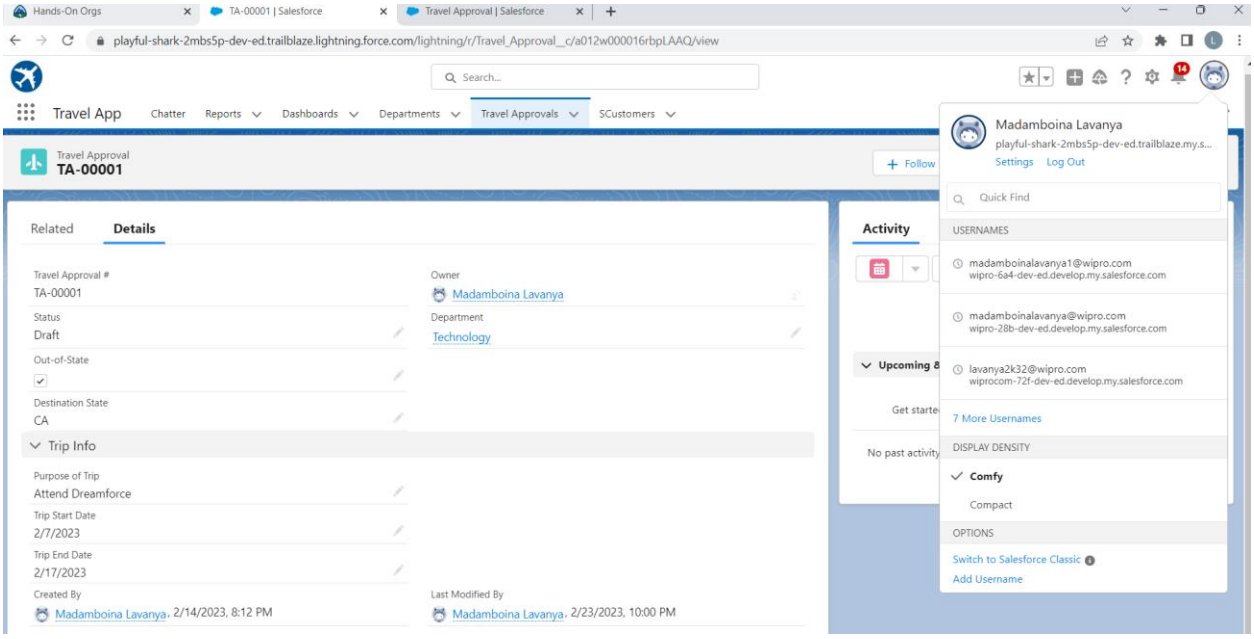
Imported Departments.CSV file using Data Import Wizard



Exersise 2

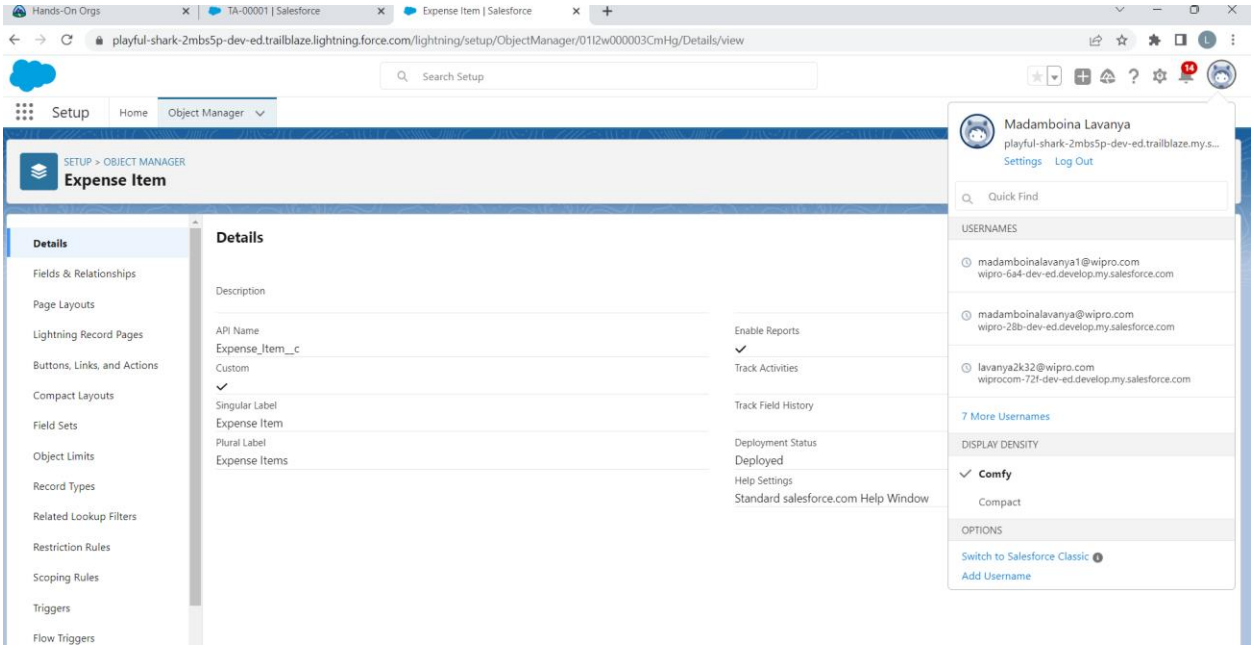
STEP:1

Created Travel Approval Record



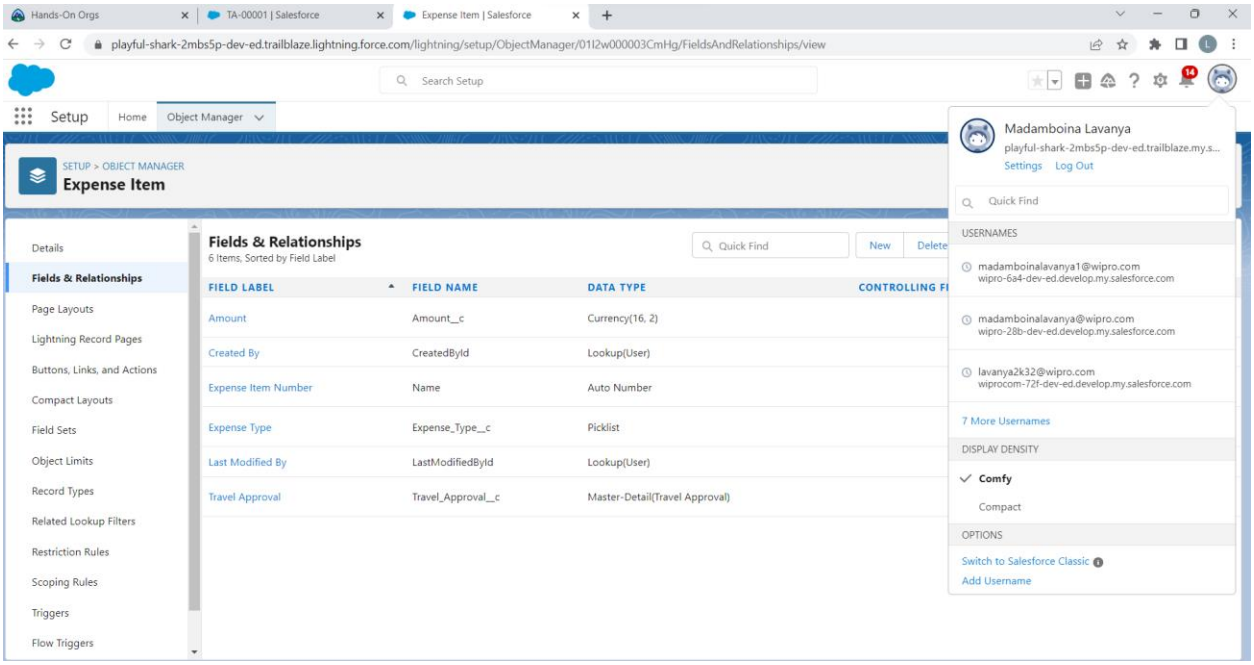
STEP:2

Created Expense Item Custom Object



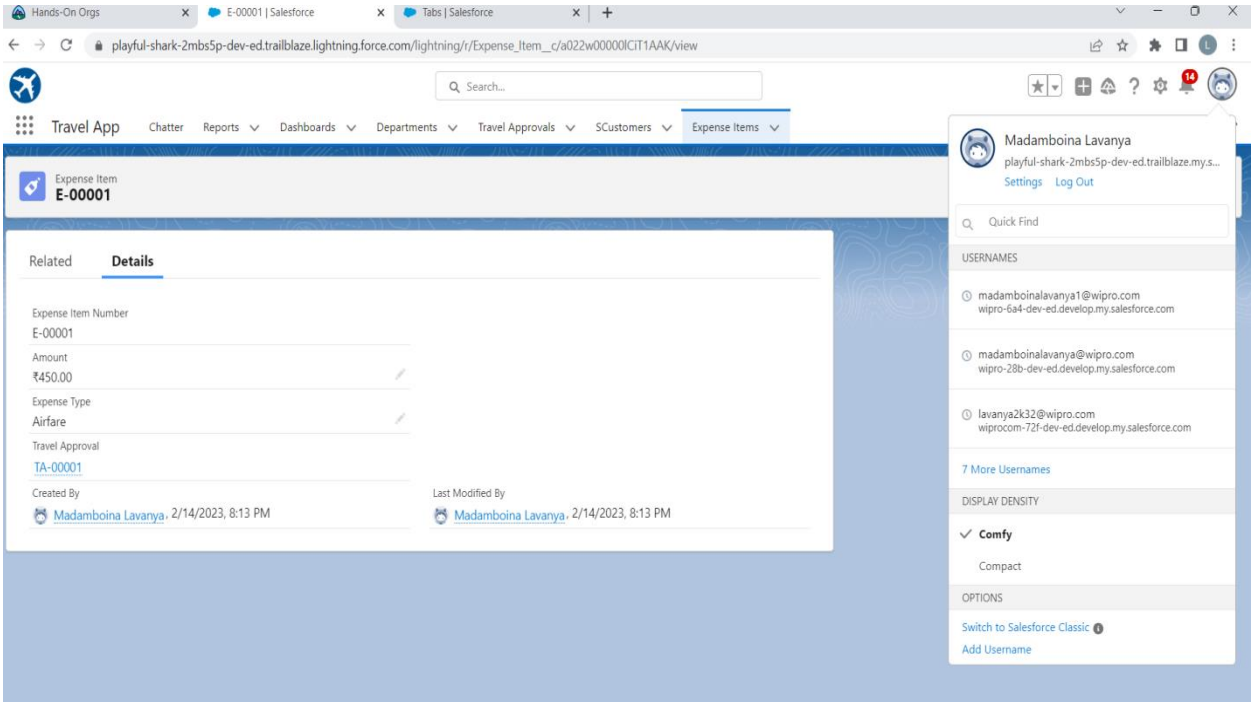
STEP:3

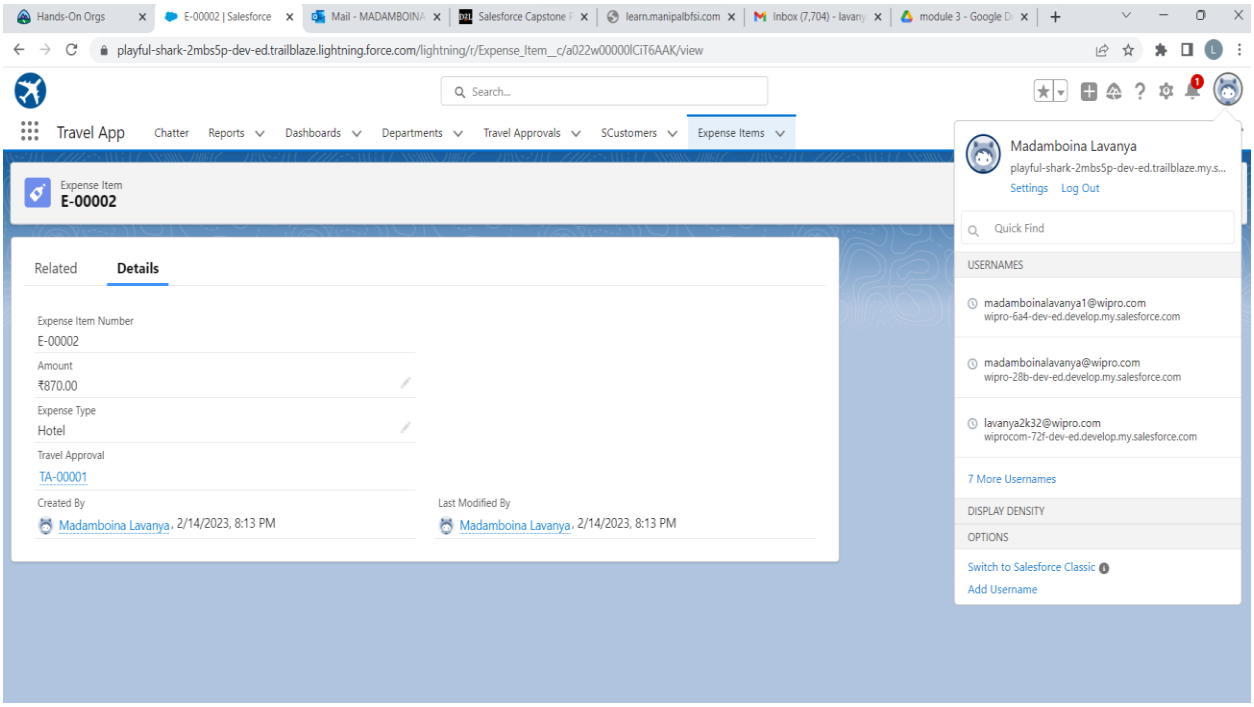
Created Custom Fields



STEP:4

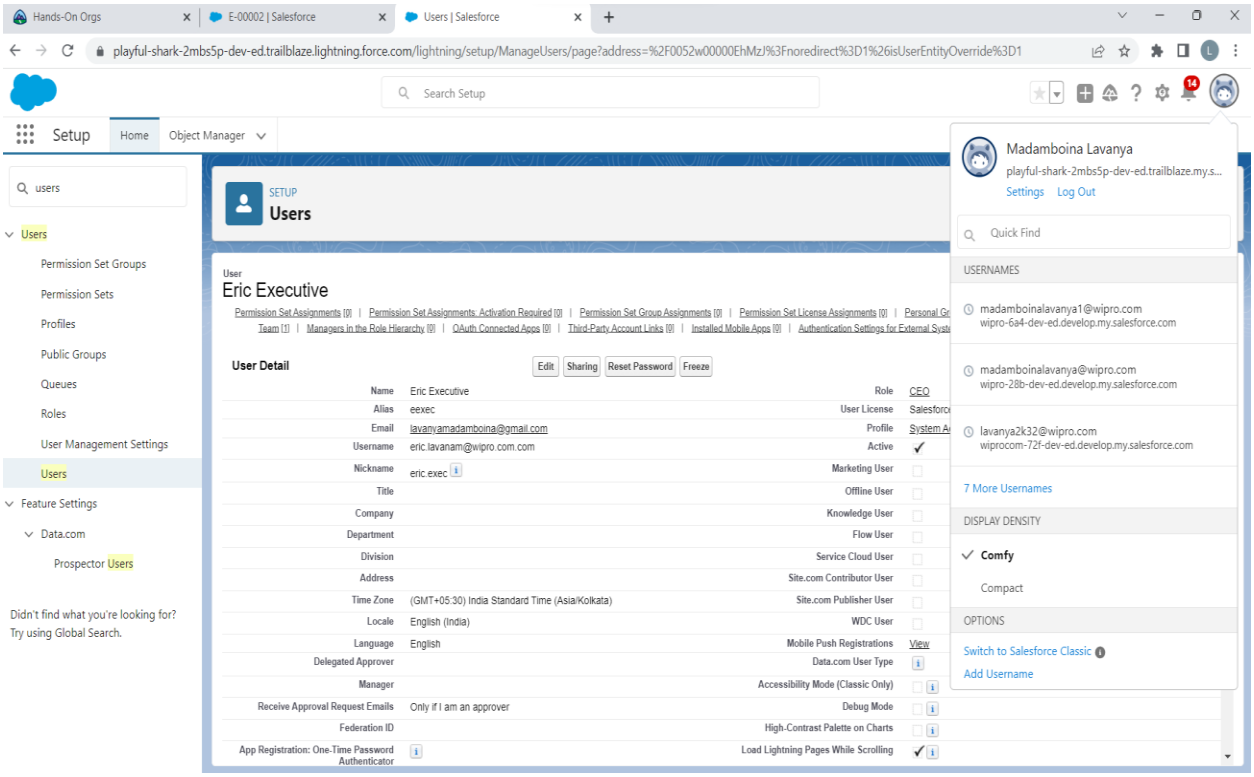
Created Records





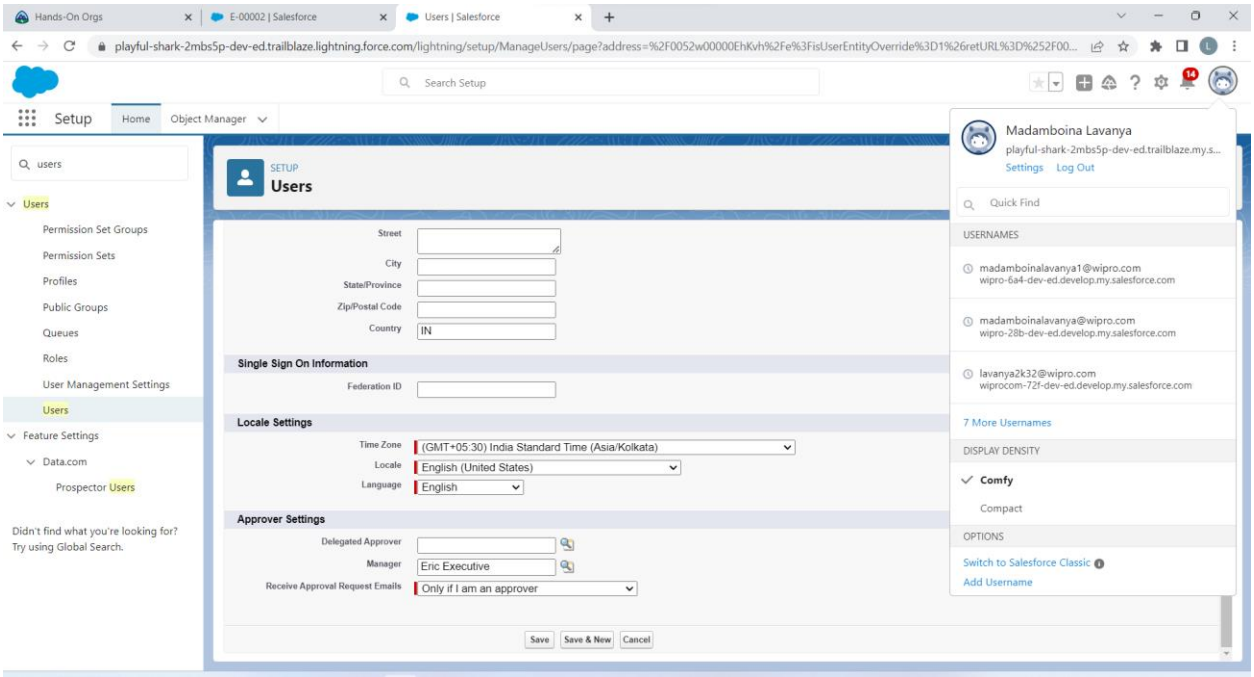
STEP:5

Created User Eric



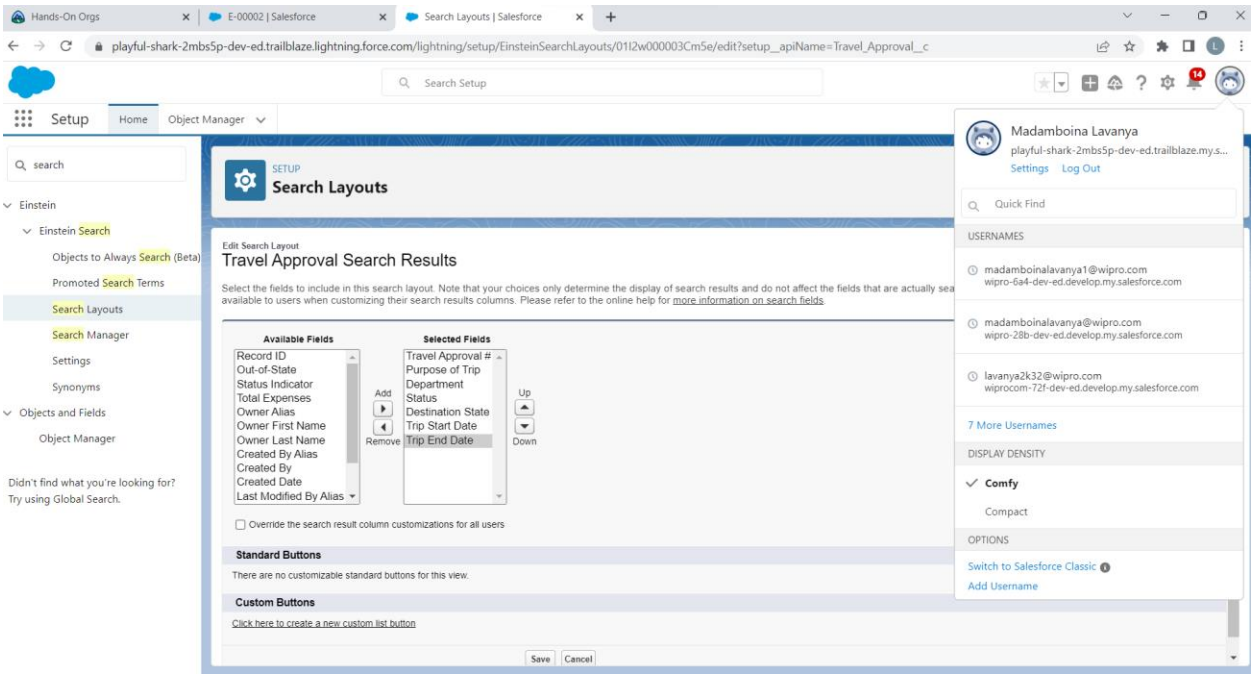
STEP:6

Added user Eric Executive as manager



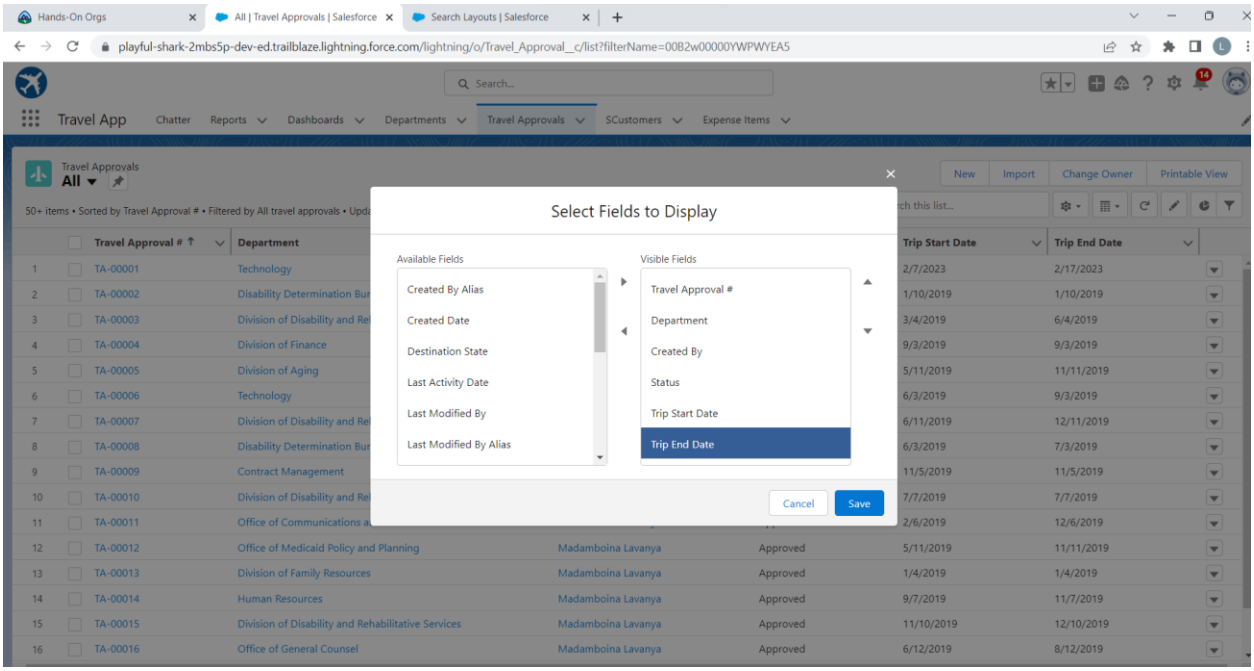
STEP:7

Customized the Travel Approval Default Layout



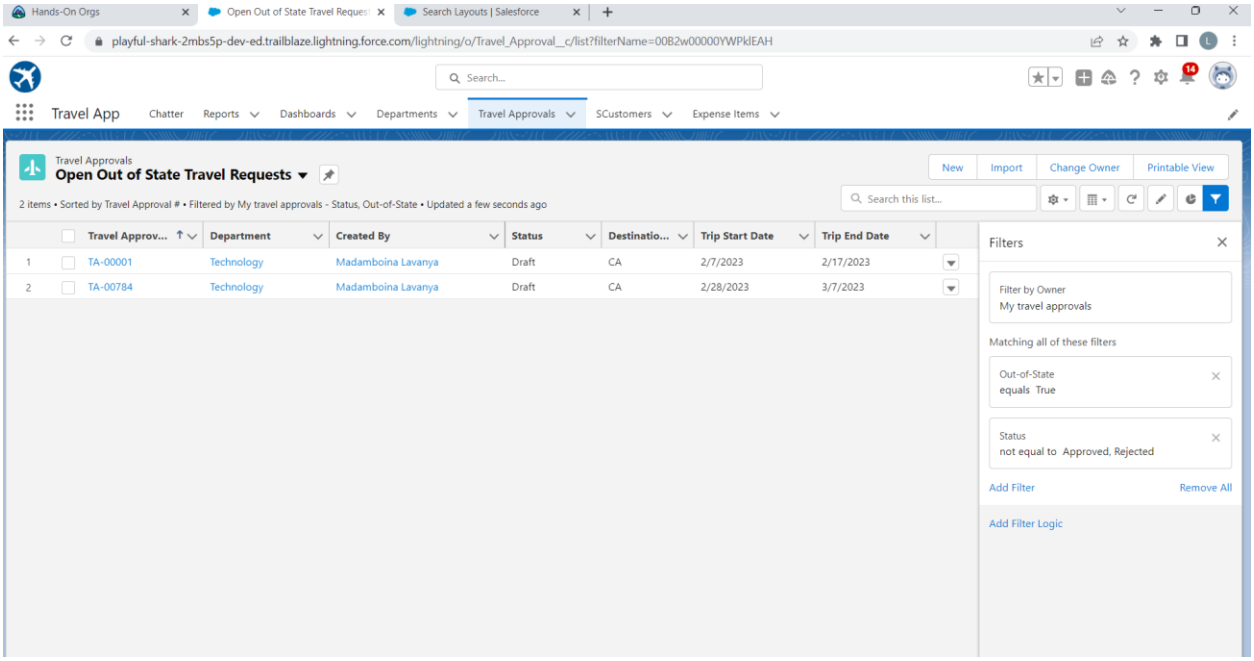
STEP:8

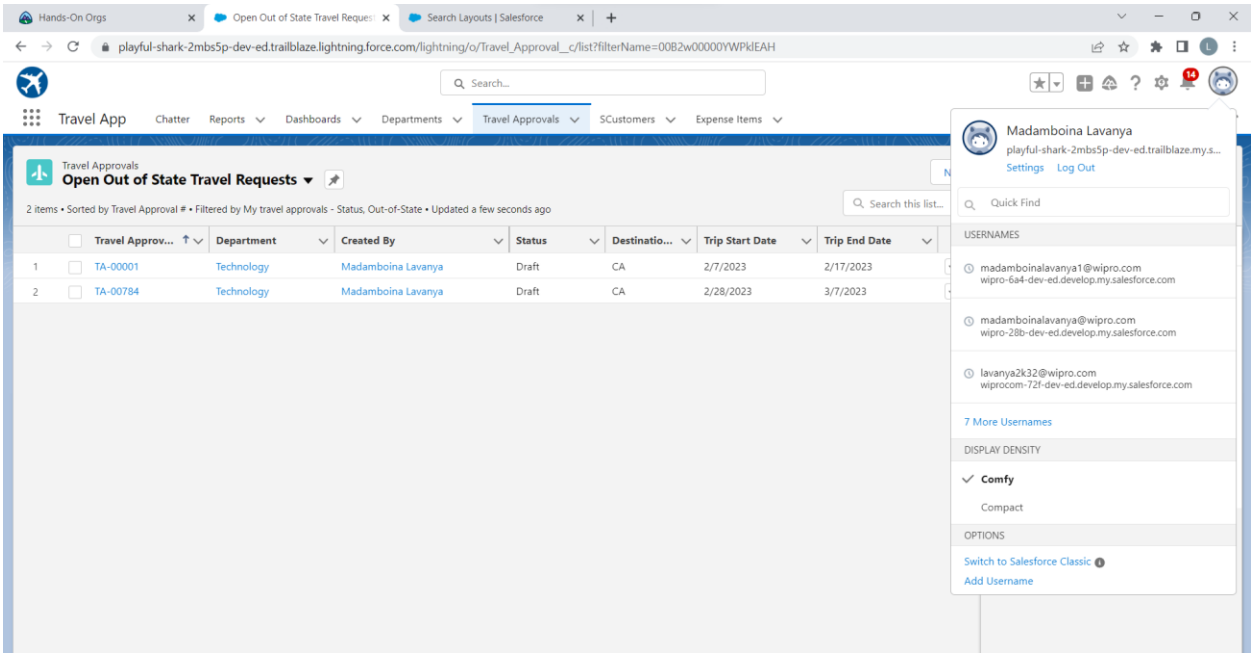
Selected fields to display in the Travel Approval “All” List view



STEP:9

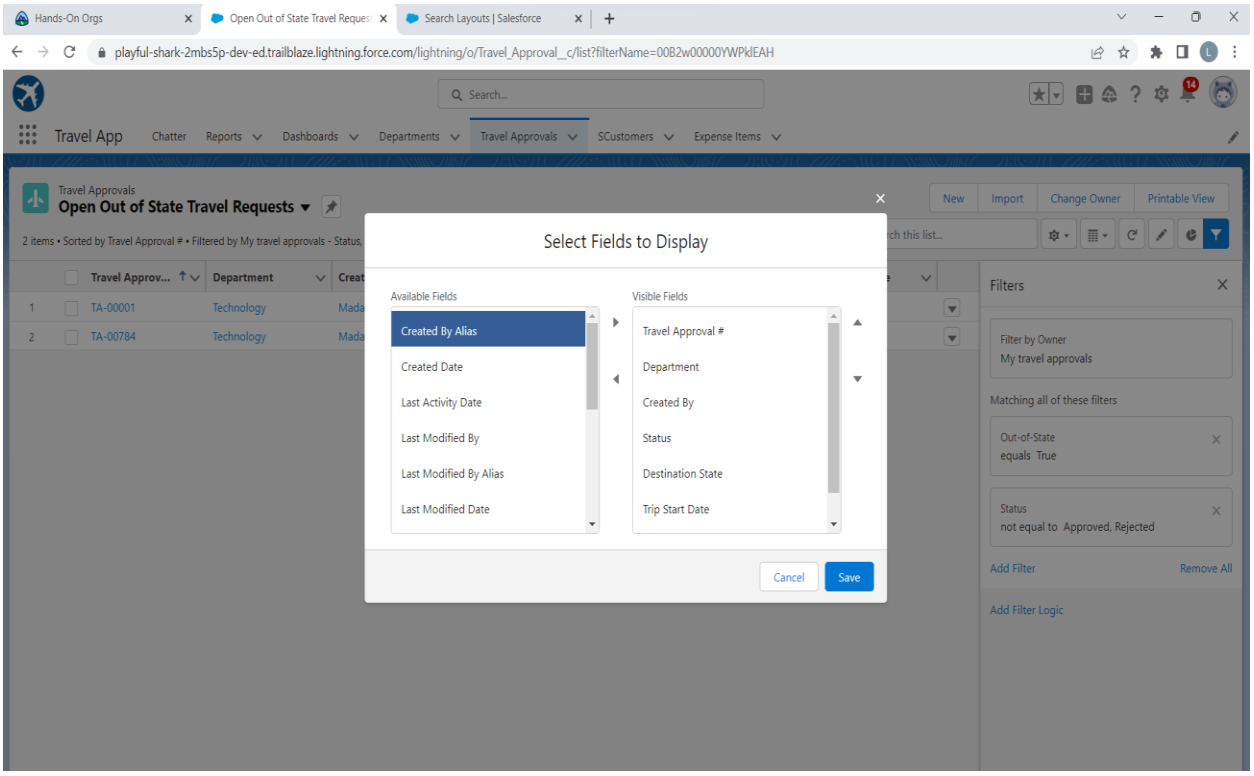
Selected fields to display in Travel Approval “All” List view





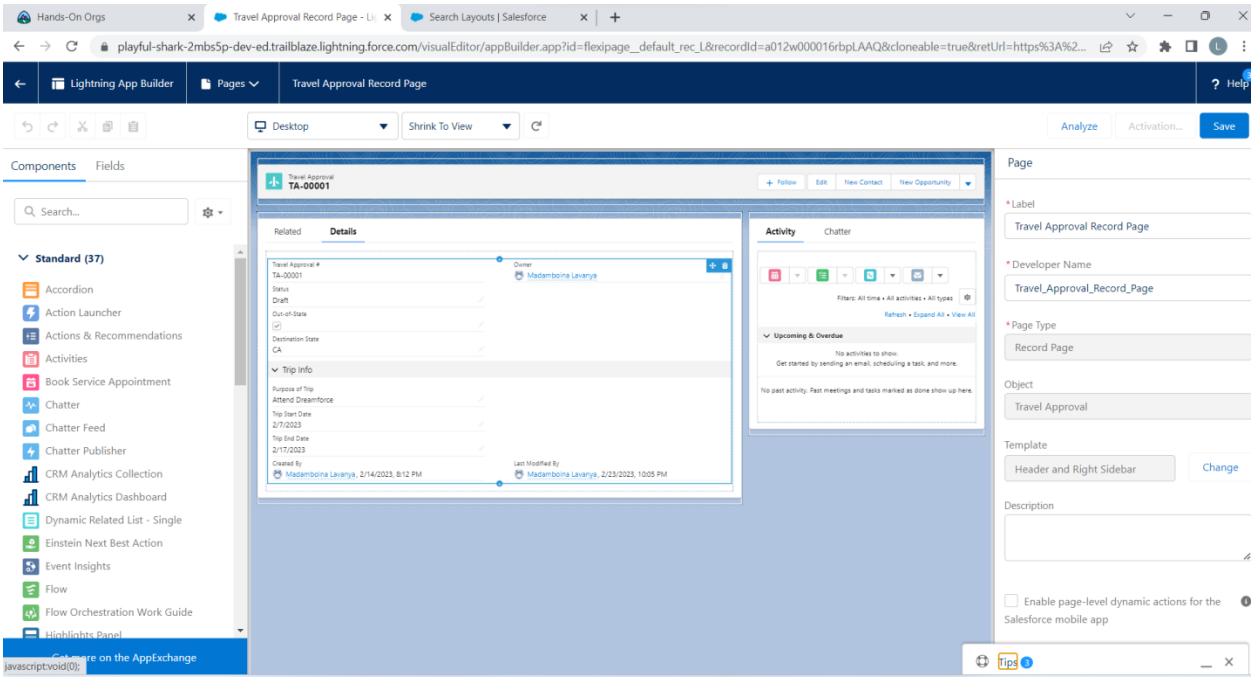
STEP:10

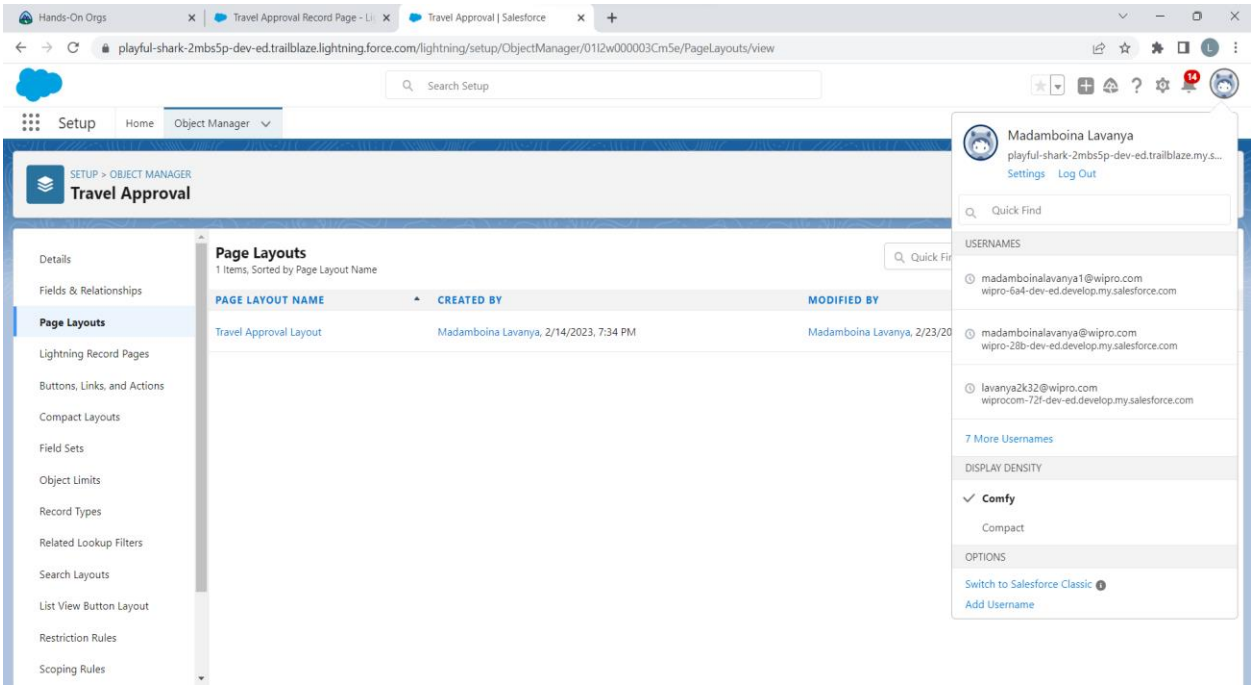
Selected fields to display in the Travel Approval Open Out of State Travel Requests

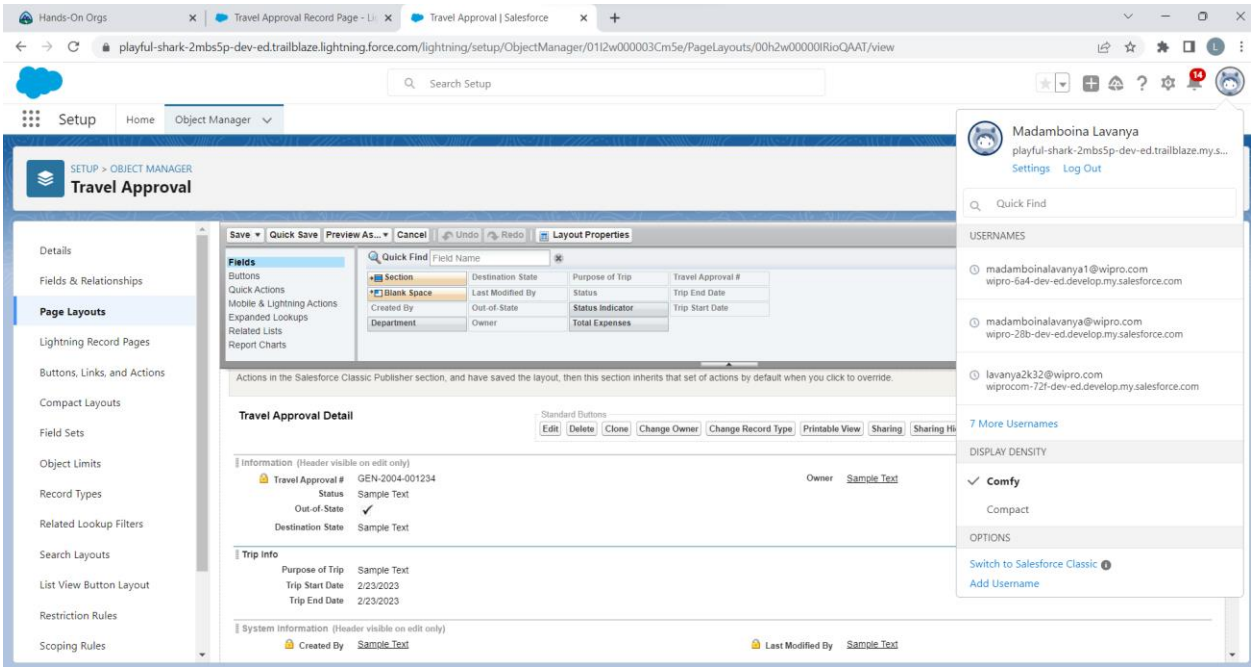


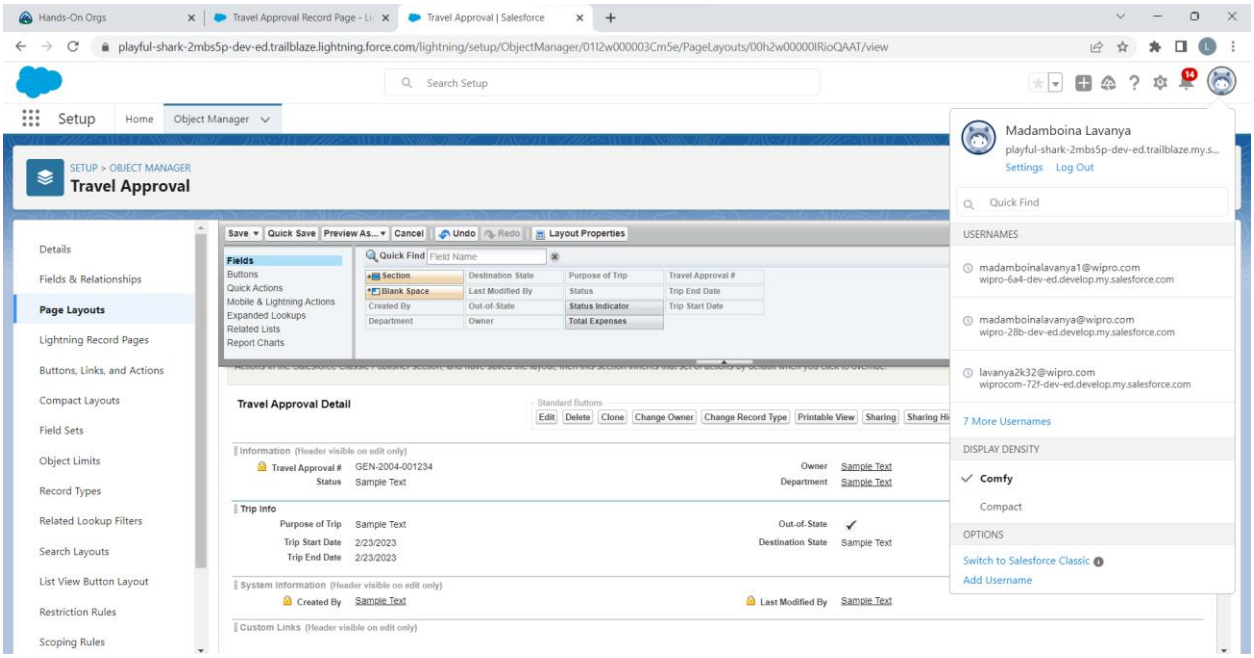
STEP:11

Customized Travel Approval Page Layout



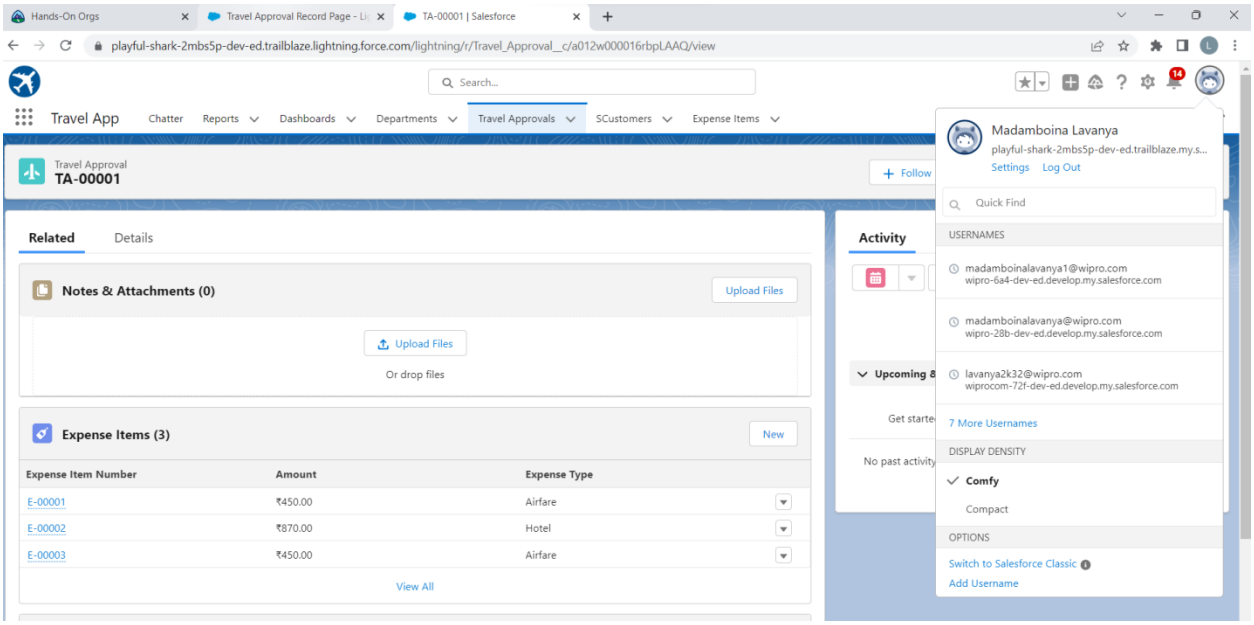



Hands-On Orgs
Travel Approval Record Page - Li
Travel Approval | Salesforce
playful-shark-2mbs5p-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/01I2w000003Cm5e/PageLayouts/00h2w00000IRioQAAT/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Travel Approval
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Save
Quick Save
Preview As...
Cancel
Undo
Redo
Layout Properties
Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts
Quick Find
Field Name
Section
Blank Space
Destination State
Purpose of Trip
Travel Approval #
Last Modified By
Status
Trip End Date
Created By
Out-of-State
Status Indicator
Trip Start Date
Department
Owner
Total Expenses
Actions in the Salesforce Classic Publisher section, and have saved the layout, then this section inherits that set of actions by default when you click to override.
Travel Approval Detail
Standard Buttons
Edit
Delete
Clone
Change Owner
Change Record Type
Printable View
Sharing
Information (Header visible on edit only)
Travel Approval #
GEN-2004-001234
Status
Sample Text
Out-of-State
Destination State
Owner
Sample Text
Trip Info
Purpose of Trip
Trip Start Date
2/23/2023
Trip End Date
2/23/2023
System Information (Header visible on edit only)
Created By
Last Modified By
Madamboina Lavanya
playful-shark-2mbs5p-dev-ed.trailblaze.my.s...
Settings
Log Out
Quick Find
USERNAMES
madamboinalavanya1@wipro.com
wipro-6a4-dev-ed.develop.my.salesforce.com
madamboinalavanya@wipro.com
wipro-28b-dev-ed.develop.my.salesforce.com
lavanya2k32@wipro.com
wiprocom-72f-dev-ed.develop.my.salesforce.com
7 More Usernames
DISPLAY DENSITY
Comfy
Compact
OPTIONS
Switch to Salesforce Classic
Add Username


Hands-On Orgs
Travel Approval Record Page - Li
Travel Approval | Salesforce
playful-shark-2mbs5p-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/01I2w000003Cm5e/PageLayouts/00h2w00000IRioQAAT/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Travel Approval
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Save
Quick Save
Preview As...
Cancel
Undo
Redo
Layout Properties
Fields
Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts
Quick Find
Field Name
Section
Blank Space
Destination State
Purpose of Trip
Travel Approval #
Last Modified By
Status
Trip End Date
Created By
Out-of-State
Status Indicator
Trip Start Date
Department
Owner
Total Expenses
Travel Approval Detail
Standard Buttons
Edit
Delete
Clone
Change Owner
Change Record Type
Printable View
Sharing
Information (Header visible on edit only)
Travel Approval #
GEN-2004-001234
Status
Sample Text
Owner
Sample Text
Department
Sample Text
Trip Info
Purpose of Trip
Sample Text
Trip Start Date
2/23/2023
Trip End Date
2/23/2023
Out-of-State
Destination State
Sample Text
System Information (Header visible on edit only)
Created By
Sample Text
Last Modified By
Sample Text
Custom Links (Header visible on edit only)
Madamboina Lavanya
playful-shark-2mbs5p-dev-ed.trailblaze.my.s...
Settings
Log Out
Quick Find
USERNAMES
madamboinalavanya1@wipro.com
wipro-6a4-dev-ed.develop.my.salesforce.com
madamboinalavanya@wipro.com
wipro-28b-dev-ed.develop.my.salesforce.com
lavanya2k32@wipro.com
wiprocom-72f-dev-ed.develop.my.salesforce.com
7 More Usernames
DISPLAY DENSITY
Comfy
Compact
OPTIONS
Switch to Salesforce Classic
Add Username

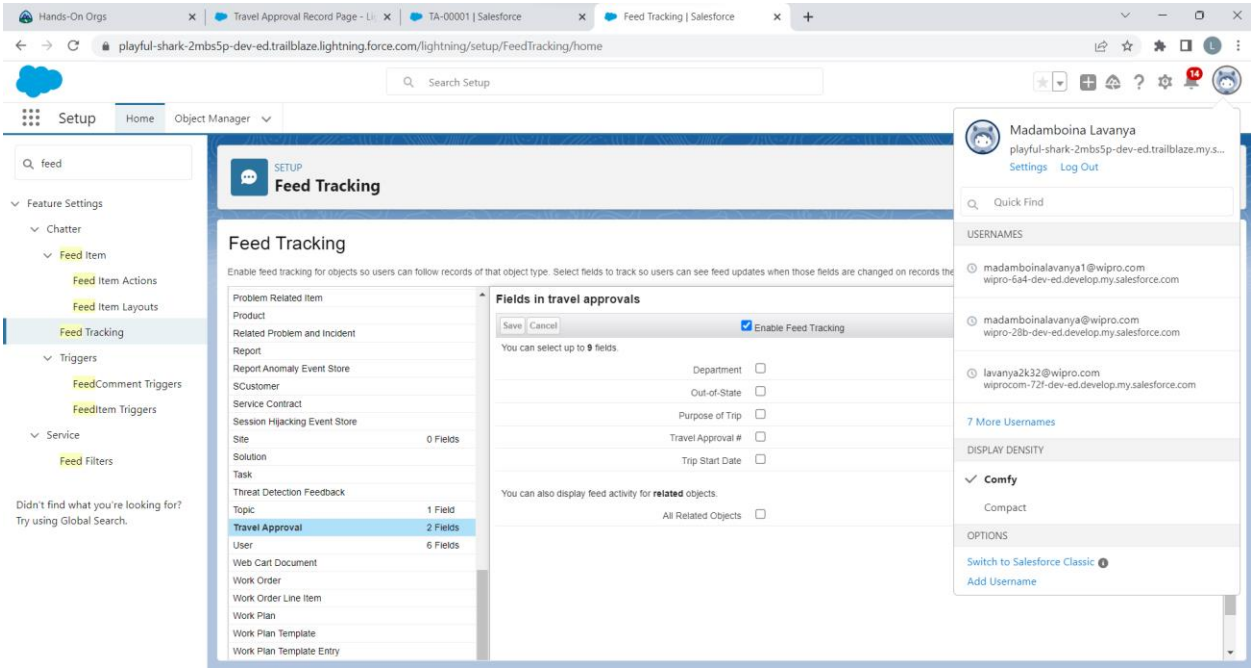
STEP:12

Customized the Expense Item Related List Related List under Travel Approoval page layout

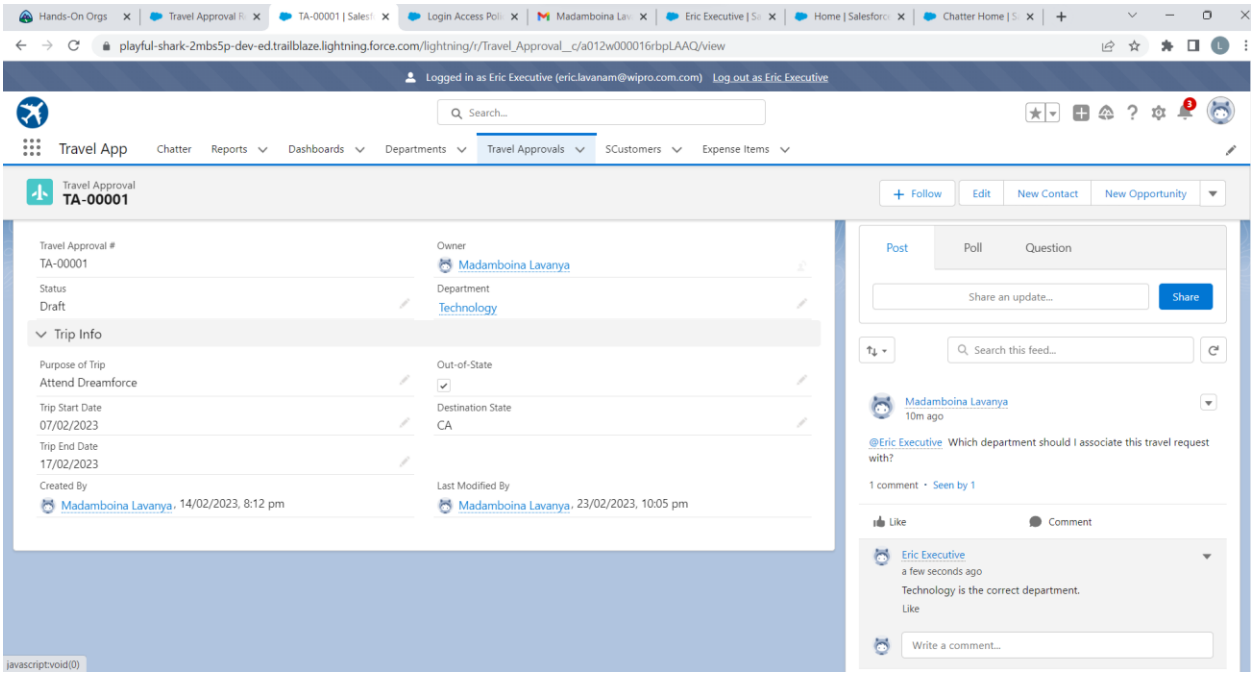


STEP:13

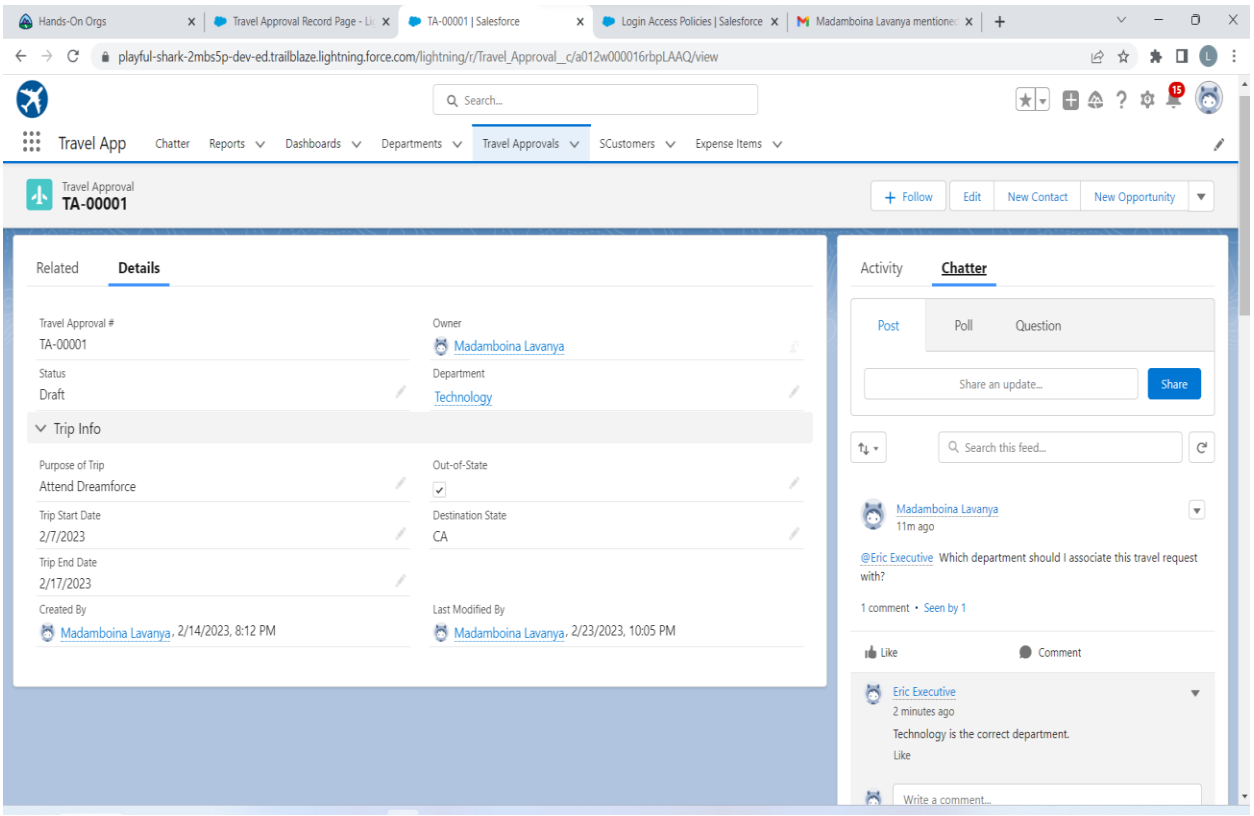
Enabled Feed Tracking for Travel Approval Object



Test Collaboration



Response

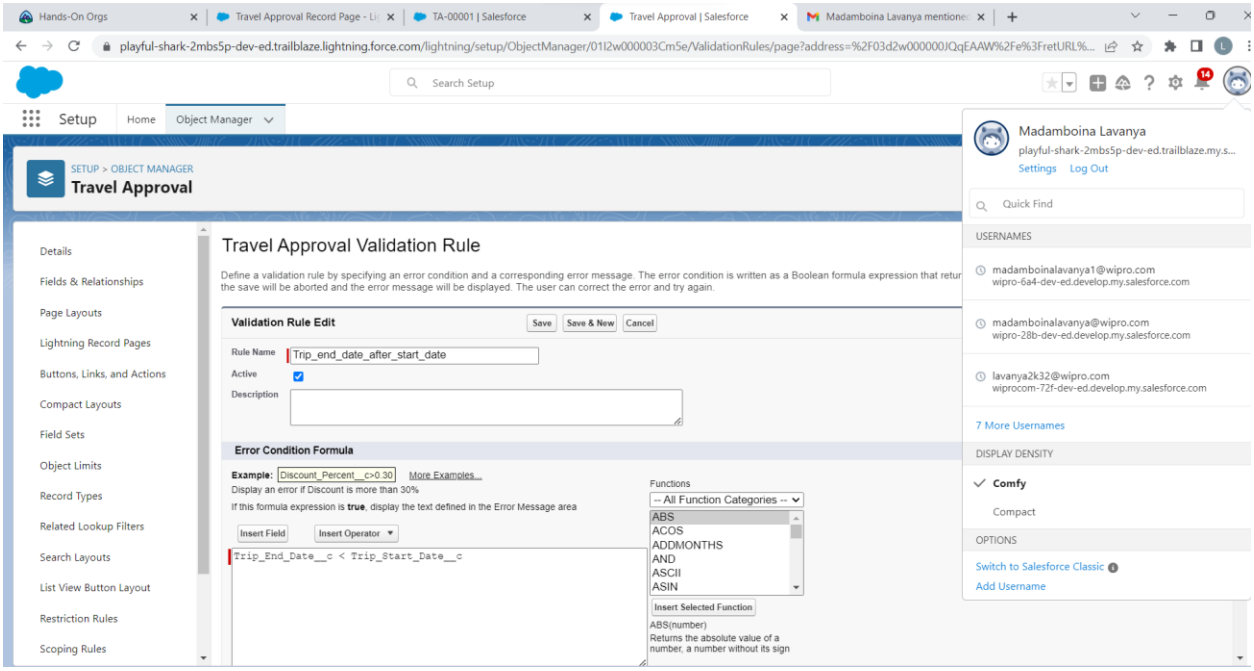


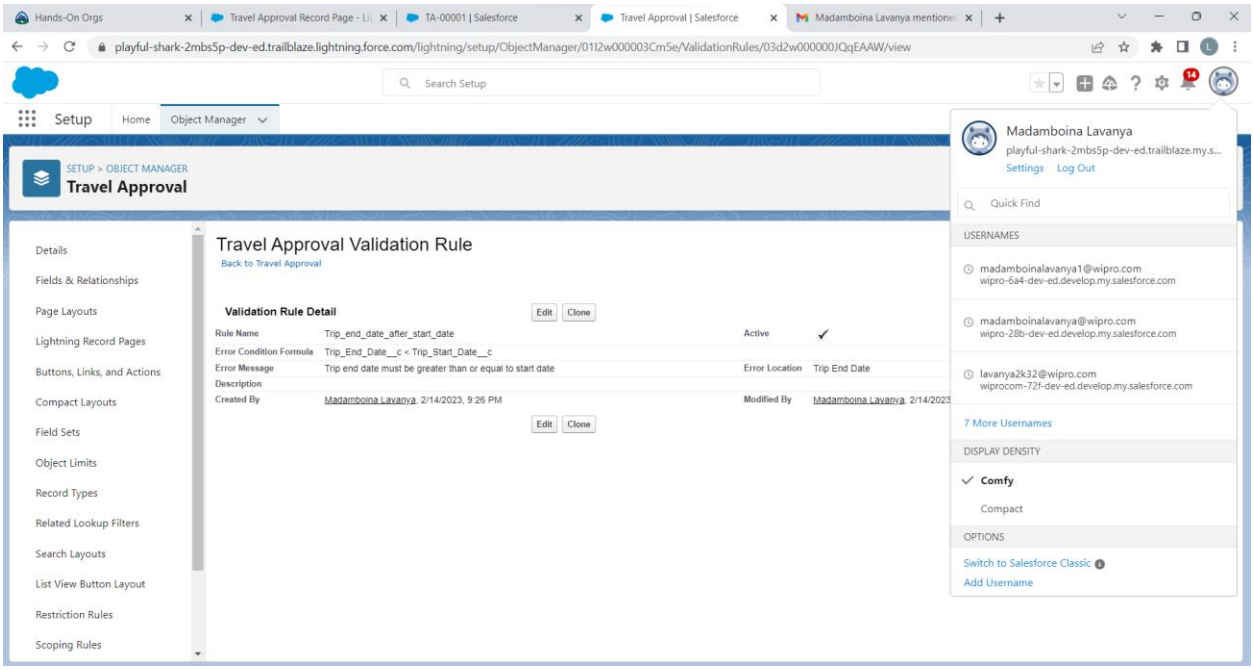
MODULE-2

Exercise 1

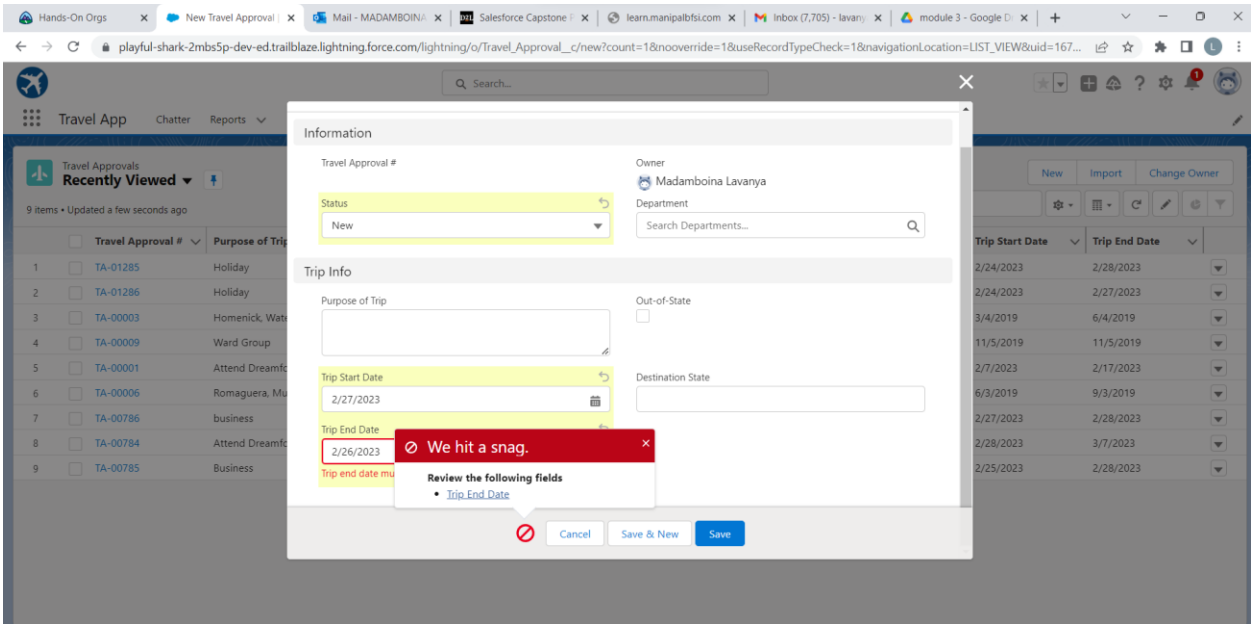
STEP:1

Created Trip end date after start date Validation Rule



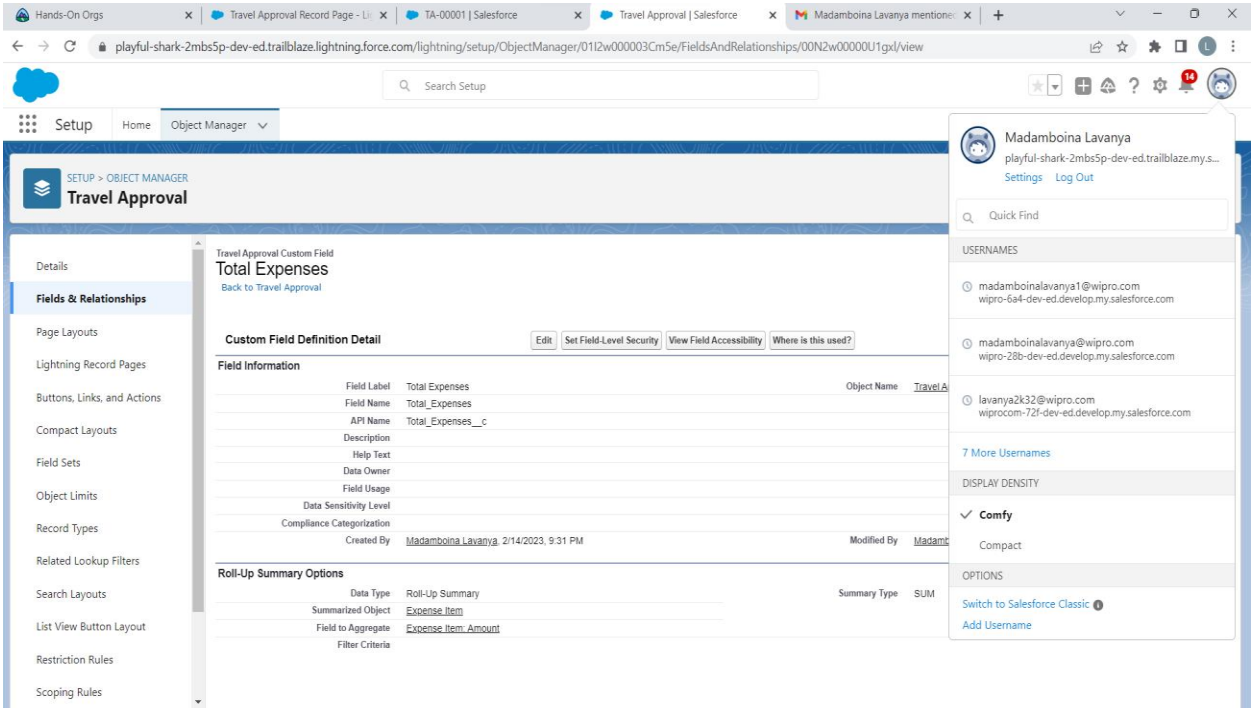


Working of validation rule



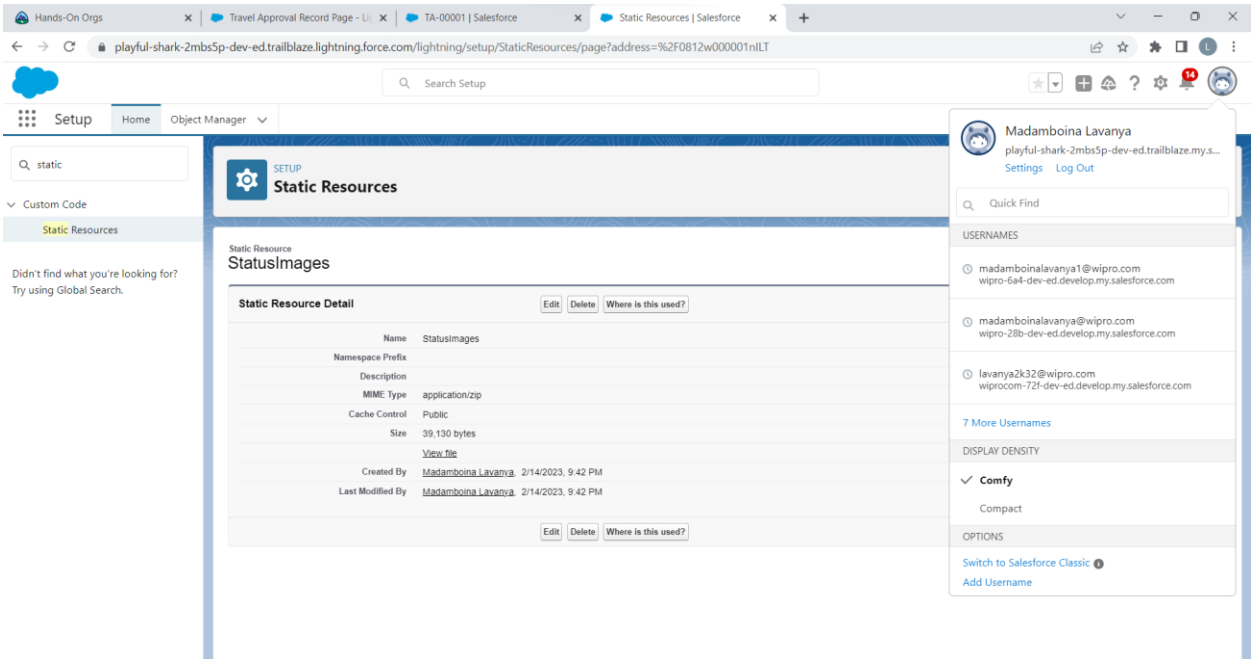
STEP:2

Created a Roll Up Summary field Total Expenses



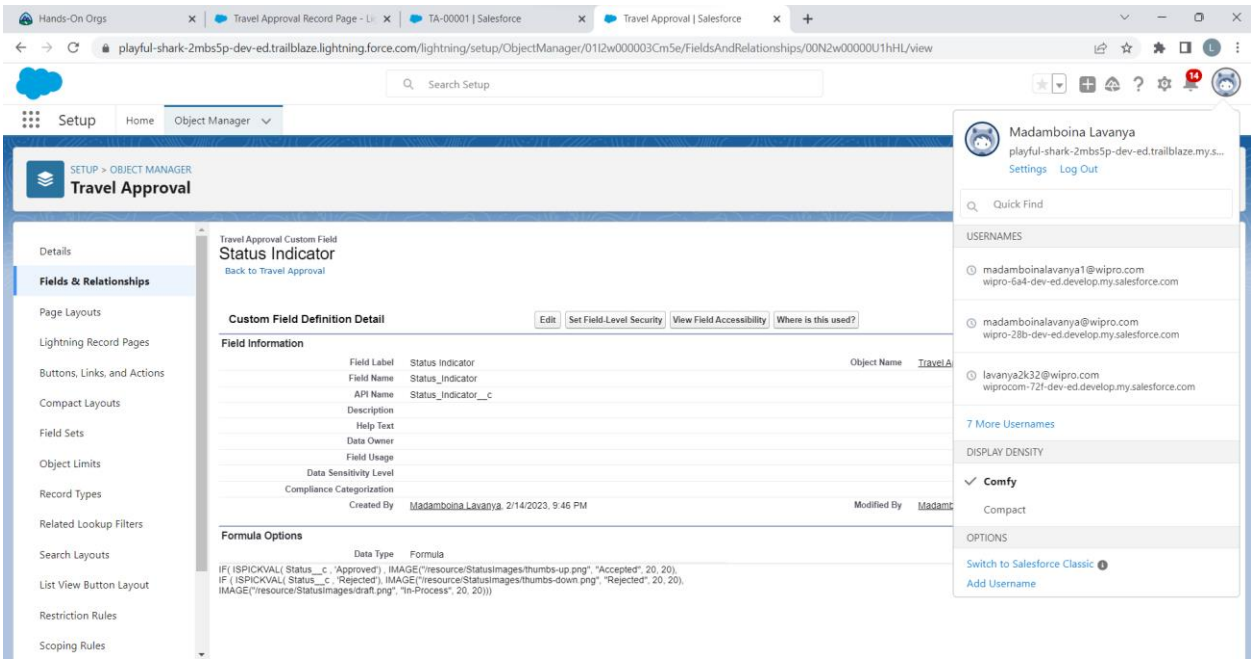
STEP:3

Created a formula field StatusImages



STEP:4

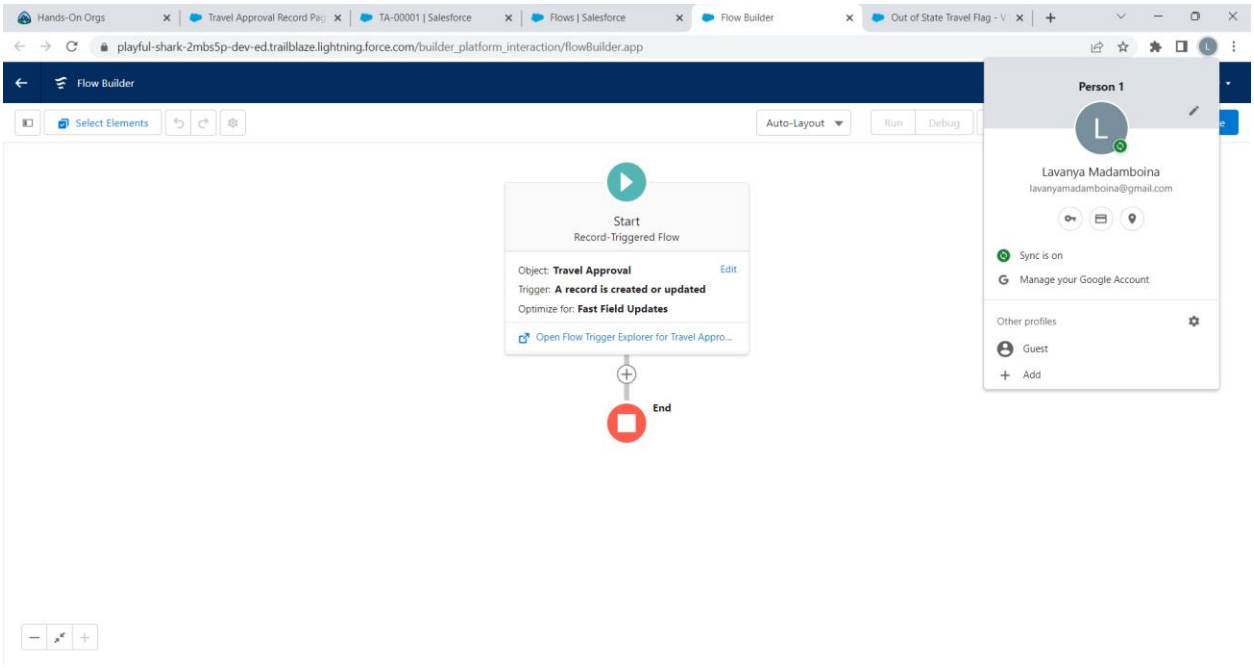
Created a formula field Status Indicator

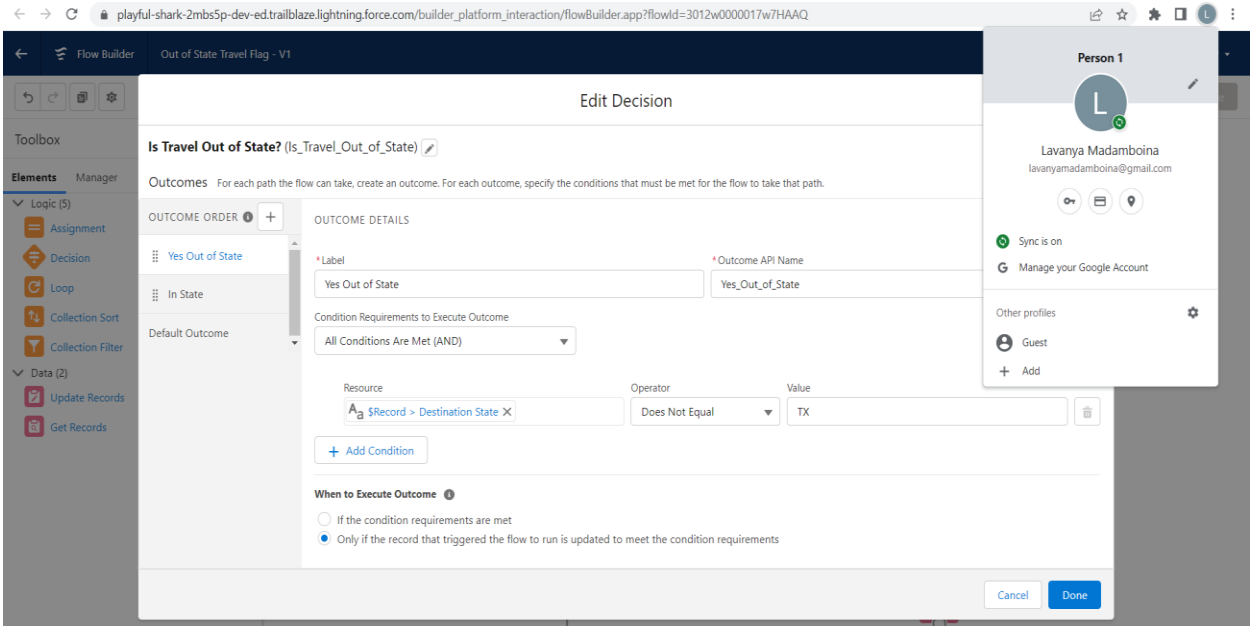


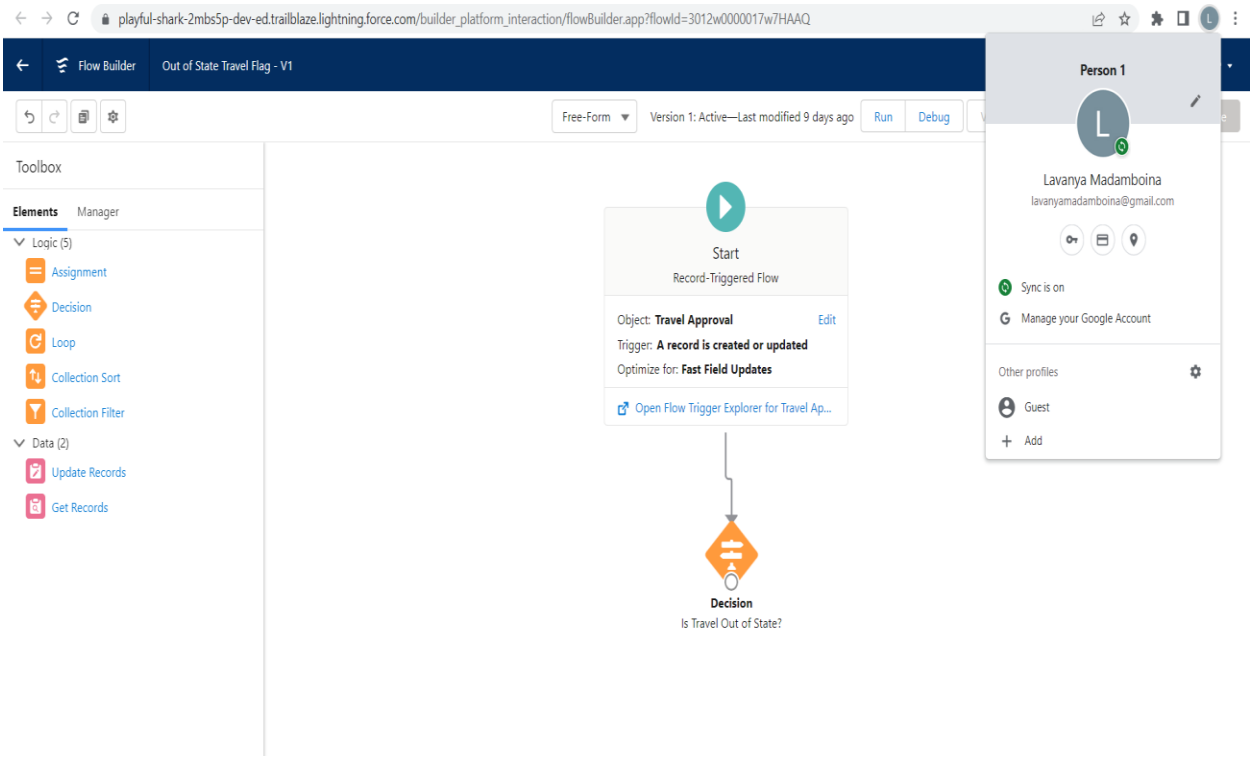
STEP:5

Created a Record-Triggered Flow

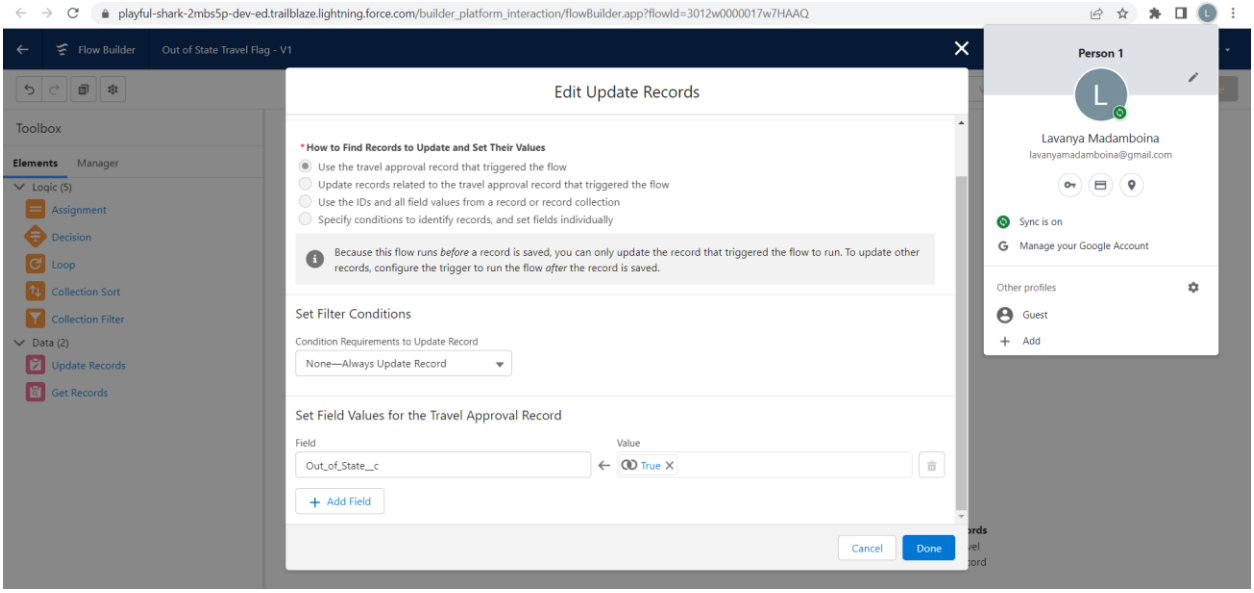
Decision block

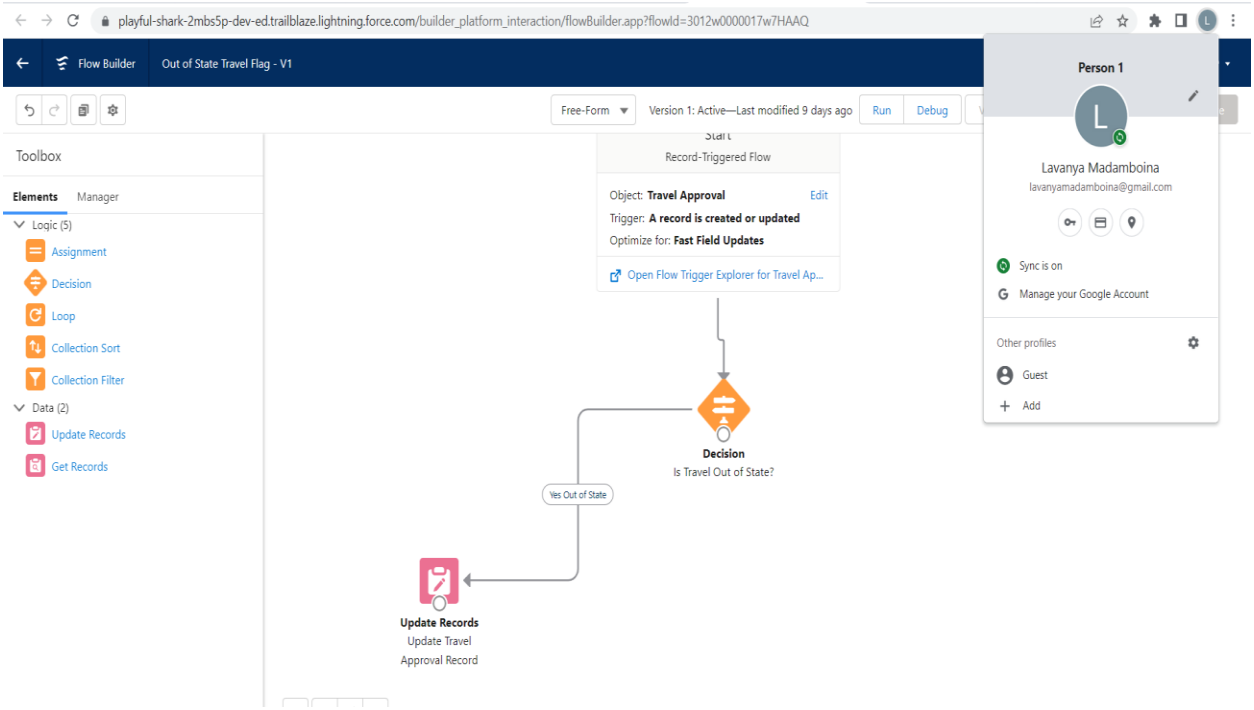




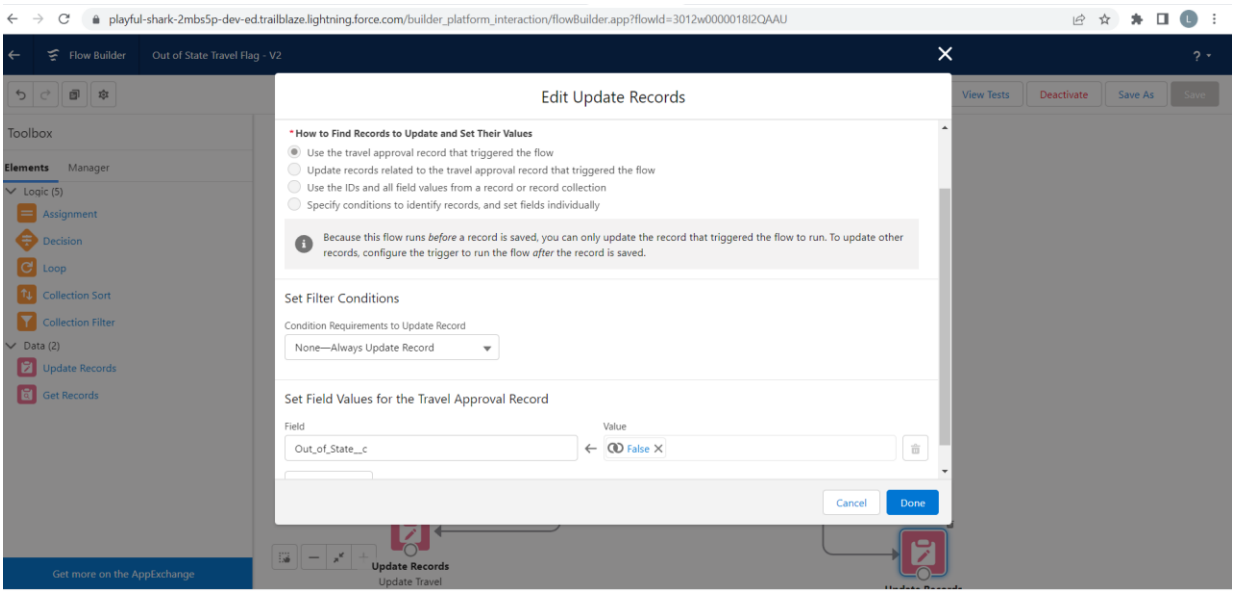


Updated Travel Approval Record(Yes out of State)

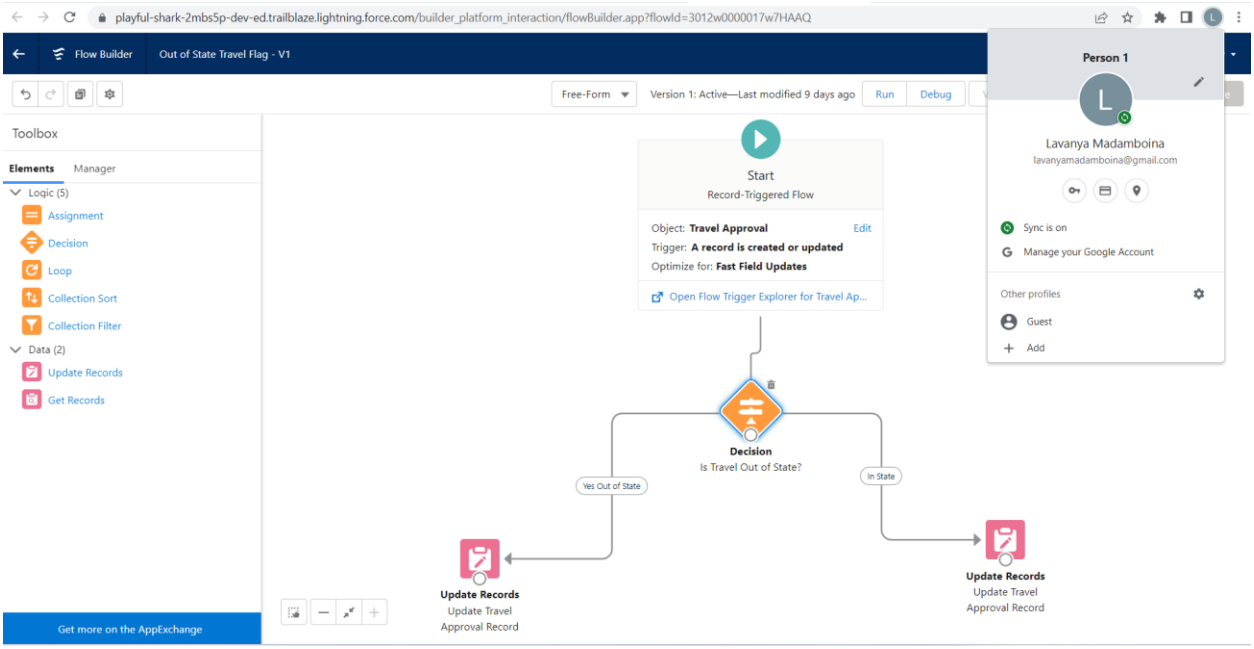




Updated Travel Approval Record(InState)

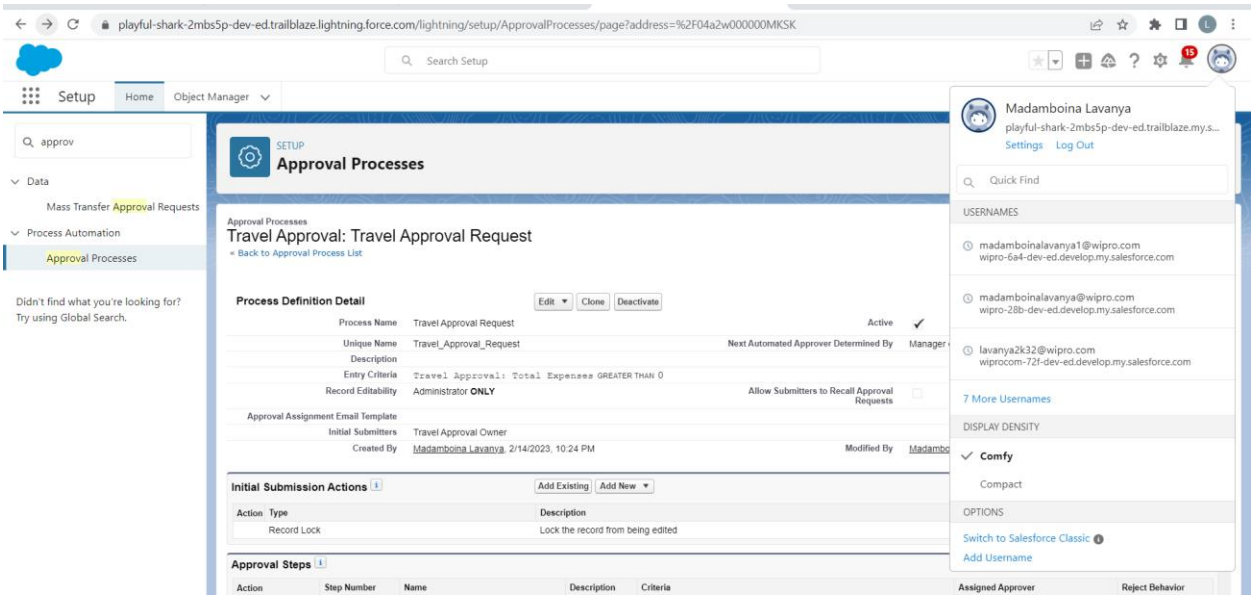


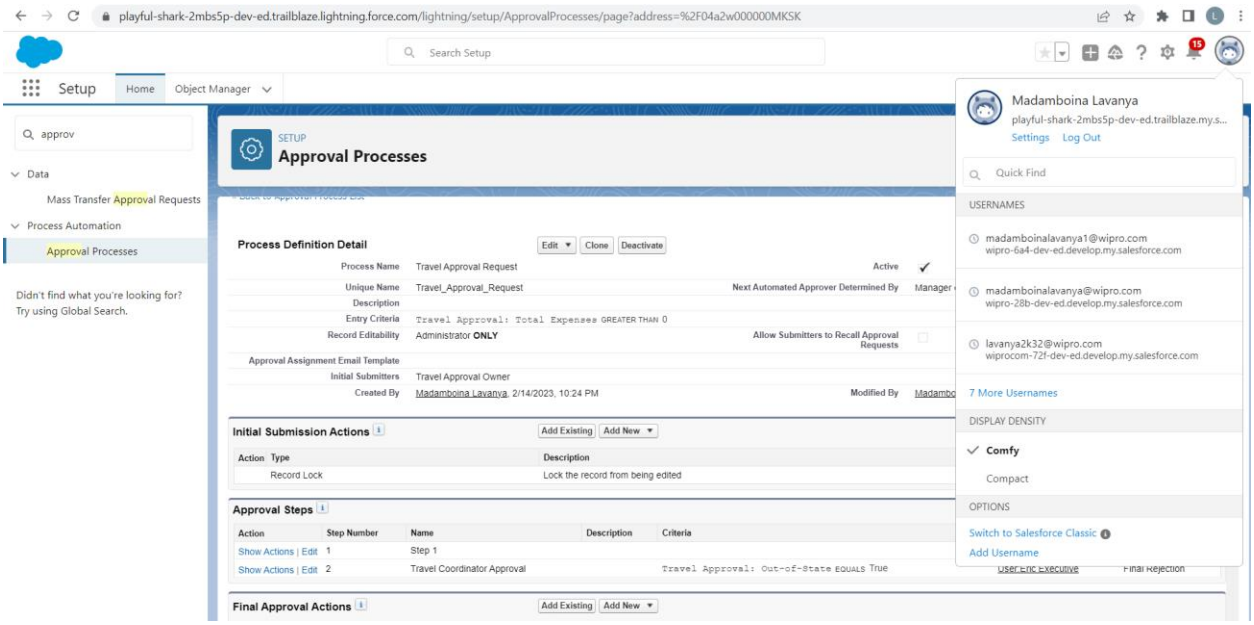
Finally ,the flow looks as shown, save and activate



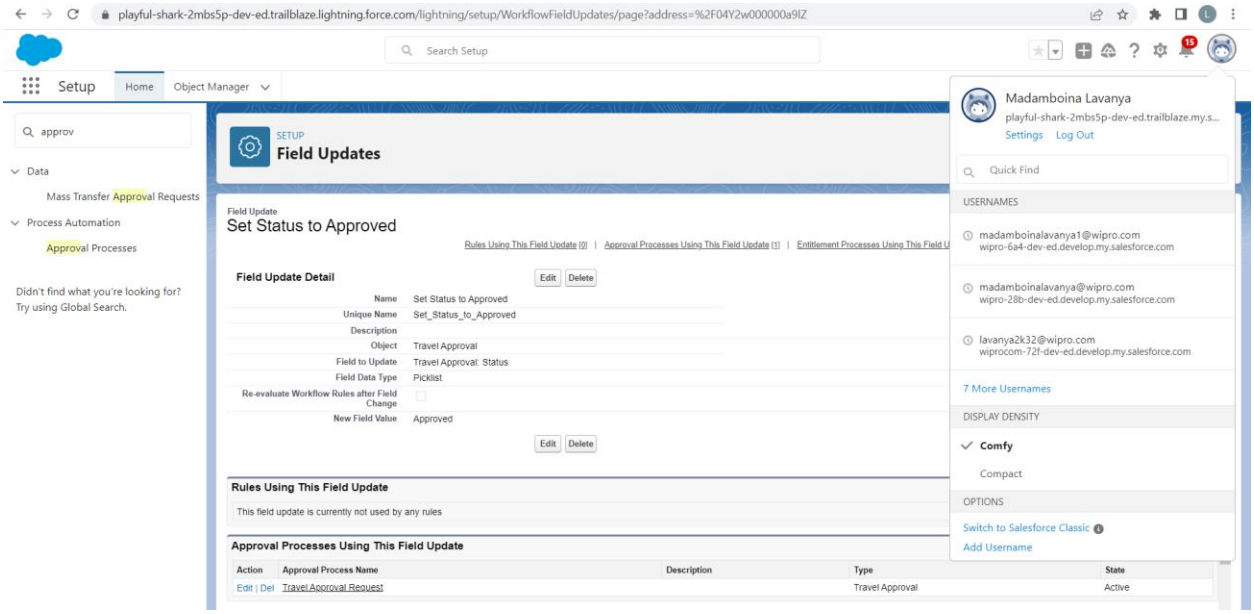
STEP:6

Created an approval process Travel Approval Request

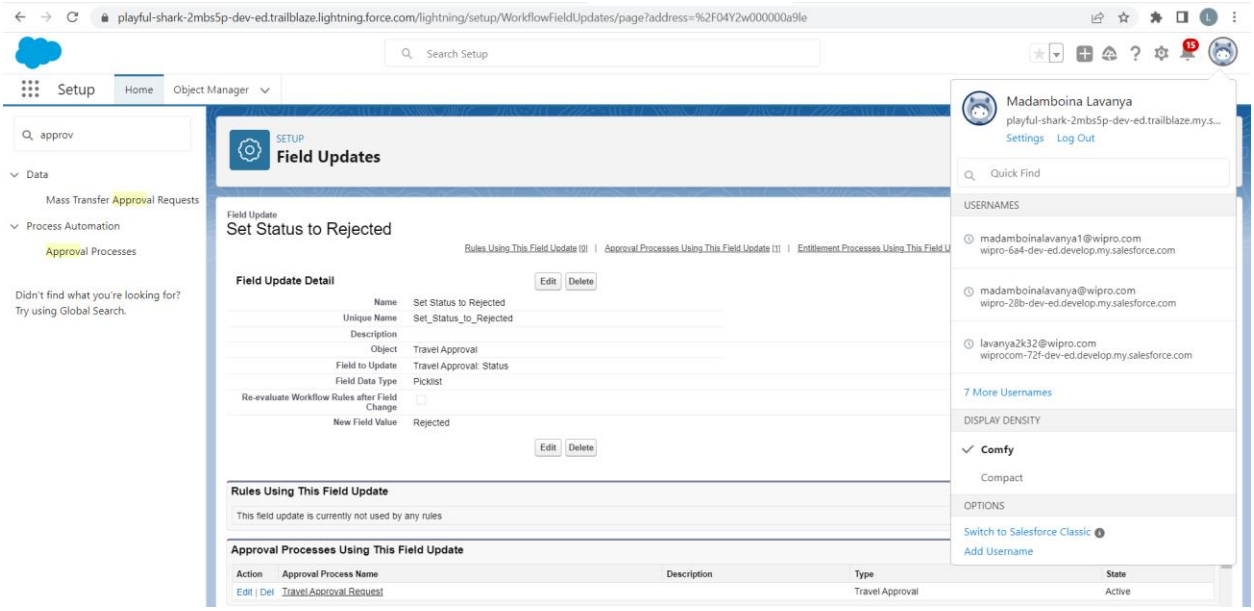


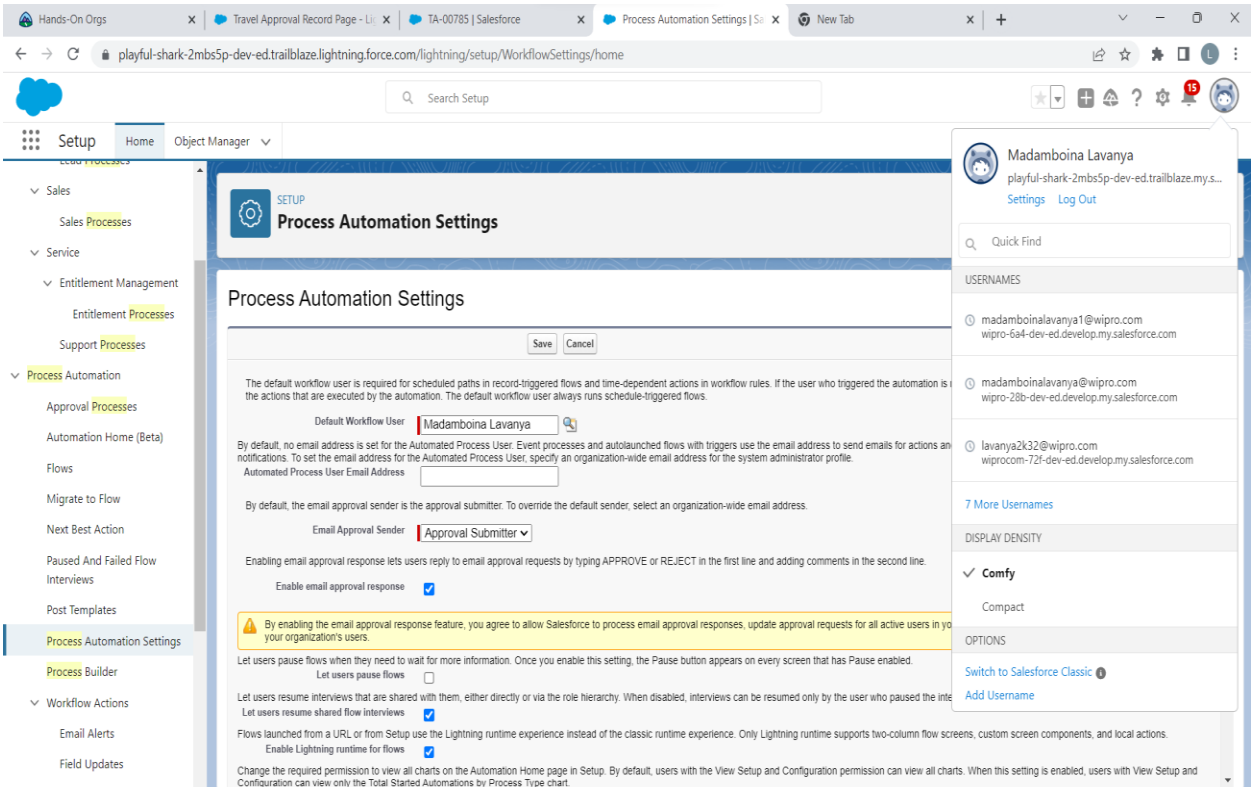


Final Approval Action

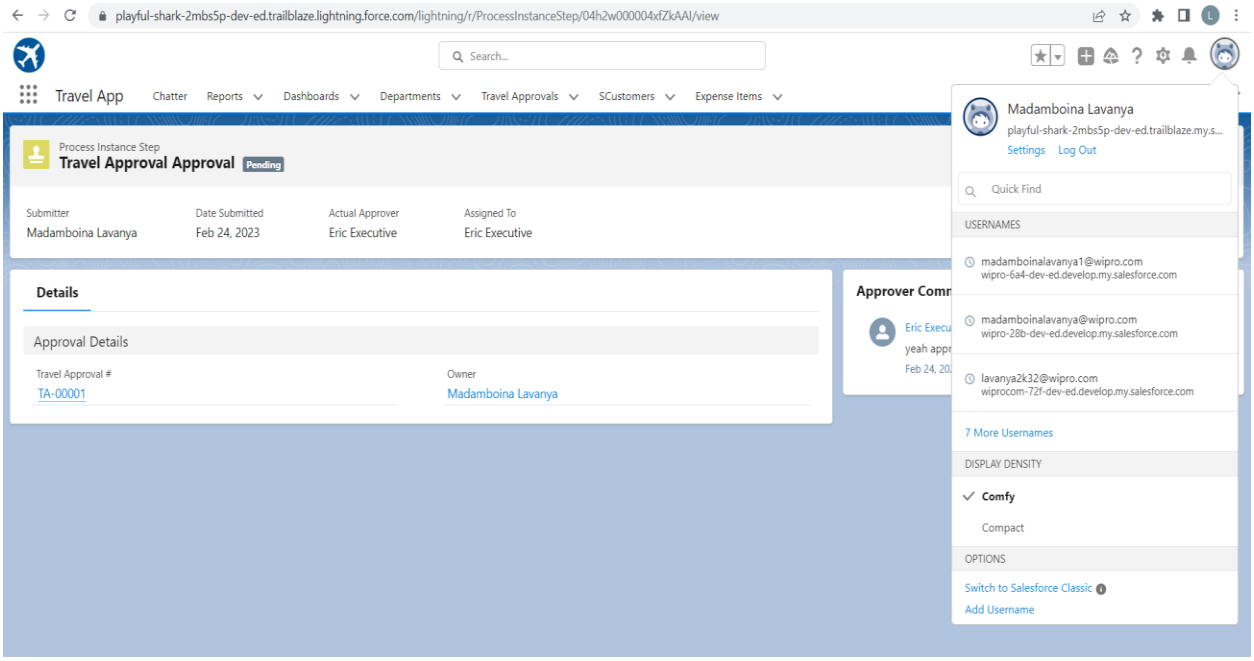


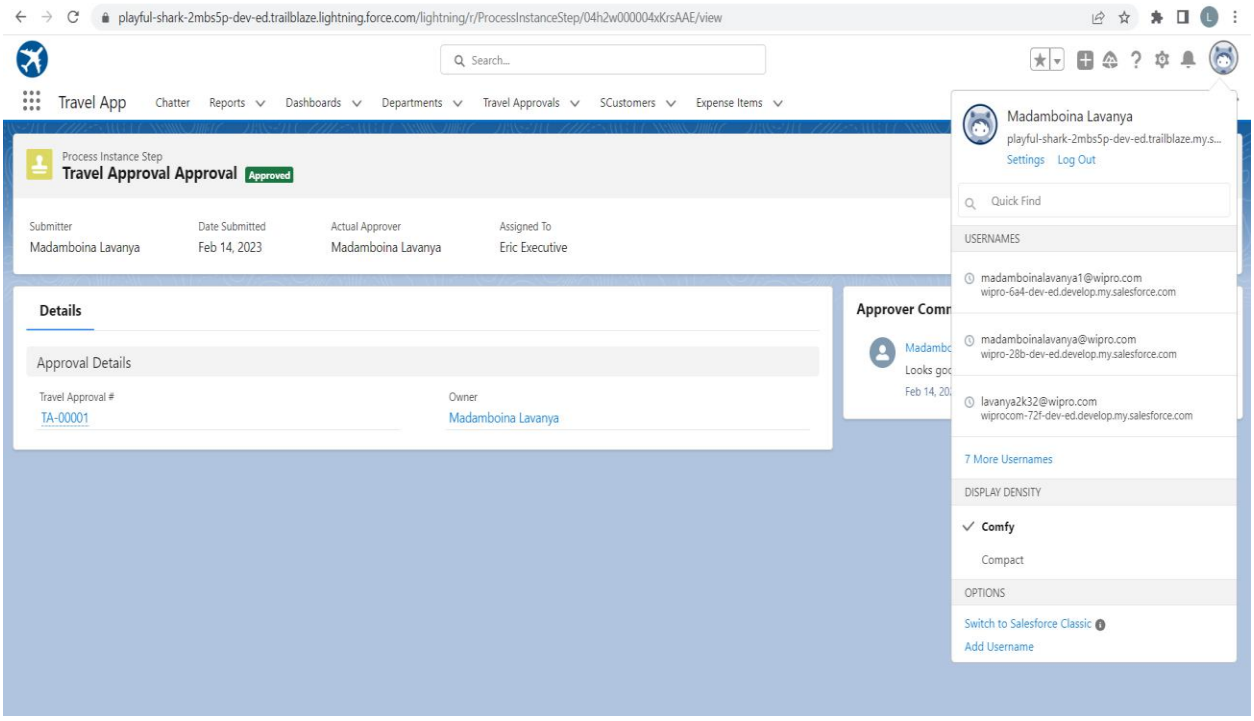
Final Rejection Action





Assigned to Eric Executive

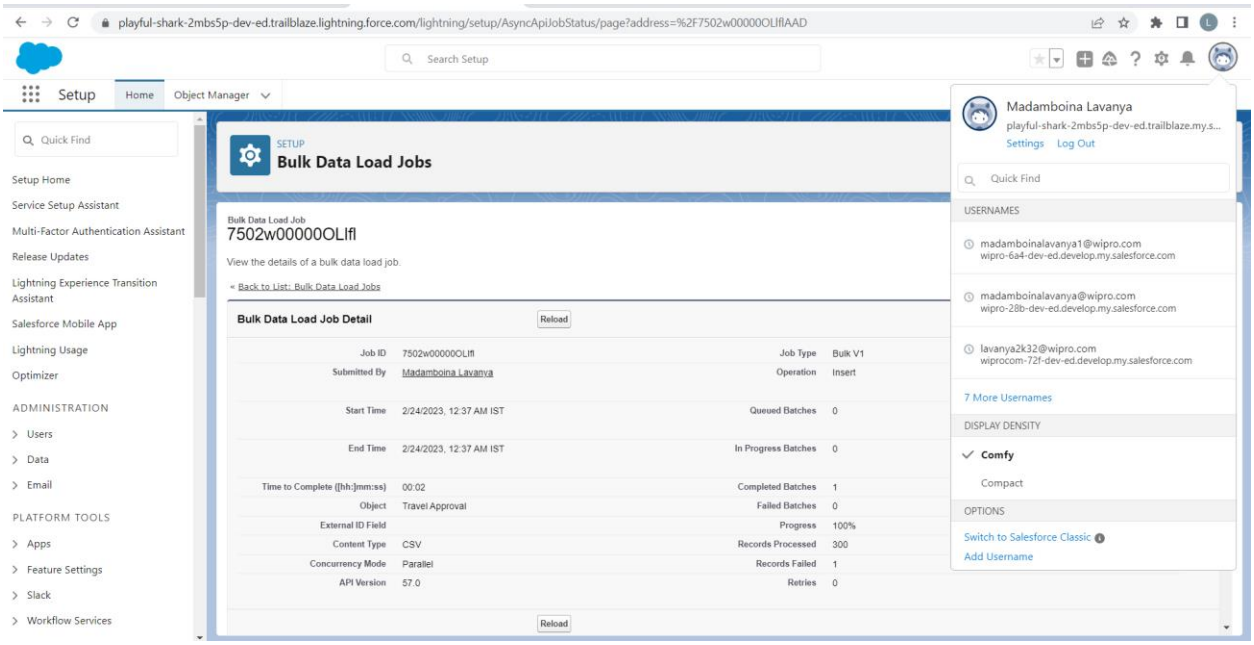




Exercise 2

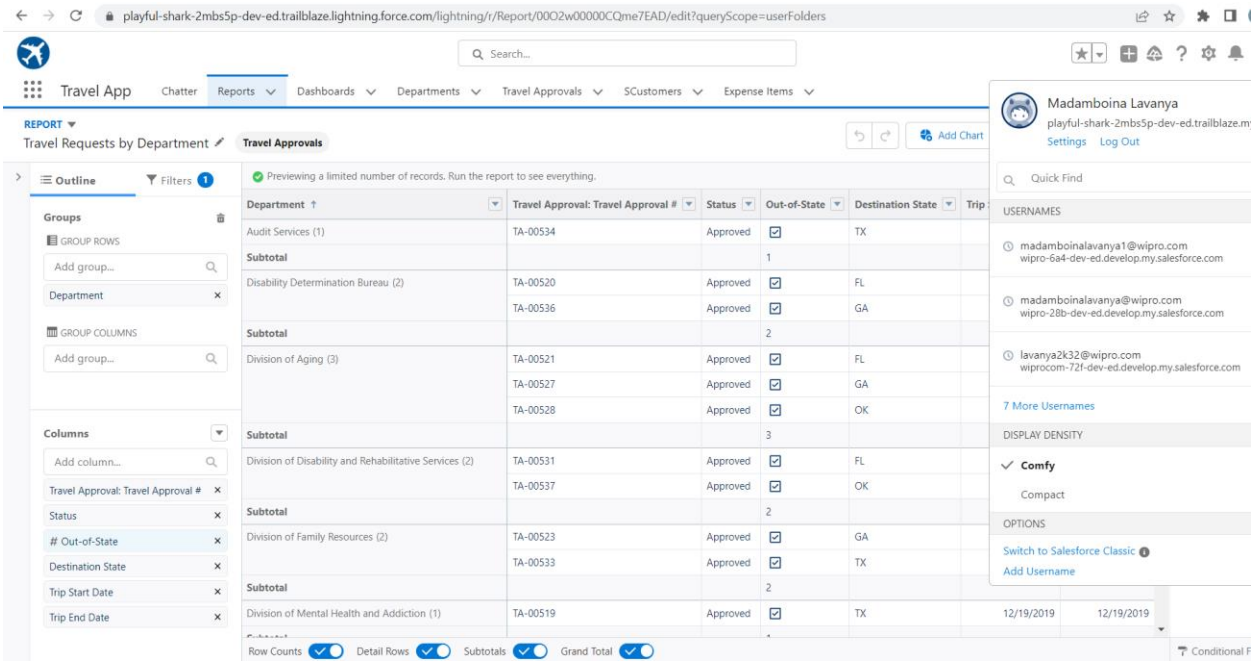
STEP:1

Imported Travel Approval Records

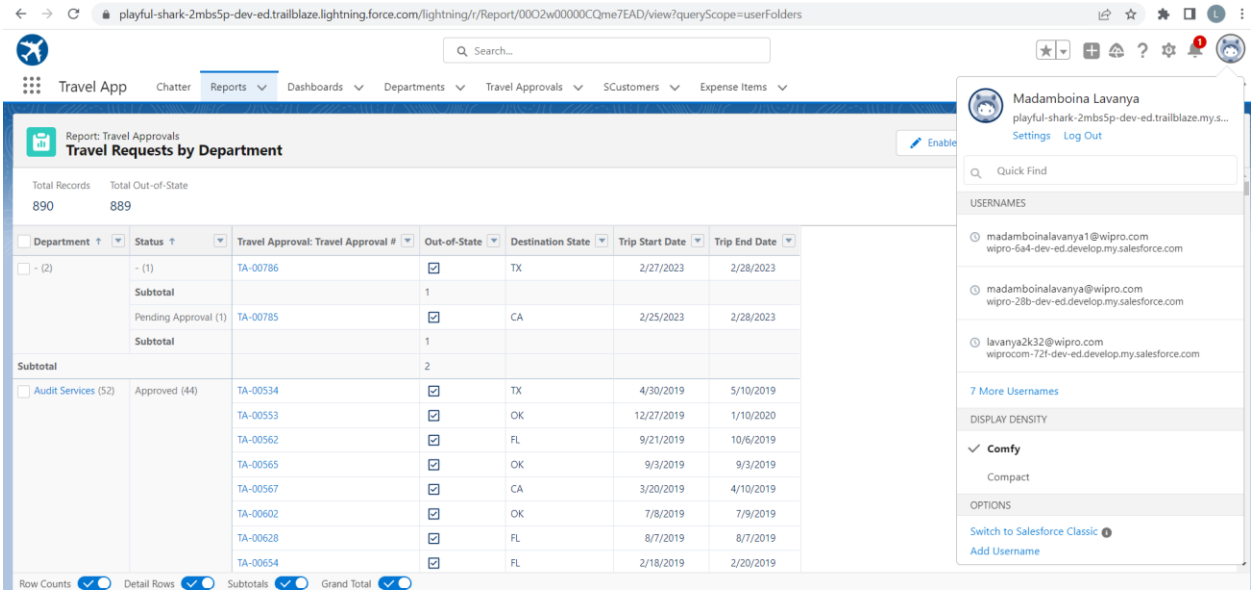


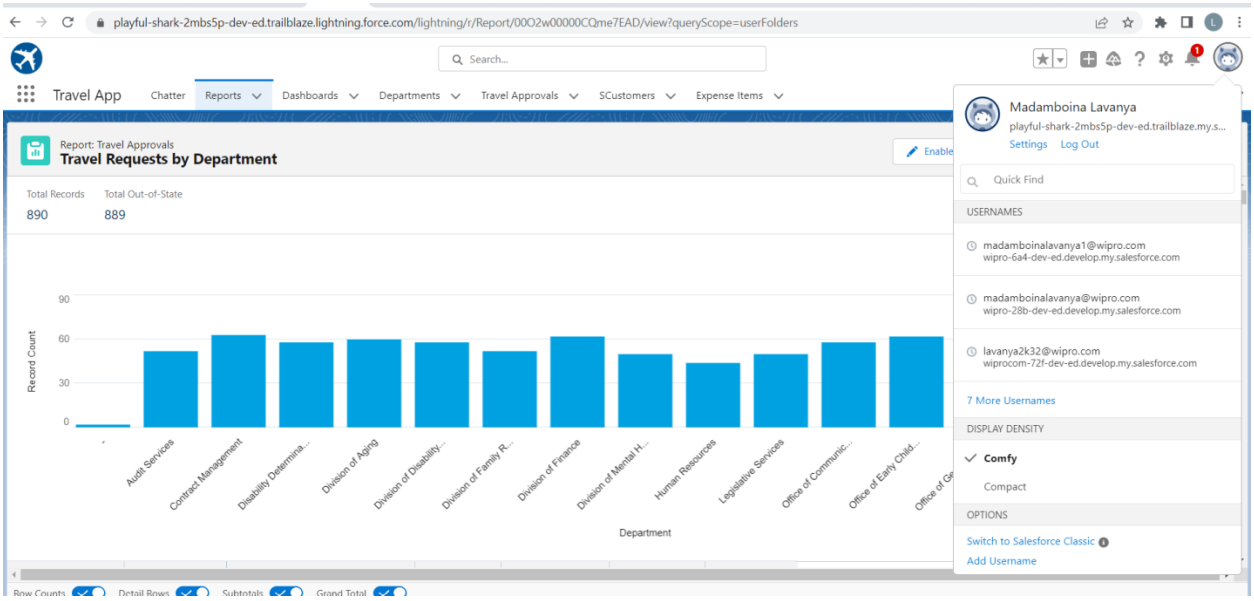
STEP:2

Created a report on Travel Request by Department



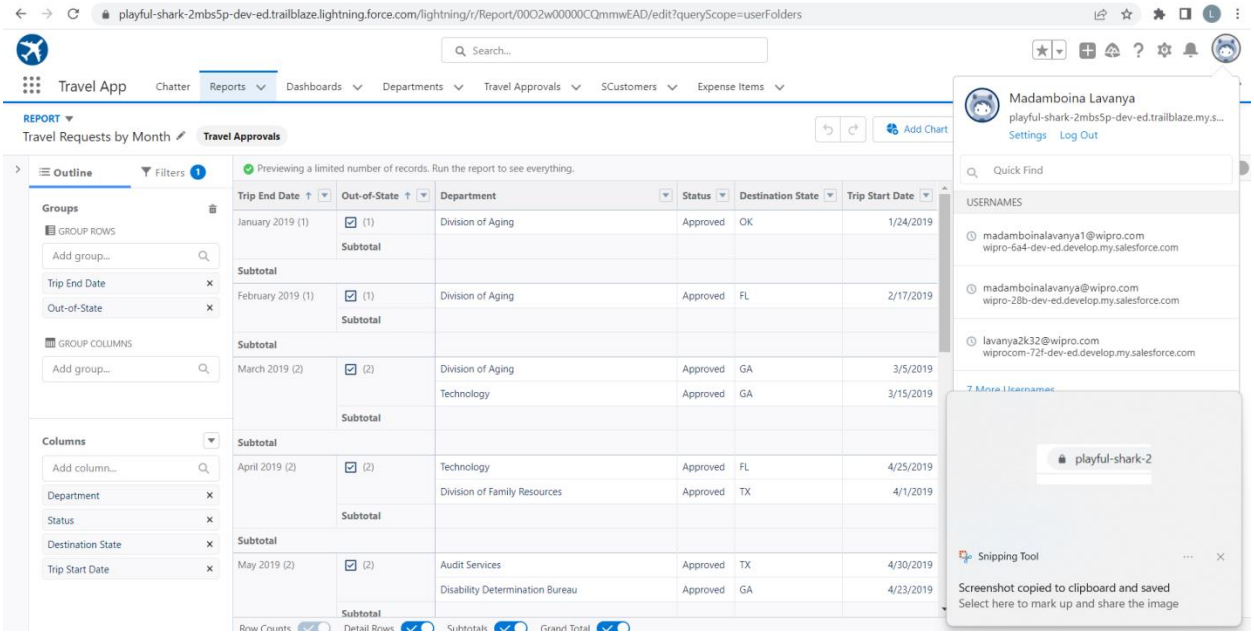
After Testing

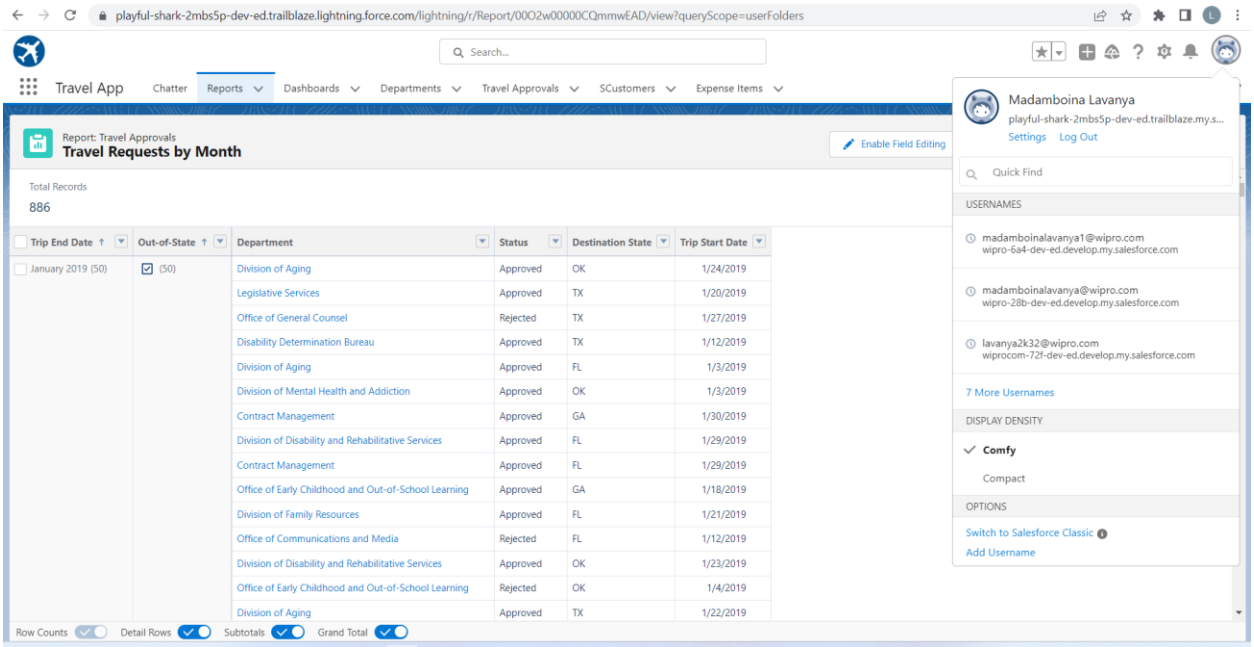




STEP:3

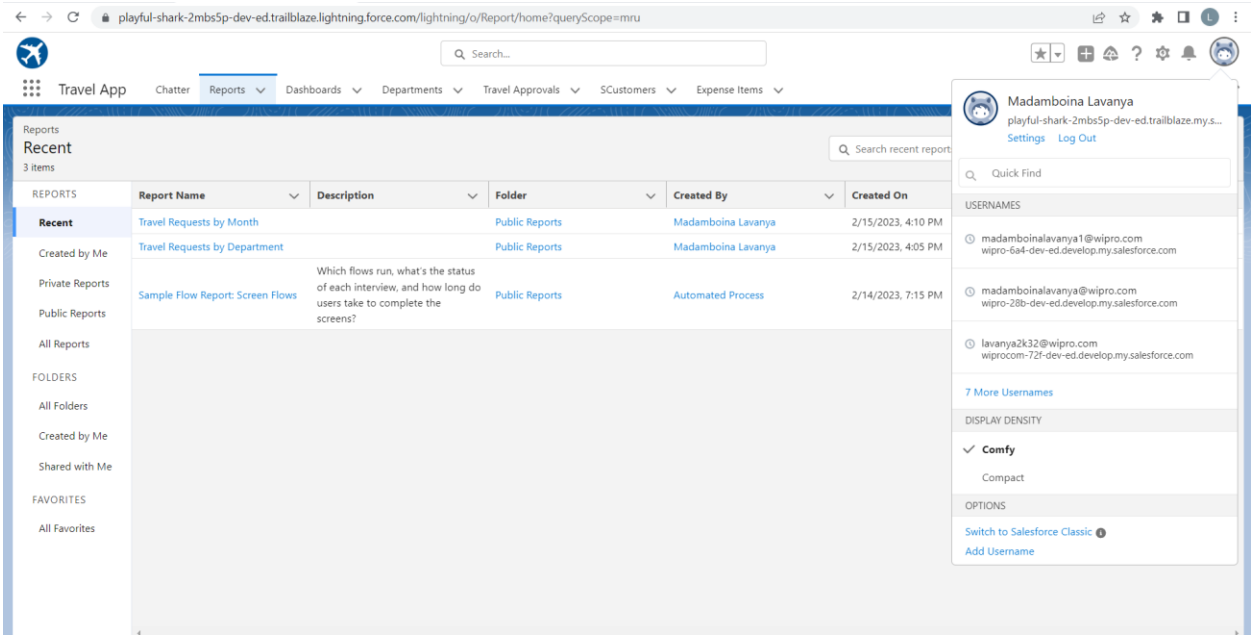
Created a Travel Requests by Monthly Report

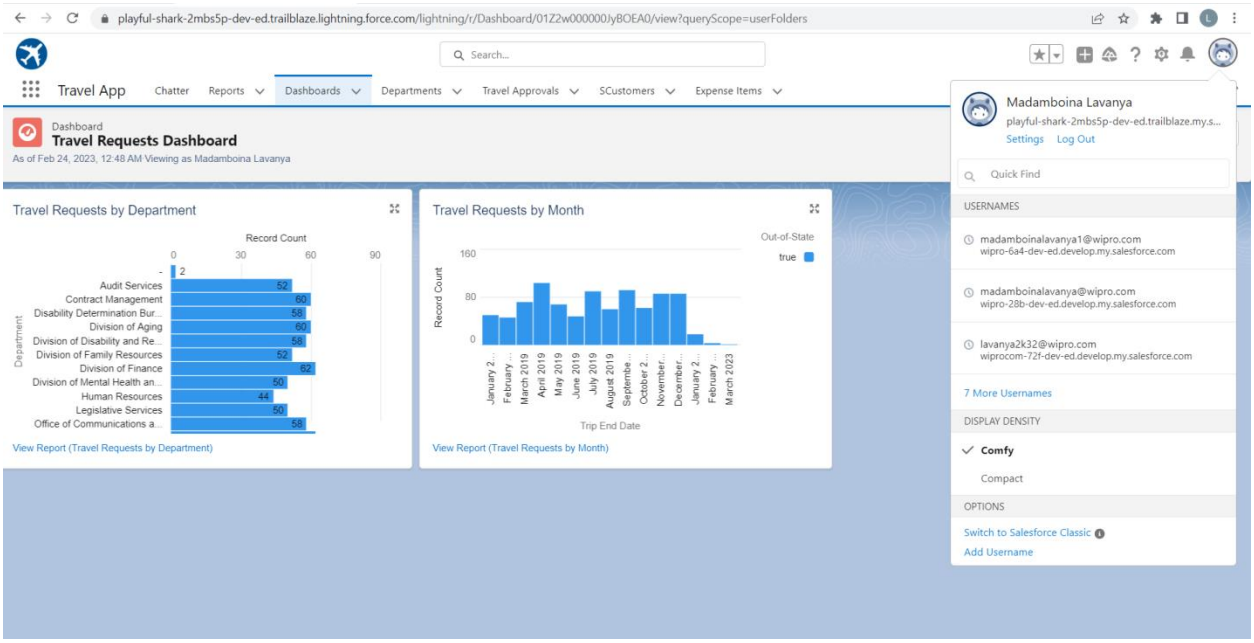




STEP:4

Created a Report and Dashboards for Travel Approvals

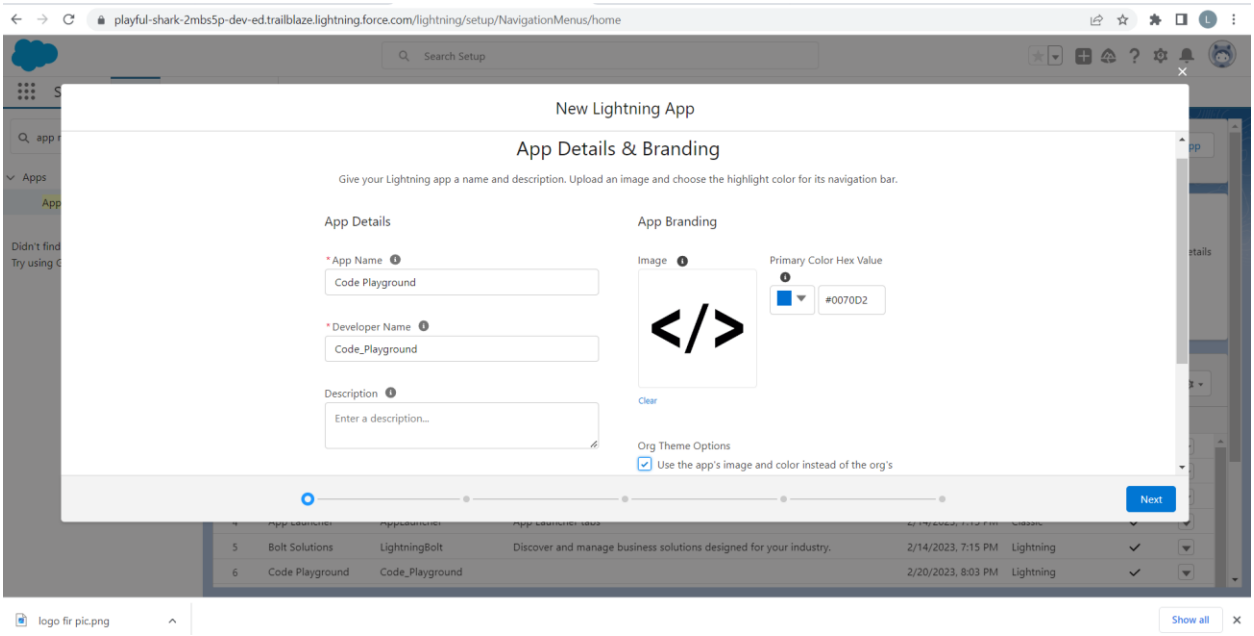




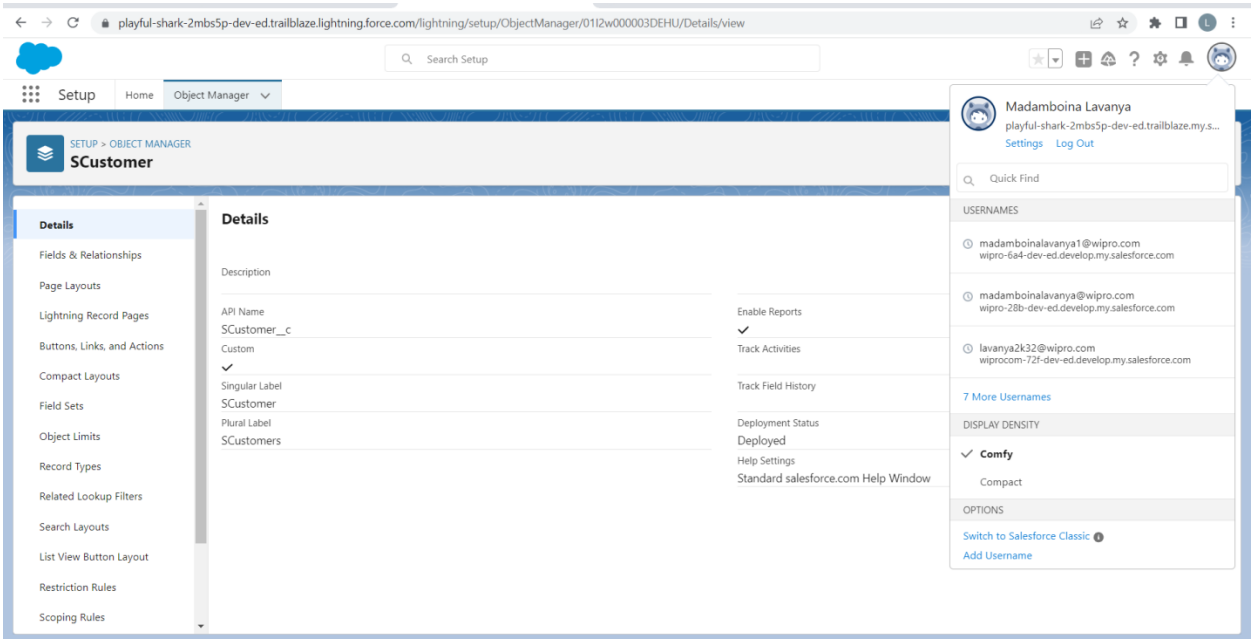
MODULE-3

Exercise 1

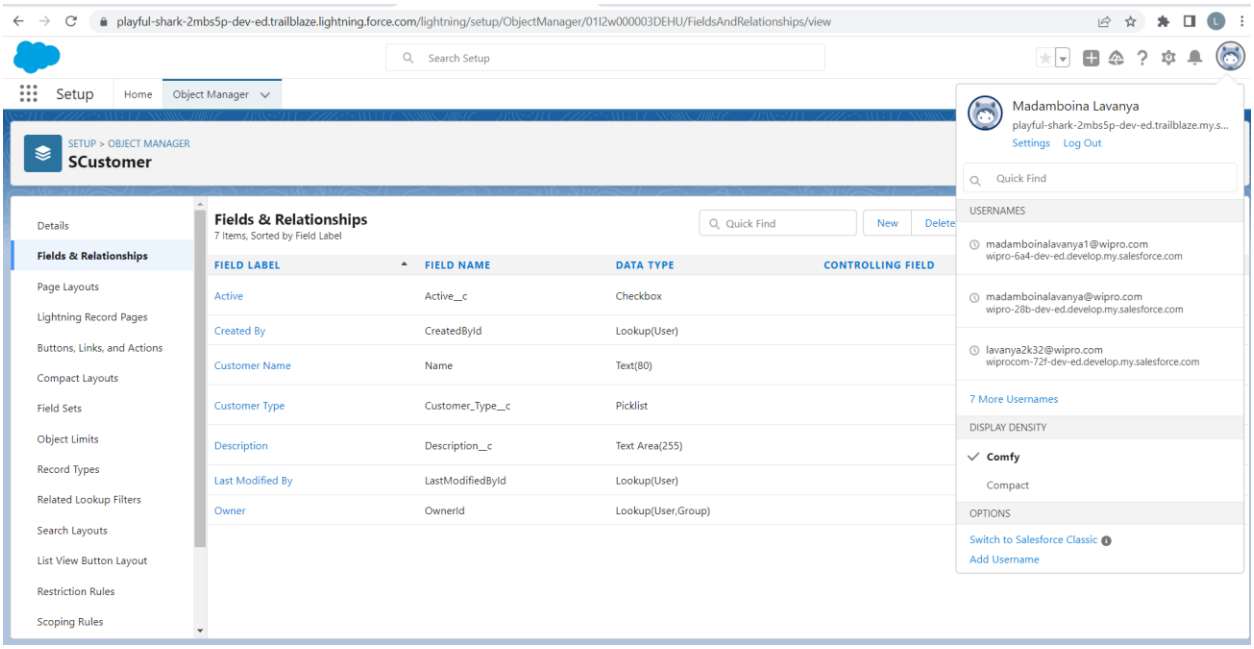
Created Code Playground



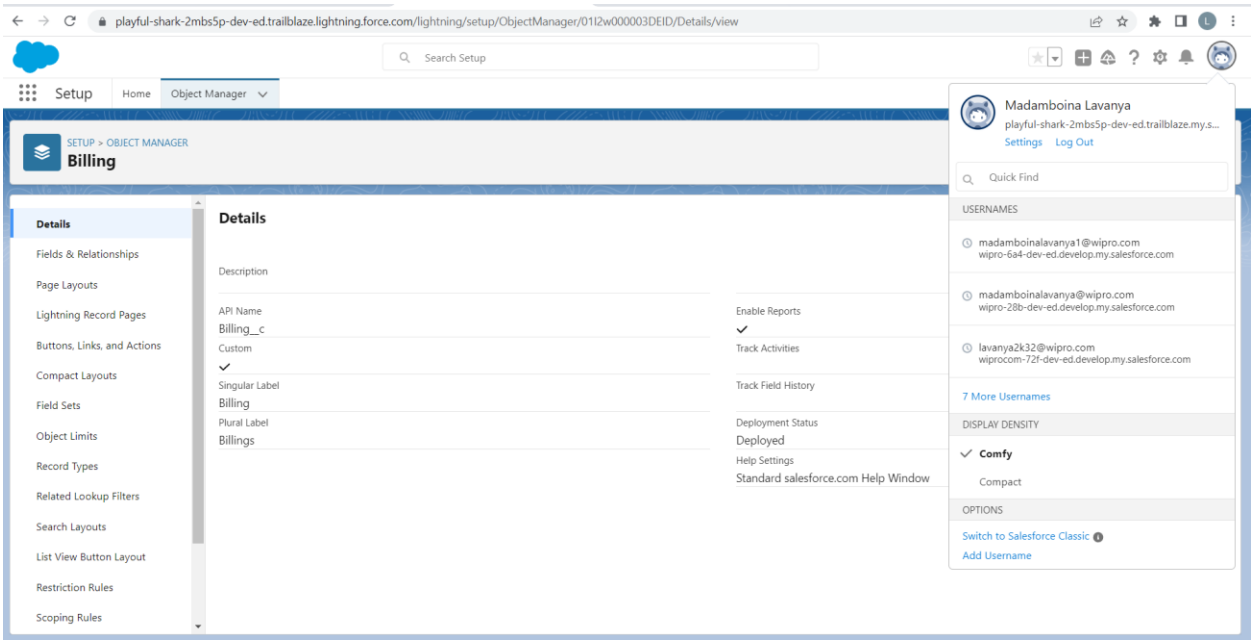
Created the Custom Object Customer as (SCustomer)



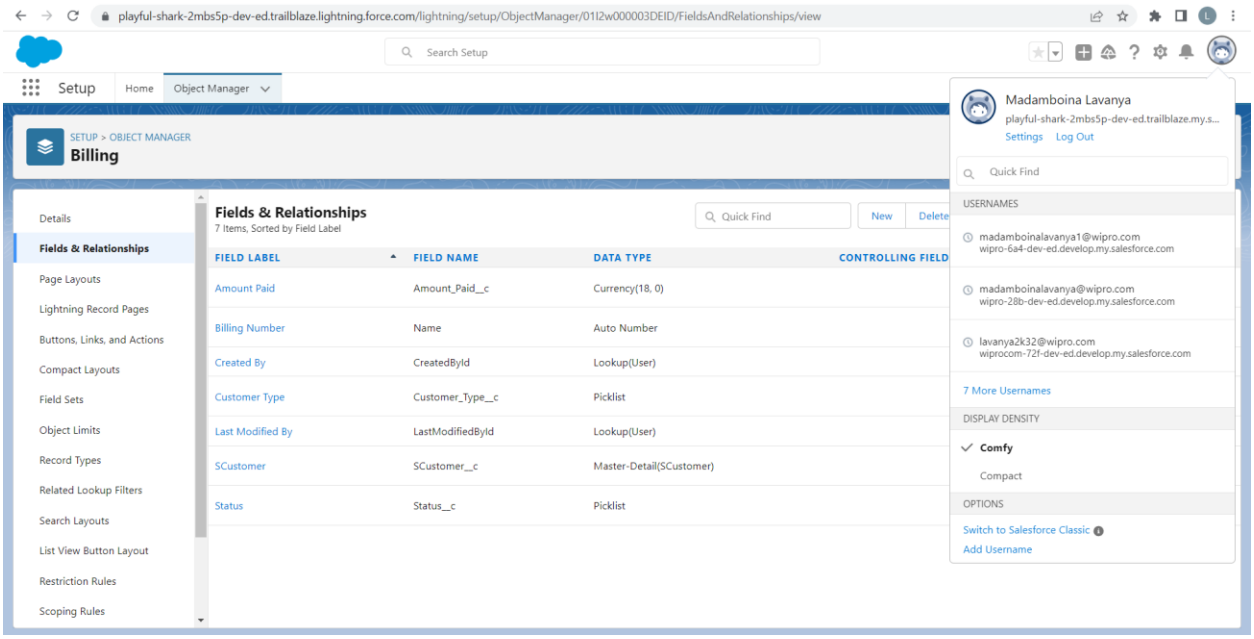
Created all Custom Fields



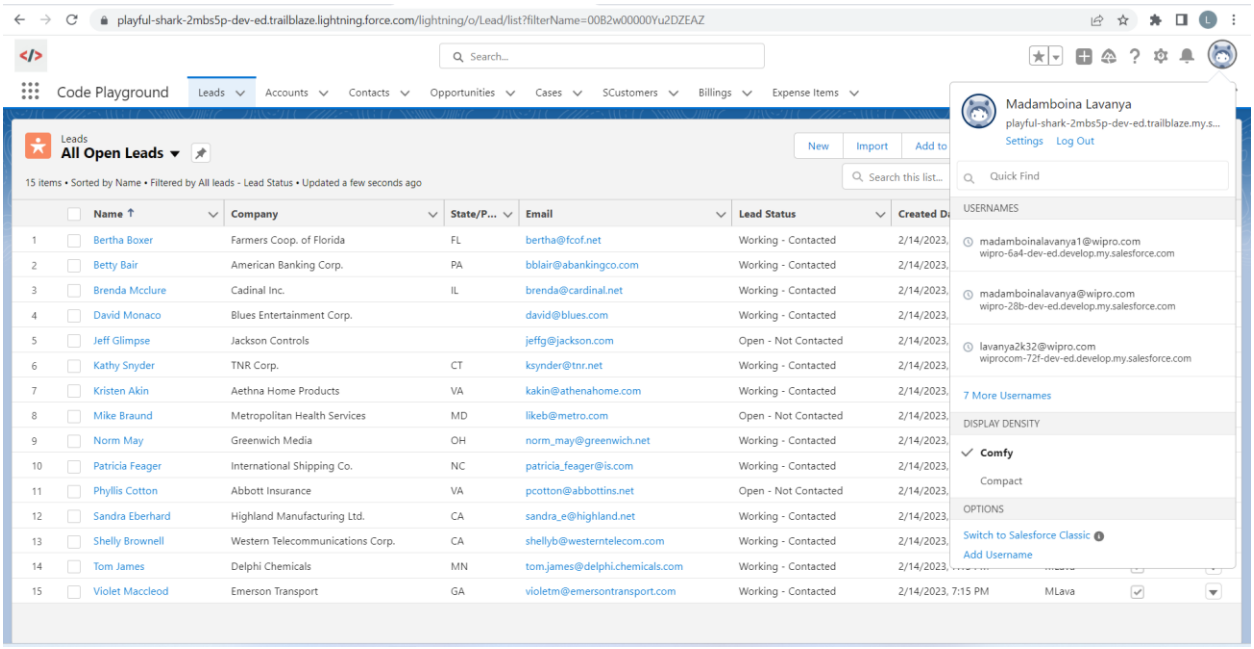
Created a Custom Object named Billing



Created Custom fields for Billing Object

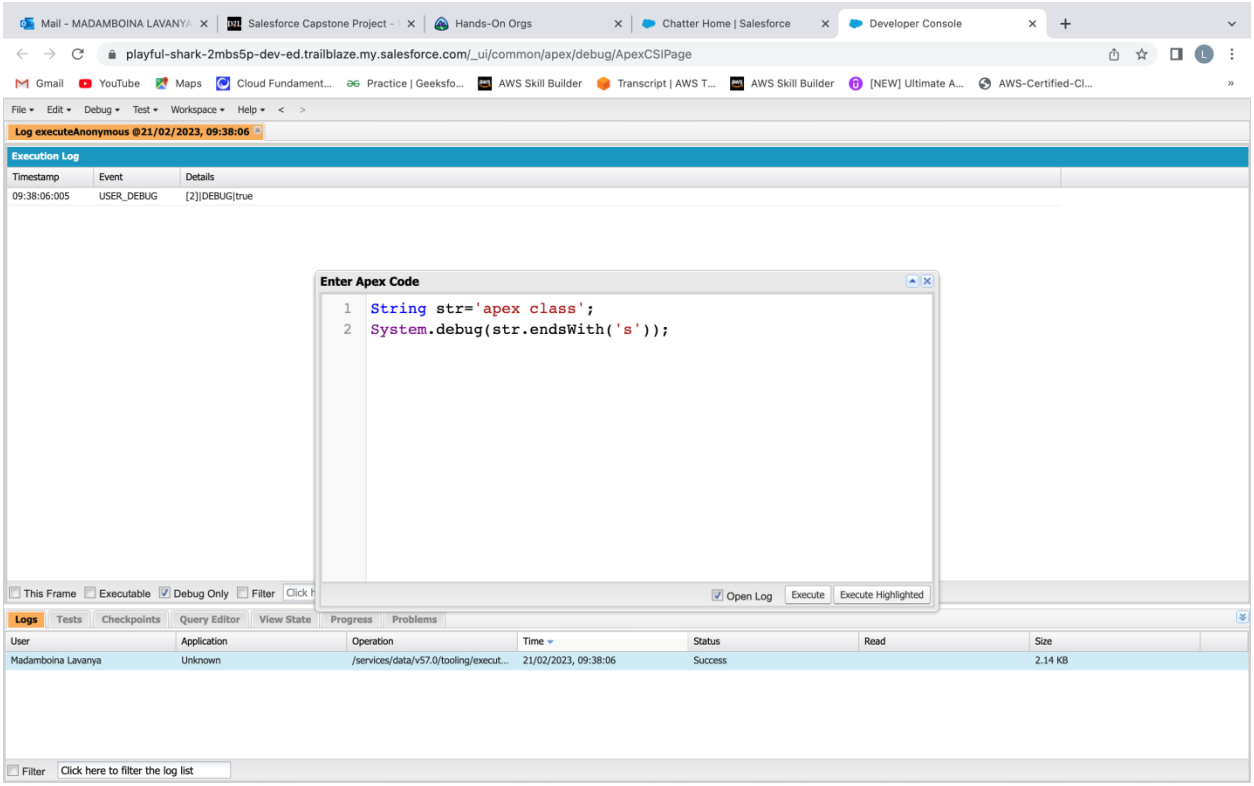


Finally, it looks as shown below

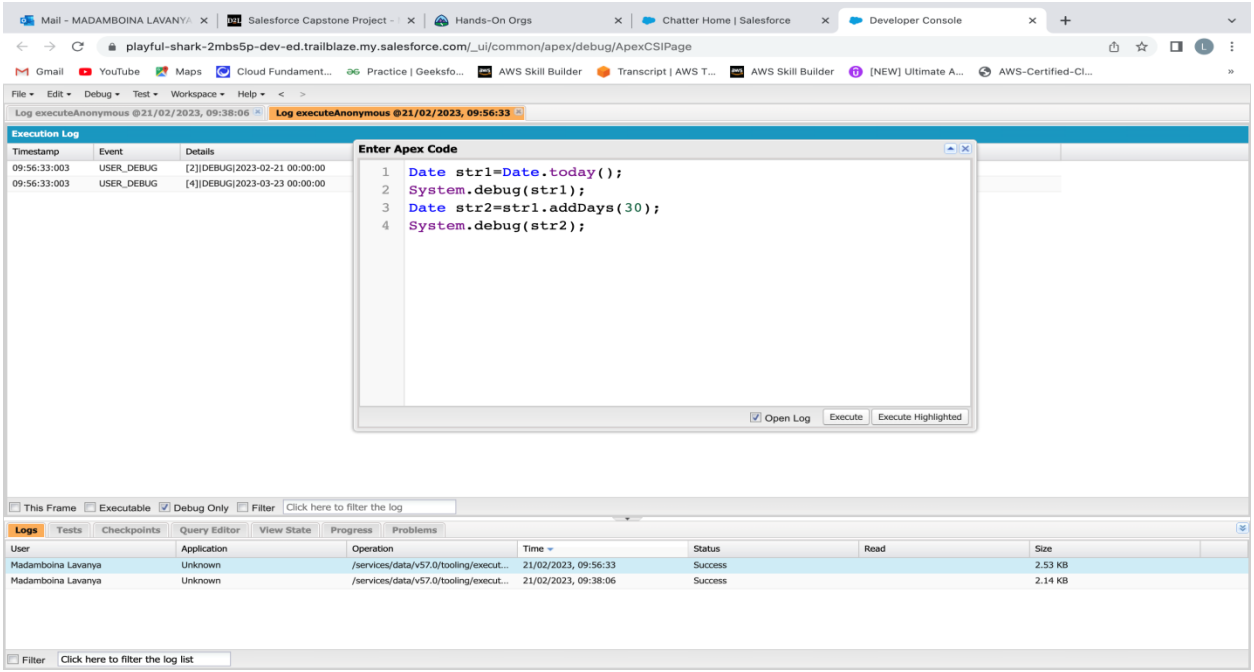


Exercise 2

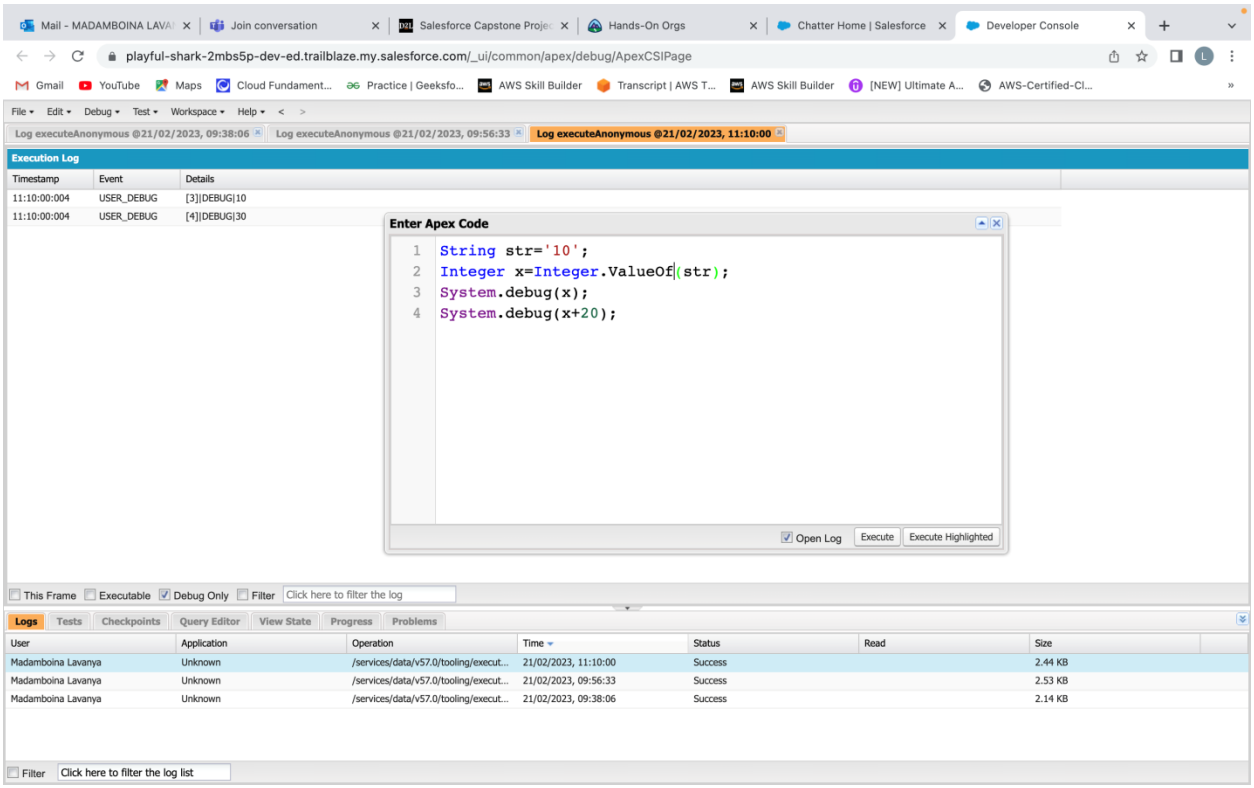
String Variable using ends With() method



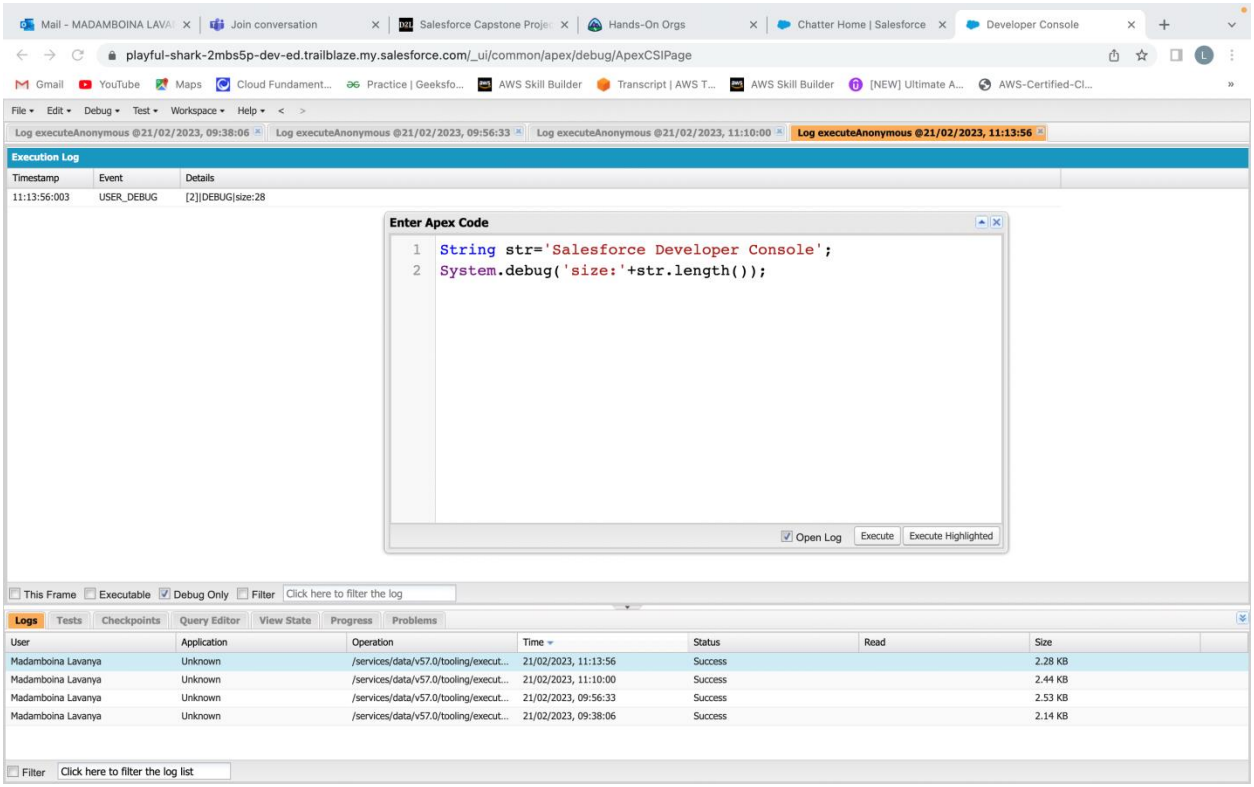
Used Date Method and displayed the date



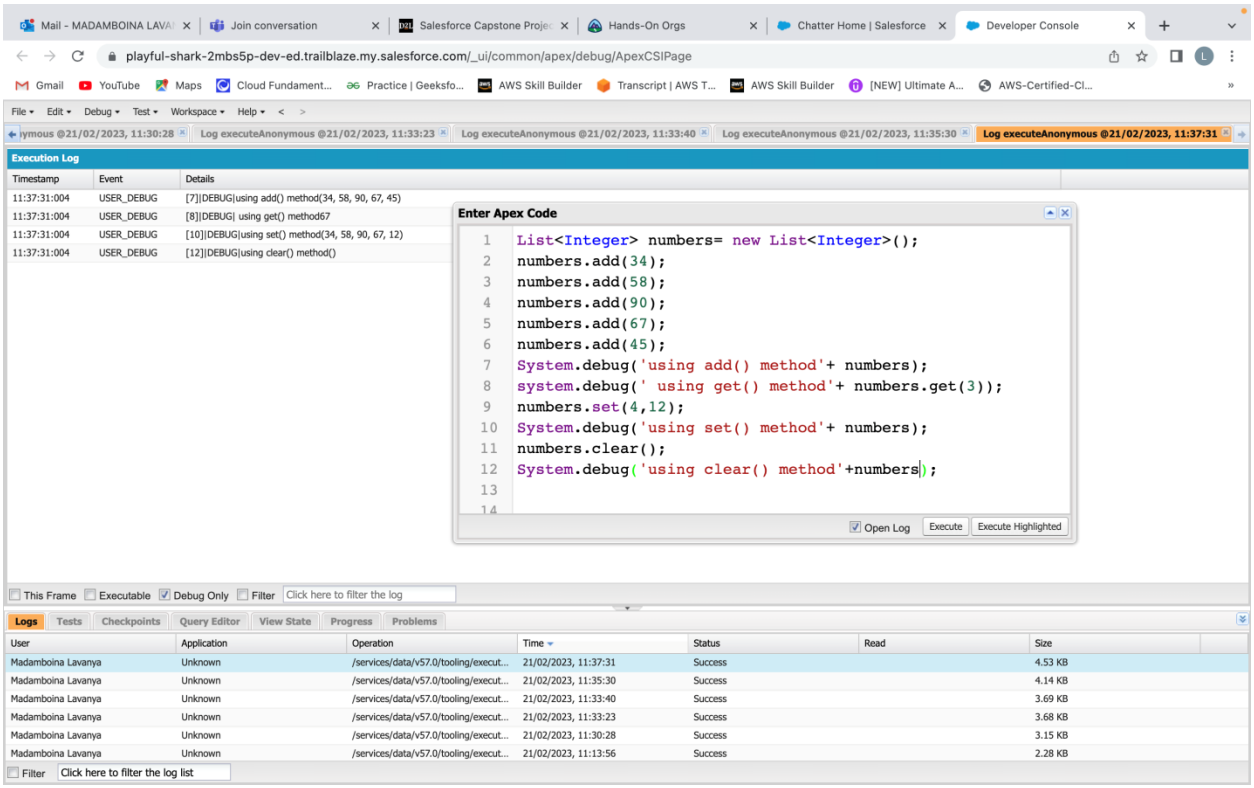
Converted the String to Integer and added 20 to it



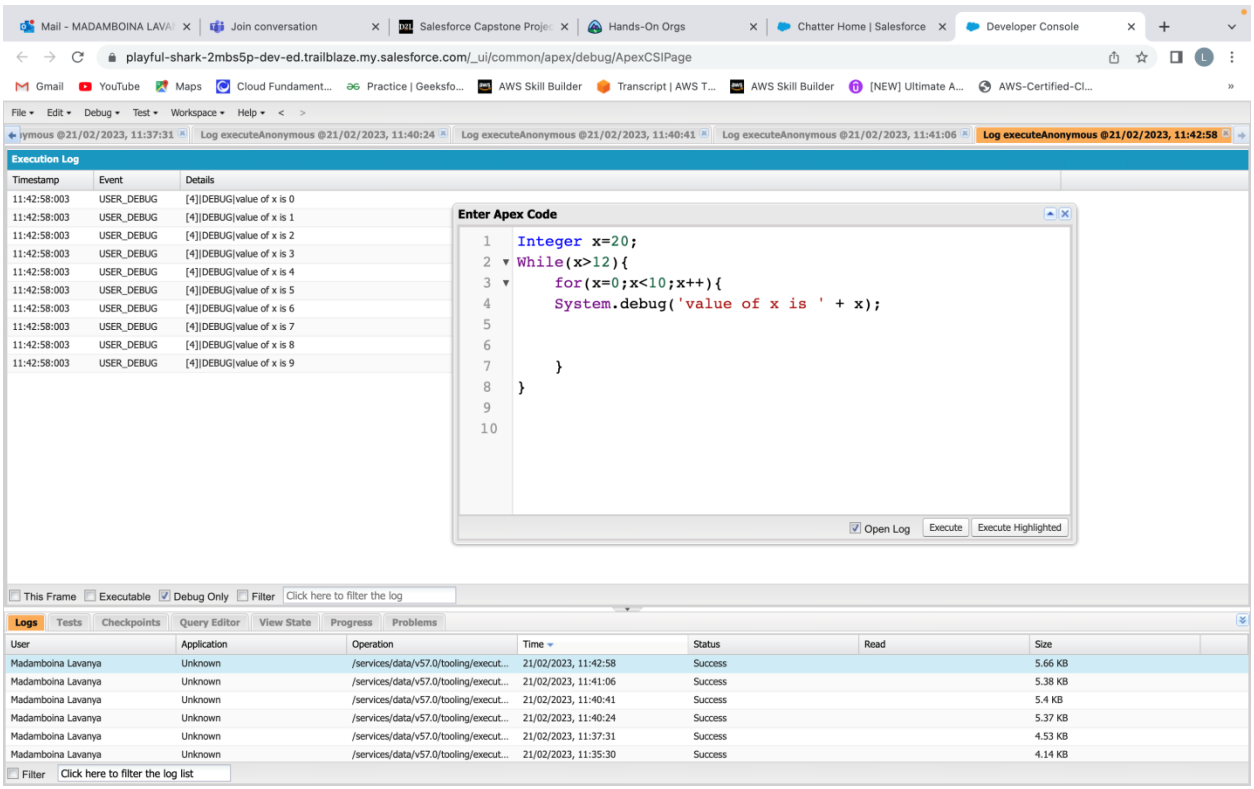
Used Length method to display String length



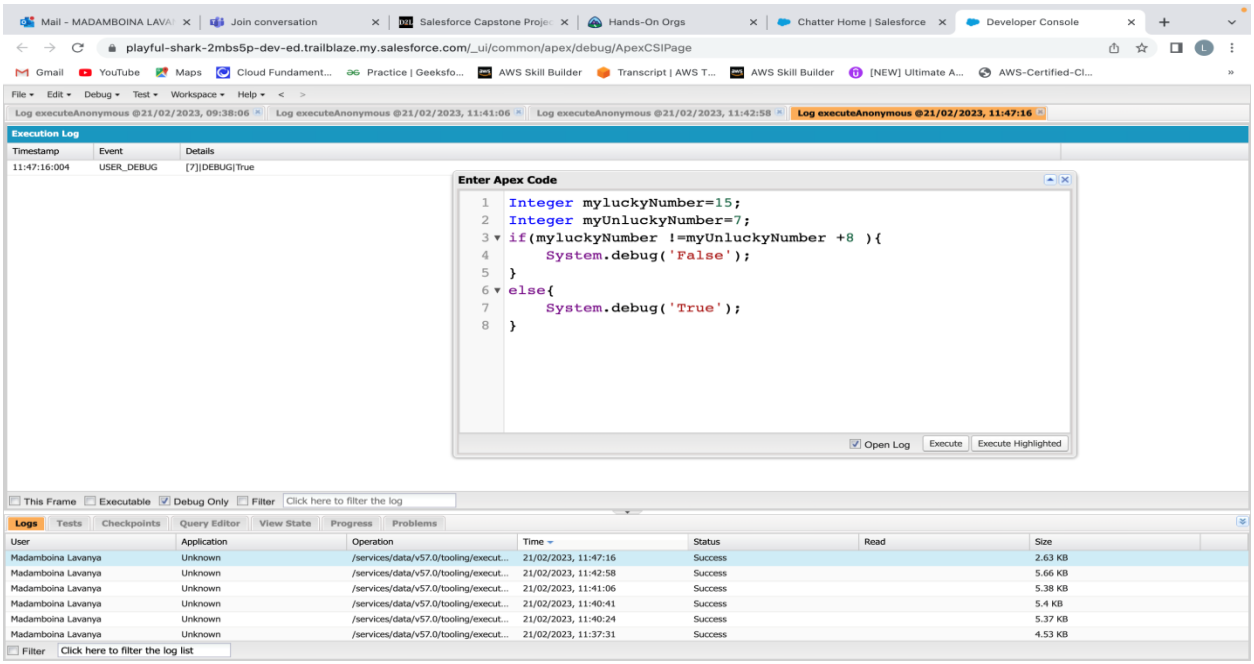
Defined a list and displayed the outputs using different methods



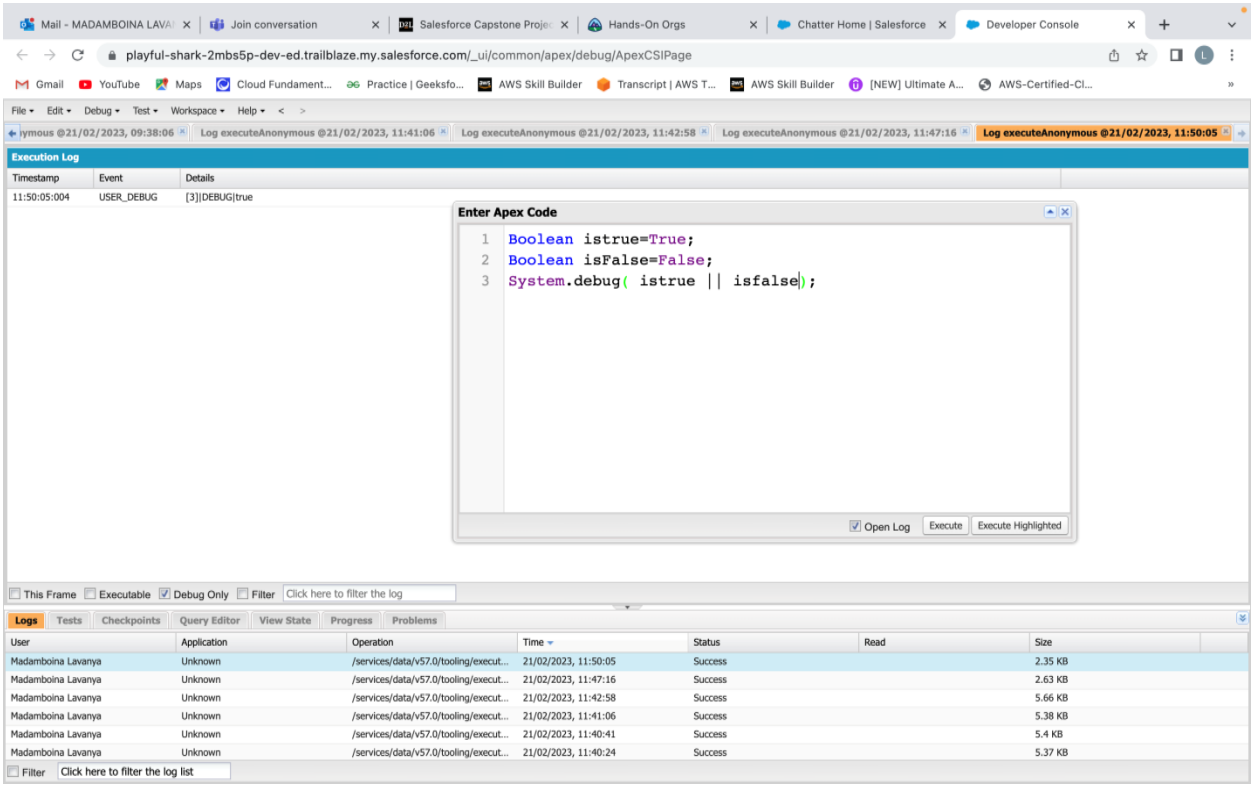
Printed numbers between 0 to 9



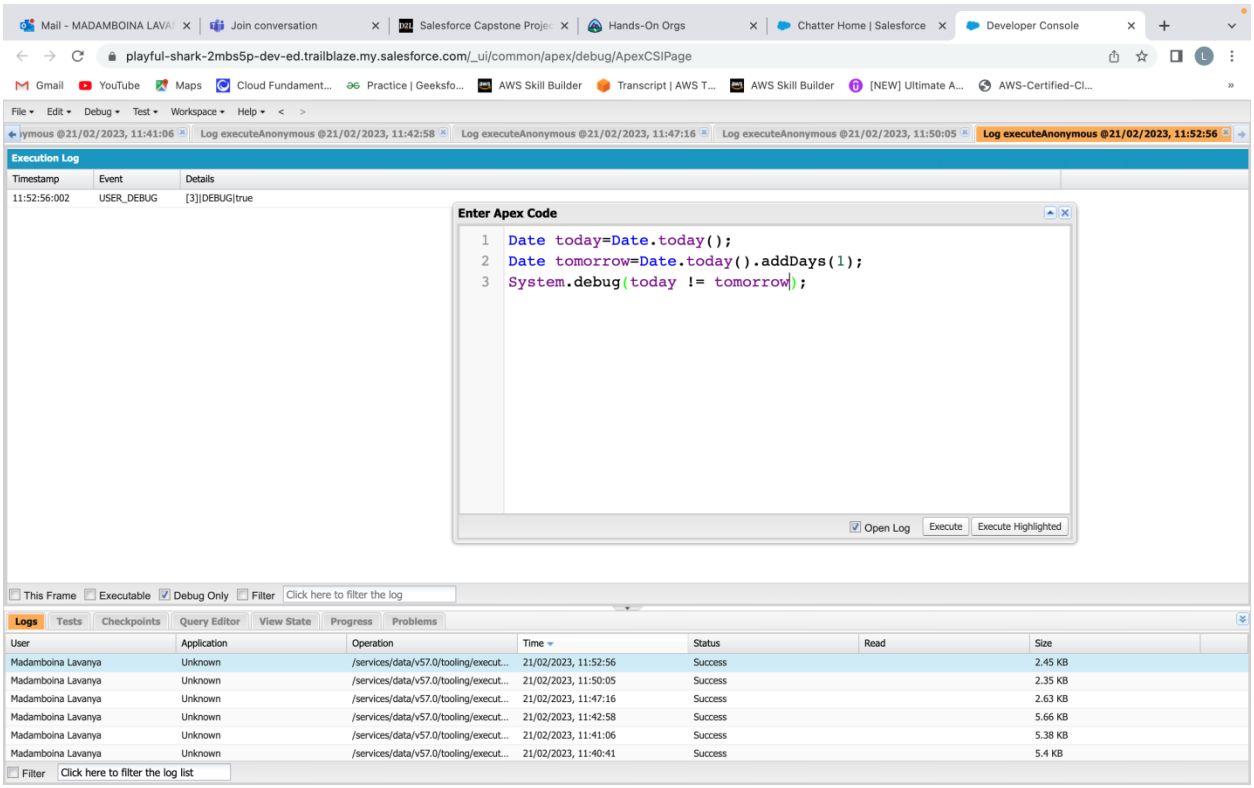
Exercise 3



Exercise 4

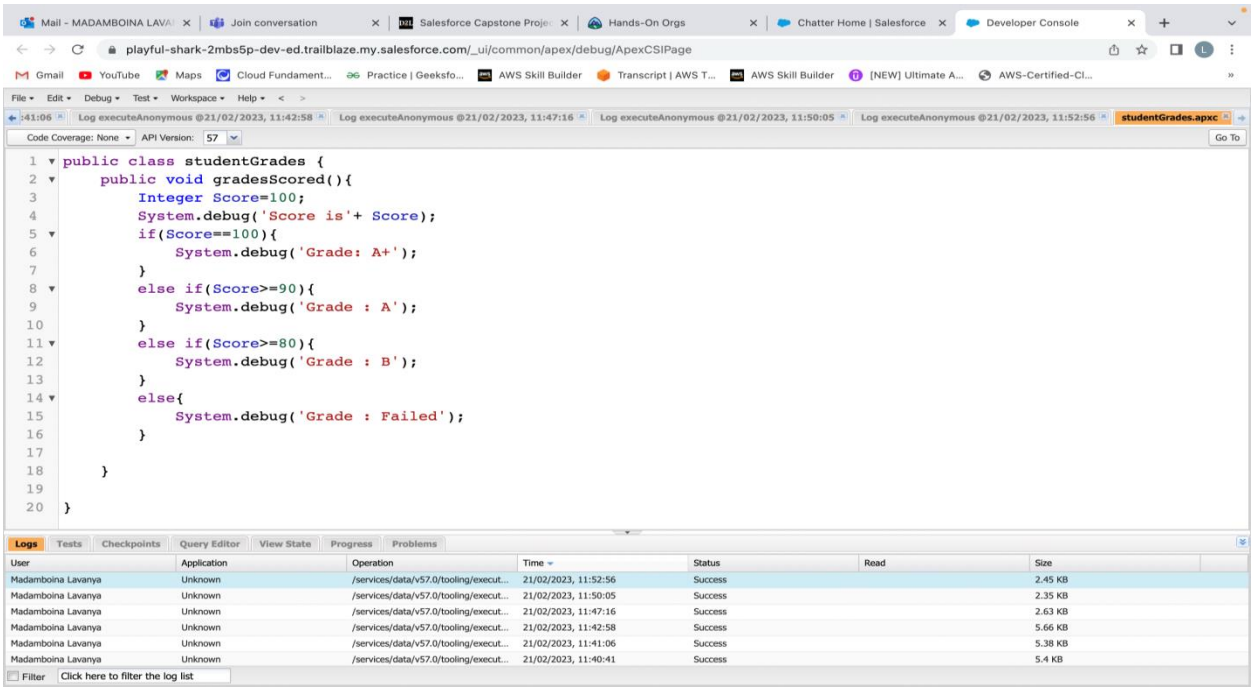


Exercise 5

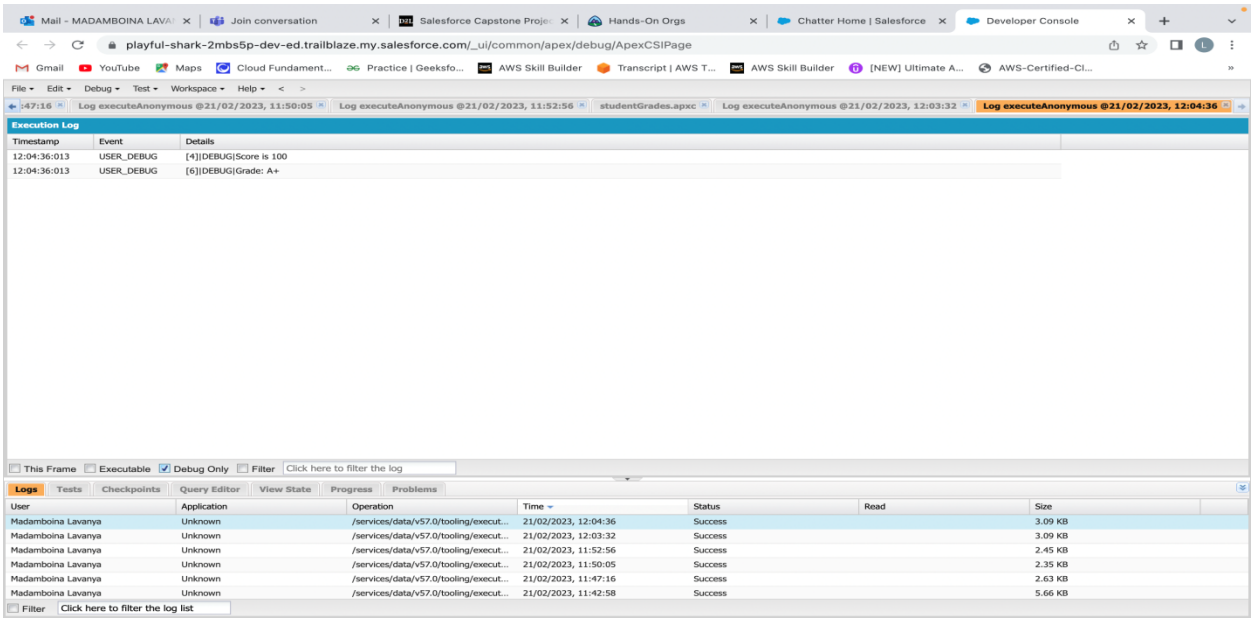


Exercise 6

Program for finding the Grade based on Score

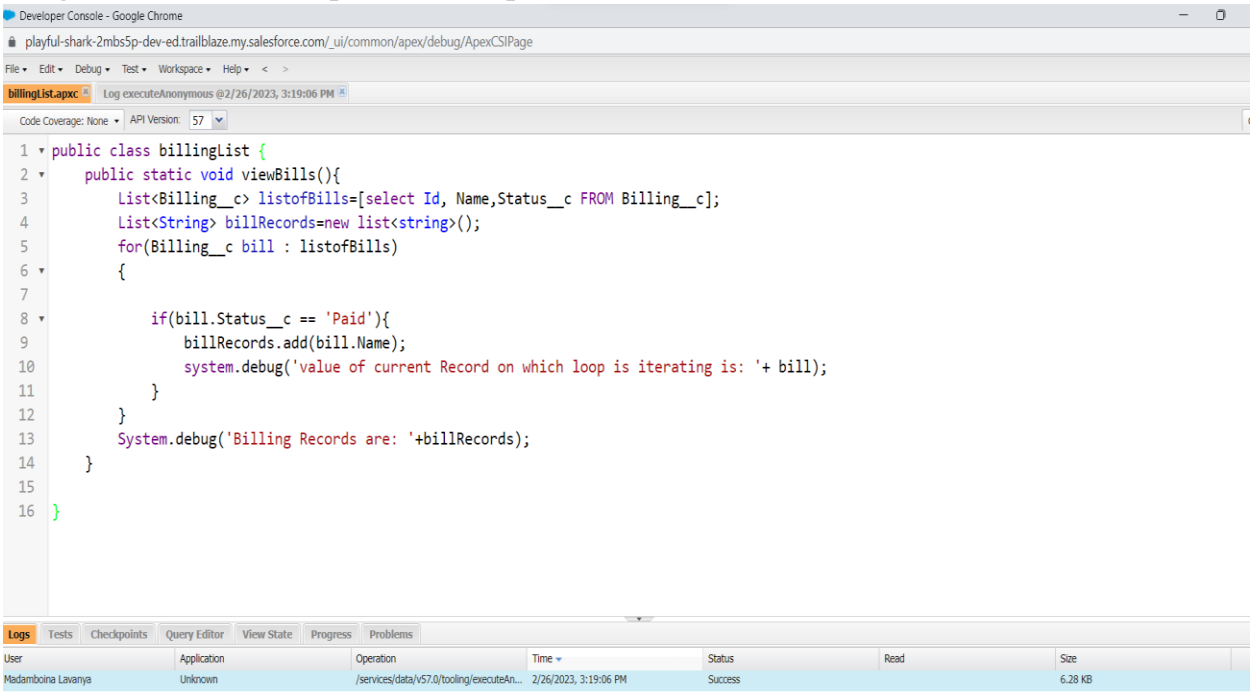


Output

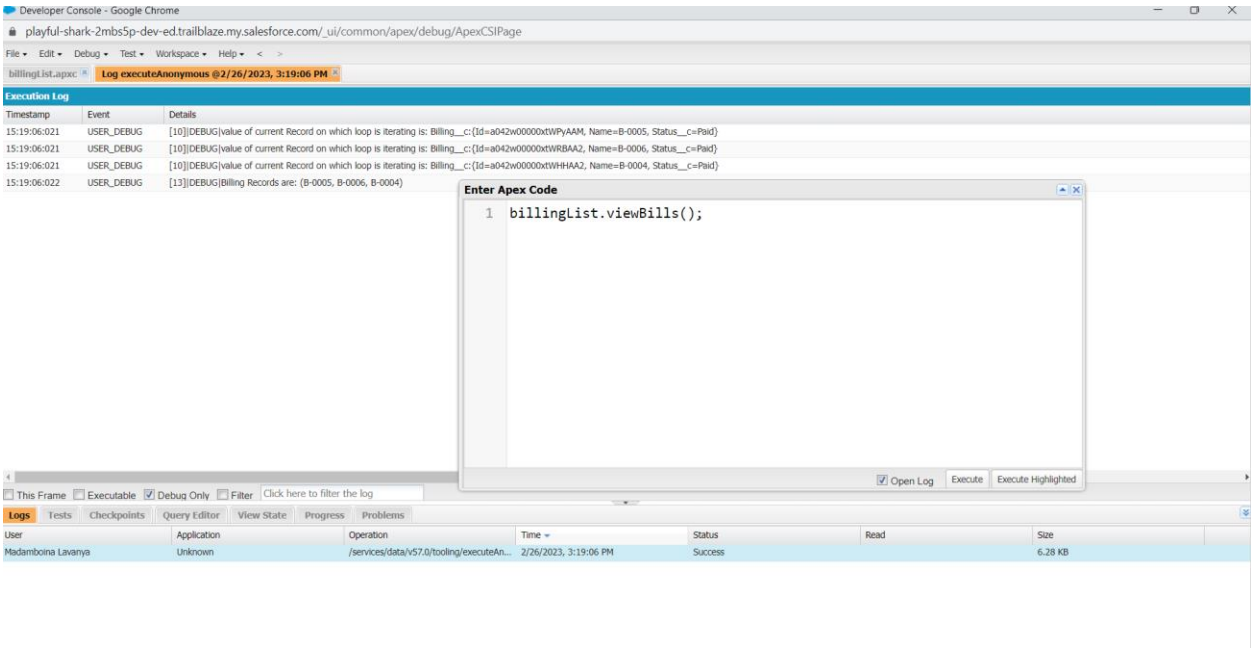


Exercise 7

Program to execute Apex- for loop

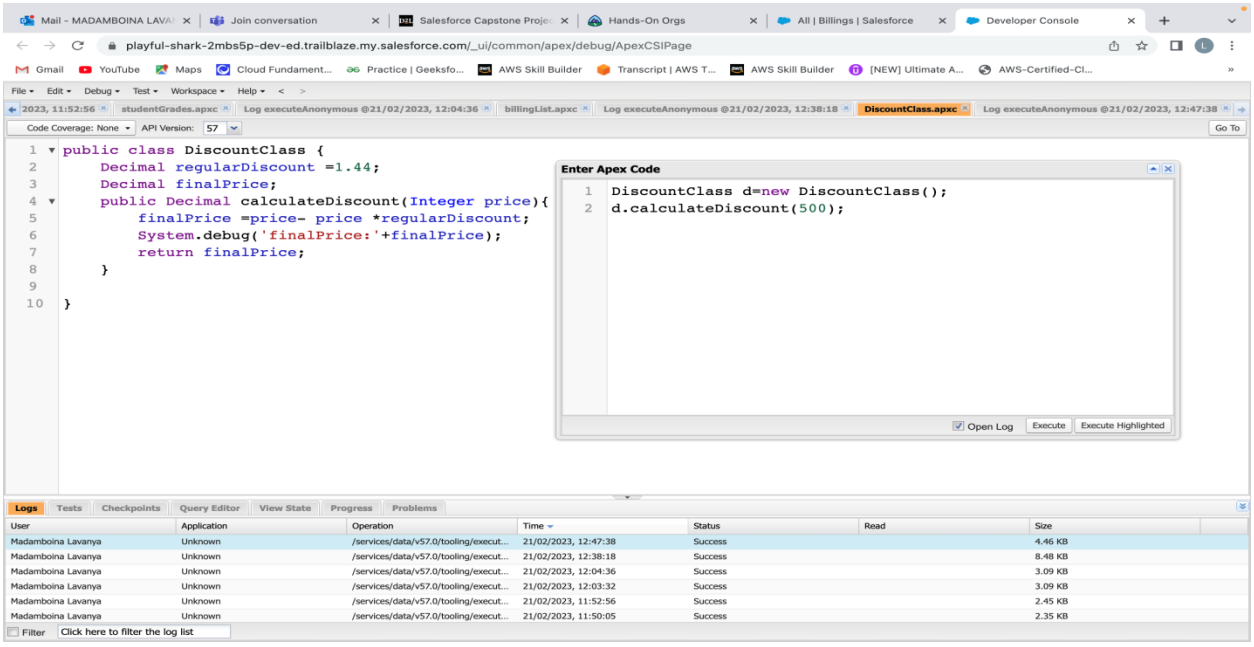


Output

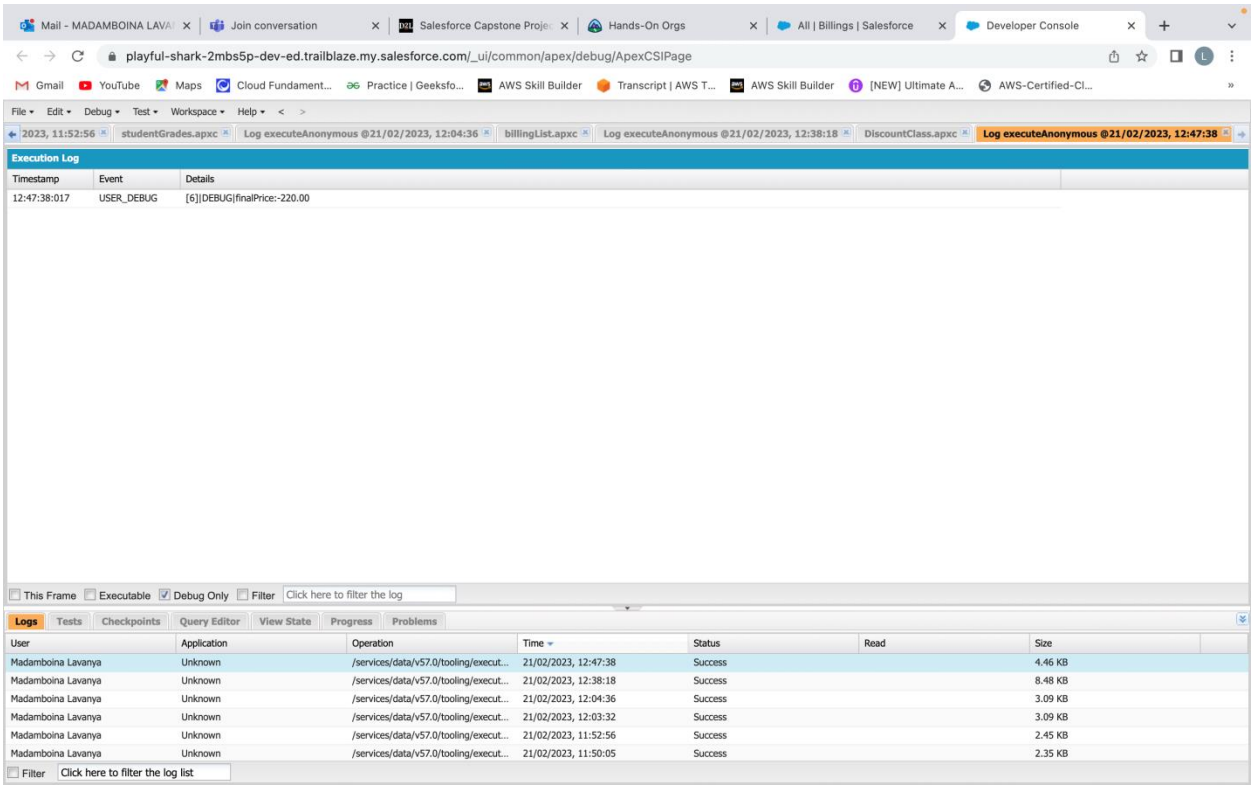


Exercise 8

Created a class to demonstrate constants in Apex

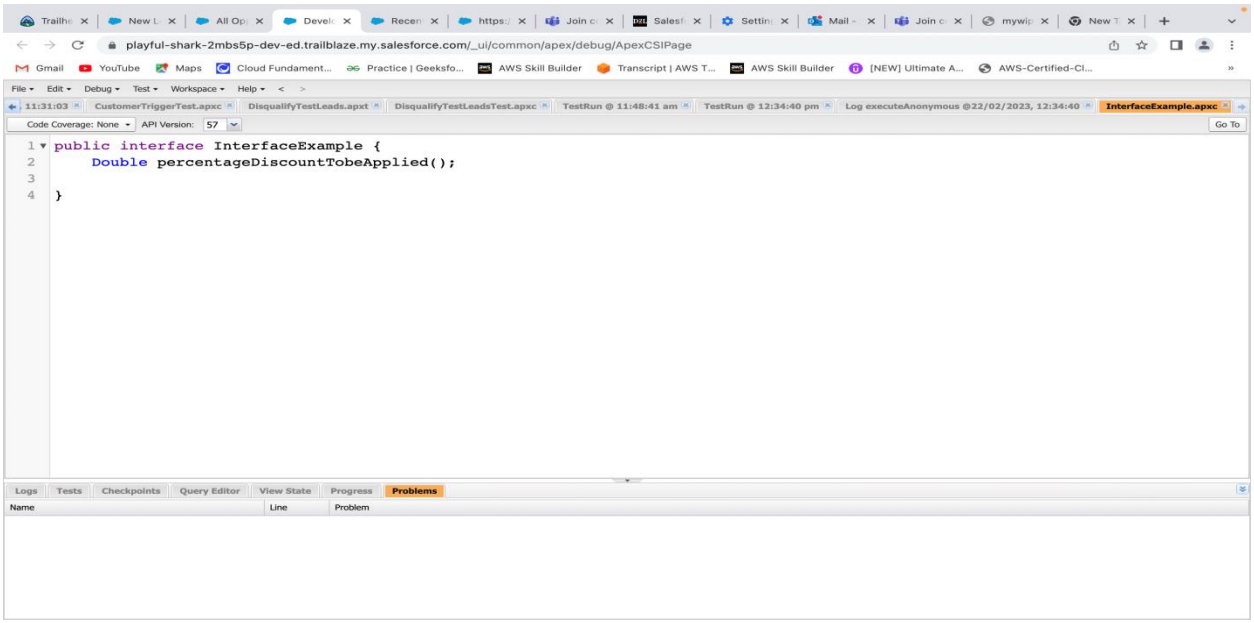


Output



Exercise 9

Write a class to demo the use of interface in Apex



playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

```apex
public class PremiumCustomer implements InterfaceExample {
    public Double percentageDiscountTobeApplied(){
        return 0.30;
    }

}
```

Enter Apex Code

```apex
PremiumCustomer x= new PremiumCustomer();
Double y=x.percentageDiscountTobeApplied();
System.debug(y);
```

User	Application	Operation	Time	Status	Read	Size
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:56:52	Success		3.86 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:47:38	Success		4.46 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:38:18	Success		8.48 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:04:36	Success		3.09 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:03:32	Success		3.09 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:52:56	Success		2.45 KB

playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

Execution Log

Timestamp	Event	Details
12:56:52:020	USER_DEBUG	[3]|DEBUG|0.3

User	Application	Operation	Time	Status	Read	Size
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:56:52	Success		3.86 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:47:38	Success		4.46 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:38:18	Success		8.48 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:04:36	Success		3.09 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:03:32	Success		3.09 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 11:52:56	Success		2.45 KB

playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

```
public class NormalCustomer implements InterfaceExample {
    public Double percentageDiscountTobeApplied(){
        return 0.10;
    }

}
```

User	Application	Operation	Time	Status	Read	Size
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:59:08	Success		3.85 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:56:52	Success		3.86 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:47:38	Success		4.46 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:38:18	Success		8.48 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:04:36	Success		3.09 KB
Madamboina Lavanya	Unknown	/services/data/v57.0/tooling/execut...	21/02/2023, 12:03:32	Success		3.09 KB

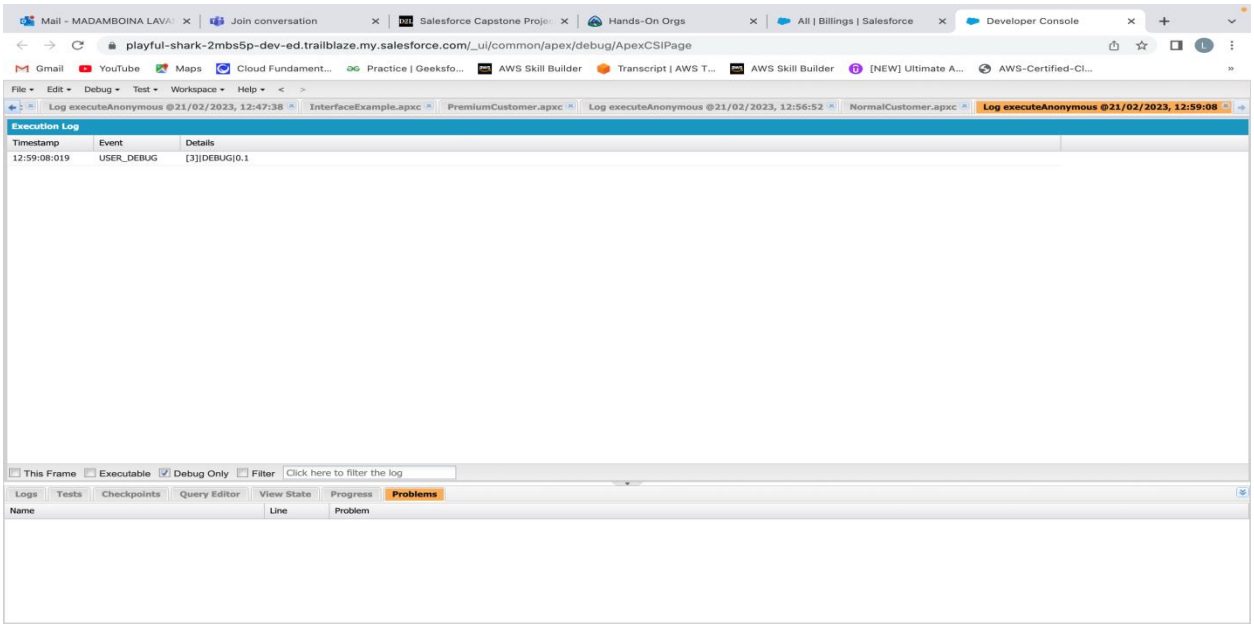
playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

```
public class NormalCustomer implements InterfaceExample {
    public Double percentageDiscountTobeApplied(){
        return 0.10;
    }

}
```

Enter Apex Code

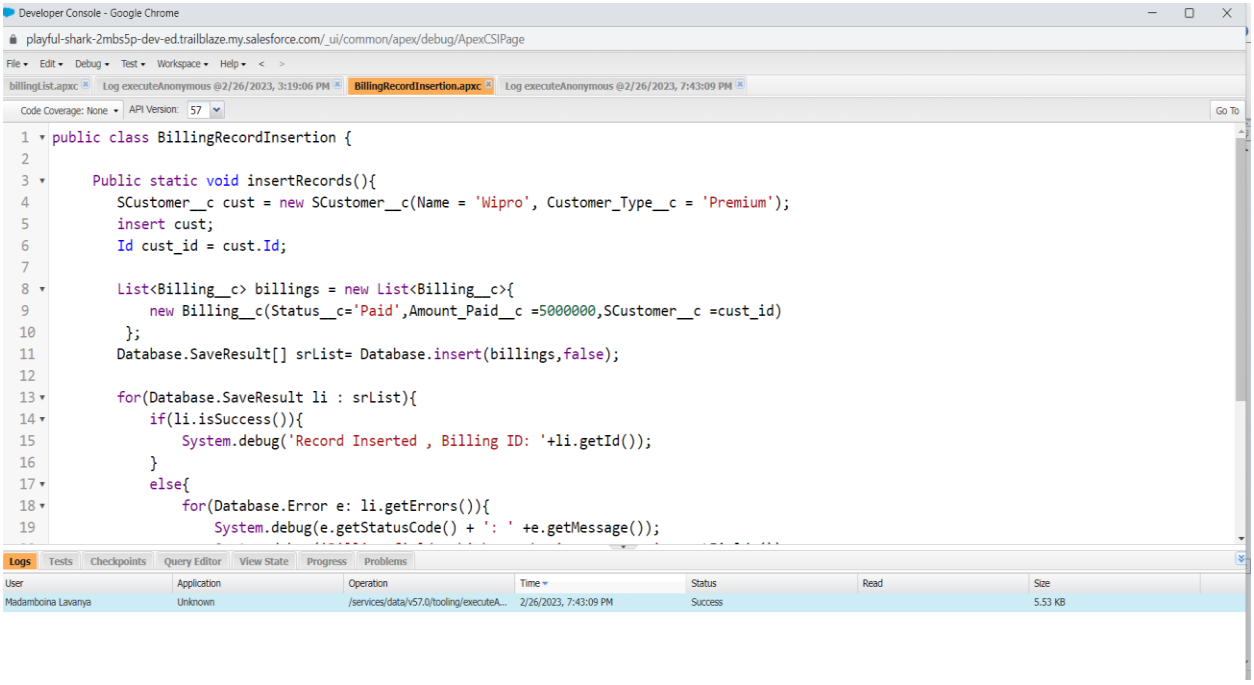
```
NormalCustomer x= new NormalCustomer();
Double y=x.percentageDiscountTobeApplied();
System.debug(y);
```

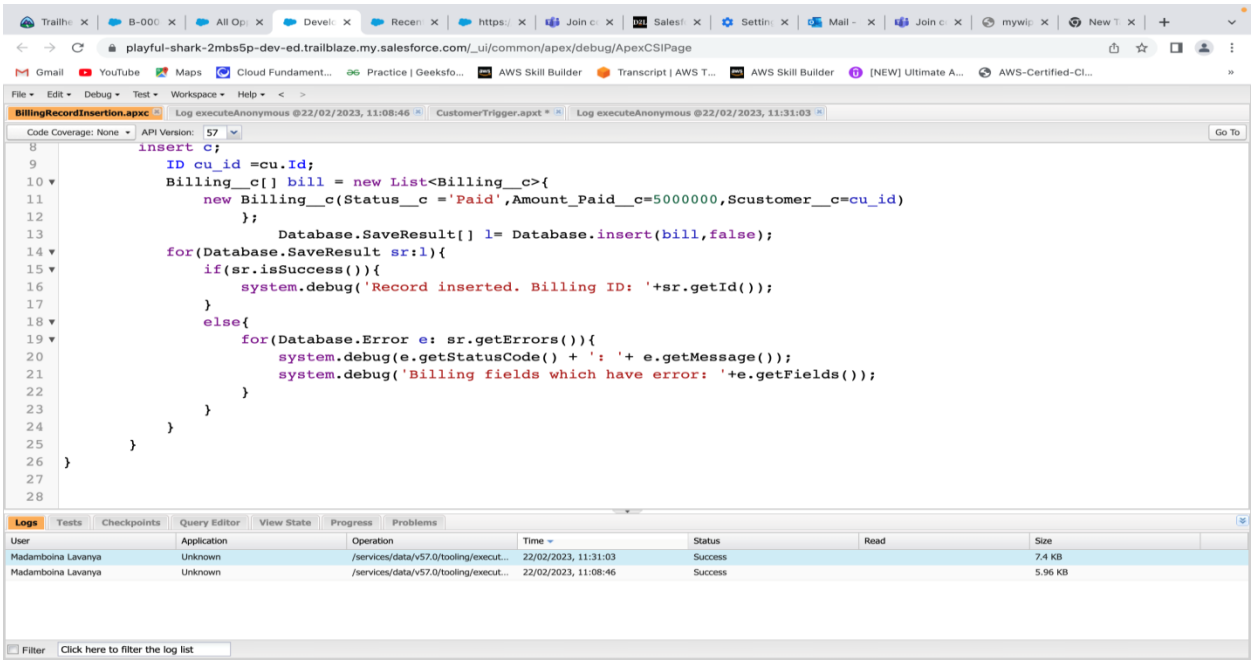


Exercise 10

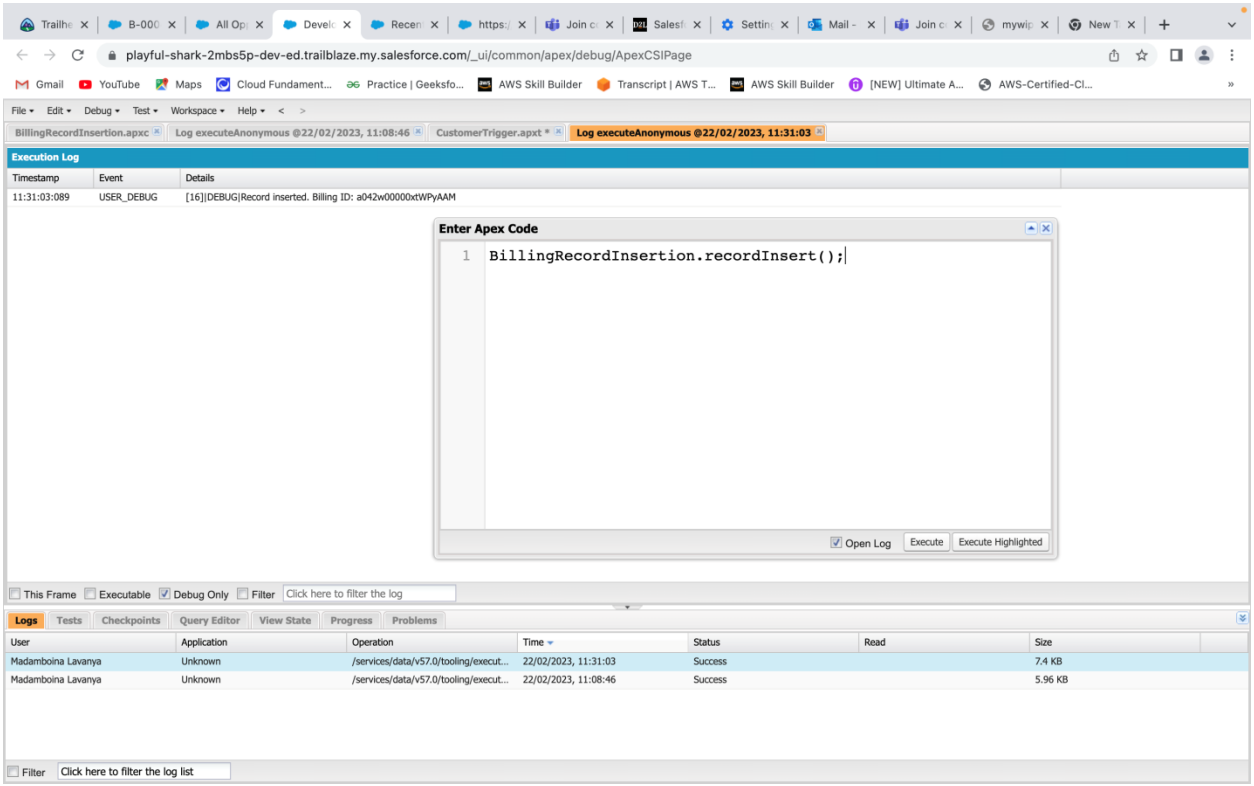
Demo on DML Insert Operation Using Database methods

Insert a Customer Record First using simple DML Statement



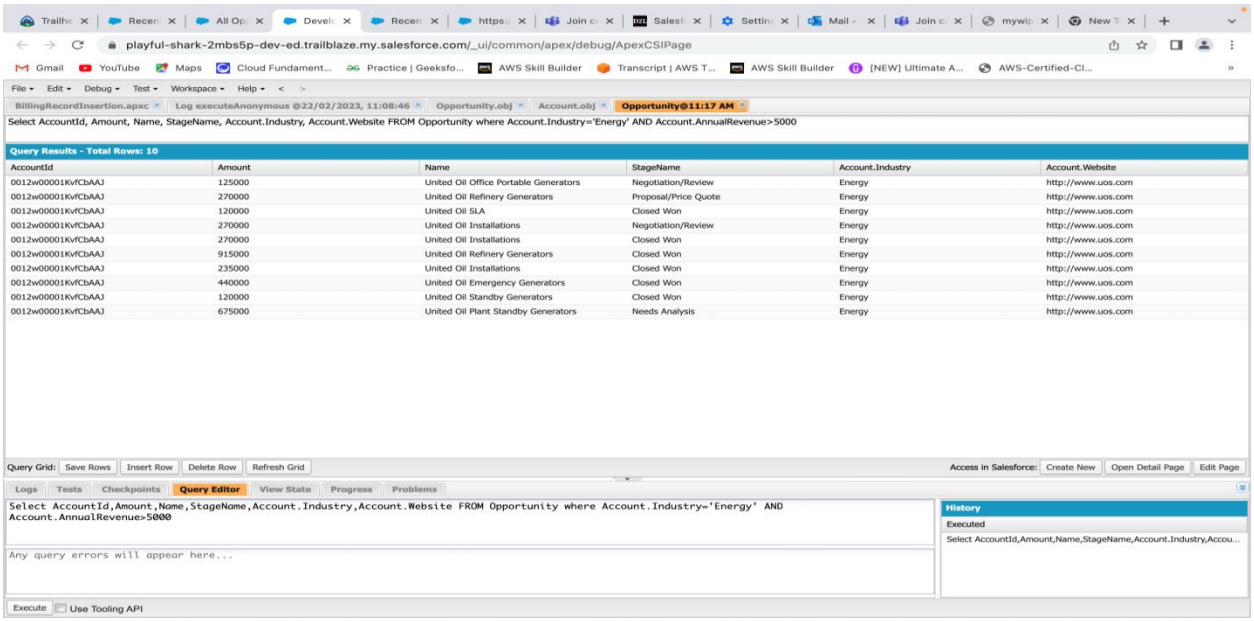

playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
BillingRecordInsertion.apxc
Log executeAnonymous @22/02/2023, 11:08:46
CustomerTrigger.apxt *
Log executeAnonymous @22/02/2023, 11:31:03
Code Coverage: None
API Version: 57
Go To
insert c;
ID cu_id =cu.Id;
Billing__c[] bill = new List<Billing__c>{
new Billing__c(Status__c ='Paid',Amount_Paid__c=5000000,Scustomer__c=cu_id)
};
Database.SaveResult[] l= Database.insert(bill,false);
for(Database.SaveResult sr:l){
if(sr.isSuccess()){
system.debug('Record inserted. Billing ID: '+sr.getId());
}
else{
for(Database.Error e: sr.getErrors()){
system.debug(e.getStatusCode() + ': '+ e.getMessage());
system.debug('Billing fields which have error: '+e.getFields());
}
}
}
}
}
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems
User
Application
Operation
Time
Status
Read
Size
Madamboina Lavanya
Unknown
/services/data/v57.0/tooling/execut...
22/02/2023, 11:31:03
Success
7.4 KB
Madamboina Lavanya
Unknown
/services/data/v57.0/tooling/execut...
22/02/2023, 11:08:46
Success
5.96 KB
Filter
Click here to filter the log list

Output


playful-shark-2mbs5p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
BillingRecordInsertion.apxc
Log executeAnonymous @22/02/2023, 11:08:46
CustomerTrigger.apxt *
Log executeAnonymous @22/02/2023, 11:31:03
Execution Log
Timestamp
Event
Details
11:31:03:089
USER_DEBUG
[16]|DEBUG|Record inserted. Billing ID: a042w00000xtWPyAAM
Enter Apex Code
BillingRecordInsertion.recordInsert();
Open Log
Execute
Execute Highlighted
This Frame
Executable
Debug Only
Filter
Click here to filter the log
Logs
Tests
Checkpoints
Query Editor
View State
Progress
Problems
User
Application
Operation
Time
Status
Read
Size
Madamboina Lavanya
Unknown
/services/data/v57.0/tooling/execut...
22/02/2023, 11:31:03
Success
7.4 KB
Madamboina Lavanya
Unknown
/services/data/v57.0/tooling/execut...
22/02/2023, 11:08:46
Success
5.96 KB
Filter
Click here to filter the log list

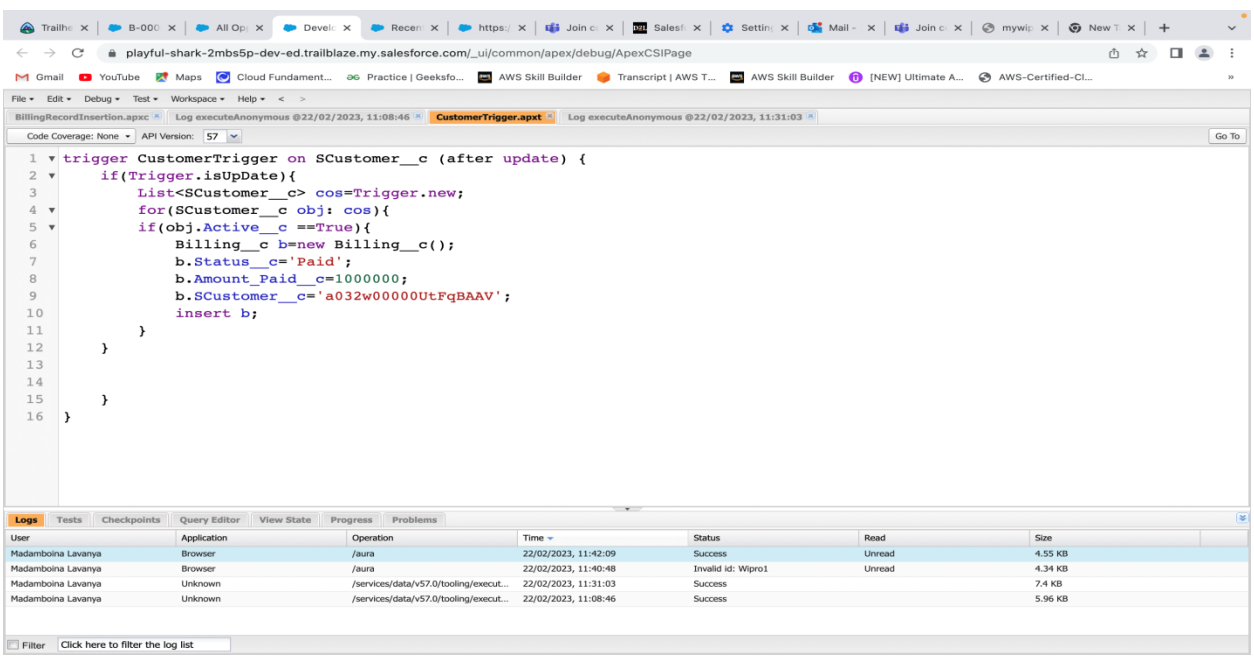
Exercise 11

Displaying Records according to the required conditions

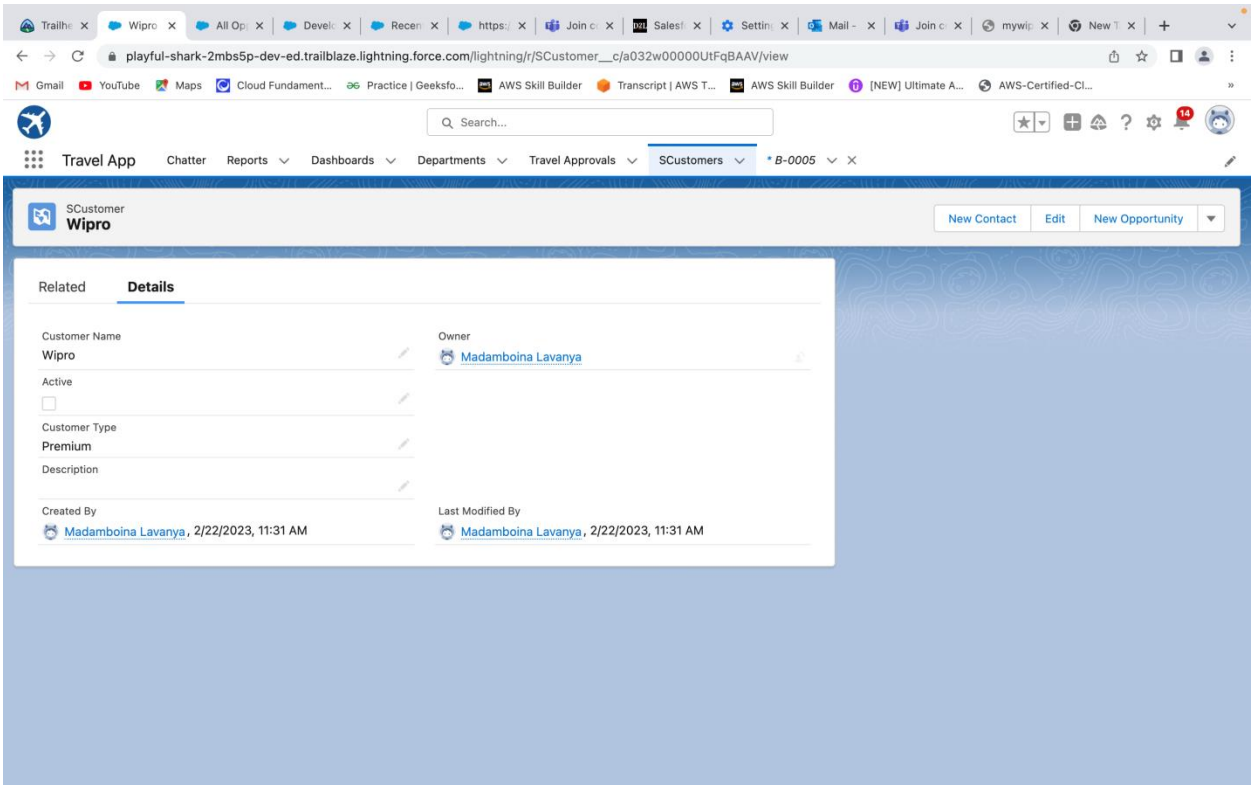


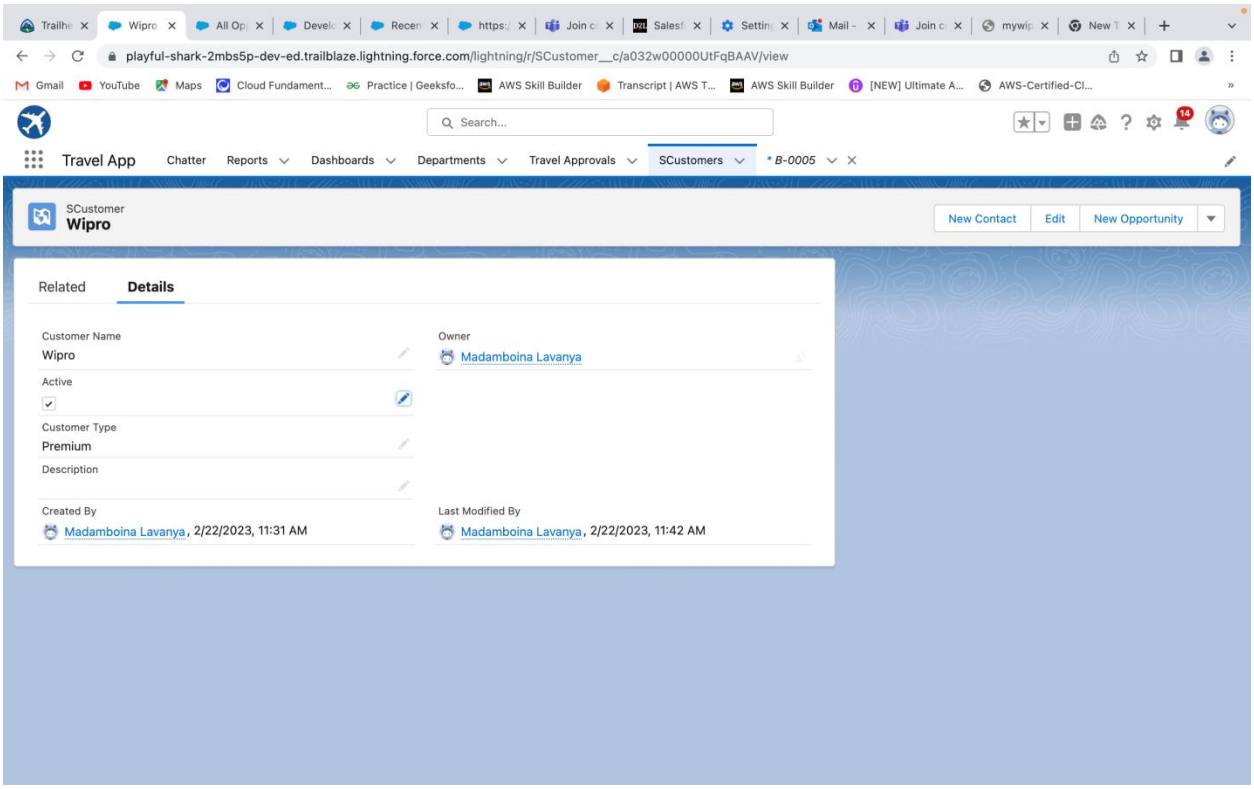
Exercise 12

Created a Trigger for Billing Named CustomerTrigger

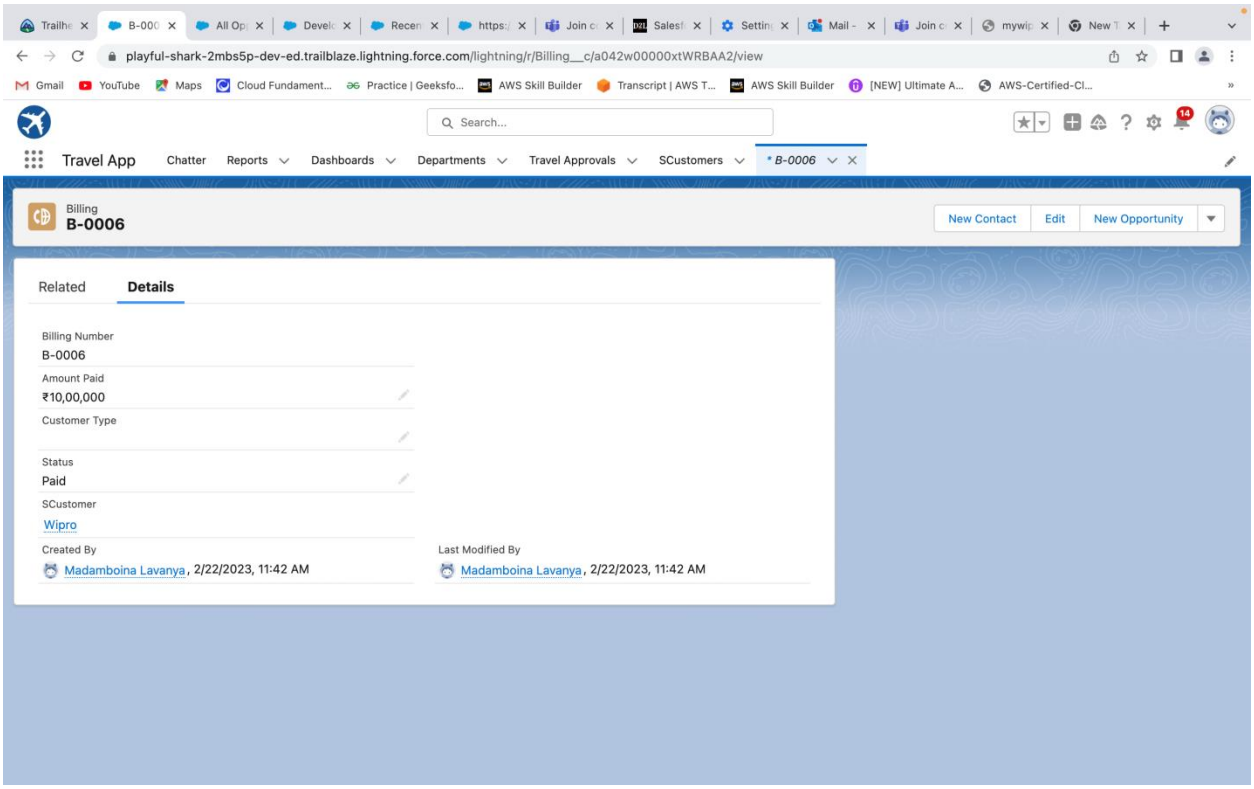


A new record is created when we update record with active is true.



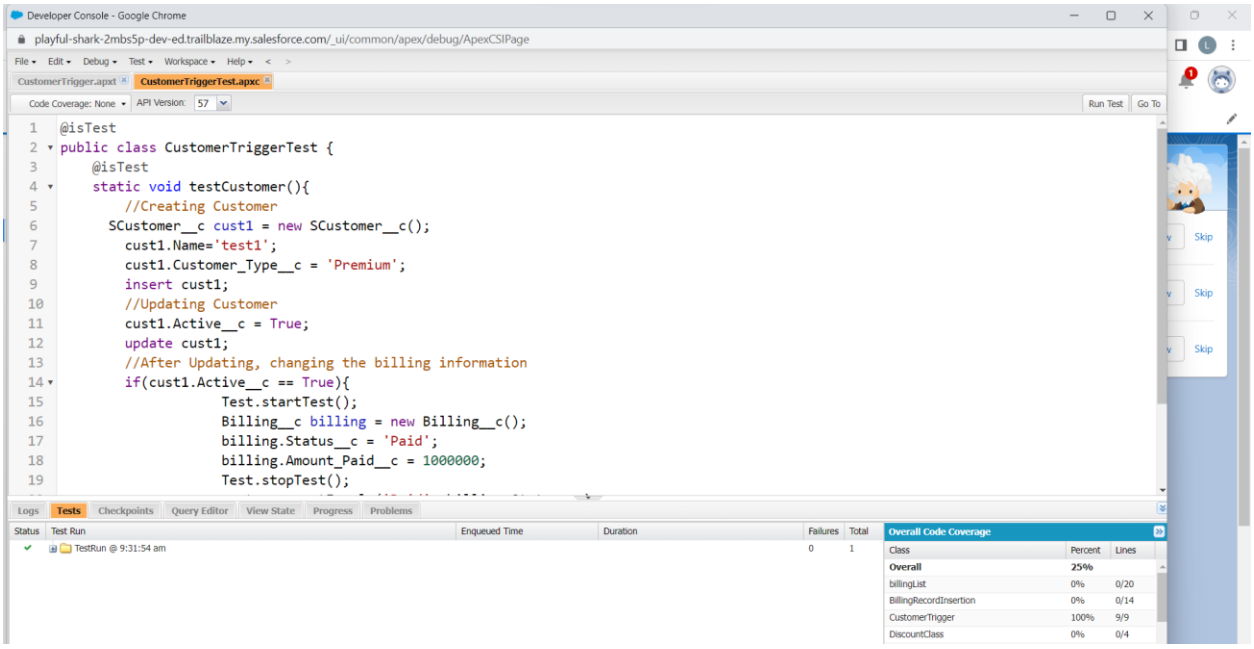


New record Created in Billing Object



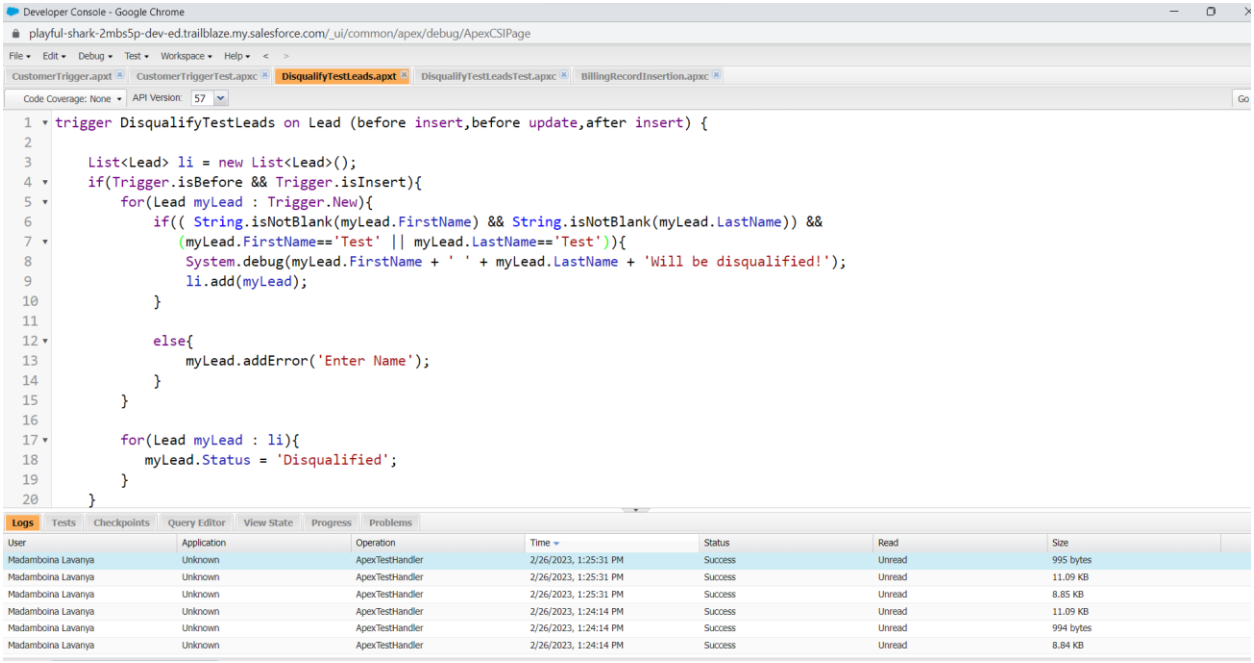
Exercise 13

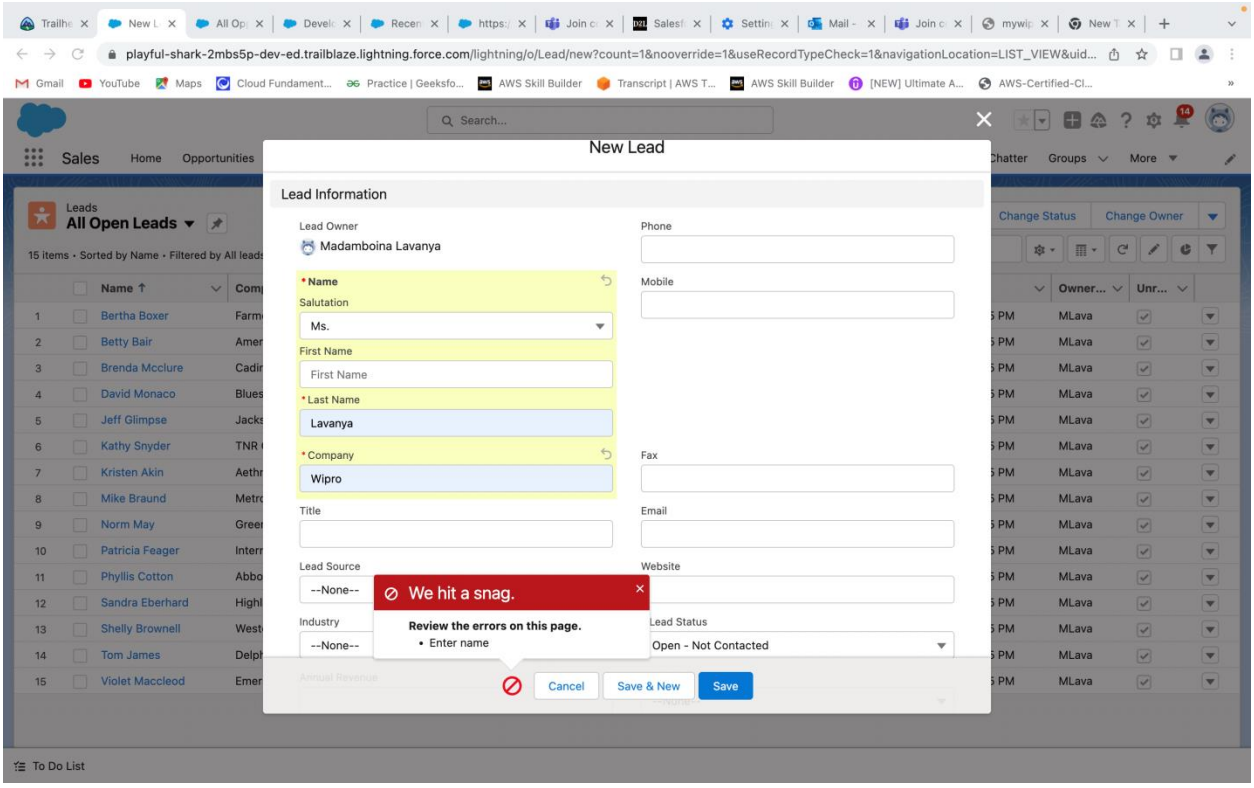
Created a Test class for CustomTrigger



Exercise 14

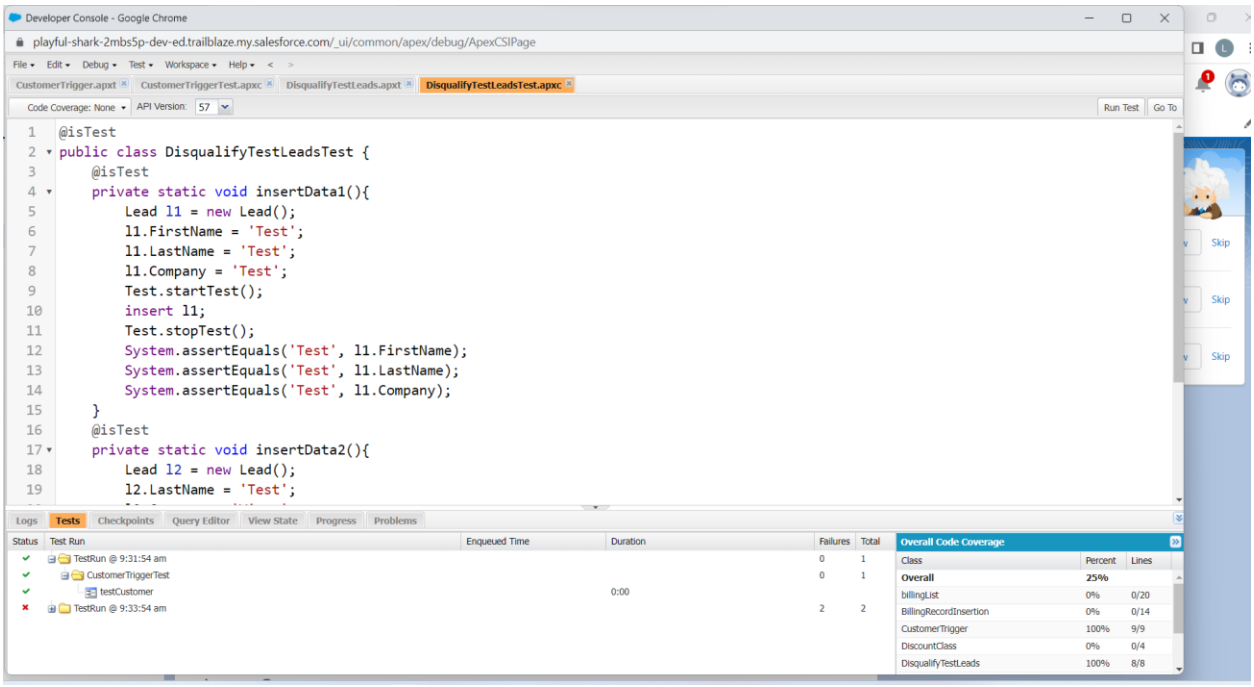
Created a Trigger for Leads Named DisqualifyTestLeads

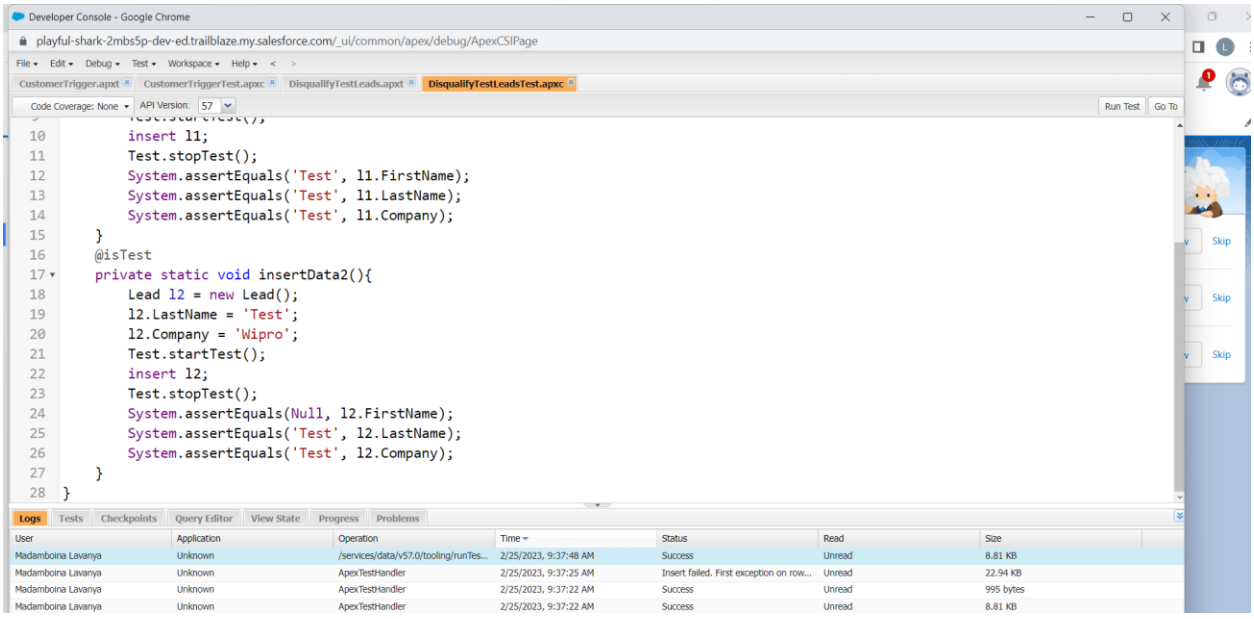




Exercise 15

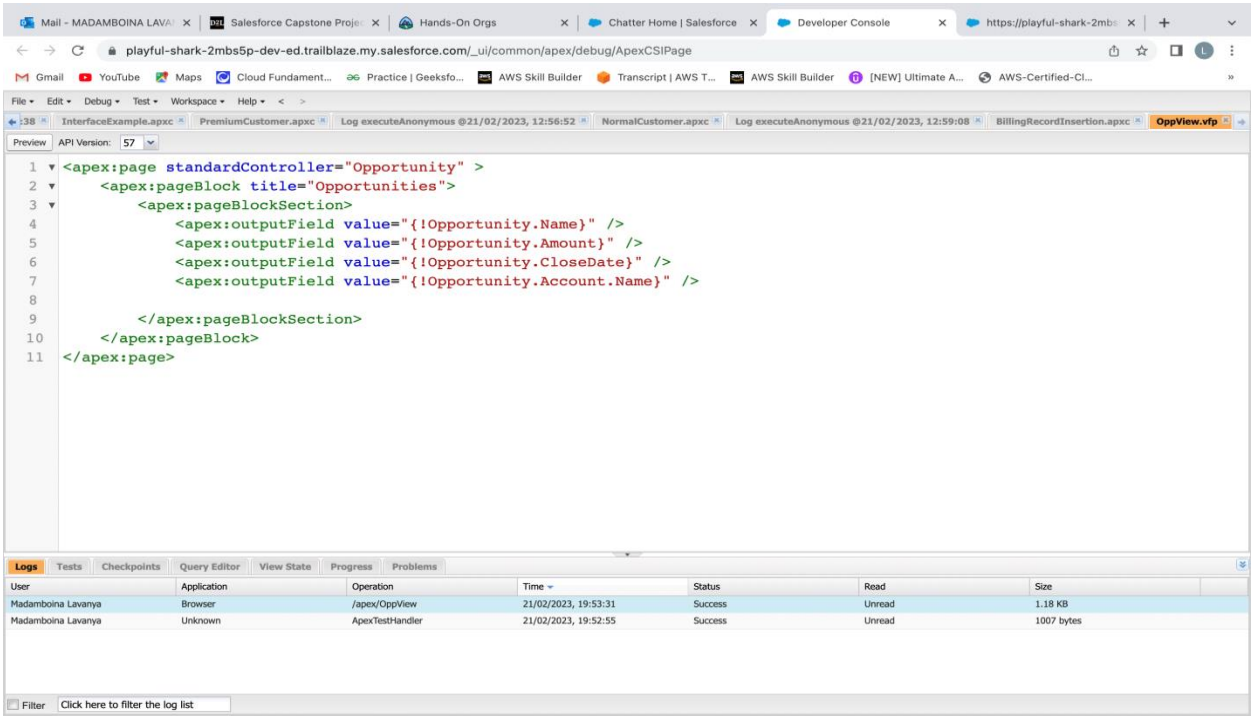
Created a test class for DisqualifyTestLeads trigger

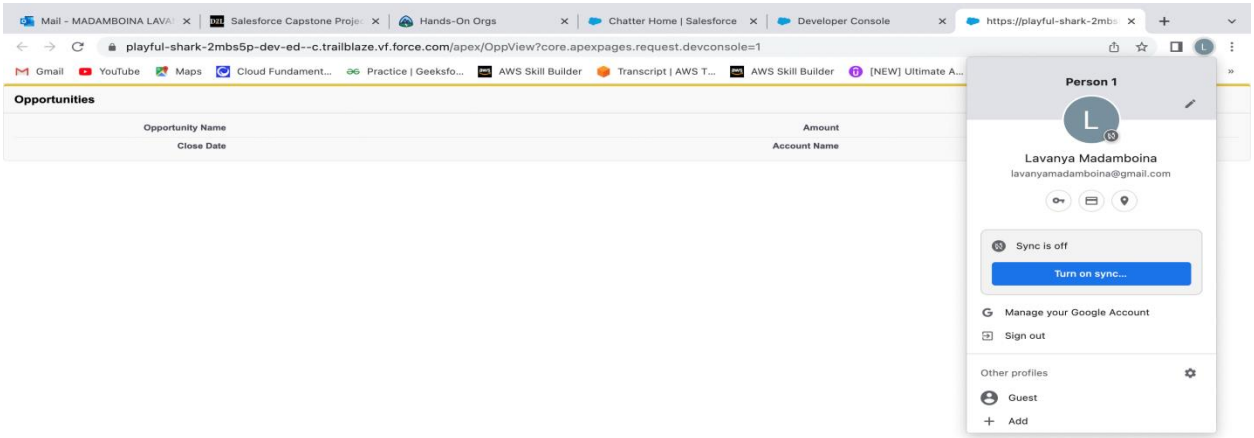




Exercise 16

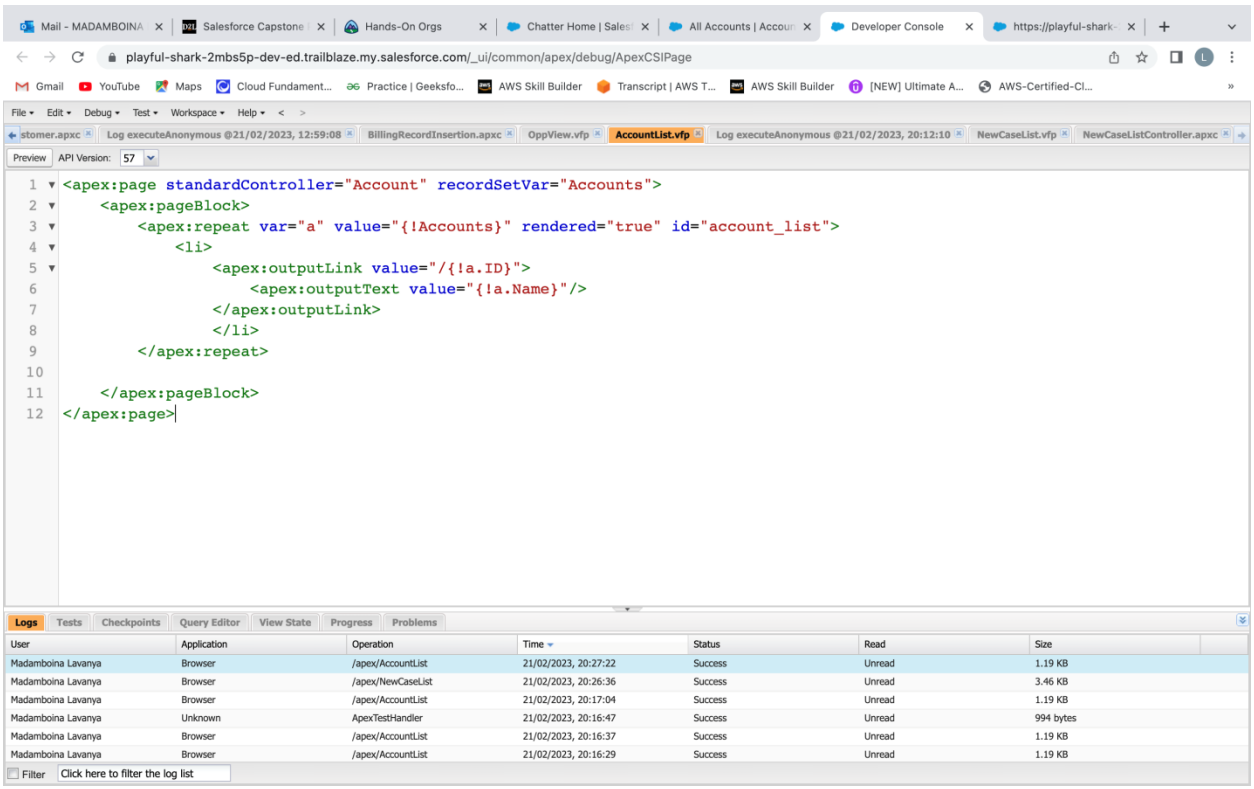
Created a Visualforce Page OppView and displayed Four apex:outputfields

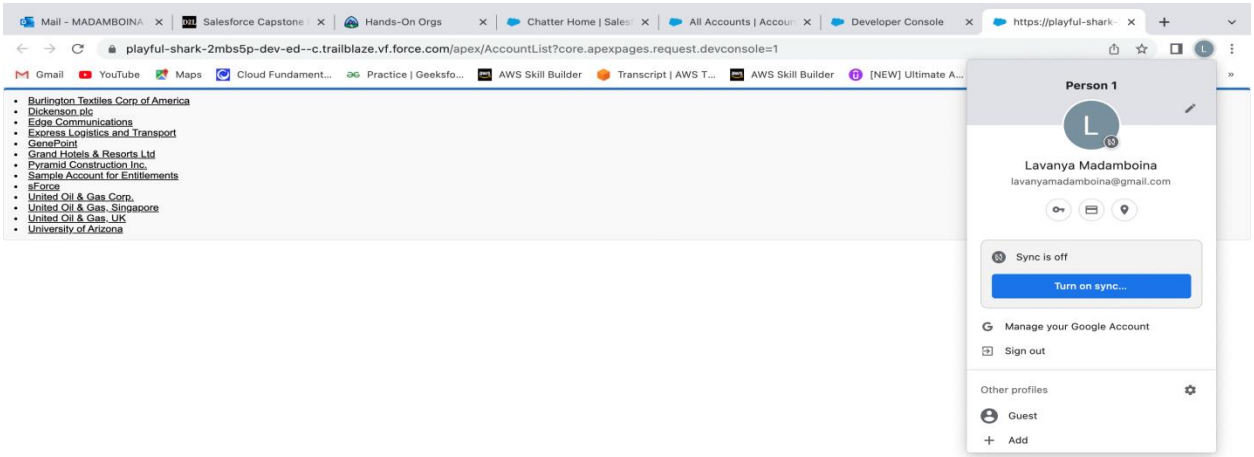




Exercise 17

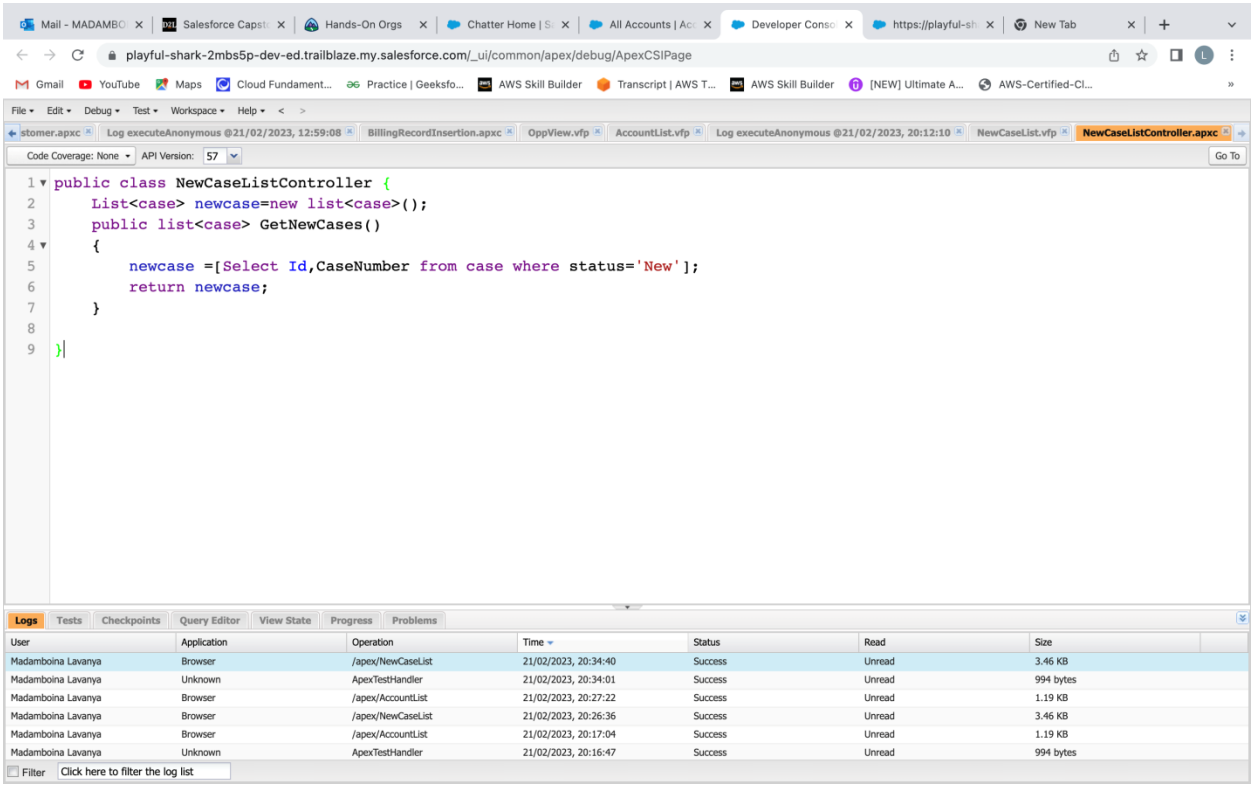
Created a Visualforce page that shows a list of Accounts linked to their record pages

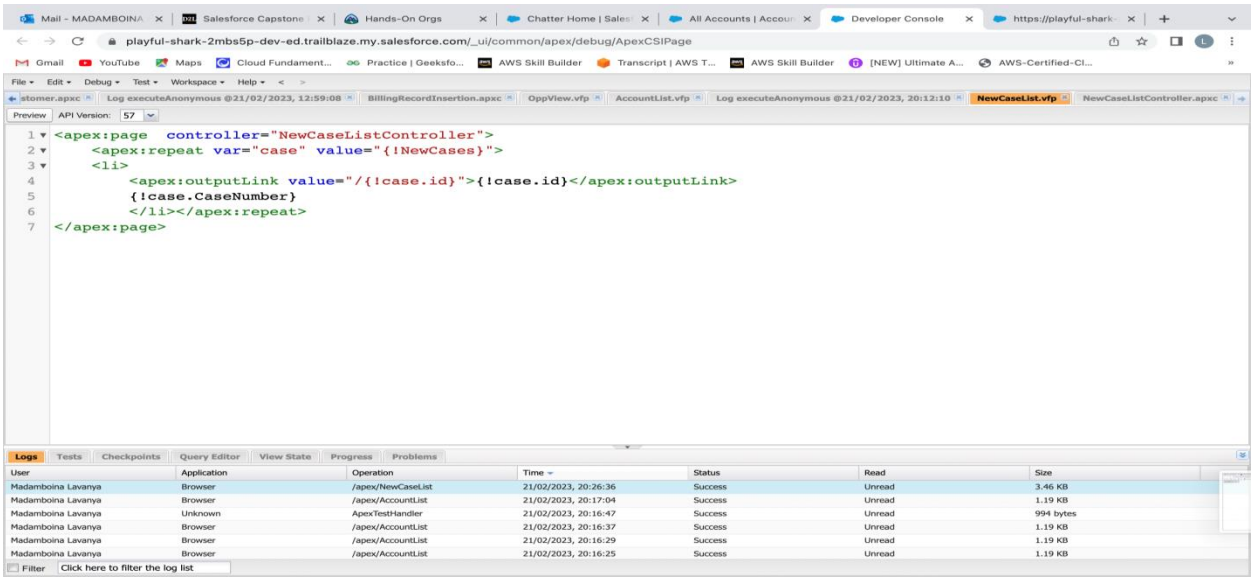


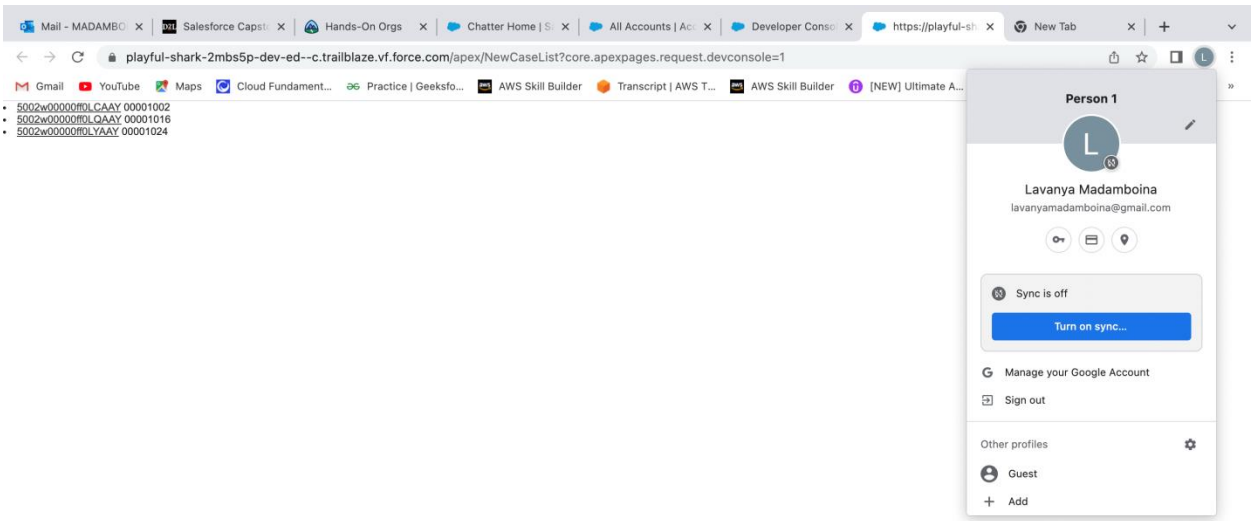


Exercise 18

Created a visual force page that uses an apex class to display a list of cases with status of ‘New’.






Mail - MADAMBO
Salesforce Capst
Hands-On Orgs
Chatter Home | S
All Accounts | Ac
Developer Conso
https://playful-sh
New Tab
playful-shark-2mbs5p-dev-ed--c.trailblaze.vf.force.com/apex/NewCaseList?core.apexpages.request.devconsole=1
Gmail
YouTube
Maps
Cloud Fundament...
Practice | Geeksfo...
AWS Skill Builder
Transcript | AWS T...
AWS Skill Builder
[NEW] Ultimate A...
5002w00000ff0LCAAY 00001002
5002w00000ff0LQAAY 00001016
5002w00000ff0LYAAY 00001024
Person 1
Lavanya Madamboina
lavanyamadamboina@gmail.com
Sync is off
Turn on sync...
Manage your Google Account
Sign out
Other profiles
Guest
Add

REFERENCE

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