



Capstone Project Report On

“TRAVEL APPROVAL APP”

BY:

Name: HEMA KUMAR UNDRAJAVARAPU

Batch WIP-SF-13

LMS Id: MGSA_525

- INTRODUCTION TO SALESFORCE
- INTRODUCTION OF TRAVEL APPROVAL APP
- MODULE 1
- MODULE 2
- MODULE 3
- CONCLUSION



INTRODUCTION TO SALESFORCE

- What is salesforce?
- Why do we use salesforce?
- What does Salesforce do?
- What are the benefits of Salesforce ?
- What is CRM
- What is Cloud Computing



INTRODUCTION OF TRAVEL APPROVAL APP

- The travel approval project in Salesforce is a system designed to automate and streamline the process of requesting and approving travel expenses for employees. The project involves several components, including a custom object to track travel requests, a custom approval process, and various integrations with external systems.
- Overall, the travel approval project in Salesforce provides a streamlined and efficient way for employees to request and manage travel expenses, while also providing managers with the tools they need to ensure that all expenses are approved and accounted for.



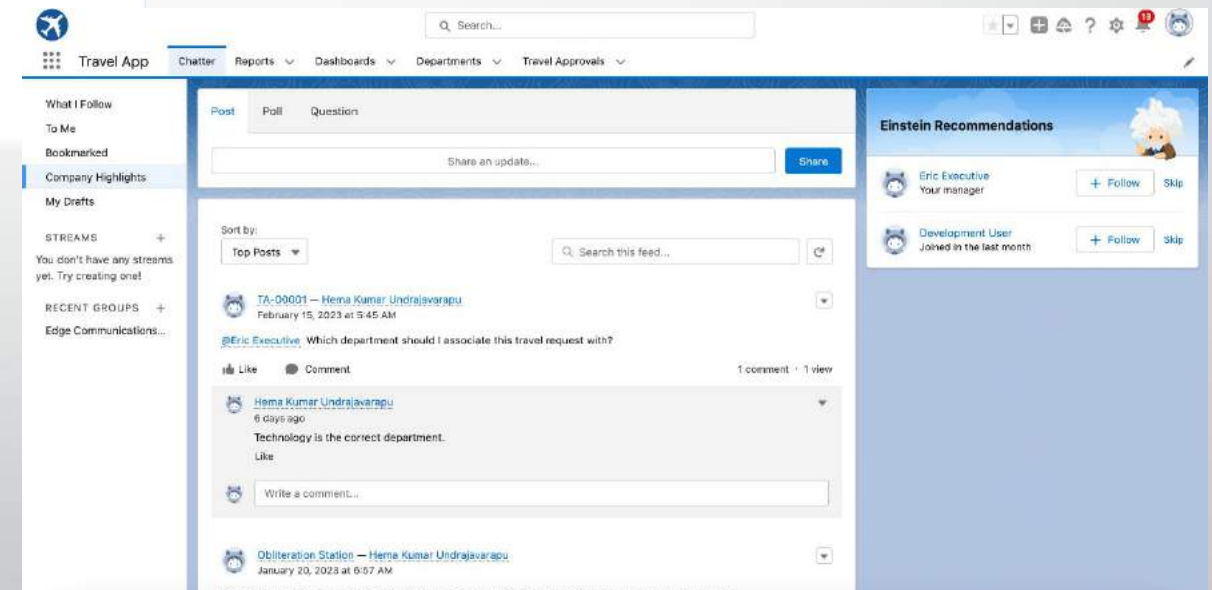
MODULE 1

- This project module focuses on the non-coding approach to modifying the user interface, as you customize an app that tracks company travel.
- Create Custom App, Objects, Fields & Relationships, and how you customize the App using declarative tools.

Module Take Away

Creating Lightning App: TRAVEL APP

The screenshot shows the 'App Details & Branding' configuration page in the Lightning App Builder. The left sidebar contains 'App Settings' with sub-items: 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is divided into two sections: 'App Details' and 'App Branding'. In 'App Details', there are input fields for 'App Name' (containing 'Travel App'), 'Developer Name' (containing 'Travel_App'), and a 'Description' field with the placeholder 'Enter a description...'. In 'App Branding', there is an 'Image' field with a blue airplane icon, a 'Primary Color Hex Value' field with the value '#0070C2', and an 'Org Theme Options' checkbox which is currently unchecked. Below these sections is an 'App Launcher Preview' showing the 'Travel App' icon and name.



Custom object Department and Creating custom fields in Department Object

The screenshot displays the Salesforce Object Manager interface for a custom object named 'Department'. The left sidebar contains a navigation menu with the following items: Details, Fields & Relationships (selected), 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, Triggers, and Flow Triggers.

The main content area is titled 'SETUP > OBJECT MANAGER Department'. It features a 'Fields & Relationships' section with a sub-header '8 Items, Sorted by Field Label'. Above the table are buttons for 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking', along with a 'Quick Find' search bar.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Currency	CurrencyIsoCode	Picklist		
Department Code	Department_Code__c	Text(10) (Unique Case Sensitive)		✓
Department Name	Name	Text(80)		✓
Department Type	Department_Type__c	Picklist	Location	
Last Modified By	LastModifiedById	Lookup(User)		
Location	Location__c	Picklist		
Owner	OwnerId	Lookup(User,Group)		✓

Field Dependency in Department

Chatter Home | Salesforce x Department | Salesforce x

curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/01I2w000002MQkK/FieldsAndRelationships/editDependency?contro... Update

Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER
Department

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

Triggers

Flow Triggers

Edit Field Dependency

Save Cancel Preview

Controlling Field Location
Dependent Field Department Type

Instructions

- Double click on a cell to toggle its visibility for the Controlling Field value shown in the column heading.
- To change multiple cells at once, select multiple cells and then click the Include Values or Exclude Values button to change the visibility of all selected cells at once.
- Use SHIFT + click to select a range of adjacent cells. Use CTRL + click to select multiple cells that are not adjacent.
- Use the Preview button to test the results.

Click button to include or exclude selected values from the dependent picklist:

Include Values Exclude Values

Legend

- Excluded Value
- Included Value

Showing Columns: 1 - 2 (of 2) < Previous | Next > View All Go to

Location:	Kolkata	Delhi
Department Type:	Banking	Banking
	Finance	Finance
	Education	Education
	Energy	Energy
	IT	IT

Showing Columns: 1 - 2 (of 2) < Previous | Next > View All

Click button to include or exclude selected values from the dependent picklist:

Include Values Exclude Values

Save Cancel Preview

Hema Kumar Undrajavarapu
curious-wolf-tyvkhp-dev-ed.trailblaze.my...
Settings Log Out

DISPLAY DENSITY

✓ Comfy

Compact

OPTIONS

Switch to Salesforce Classic ⓘ

Add Username

Creating Custom Object Travel Approval and Custom Fields in that Object

The screenshot shows the Salesforce Object Manager interface for a custom object named "Travel Approval". The browser address bar indicates the URL: `curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/01I2w000002MQmV/Details/view`. The user is logged in as Hema Kumar Undrajarapu.

Object Details:

- Description:**
- API Name:** Travel_Approval__c
- Custom:** ☒
- Singular Label:** Travel Approval
- Plural Label:** Travel Approvals

Options:

- Enable Reports:** ☒
- Track Activities:** ☒
- Track Field History:** ☒
- Deployment Status:** Deployed
- Help Settings:** Standard salesforce.com Help Window

Left Navigation Menu:

- 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
- Triggers
- Flow Triggers

Right Panel (User Profile):

- DISPLAY DENSITY:** ☒ Comfy, ☐ Compact
- OPTIONS:** [Switch to Salesforce Classic](#), [Add Username](#)

After creating Travel Approval object with fields, it looks as shown below

The screenshot displays a Salesforce interface for a Travel Approval record. The browser address bar shows the URL: `curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/r/Travel_Approval__c/a0P2w00000KqwVLEAZ/view`. The page title is "Travel Approval TA-00001". The record is owned by Hema Kumar Undrajavarapu, with a status of "Rejected". The currency is "USD - U.S. Dollar" and the department is "Technology". The total expenses are "USD 1,310.00". The status indicator shows a red lightning bolt icon. The "Trip Info" section includes the purpose of the trip ("Attend Dreamforce"), trip start and end dates ("2/1/2023" and "2/28/2023"), and the destination state ("CA"). The record was created by Hema Kumar Undrajavarapu on 2/15/2023 at 3:12 AM and last modified by the same user on 2/15/2023 at 6:46 AM. The right sidebar shows the user's profile and a menu with options like "Comfy", "Compact", "Switch to Salesforce Classic", and "Add Username".

Travel Approval
TA-00001

Related **Details**

Travel Approval #	TA-00001	Owner	Hema Kumar Undrajavarapu
Status	Rejected	Currency	USD - U.S. Dollar
Total Expenses	USD 1,310.00	Department	Technology
Status Indicator			
Trip Info			
Purpose of Trip	Attend Dreamforce	Out-of-State	<input checked="" type="checkbox"/>
Trip Start Date	2/1/2023	Destination State	CA
Trip End Date	2/28/2023		
Created By	Hema Kumar Undrajavarapu, 2/15/2023, 3:12 AM		Last Modified By
			Hema Kumar Undrajavarapu, 2/15/2023, 6:46 AM

Activity

DISPLAY DENSITY

- ✓ Comfy
- Compact

OPTIONS

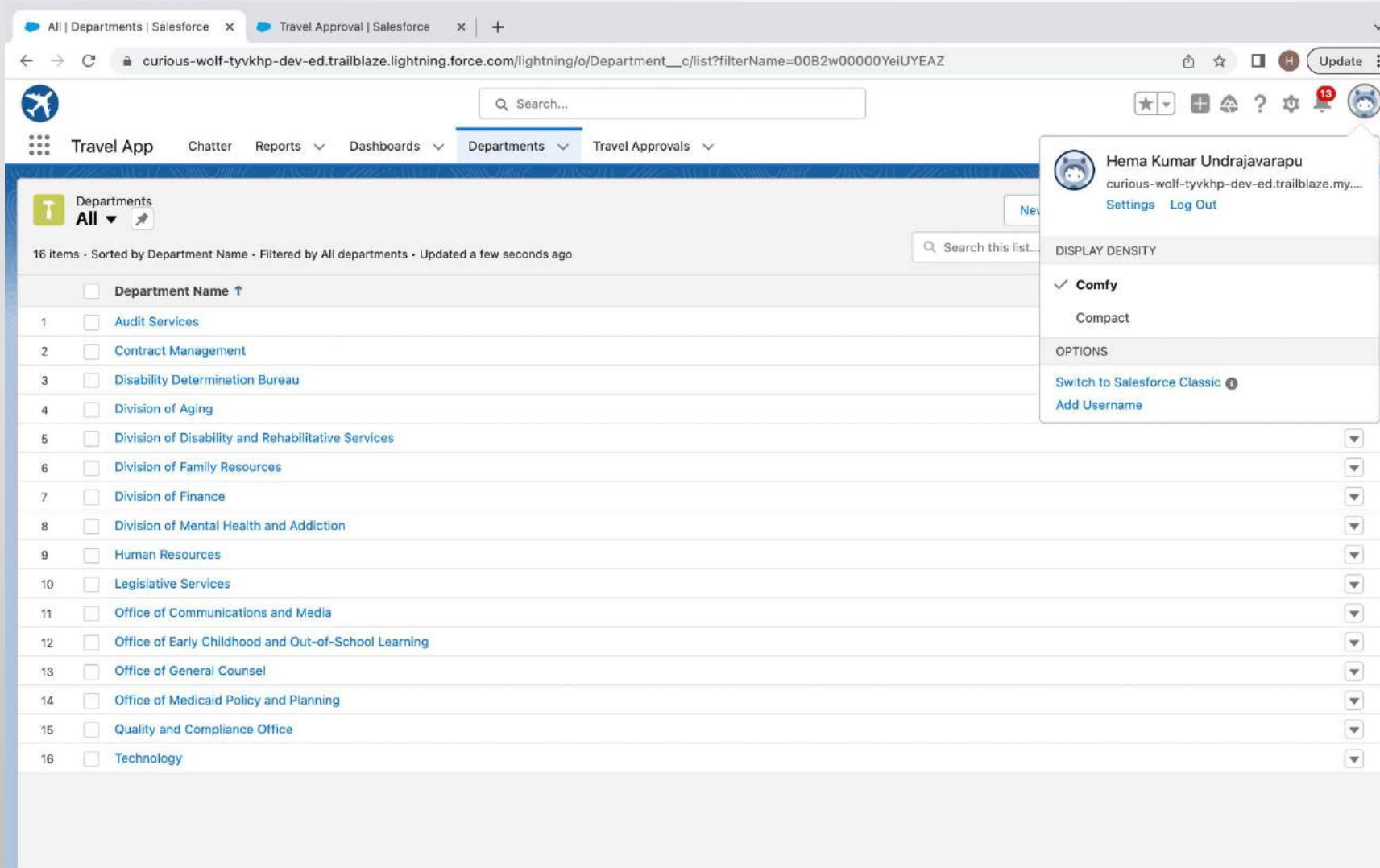
- Switch to Salesforce Classic
- Add Username

Upcoming & Overdue

No activities to show.
Get started by sending an email, scheduling a task, and more.

No past activity. Past meetings and tasks marked as done show up here.

Importing Department records using data import wizard and imported record data status can viewed below



The screenshot displays a Salesforce interface for managing departments. The browser address bar shows the URL: `curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/o/Department__c/list?filterName=00B2w00000YeiUYEAZ`. The page header includes the Salesforce logo, a search bar, and navigation tabs for 'Travel App', 'Chatter', 'Reports', 'Dashboards', 'Departments', and 'Travel Approvals'. The 'Departments' tab is active, showing a list of 16 items. The list is sorted by 'Department Name' and filtered by 'All departments'. The list items are as follows:

	<input type="checkbox"/> Department Name ↑	
1	<input type="checkbox"/> Audit Services	
2	<input type="checkbox"/> Contract Management	
3	<input type="checkbox"/> Disability Determination Bureau	
4	<input type="checkbox"/> Division of Aging	
5	<input type="checkbox"/> Division of Disability and Rehabilitative Services	
6	<input type="checkbox"/> Division of Family Resources	
7	<input type="checkbox"/> Division of Finance	
8	<input type="checkbox"/> Division of Mental Health and Addiction	
9	<input type="checkbox"/> Human Resources	
10	<input type="checkbox"/> Legislative Services	
11	<input type="checkbox"/> Office of Communications and Media	
12	<input type="checkbox"/> Office of Early Childhood and Out-of-School Learning	
13	<input type="checkbox"/> Office of General Counsel	
14	<input type="checkbox"/> Office of Medicaid Policy and Planning	
15	<input type="checkbox"/> Quality and Compliance Office	
16	<input type="checkbox"/> Technology	

A user profile dropdown is open on the right, showing the user's name 'Hema Kumar Undrajavarapu' and options for 'Settings' and 'Log Out'. The dropdown also shows 'DISPLAY DENSITY' options: 'Comfy' (selected) and 'Compact', and 'OPTIONS' including 'Switch to Salesforce Classic' and 'Add Username'.

Creating Expense Item custom object and Custom fields in Expense Item object

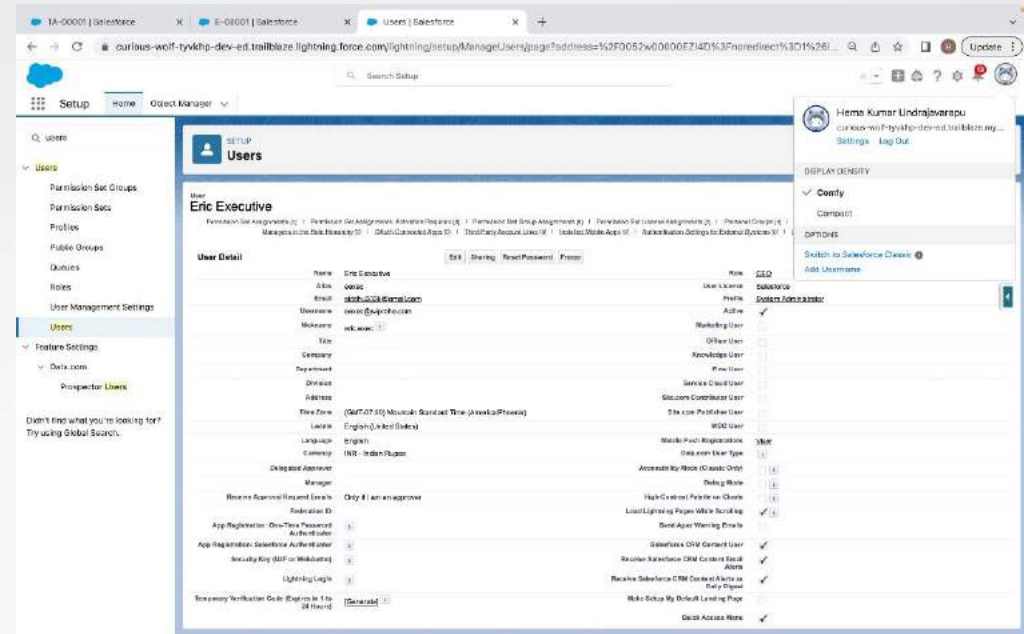
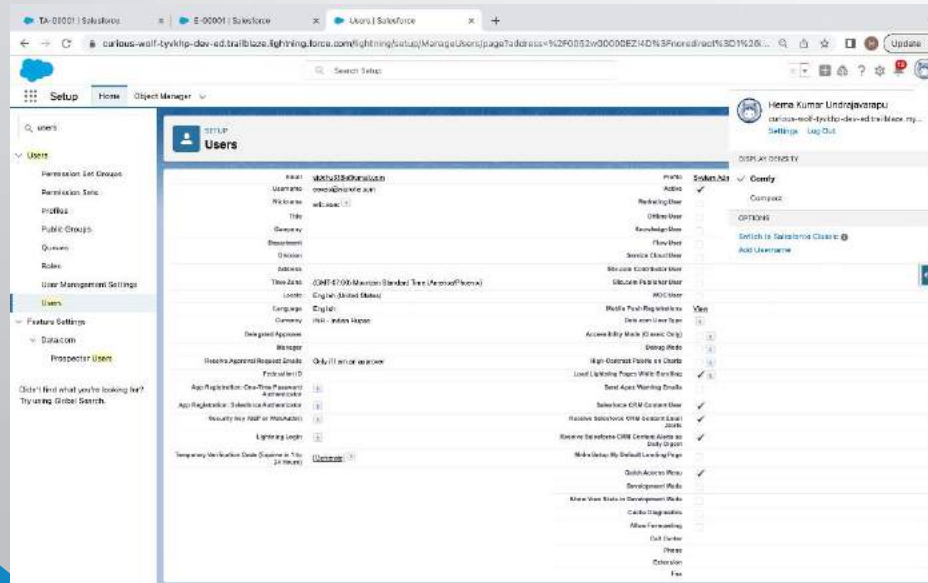
The screenshot shows the Salesforce Object Manager interface for a custom object named 'Expense Item'. The left sidebar contains navigation links: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Restriction Rules, Scoping Rules, Triggers, Flow Triggers, and Validation Rules.

The main content area is titled 'Expense Item' and shows the 'Fields & Relationships' tab. It indicates there are 7 items, sorted by Field Label. A table lists the fields with columns for Field Label, Field Name, Data Type, and Controls.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLS
Amount	Amount__c	Currency(16, 2)	
Created By	CreatedById	Lookup(User)	
Currency	CurrencyIsoCode	Picklist	
Expense Item Number	Name	Auto Number	✓
Expense Type	Expense_Type__c	Picklist	
Last Modified By	LastModifiedById	Lookup(User)	
Travel Approval	Travel_Approval__c	Master-Detail(Travel Approval)	✓

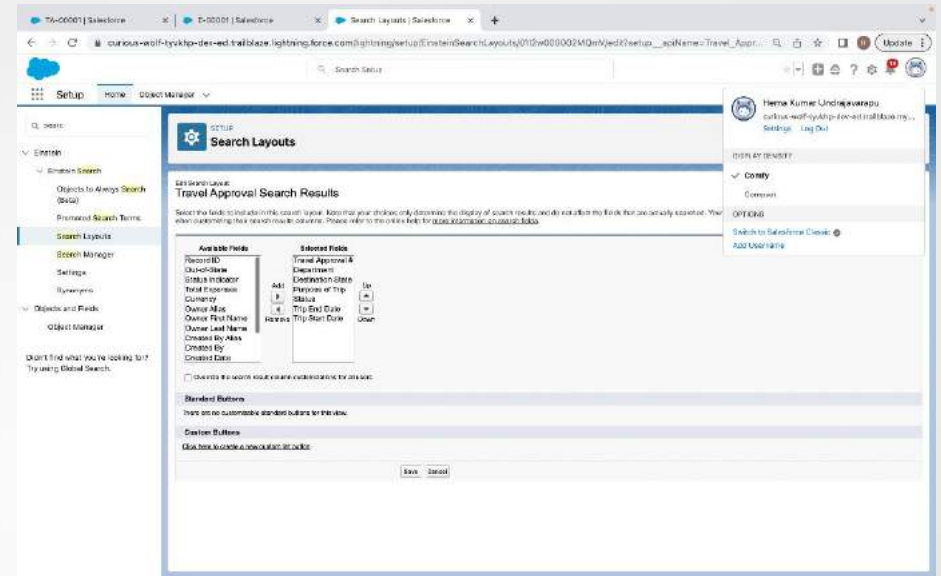
A user profile dropdown is visible on the right side of the screen, showing the user's name 'Hema Kumar Undrajavarapu', email 'curious-wolf-tyvkhp-dev-ed.trailblaze.my...', and links for 'Settings' and 'Log Out'. Below the user information, there are options for 'DISPLAY DENSITY' (Comfy, Compact) and 'OPTIONS' (Switch to Salesforce Classic, Add Username).

Creating User with system admin license

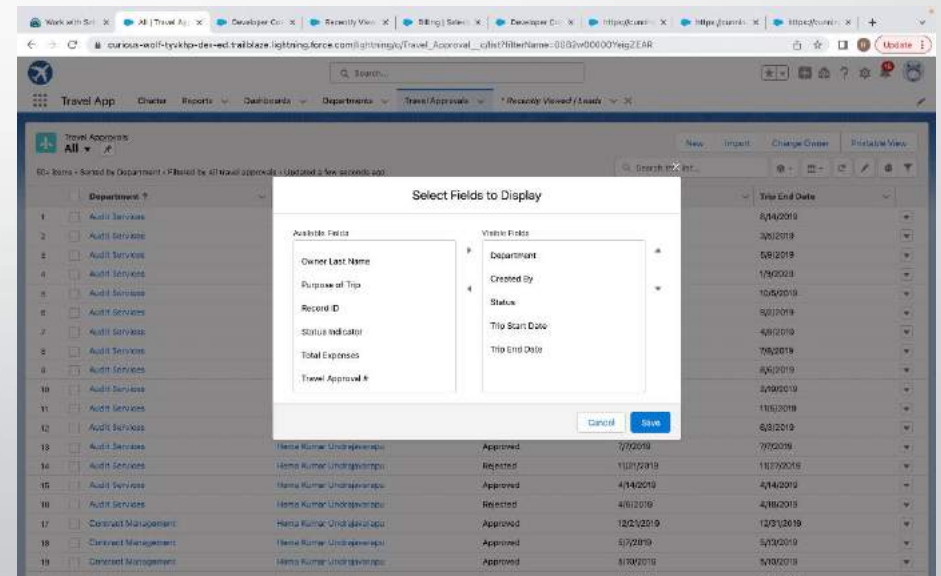


Add user eric as manager own account user

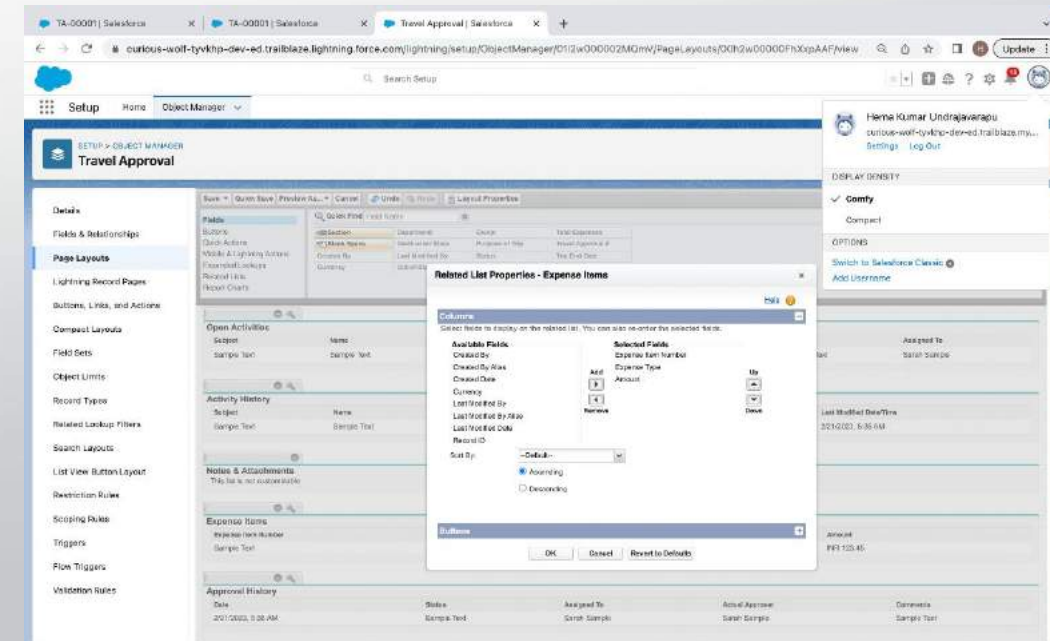
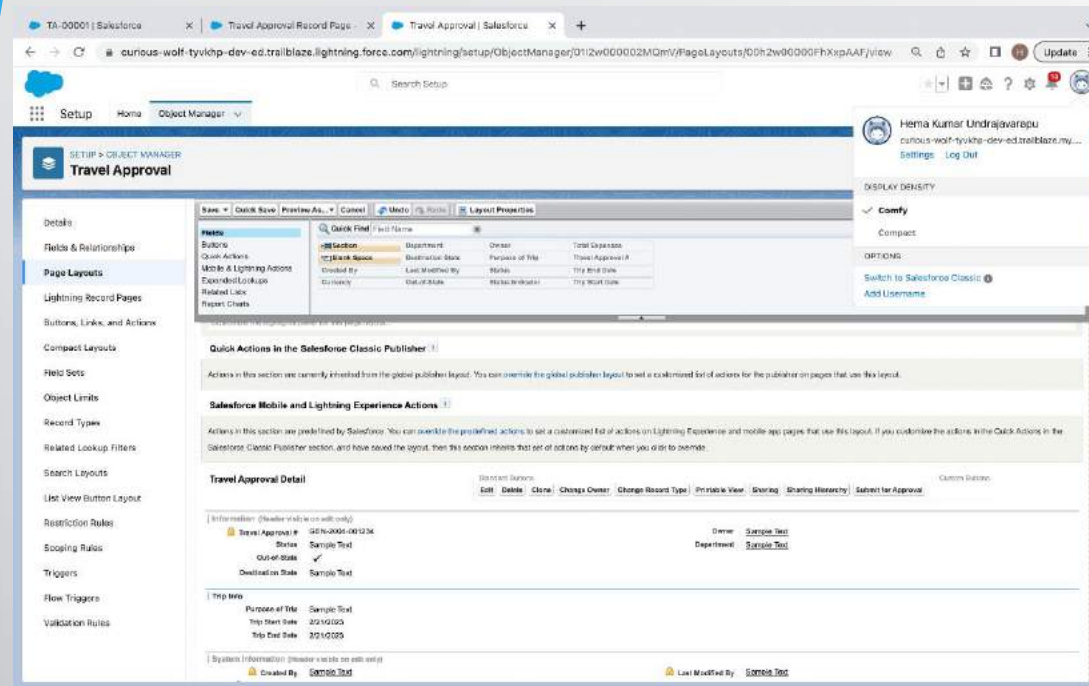
Customize the Travel Approval Default search layout



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



Customizing page layout



Test the app:

The screenshot displays the Salesforce Travel App interface for a specific travel approval record (TA-00001). The interface is divided into several sections:

- Header:** Shows the record ID "TA-00001" and the app name "Travel App". Navigation tabs include Chatter, Reports, Dashboards, Departments, and Travel Approvals.
- Related Section:** Contains three sub-sections:
 - Notes & Attachments (0):** Includes an "Upload Files" button and a message "Or drop files".
 - Expense Items (2):** A table listing expense items with columns for Expense Item Number, Expense Type, and Amount.

Expense Item Number	Expense Type	Amount
E-00001	Airfare	USD 450.00
E-00002	Hotel	USD 870.00

A "View All" link is present below the table.
 - Approval History (3):** A table showing the steps of the approval process with columns for Step Name, Date, Status, and Assigned To.


Step Name	Date	Status	Assigned To
Travel Coordinator Approval	2/15/2023, 6:46 AM	Approved	Hema Kumar Undrajarapu
Step 1	2/15/2023, 6:46 AM	Approved	Eric Executive
Approval Request Submitted	2/15/2023, 6:34 AM	Submitted	Hema Kumar Undrajarapu

A "View All" link is present below the table.
- Activity Section:** Displays a list of activities. A dropdown menu is open, showing options for "Display Density" (Comfy, Compact) and "Options" (Switch to Salesforce Classic, Add Username). Below the menu, it states "No activities to show. Get started by sending an email, scheduling a task, and more." and "No past activity. Past meetings and tasks marked as done show up here."

TA-00001 | Salesforce

curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/r/Travel_Approval__c/a0P2w00000KqwVLEAZ/view

Update



Search...

★


+

🔔

?

⚙️

14



Travel App


Chatter

Reports

Dashboards

Departments

Travel Approvals

Travel Approval
TA-00001

+ Follow

New Contact

Edit

New Opportunity


Related


Details

Travel Approval #
TA-00001

Status
Draft

Total Expenses
USD 1,320.00

Status Indicator


Owner
 [Hema Kumar Undrajava](#)

Currency
USD - U.S. Dollar


Department
[Technology](#)

▼ Trip Info

Purpose of Trip
Attend Dreamforce


Trip Start Date
2/1/2023

Trip End Date
2/28/2023

Created By
 [Hema Kumar Undrajava](#), 2/15/2023, 3:12 AM

Out-of-State
☒

Destination State
CA

Last Modified By
 [Hema Kumar Undrajava](#), 2/21/2023, 5:10 AM

Activity

Chatter

Post

Poll

Question

Share an update...

Share

🔽

Search this feed...

🔄

 [Hema Kumar Undrajava](#)
3m ago

@Eric Executive Which department should I associate this travel request with?

1 comment · Seen by 1

👍 Like

💬 Comment

 [Eric Executive](#)
a minute ago

Technology is the correct department.

Like

 Write a comment...

MODULE 2

- This project module focuses on the Automation and Analytics Tools to enhance your custom App development.
- Define Business logic using Validation rules, Roll-up summary fields, Formulas, Flows & how you track Travel Approvals using Reports and Dashboards



Validation Rule that trip end date always \geq start date

The screenshot shows the Salesforce Setup interface for a user named Hema Kumar Undrajavarapu. The browser address bar indicates the URL: `curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/setup/ObjectManager/0112w000002MQmV/ValidationRules/03d2w0000010YvHAAU/view`. The page title is "Travel Approval Validation Rule".

Validation Rule Detail

Field	Value	Field	Value
Rule Name	Trip_end_date_after_start_date	Active	<input checked="" type="checkbox"/>
Error Condition Formula	Trip_End_Date__c < Trip_Start_Date__c		
Error Message	Trip end date must be greater than or equal to start date	Error Location	Trip End Date
Description			
Created By	Hema Kumar Undrajavarapu, 2/15/2023, 5:48 AM	Modified By	Hema Kumar Undrajavarapu, 2/15/2023, 5:48 AM

The left sidebar contains a navigation menu with the following items: 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, Triggers, and Flow Triggers.

The right sidebar shows the user's profile information: Hema Kumar Undrajavarapu, curious-wolf-tyvkhp-dev-ed.trailblaze.my..., with links for Settings and Log Out. Below this, there are options for DISPLAY DENSITY (Comfy, Compact) and OPTIONS (Switch to Salesforce Classic, Add Username).

Creating Formula Fields

Chatter Home | Salesforce

Static Resources | Salesforce

curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/setup/StaticResources/page?address=%2Fapexpages%2Fsetup%2FviewStaticResource.ap...

Update

Search Setup

Setup

Home

Object Manager

Static Resource

Custom Code

Static Resources

Didn't find what you're looking for?
Try using Global Search.

Static Resource

StatusImages

Static Resource Detail

Edit

Delete

Where is this used?

Name	StatusImages
Namespace Prefix	
Description	
MIME Type	application/zip
Cache Control	Public
Size	39,130 bytes
	View file
Created By	Hema Kumar Undrajavarapu, 2/15/2023, 5:53 AM
Last Modified By	Hema Kumar Undrajavarapu, 2/23/2023, 12:44 AM

Edit

Delete

Where is this used?

Hema Kumar Undrajavarapu

curious-wolf-tyvkhp-dev-ed.trailblaze.my...

[Settings](#) [Log Out](#)

DISPLAY DENSITY

Comfy

Compact

OPTIONS

[Switch to Salesforce Classic](#)

[Add Username](#)

Waiting for curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com...

Create a Record – Triggered Flow

The screenshot shows the Salesforce Flow Builder interface with the 'Edit Update Records' dialog open. The browser tabs at the top include 'Recently Viewed | Travel Appro...', 'Travel Approval | Salesforce', 'Out of State Travel Flag - V1', and 'Home | Salesforce:'. The address bar shows the URL: `curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/builder_platform_interaction/flowBuilder.app?flowId=3012w000001MeuzAAC`. The dialog title is 'Edit Update Records'. Below the title, it says 'Update Salesforce records using values from the flow.' and 'Update Travel Approval Record (Update_Travel_Approval_Record)'. A section titled 'How to Find Records to Update and Set Their Values' contains four radio button options: 'Use the travel approval record that triggered the flow' (selected), 'Update records related to the travel approval record that triggered the flow', 'Use the IDs and all field values from a record or record collection', and 'Specify conditions to identify records, and set fields individually'. An information icon and text note: 'Because this flow runs before a record is saved, you can only update the record that triggered the flow to run. To update other records, configure the trigger to run the flow after the record is saved.' Below this is the 'Set Filter Conditions' section with a dropdown menu 'Condition Requirements to Update Record' set to 'None—Always Update Record'. The 'Set Field Values for the Travel Approval Record' section has a table with 'Field' and 'Value' columns. The 'Field' column contains 'Out_of_State__c' and the 'Value' column contains 'True'. There is an 'Add Field' button and 'Cancel' and 'Done' buttons at the bottom right.

Recently Viewed | Travel Appro... | Travel Approval | Salesforce | Out of State Travel Flag - V1 | Home | Salesforce: | +

curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/builder_platform_interaction/flowBuilder.app?flowId=3012w000001MeuzAAC

Flow Builder Out of State Travel Flag - V1

Toolbox

Elements Manager

Logic (5)

- Assignment
- Decision
- Loop
- Collection Sort
- Collection Filter

Data (2)

- Update Records
- Get Records

Edit Update Records

Update Salesforce records using values from the flow.

Update Travel Approval Record (Update_Travel_Approval_Record)

How to Find Records to Update and Set Their Values

- ☒ Use the travel approval record that triggered the flow
- ☐ Update records related to the travel approval record that triggered the flow
- ☐ Use the IDs and all field values from a record or record collection
- ☐ Specify conditions to identify records, and set fields individually

Because this flow runs before a record is saved, you can only update the record that triggered the flow to run. To update other records, configure the trigger to run the flow after the record is saved.

Set Filter Conditions

Condition Requirements to Update Record

None—Always Update Record

Set Field Values for the Travel Approval Record

Field	Value
Out_of_State__c	True

+ Add Field

Cancel Done

And add Decision element to flow

Recently Viewed | Travel App | Travel Approval | Salesforce | Out of State Travel Flag - V1 | Home | Salesforce

curious-wolf-hyvkhp-dev-ed.trailblaze.lightning.force.com/builder_platform_interaction/flowbuilder.app?flowId=3012w000001MeuzAAC

Flow Builder Out of State Travel Flag - V1

Free-Form Version 1: Active—Last modified 8 days ago Run Debug View Tests Deactivate Save As

Toolbox Elements Logic (5) Assignments Decision Loop Collection Data (2) Updates Records Get Records

Edit Decision

Is Travel Out of State? (is_Travel_Out_of_State) ✓

Outcomes For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER + OUTCOME DETAILS Delete Outcome

Yes Out of State

Label Yes Out of State Outcome API Name Yes_Out_of_State

In State

Label In State Outcome API Name In_State

Default Outcome

Condition Requirements to Execute Outcome All Conditions Are Met (AND)

Resource Operator Value

Record > Destination State X Does Not Equal TX

+ Add Condition

When to Execute Outcome

☐ If the condition requirements are met

☒ Only if the record that triggered the flow to run is updated to meet the condition requirements

Cancel Done

Recently Viewed | Travel App | Travel Approval | Salesforce | Out of State Travel Flag - V1 | Home | Salesforce

curious-wolf-hyvkhp-dev-ed.trailblaze.lightning.force.com/builder_platform_interaction/flowbuilder.app?flowId=3012w000001MeuzAAC

Flow Builder Out of State Travel Flag - V1

Free-Form Version 1: Active—Last modified 8 days ago Run Debug View Tests Deactivate Save As

Toolbox Elements Logic (5) Assignments Decision Loop Collection Data (2) Updates Records Get Records

Edit Decision

Is Travel Out of State? (is_Travel_Out_of_State) ✓

Outcomes For each path the flow can take, create an outcome. For each outcome, specify the conditions that must be met for the flow to take that path.

OUTCOME ORDER + OUTCOME DETAILS Delete Outcome

Yes Out of State

Label Yes Out of State Outcome API Name Yes_Out_of_State

In State

Label In State Outcome API Name In_State

Default Outcome

Condition Requirements to Execute Outcome All Conditions Are Met (AND)

Resource Operator Value

Record > Destination State X Equals TX

+ Add Condition

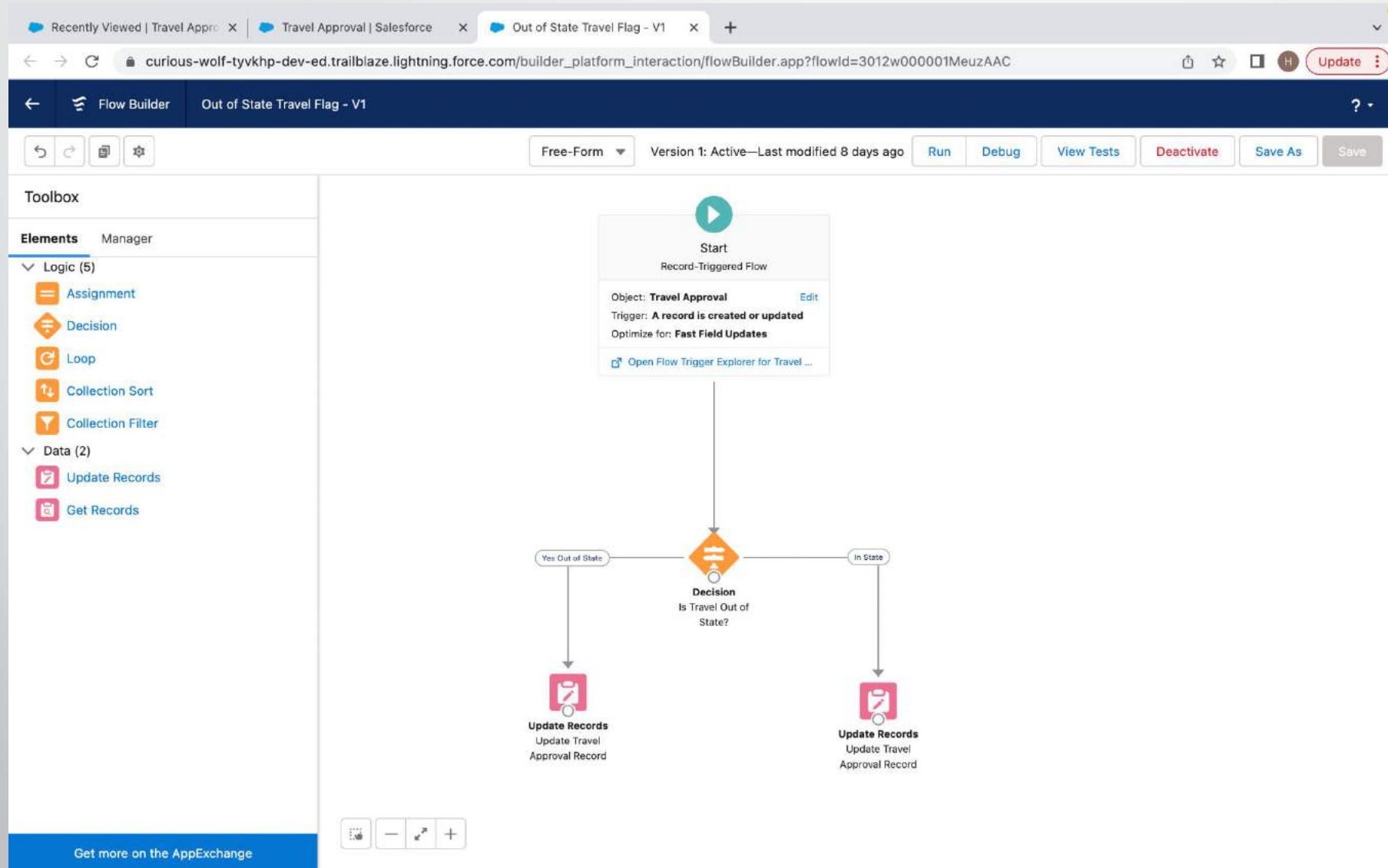
When to Execute Outcome

☐ If the condition requirements are met

☒ Only if the record that triggered the flow to run is updated to meet the condition requirements

Cancel Done

Finally, the flow looks as shown, save and activate



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

The screenshot displays the Salesforce Setup interface for configuring an approval process. The left sidebar shows the navigation menu with 'Setup' selected. The main content area is titled 'Approval Processes' and shows the configuration for a process named 'Travel Approval: Travel Approval Request'.

Process Definition Detail

Process Name	Travel Approval Request	Active
Unique Name	Travel_Approval_Request	Next Automated Approver Determined By: Manager of Record Submitter
Description	Travel Approval: Total Expenses GREATER THAN INR 0	
Entry Criteria	Travel Approval: Total Expenses GREATER THAN INR 0	
Record Editability	Administrator ONLY	Allow Submitters to Recall Approval Requests: <input type="checkbox"/>
Approval Assignment Email Template	Travel Approval Owner	
Initial Submitters	Travel Approval Owner	
Created By	Hema Kumar Undrajavarapu, 2/15/2023, 6:07 AM	Modified By: Hema Kumar Undrajavarapu, 2/15/2023, 6:21 AM

Initial Submission Actions

Action	Type	Description
Record Lock		Lock the record from being edited

Approval Steps

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
Show Actions Edit	1	Step 1			Manager	Final Rejection
Show Actions Edit	2	Travel Coordinator Approval		Travel Approval: Out-of-State EQUALS True	User: Hema Kumar Undrajavarapu	Final Rejection

Final Approval Actions

Action	Type	Description
--------	------	-------------

Final Approval Action:

The screenshot shows the Salesforce Setup interface for 'Approval Processes'. The left sidebar contains navigation links for 'Data', 'Mass Transfer Approval Requests', 'Process Automation', and 'Approval Processes'. The main content area is titled 'Approval Processes' and includes a 'Process Definition Details' section with fields for Process Name, Unique Name, Description, Entry Criteria, Record Eligibility, Approval Assignment Email Template, Initial Submission Actions, and Initial Submission Actions. Below this is the 'Approval Steps' table, which lists steps 1 and 2. The 'Final Approval Actions' section is highlighted, showing a table with columns for Action, Type, and Description. The table contains one row: 'Record Lock' with a description 'Lock the record from being edited' and a link 'Set Status to Approved'. The 'Final Rejection Actions' section is also visible, showing a table with columns for Action, Type, and Description, containing one row: 'Record Lock' with a description 'Unlock the record for editing' and a link 'Set Status to Rejected'.

Action	Type	Description
Record Lock	Record Lock	Lock the record from being edited Set Status to Approved

Final Rejection Action:

The screenshot shows the Salesforce Setup interface for 'Approval Processes'. The left sidebar contains navigation links for 'Data', 'Mass Transfer Approval Requests', 'Process Automation', and 'Approval Processes'. The main content area is titled 'Approval Processes' and includes a 'Process Definition Details' section with fields for Process Name, Unique Name, Description, Entry Criteria, Record Eligibility, Approval Assignment Email Template, Initial Submission Actions, and Initial Submission Actions. Below this is the 'Approval Steps' table, which lists steps 1 and 2. The 'Final Approval Actions' section is highlighted, showing a table with columns for Action, Type, and Description. The table contains one row: 'Record Lock' with a description 'Lock the record from being edited' and a link 'Set Status to Approved'. The 'Final Rejection Actions' section is also visible, showing a table with columns for Action, Type, and Description, containing one row: 'Record Lock' with a description 'Unlock the record for editing' and a link 'Set Status to Rejected'.

Action	Type	Description
Record Lock	Record Lock	Lock the record from being edited Set Status to Approved

Testing the approval process Status is pending here, Next submit for approval

The screenshot shows the Salesforce Travel App interface for a travel approval record TA-00001. The record is in a 'Draft' status. The 'Details' tab is active, showing fields for Owner (Hema Kumar Undrajavarapu), Currency (USD - U.S. Dollar), Department (Technology), and Trip Info (Purpose of Trip: Attend Dreamforce, Trip Start Date: 2/19/2023, Trip End Date: 2/28/2023). The 'Activity' tab is also visible, showing a chat conversation with Eric Executive asking for department association.

Field	Value
Travel Approval #	TA-00001
Status	Draft
Total Expenses	USD 1,320.00
Status Indicator	
Owner	Hema Kumar Undrajavarapu
Currency	USD - U.S. Dollar
Department	Technology
Purpose of Trip	Attend Dreamforce
Trip Start Date	2/19/2023
Trip End Date	2/28/2023
Created by	Hema Kumar Undrajavarapu, 2/15/2023, 3:12 AM
Last Modified by	Hema Kumar Undrajavarapu, 2/21/2023, 5:10 AM

Login as Eric to give Approval
Can Approve or Reject

The screenshot shows the Salesforce Travel App interface for the same travel approval record TA-00001. The 'Related' tab is active, showing 'Notes & Attachments (0)', 'Expense Items (2)', and 'Approval History (3)'. The 'Expense Items' table lists two items: Airfare (USD 490.00) and Hotel (USD 830.00). The 'Approval History' table shows three steps: Travel Coordinator Approval (Approved), Step 1 (Approved), and Approval Request Submitted (Submitted).

Expense Item Number	Expense Type	Amount
E-00001	Airfare	USD 490.00
E-00002	Hotel	USD 830.00

Step Name	Date	Status	Assigned To
Travel Coordinator Approval	2/16/2023, 6:46 AM	Approved	Hema Kumar Undrajavarapu
Step 1	2/16/2023, 6:46 AM	Approved	Eric Executive
Approval Request Submitted	2/16/2023, 6:34 AM	Submitted	Hema Kumar Undrajavarapu

Using Data import wizard to import travel approval records , later the Records imported successfully

Report Builder | Salesforce | Process Automation Settings | Home | Salesforce

curious-wolf-tyvkhp-dev-ed.trailblaze.lightning.force.com/lightning/r/Report/00O2w00000C6dmiEAB/edit?queryScope=userFolders

Travel App Chatter Reports Dashboards Departments Travel Approvals

REPORT Travel Requests by Department Travel Approvals

Previewing a limited number of records. Run the report to see everything.

	Travel Approval: Travel Approval #	Department	Status	Out-of-State
1	TA-00265	Contract Management	Approved	<input checked="" type="checkbox"/>
2	TA-00266	Legislative Services	Approved	<input type="checkbox"/>
3	TA-00267	Division of Finance	Approved	<input checked="" type="checkbox"/>
4	TA-00268	Office of Early Childhood and Out-of-School Learning	Approved	<input checked="" type="checkbox"/>
5	TA-00269	Audit Services	Approved	<input checked="" type="checkbox"/>
6	TA-00270	Technology	Approved	<input checked="" type="checkbox"/>
7	TA-00271	Office of Communications and Media	Approved	<input checked="" type="checkbox"/>
8	TA-00272	Office of Early Childhood and Out-of-School Learning	Approved	<input checked="" type="checkbox"/>
9	TA-00273	Division of Disability and Rehabilitative Services	Approved	<input type="checkbox"/>
10	TA-00274	Legislative Services	Approved	<input checked="" type="checkbox"/>
11	TA-00275	Office of Communications and Media	Approved	<input checked="" type="checkbox"/>
12	TA-00276	Office of Communications and Media	Rejected	<input checked="" type="checkbox"/>
13	TA-00277	Disability Determination Bureau	Rejected	<input checked="" type="checkbox"/>
14	TA-00278	Audit Services	Approved	<input checked="" type="checkbox"/>
15	TA-00279	Division of Family Resources	Approved	<input checked="" type="checkbox"/>
16	TA-00280	Division of Finance	Approved	<input checked="" type="checkbox"/>
17	TA-00281	Audit Services	Approved	<input checked="" type="checkbox"/>
18	TA-00282	Office of General Counsel	Approved	<input type="checkbox"/>
19	TA-00283	Audit Services	Approved	<input checked="" type="checkbox"/>

Fields

Outline Filters 1

Groups

GROUP ROWS

Add group...

Columns

Add column...

Travel Approval: Travel Approval # x

Department x

Status x

Out-of-State x

Destination State x

Trip Start Date x

Trip End Date x

DISPLAY DENSITY

Comfy

Compact

OPTIONS

Switch to Salesforce Classic

Add Username

OK

12/20/2019

1/9/2020

9/8/2019

9/20/2019

12/3/2019

12/9/2019

5/30/2019

6/1/2019

9/17/2019

9/29/2019

10/3/2019

10/3/2019

7/18/2019

7/25/2019

3/30/2019

4/17/2019

7/4/2019

7/8/2019

9/20/2019

10/5/2019

2/5/2019

2/14/2019

9/2/2019

9/2/2019

9/14/2019

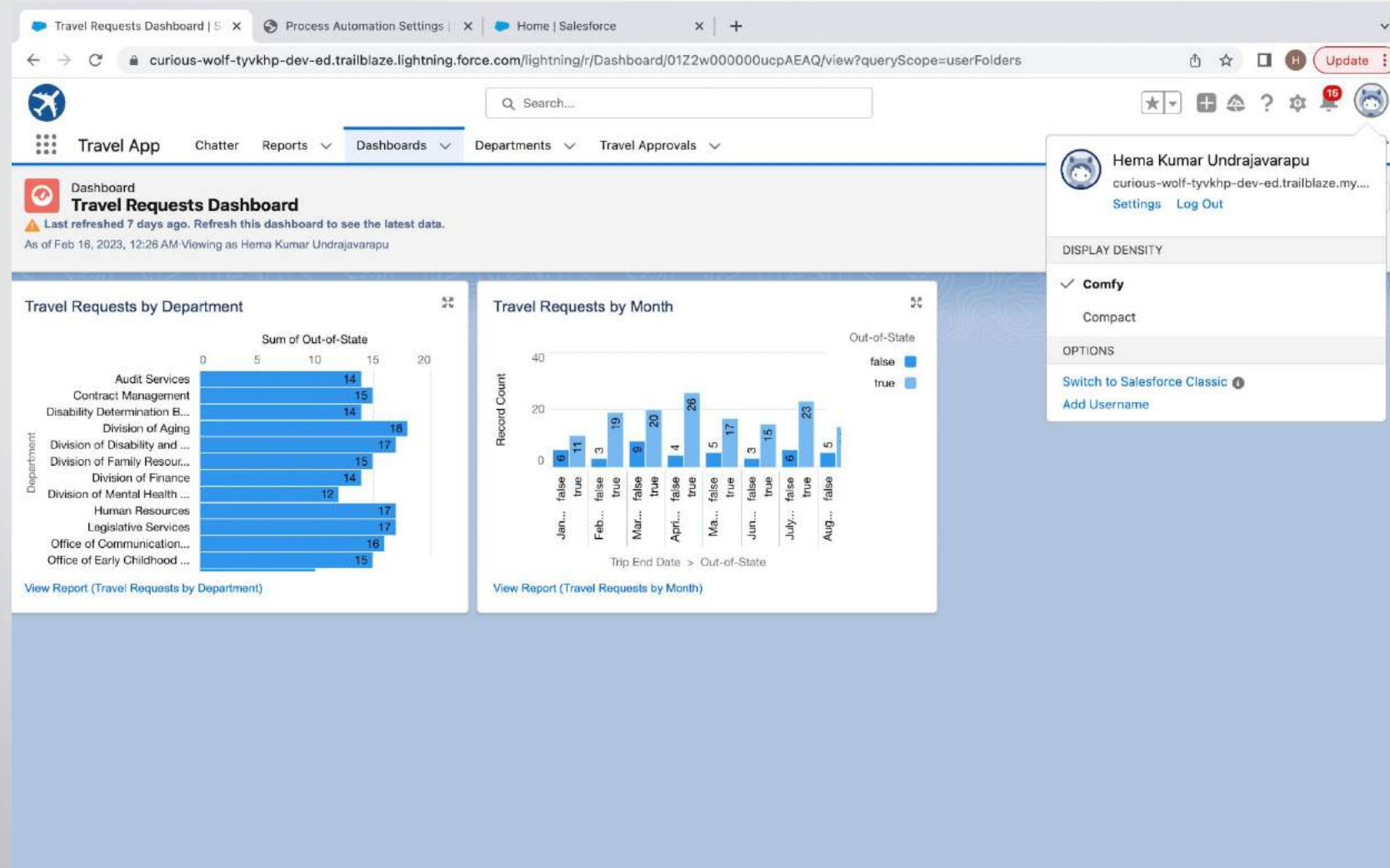
9/18/2019

3/19/2019

4/9/2019

Currency: USD

Final Dashboard

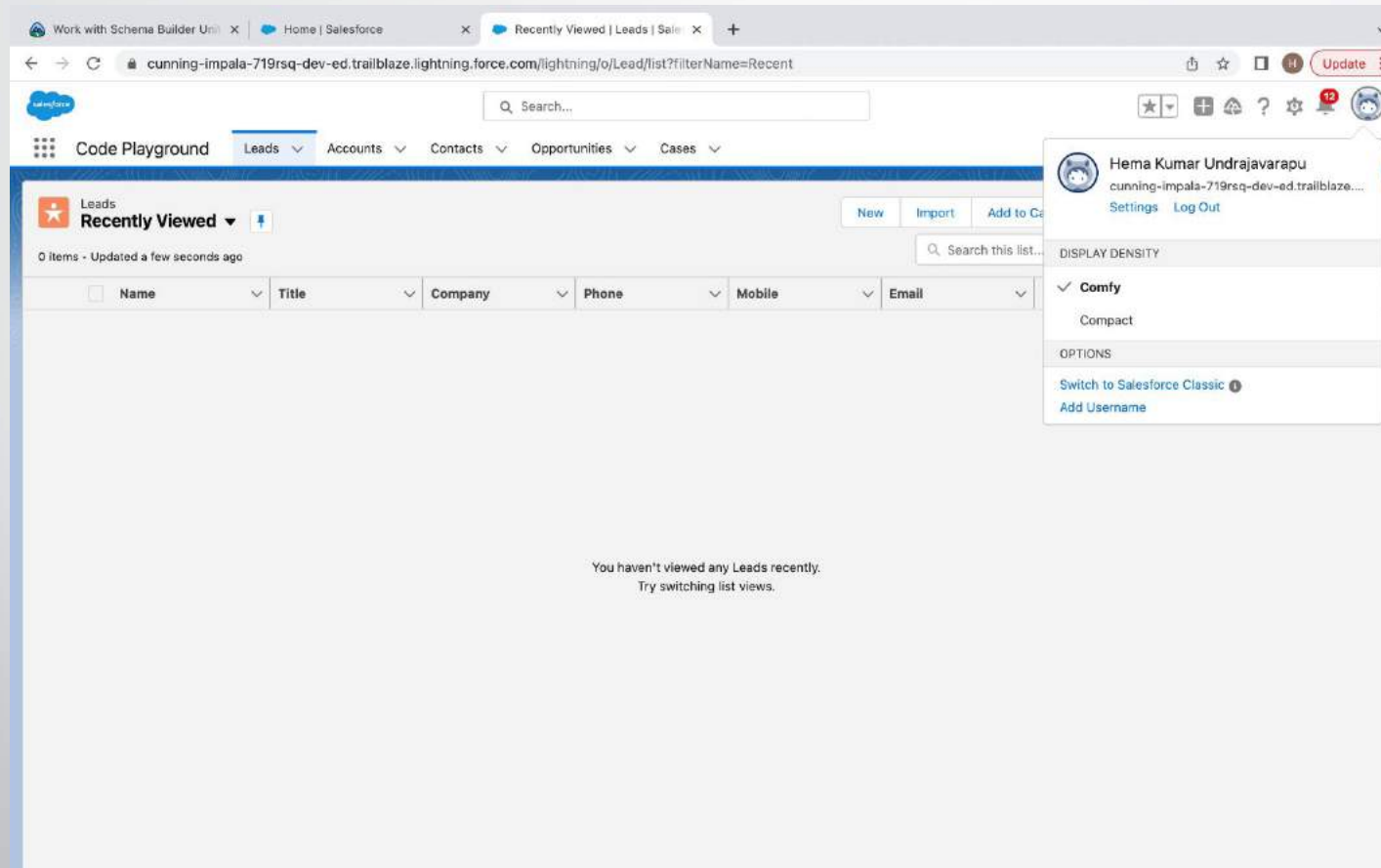


- This project module focuses on the coding approach to extend the functional capabilities of your custom App.



Exercise - 01

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



Creating custom object Customer and add related fields

Work with Schema Builder Unit | Home | Salesforce | Recently Viewed | Leads | Sales | Customer | Salesforce

Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER
Customer

Details

Fields & Relationships
7 Items, Sorted by Field Label

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

Triggers

Flow Triggers

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING
Active	Active__c	Checkbox	
Created By	CreatedById	Lookup(User)	
Customer	Customer__c	Master-Detail(Customer)	✓
Customer Name	Name	Text(80)	✓
Customer Type	Customer_Type__c	Picklist	
Description	Description__c	Text Area(255)	
Last Modified By	LastModifiedById	Lookup(User)	

Hema Kumar Undrajavarapu
cunning-impala-719rsq-dev-ed.trailblaze...
[Settings](#) [Log Out](#)

DISPLAY DENSITY

✓ Comfy

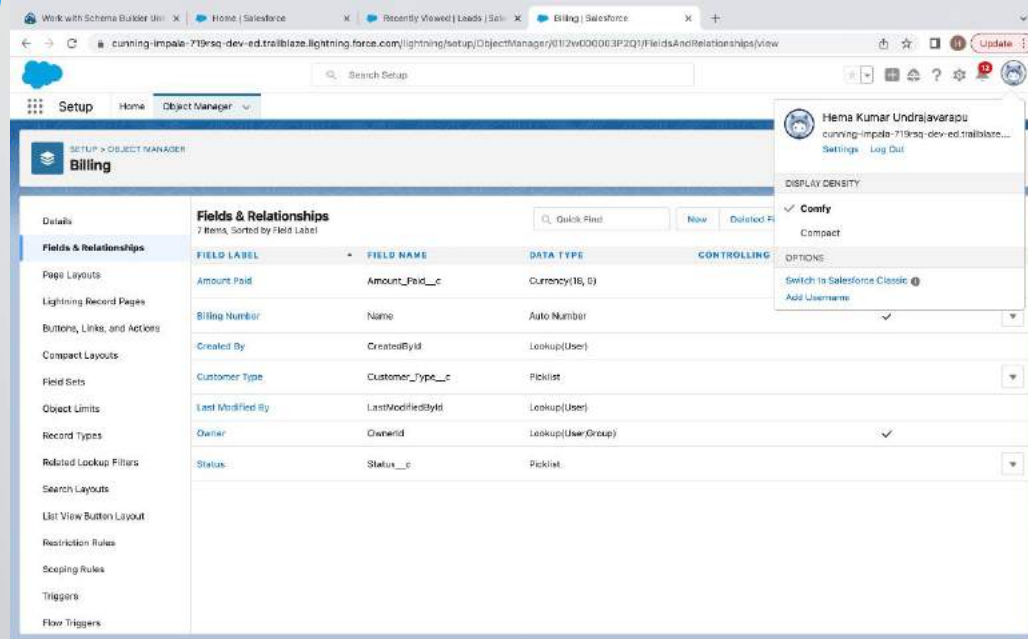
Compact

OPTIONS

[Switch to Salesforce Classic](#)

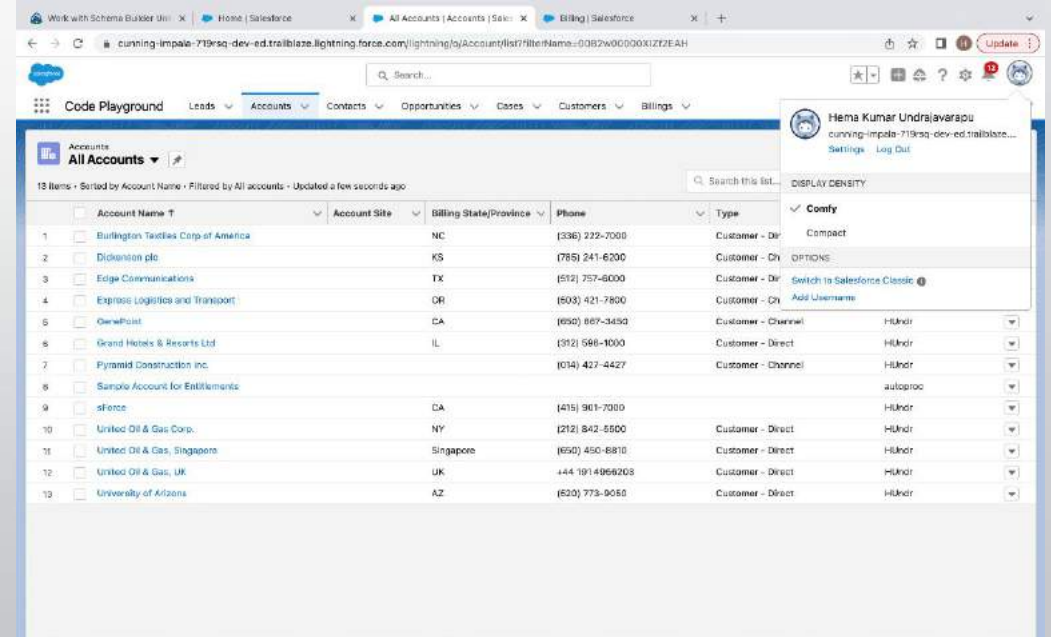
[Add Username](#)

Creating custom object Billing and add related fields



The screenshot shows the Salesforce Setup interface, specifically the 'Object Manager' section for the 'Billing' object. The 'Fields & Relationships' tab is selected, displaying a table of fields. A user profile dropdown for 'Hema Kumar Undralavarapu' is open, showing options for 'Display Density' (Compact) and 'Options' (Switch to Salesforce Classic, Add Username).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING
Amount Paid	Amount_Feld__c	Currency(16, 5)	
Billing Number	Name	Auto Number	
Created By	CreatedById	Lookup(User)	
Customer Type	Customer_Type__c	Picklist	
Last Modified By	LastModifiedById	Lookup(User)	
Owner	OwnerId	Lookup(User/Group)	
Status	Status__c	Picklist	

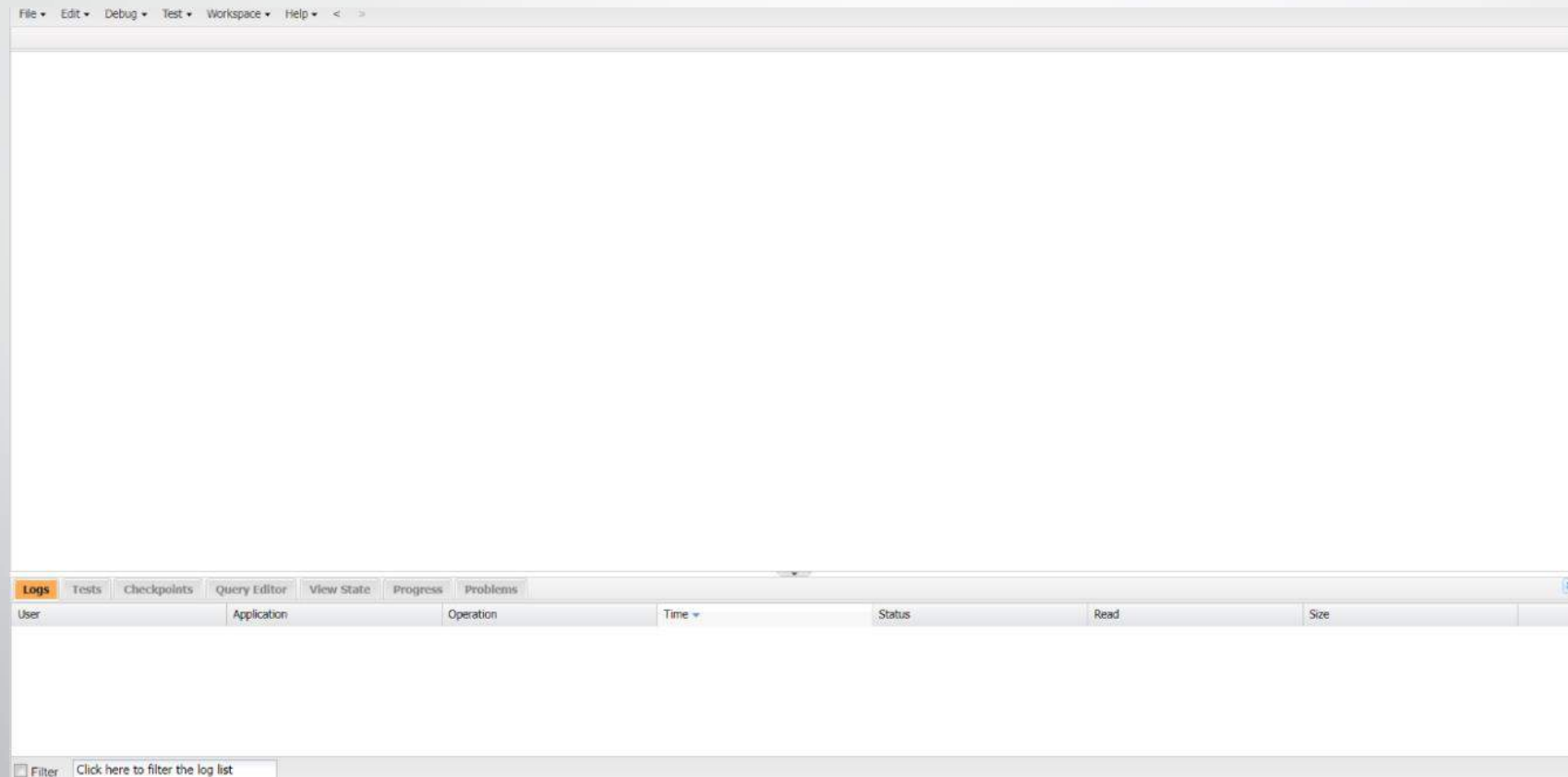


The screenshot shows the Salesforce 'Accounts' list view. The table displays 13 accounts with columns for Account Name, Account Site, Billing State/Province, Phone, and Type. A user profile dropdown for 'Hema Kumar Undralavarapu' is open, showing options for 'Display Density' (Compact) and 'Options' (Switch to Salesforce Classic, Add Username).

Account Name T	Account Site	Billing State/Province	Phone	Type
Burlington Textiles Corp of America		NC	(336) 222-7000	Customer - Dir
Dickson plc		KS	(785) 241-6200	Customer - Dir
Edge Communications		TX	(512) 757-6000	Customer - Dir
Express Logistics and Transport		OR	(503) 421-7800	Customer - Ch
GowPoint		CA	(650) 887-3450	Customer - Channel
Grand Hotels & Resorts Ltd		IL	(312) 566-1000	Customer - Direct
Pyramid Construction Inc.			(614) 427-4427	Customer - Channel
Sample Account for Billablements				
sforce		CA	(415) 961-7000	
United Oil & Gas Corp.		NY	(212) 842-8500	Customer - Direct
United Oil & Gas, Singapore		Singapore	(650) 450-8810	Customer - Direct
United Oil & Gas, UK		UK	+44 191 4966203	Customer - Direct
University of Arizona		AZ	(602) 773-9050	Customer - Direct

Exercise - 02

**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

The screenshot displays the Salesforce Developer Console interface. At the top, the browser tab shows the URL: `cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The main area is titled "Enter Apex Code" and contains the following Apex script:

```
1 Integer myluckyNumber = 15;
2 Integer myUnluckyNumber = 7;
3 if (myluckyNumber != myUnluckyNumber + 8) {
4     System.debug('False');
5 }
6 else {
7     System.debug('True');
8 }
```

Below the code editor, the "Execution Log" is visible, showing a single log entry:

Timestamp	Event	Details
21:52:33:002	USER_DEBUG	[7]DEBUG True

At the bottom of the console, there is a table with columns: User, Application, Operation, Time, Status, Read, and Size. The table contains six rows of log entries, all with a "Success" status.

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:33	Success		2.65 KB
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:24	Success		2.65 KB
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:48:10	Success		5.63 KB
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:46:09	Success		4.41 KB
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:36:09	Success		2.25 KB
Hema Kumar Undrajaravaru	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:34:16	Success		2.45 KB

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

The screenshot shows the Salesforce Developer Console. The top pane displays the 'Execution Log' for an anonymous Apex script. The log contains various system events such as 'USER_INFO', 'EXECUTION_STARTED', 'CODE_UNIT_STARTED', 'VARIABLE_SCOPE', 'HEAP_ALLOCATE', 'STATEMENT_EXECUTE', and 'HEAP_ALLOCATE'. The bottom pane shows the 'Enter Apex Code' window with the following code:

```
1 Date s1 = Date.today();
2 System.debug(s1);
3 Date s2 = s1.addDays(30);
4 System.debug(s2);
```

Below the code editor, there is a table showing the execution results:

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:38:50	Success		2.52 KB
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:39:19	Success		2.15 KB

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

The screenshot shows the Salesforce Developer Console. The top pane displays the 'Execution Log' for an anonymous Apex script. The log contains events such as 'USER_DEBUG' and 'SYSTEM_DEBUG'. The bottom pane shows the 'Enter Apex Code' window with the following code:

```
1 String str = '10';
2 Integer x = Integer.valueOf(str);
3 System.debug(x);
4 System.debug(x+20);
```

Below the code editor, there is a table showing the execution results:

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:39:16	Success		2.45 KB
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:39:52	Success		2.45 KB
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:39:58	Success		2.52 KB
Hema Kumar Undragherapu	Unknown	/services/data/v57.0/tooling/execute...	23/02/2023, 21:39:58	Success		2.15 KB

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.

The image displays two screenshots of the Salesforce Developer Console, illustrating the execution of Apex code and the resulting debug logs.

Top Screenshot: Shows the execution of an Apex class named `StringDemo`. The code defines a string variable `str` with the value `'Rama Kumar'` and uses `System.debug('size: ' + str.length());` to output the length of the string. The debug log shows the output: `[2]DEBUG: size: 10`.

Bottom Screenshot: Shows the execution of an Apex class named `ListDemo`. The code defines a list of integers `l` and performs various operations: `add()`, `get()`, `set()`, and `clear()`. The debug log shows the output: `[2]DEBUG: After using add() method: 1, 2, 3, 4`.

Table 1: Debug Log Data (Top Screenshot)

Timestamp	Event	Details
21:35:05.000	USER_DEBUG	[2]DEBUG: size: 10

Table 2: Debug Log Data (Bottom Screenshot)

Timestamp	Event	Details
21:45:05.000	USER_DEBUG	[2]DEBUG: After using add() method: 1, 2, 3, 4
21:45:05.000	USER_DEBUG	[3]DEBUG: After using get() method: 1
21:45:05.000	USER_DEBUG	[4]DEBUG: After using set() method: 100, 2, 3, 4
21:45:05.000	USER_DEBUG	[5]DEBUG: After clearing all elements: 1

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

The screenshot shows the Salesforce Developer Console interface. At the top, there are several tabs: 'Work with Schema Builder Un...', 'Home | Salesforce', 'All Accounts | Accounts | Sale...', 'Developer Console', and 'Billing | Salesforce'. The main window displays the 'Enter Apex Code' dialog box with the following code:

```
1 Integer x = 20;
2 while(x > 12){
3     for(x=0;x<10;x++){
4         System.debug('Value of x is: '+x);
5     }
6 }
```

Below the code editor, there is a table titled 'Execution Log' showing the results of the execution. The table has columns for 'Timestamp', 'Event', and 'Details'. The log shows 10 entries, each with a timestamp of 21:48:10:003, an event of 'USER_DEBUG', and details of '[4]DEBUG|Value of x is: 0' through '[4]DEBUG|Value of x is: 9'.

Timestamp	Event	Details
21:48:10:002	USER_DEBUG	[4]DEBUG Value of x is: 0
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 1
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 2
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 3
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 4
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 5
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 6
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 7
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 8
21:48:10:003	USER_DEBUG	[4]DEBUG Value of x is: 9

At the bottom of the console, there is a 'Logs' tab with a table showing the execution history. The table has columns for 'User', 'Application', 'Operation', 'Time', 'Status', 'Read', and 'Size'.

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:48:10	Success		5.63 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:46:09	Success		4.41 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:36:09	Success		2.25 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:34:16	Success		2.45 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:33:52	Success		2.45 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:31:50	Success		2.52 KB

Exercise 3

Answer the following in True or False:

Integer myunluckyNumber = 7; Integer myluckyNumber = 15;
myluckyNumber != myunluckyNumber + 8.

The screenshot shows the Salesforce Developer Console interface. At the top, there are tabs for 'Work with Schema Builder Unit', 'Home | Salesforce', 'All Accounts | Accounts | Sales', 'Developer Console', and 'Billing | Salesforce'. The browser address bar shows the URL: `cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSPage`. Below the address bar, there is a toolbar with 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help' menus. The main area displays the 'Execution Log' for the current session. The log shows a single entry with the timestamp '21:52:33:002', the event 'USER_DEBUG', and the details '[7][DEBUG]True'. Below the log, there is a text area labeled 'Enter Apex Code' containing the following code:

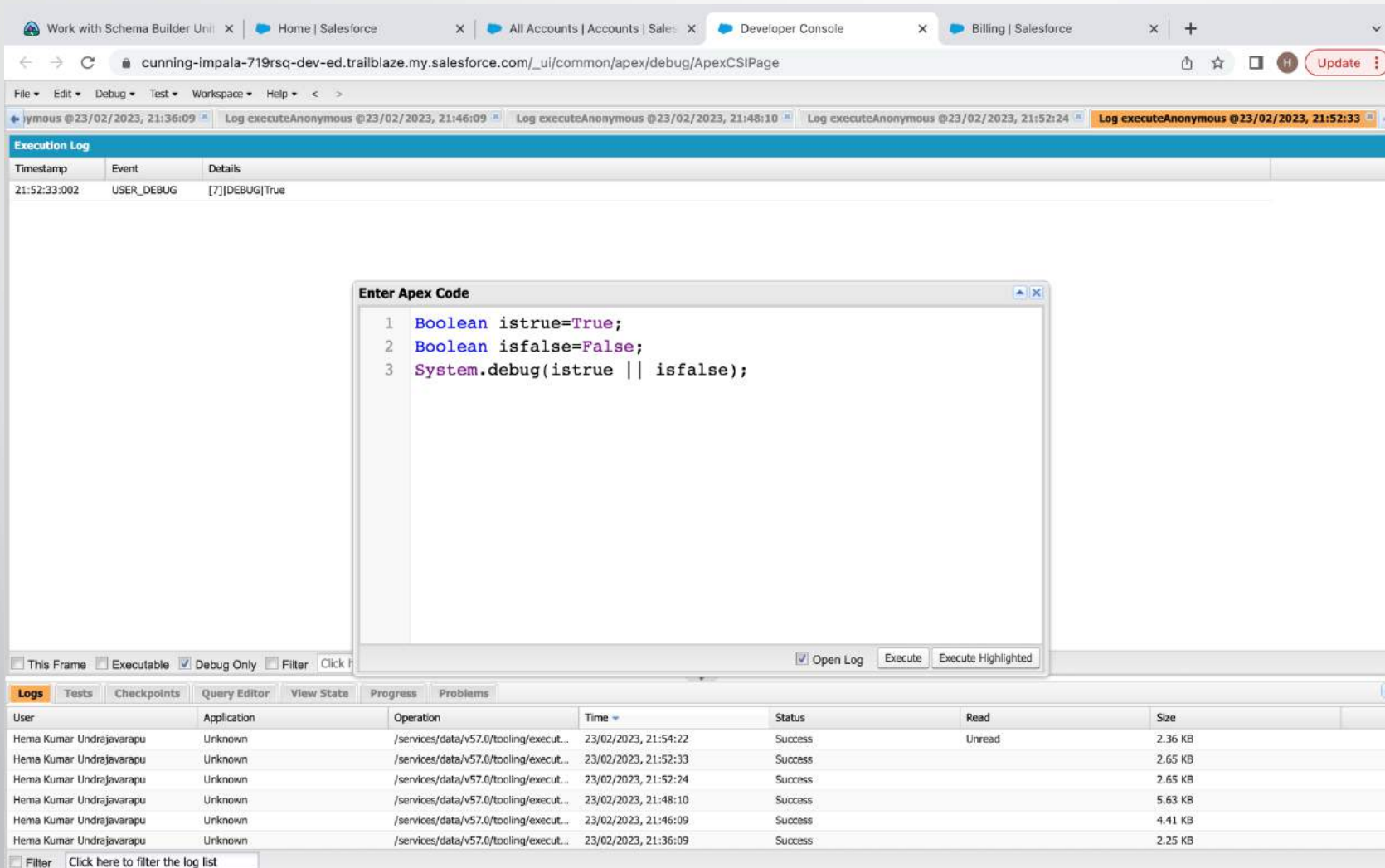
```
1 Integer myluckyNumber = 15;
2 Integer myUnluckyNumber = 7;
3 if (myluckyNumber != myUnluckyNumber + 8) {
4     System.debug('False');
5 }
6 else {
7     System.debug('True');
8 }
```

At the bottom of the console, there is a table with columns: User, Application, Operation, Time, Status, Read, and Size. The table contains six rows of log entries, all with a status of 'Success'.

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:33	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:24	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:48:10	Success		5.63 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:46:09	Success		4.41 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:36:09	Success		2.25 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:34:16	Success		2.45 KB

Exercise 4

Answer the following in True Or False:
Boolean isFalse = false; Boolean isTrue = true;



The screenshot displays the Salesforce Developer Console interface. At the top, the browser tabs include 'Work with Schema Builder Unit', 'Home | Salesforce', 'All Accounts | Accounts | Sales', 'Developer Console', and 'Billing | Salesforce'. The address bar shows the URL: `cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. The 'Execution Log' section is visible, showing a table with columns: Timestamp, Event, and Details. The log entry for the current execution is:

Timestamp	Event	Details
21:52:33:002	USER_DEBUG	[7][DEBUG]True

Below the log, the 'Enter Apex Code' window is open, showing the following code:

```
1 Boolean istrue=True;
2 Boolean isfalse=False;
3 System.debug(istrue || isfalse);
```

At the bottom, the 'Logs' tab is selected, displaying a table of log entries:

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:54:22	Success	Unread	2.36 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:33	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:24	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:48:10	Success		5.63 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:46:09	Success		4.41 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:36:09	Success		2.25 KB

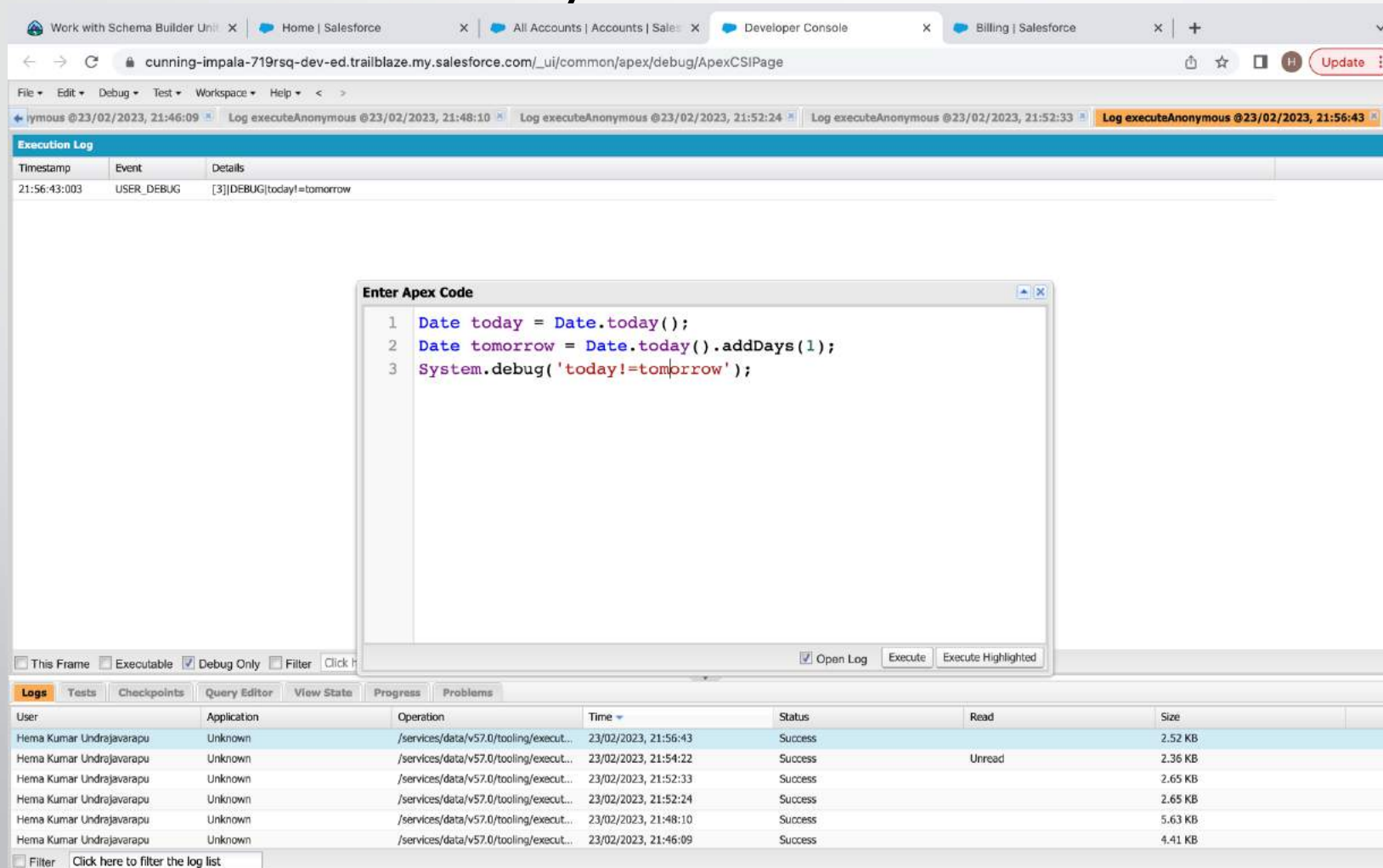
Exercise 5

Answer the following in True Or False:

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

Date today = Date.today();

today != tomorrow



The screenshot shows the Salesforce Developer Console interface. At the top, there are tabs for 'Work with Schema Builder Unit', 'Home | Salesforce', 'All Accounts | Accounts | Sales', 'Developer Console', and 'Billing | Salesforce'. The browser address bar shows the URL: `cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. Below the address bar, there is a toolbar with 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help' menus. The main area displays the 'Execution Log' for the current session. The log shows a single entry with the following details:

Timestamp	Event	Details
21:56:43:003	USER_DEBUG	[3]DEBUG today!=tomorrow

Below the log, there is a window titled 'Enter Apex Code' containing the following code:

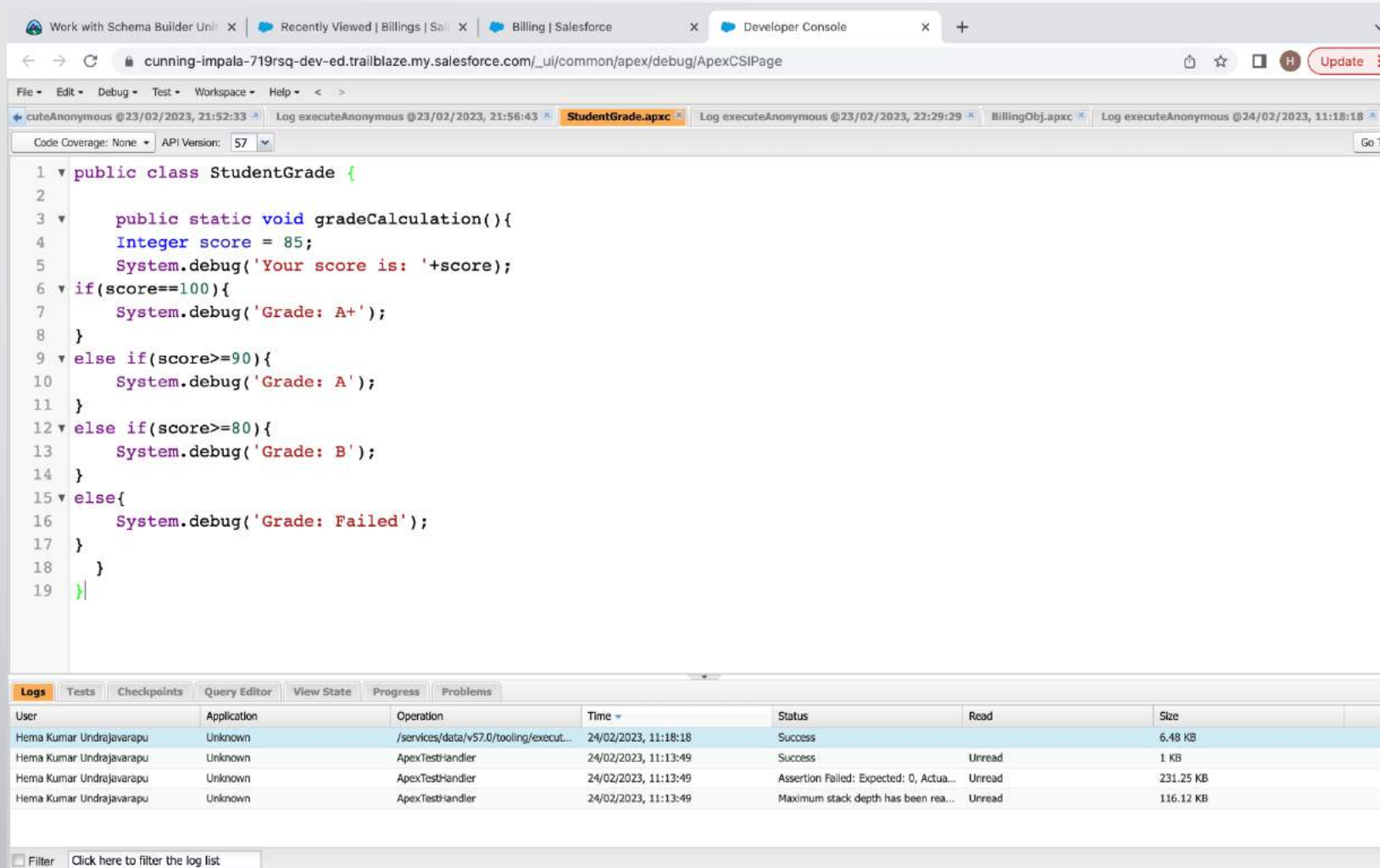
```
1 Date today = Date.today();
2 Date tomorrow = Date.today().addDays(1);
3 System.debug('today!=tomorrow');
```

At the bottom of the console, there is a table with columns: User, Application, Operation, Time, Status, Read, and Size. The table contains six rows of data, all with a 'Success' status.

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:56:43	Success		2.52 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:54:22	Success	Unread	2.36 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:33	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:52:24	Success		2.65 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:48:10	Success		5.63 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	23/02/2023, 21:46:09	Success		4.41 KB

Exercise 6

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



```
1 public class StudentGrade {
2
3     public static void gradeCalculation(){
4         Integer score = 85;
5         System.debug('Your score is: '+score);
6         if(score==100){
7             System.debug('Grade: A+');
8         }
9         else if(score>=90){
10            System.debug('Grade: A');
11        }
12        else if(score>=80){
13            System.debug('Grade: B');
14        }
15        else{
16            System.debug('Grade: Failed');
17        }
18    }
19 }
```

The screenshot shows the Salesforce Developer Console interface. The top bar includes tabs for 'Work with Schema Builder Unit', 'Recently Viewed | Billings | Sales', 'Billing | Salesforce', and 'Developer Console'. The address bar shows the URL 'cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage'. The main editor displays the Apex class 'StudentGrade.apxc' with the following code:

```
1 public class StudentGrade {
2
3     public static void gradeCalculation(){
4         Integer score = 85;
5         System.debug('Your score is: '+score);
6         if(score==100){
7             System.debug('Grade: A+');
8         }
9         else if(score>=90){
10            System.debug('Grade: A');
11        }
12        else if(score>=80){
13            System.debug('Grade: B');
14        }
15        else{
16            System.debug('Grade: Failed');
17        }
18    }
19 }
```

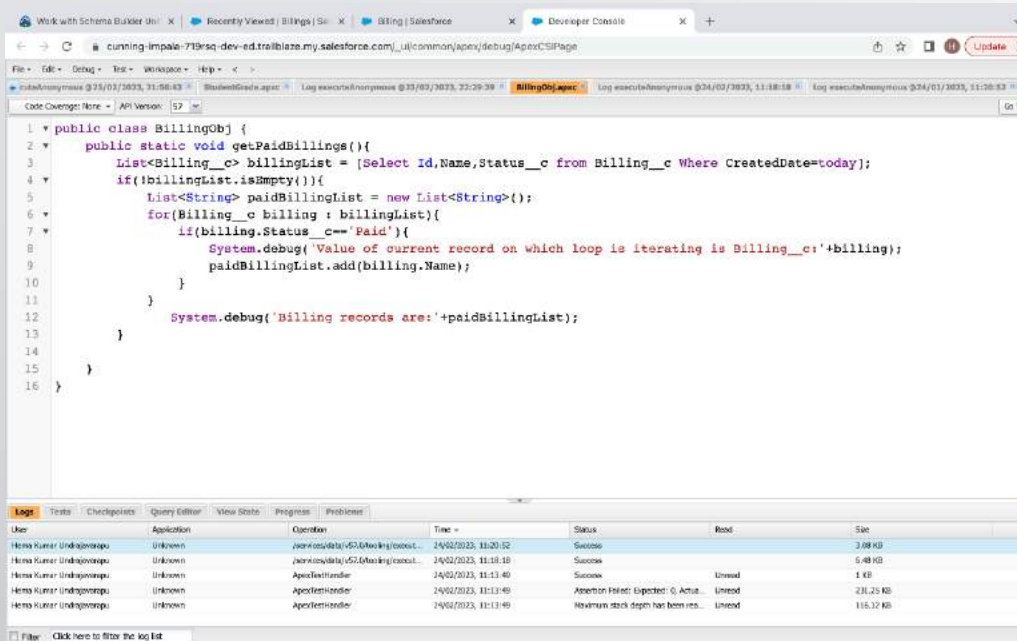
Below the code editor, the 'Logs' tab is selected, showing a table of log entries. The table has columns for User, Application, Operation, Time, Status, Read, and Size.

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/execut...	24/02/2023, 11:18:18	Success		6.48 KB
Hema Kumar Undrajavarapu	Unknown	ApexTestHandler	24/02/2023, 11:13:49	Success	Unread	1 KB
Hema Kumar Undrajavarapu	Unknown	ApexTestHandler	24/02/2023, 11:13:49	Assertion Failed: Expected: 0, Actua...	Unread	231.25 KB
Hema Kumar Undrajavarapu	Unknown	ApexTestHandler	24/02/2023, 11:13:49	Maximum stack depth has been rea...	Unread	116.12 KB

At the bottom, there is a 'Filter' button and a link 'Click here to filter the log list'.

Exercise 7

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

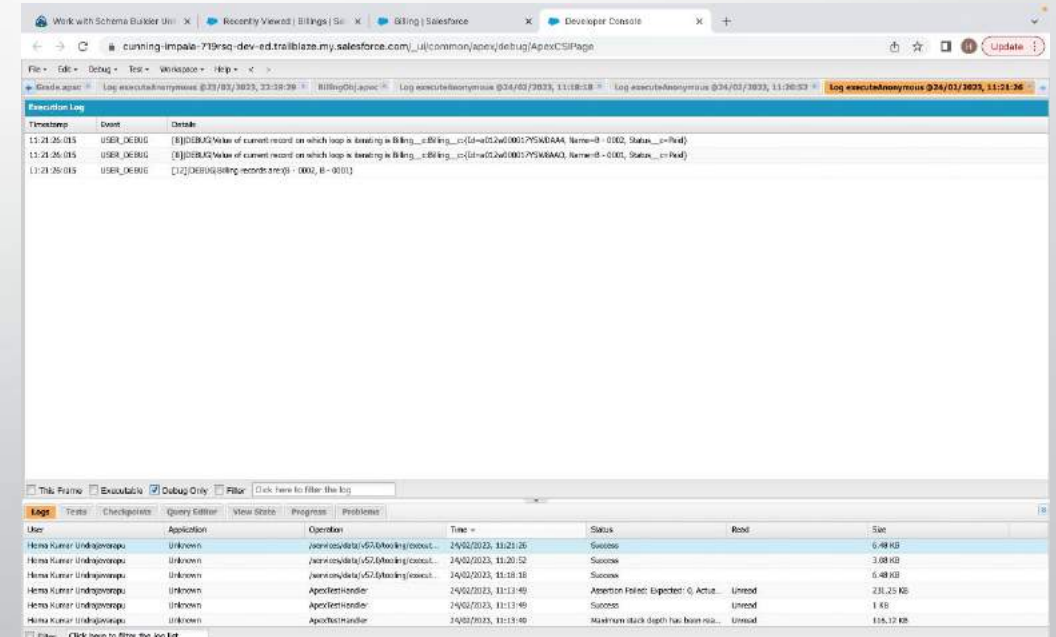


The screenshot shows the Salesforce IDE with the following components:

- Code Editor:** Contains the `BillingObj` class with a `getPaidBillings()` method. The method uses a `for` loop to iterate over a list of `Billing__c` records, adding their names to a `paidBillingList` if their status is 'Paid'.
- Log Tab:** Displays a table of log entries.

```
1 public class BillingObj {  
2     public static void getPaidBillings(){  
3         List<Billing__c> billingList = [Select Id,Name,Status__c from Billing__c Where CreatedDate=Today];  
4         if(billingList.isEmpty()){  
5             List<String> paidBillingList = new List<String>();  
6             for(Billing__c billing : billingList){  
7                 if(billing.Status__c == 'Paid'){  
8                     System.debug('Value of current record on which loop is iterating is Billing__c:' + billing);  
9                     paidBillingList.add(billing.Name);  
10                }  
11            }  
12            System.debug('Billing records are:' + paidBillingList);  
13        }  
14    }  
15 }  
16 }
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undigovempu	Unknown	java:osdata/52/locking/consul...	24/02/2023, 11:20:52	Success		3.08 KB
Hema Kumar Undigovempu	Unknown	java:osdata/52/locking/consul...	24/02/2023, 11:20:52	Success		5.48 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Success	Unread	1 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Assertion Failed: Expected: 0, Actual: 231.25 KB	Unread	231.25 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Maximum stack depth has been res...	Unread	115.12 KB



The screenshot shows the Salesforce IDE with the following components:

- Execution Log:** Displays a table of execution events.
- Log Tab:** Displays a table of log entries.

Timestamp	Event	Details
11:21:26.035	USER_DEBUG	[8]DEBUG:Value of current record on which loop is iterating is Billing__c: Billing__c(Id=0052a000000795WAAA, Name=0 - 0002, Status__c=Paid)
11:21:26.035	USER_DEBUG	[9]DEBUG:Value of current record on which loop is iterating is Billing__c: Billing__c(Id=0052a000000795WAAA, Name=0 - 0003, Status__c=Paid)
11:21:26.035	USER_DEBUG	[12]DEBUG:billing-records-are: 000, 0 - 0001

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undigovempu	Unknown	java:osdata/52/locking/consul...	24/02/2023, 11:21:26	Success		6.48 KB
Hema Kumar Undigovempu	Unknown	java:osdata/52/locking/consul...	24/02/2023, 11:20:52	Success		3.08 KB
Hema Kumar Undigovempu	Unknown	java:osdata/52/locking/consul...	24/02/2023, 11:18:18	Success		6.48 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Assertion Failed: Expected: 0, Actual: 231.25 KB	Unread	231.25 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Success	Unread	1 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:13:40	Maximum stack depth has been res...	Unread	115.12 KB

Exercise 8

Write a Class to demo the use of Constants in Apex

The screenshot shows the Salesforce Developer Console with the following components:

- Code Editor:** Contains the `DiscountClass` Apex code.
- Enter Apex Code:** A small window showing the code being executed: `DiscountClass x = new DiscountClass();` and `x.calculateDiscount(200);`.
- Log Tab:** Displays a table of log entries.

```
1 public class DiscountClass {
2
3     final decimal regularDiscount = 0.5;
4     decimal finalPrice = 0;
5
6     public decimal calculateDiscount(Integer price){
7         finalPrice = price - price*regularDiscount;
8         System.debug('final price: '+finalPrice);
9         return finalPrice;
10    }
11 }
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:32	Success	Unread	1.66 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:36	Success	Unread	6.48 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:32	Success	Unread	3.08 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:36	Success	Unread	6.48 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:24:36	Assertion Failed: Expected: 0 Actual: 100.0	Unread	231.25 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:24:36	Success	Unread	1 KB

The screenshot shows the Salesforce Developer Console with the following components:

- Code Editor:** Contains the `DiscountClass` Apex code.
- Enter Apex Code:** A small window showing the code being executed: `DiscountClass x = new DiscountClass();` and `x.calculateDiscount(200);`.
- Log Tab:** Displays a table of log entries.

```
1 public class DiscountClass {
2
3     final decimal regularDiscount = 0.5;
4     decimal finalPrice = 0;
5
6     public decimal calculateDiscount(Integer price){
7         finalPrice = price - price*regularDiscount;
8         System.debug('final price: '+finalPrice);
9         return finalPrice;
10    }
11 }
```

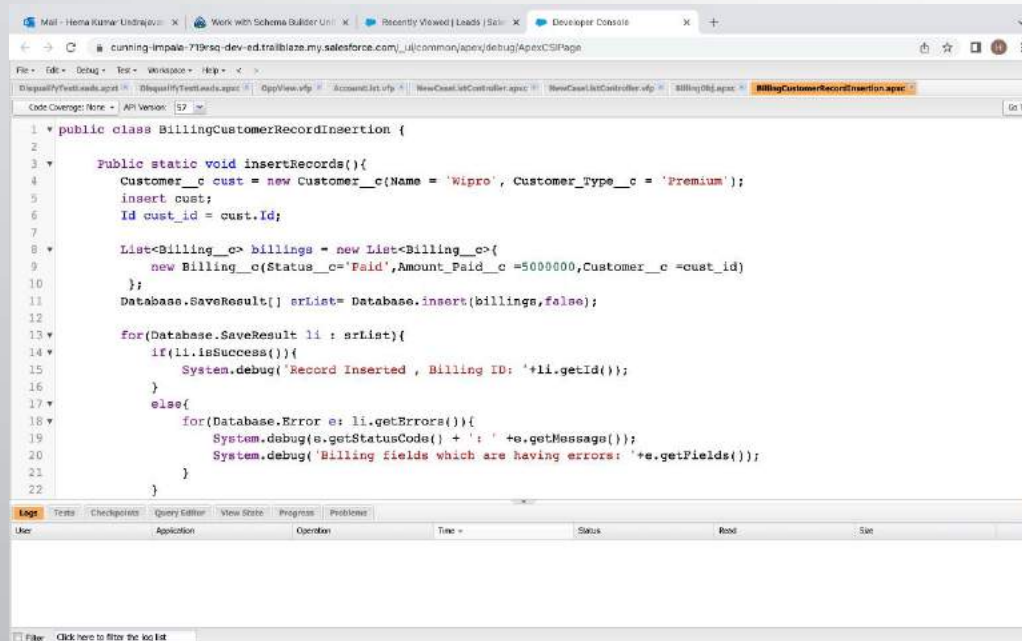
Timestamp	Event	Details
11:24:48.007	USER_DEBUG	(8)DEBUG:final price: 100.0

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:48	Success	Unread	1.66 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:48	Success	Unread	6.48 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:48	Success	Unread	3.08 KB
Hema Kumar Undigovempu	Unknown	/services/data/v57.0/objects/DiscountClass	24/02/2023, 11:24:48	Success	Unread	6.48 KB
Hema Kumar Undigovempu	Unknown	ApexTestHandler	24/02/2023, 11:24:48	Maximum stack depth has been reached	Unread	115.12 KB

Exercise 10

Insert Billing record using Database methods

Here use record id to insert customer



```
1 public class BillingCustomerRecordInsertion {
2
3     Public static void insertRecords(){
4         Customer__c cust = new Customer__c(Name = 'Wipro', Customer_Type__c = 'Premium');
5         insert cust;
6         Id cust_id = cust.Id;
7
8         List<Billing__c> billings = new List<Billing__c>{
9             new Billing__c(Status__c='Paid',Amount_Paid__c =5000000,Customer__c =cust_id)
10        };
11        Database.SaveResult[] srList= Database.insert(billings,false);
12
13        for(Database.SaveResult li : srList){
14            if(li.isSuccess()){
15                System.debug('Record Inserted , Billing ID: '+li.getId());
16            }
17            else{
18                for(Database.Error e: li.getErrors()){
19                    System.debug(e.getStatusCode() + ' : ' +e.getMessage());
20                    System.debug('Billing fields which are having errors: '+e.getFields());
21                }
22            }
23        }
24    }
25 }
```



```
7
8     List<Billing__c> billings = new List<Billing__c>{
9         new Billing__c(Status__c='Paid',Amount_Paid__c =5000000,Customer__c =cust_id)
10    };
11    Database.SaveResult[] srList= Database.insert(billings,false);
12
13    for(Database.SaveResult li : srList){
14        if(li.isSuccess()){
15            System.debug('Record Inserted , Billing ID: '+li.getId());
16        }
17        else{
18            for(Database.Error e: li.getErrors()){
19                System.debug(e.getStatusCode() + ' : ' +e.getMessage());
20                System.debug('Billing fields which are having errors: '+e.getFields());
21            }
22        }
23    }
24
25 }
```

Chrome File Edit View History Bookmarks Profiles Tab Window Help

Hands-On Orgs x B - 0005 | Salesforce x +

cunning-impala-719rsq-dev-ed.trailblaze.lightning.force.com/lightning/r/Billing__c/a012w000017YSh5AAG/view

Search...

Code Playground Leads Accounts Contacts Opportunities Cases Customers Billings

Billing
B - 0005

Related Details

Billing Number
B - 0005

Amount Paid
\$5,000,000

Customer Type

Status
Paid

Customer
Wipro

Created By
Hema Kumar Undrajaravarapu, 2/23/2023, 10:19 PM

Last Modified By
Hema Kumar Undrajaravarapu, 2/23/2023, 10:19 PM

Hema Kumar Undrajaravarapu
cunning-impala-719rsq-dev-ed.trailblaze...
Settings Log Out

DISPLAY DENSITY

✓ Comfy

Compact

OPTIONS

Switch to Salesforce Classic ⓘ

Add Username

Mac OS Dock: Finder, Launchpad, Safari, Messages, Mail, Maps, Photos, Videos, Calendar (Feb 26), Reminders, Notes, Apple TV, Music, Podcasts, TV, News, Stocks, App Store, System Settings, Chrome, Word, OneDrive, Zoom, Trash

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"

The screenshot shows the Salesforce Developer Console interface. The top navigation bar includes tabs for 'Work with Schema Builder', 'Chatter Home | Salesforce', 'Developer Console', 'All Opportunities | Opportu...', 'Billing | Salesforce', and another 'Developer Console' tab. The address bar shows the URL: `curious-wolf-tyvkh-p-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. Below the address bar is a menu bar with 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help'. The main content area displays a SOQL query: `SELECT Id, AccountId, Amount, Name, StageName, Account.Industry, Account.Website FROM Opportunity where Account.Industry = 'Energy' AND Account.AnnualRevenue > 5000`. Below the query, the 'Query Results - Total Rows: 10' are shown in a table. The table has columns: Id, AccountId, Amount, Name, StageName, Account.Industry, and Account.Website. The results list 10 opportunities, all with 'Energy' as the industry and 'Closed Won' as the stage. The bottom section of the console shows the 'Query Editor' with the same query, a 'History' panel on the right, and an 'Execute' button at the bottom left.

Query Results - Total Rows: 10

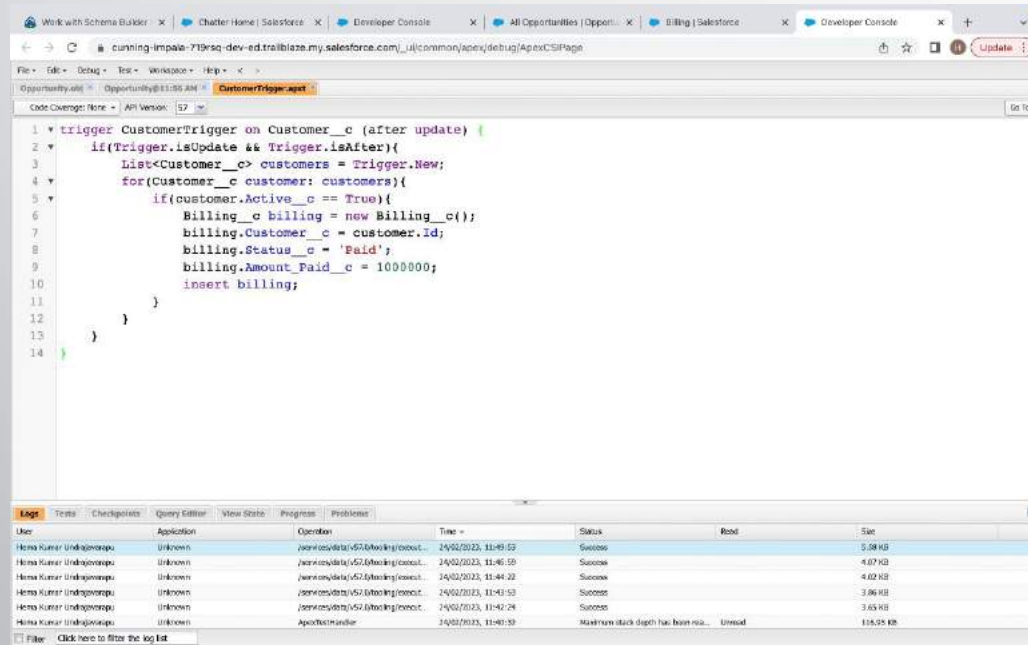
Id	AccountId	Amount	Name	StageName	Account.Industry	Account.Website
0062w0000HtceRAAR	0012w00001DUgKyAAL	125000	United Oil Office Portable Generators	Negotiation/Review	Energy	http://www.uos.com
0062w0000HtceVAAR	0012w00001DUgKyAAL	270000	United Oil Refinery Generators	Proposal/Price Quote	Energy	http://www.uos.com
0062w0000HtceWAAR	0012w00001DUgKyAAL	120000	United Oil SLA	Closed Won	Energy	http://www.uos.com
0062w0000HtceAAB	0012w00001DUgKyAAL	270000	United Oil Installations	Negotiation/Review	Energy	http://www.uos.com
0062w0000HtcehAAB	0012w00001DUgKyAAL	270000	United Oil Installations	Closed Won	Energy	http://www.uos.com
0062w0000HtcejAAB	0012w00001DUgKyAAL	915000	United Oil Refinery Generators	Closed Won	Energy	http://www.uos.com
0062w0000HtceqAAB	0012w00001DUgKyAAL	235000	United Oil Installations	Closed Won	Energy	http://www.uos.com
0062w0000HtcepAAB	0012w00001DUgKyAAL	440000	United Oil Emergency Generators	Closed Won	Energy	http://www.uos.com
0062w0000HtcerAAB	0012w00001DUgKyAAL	120000	United Oil Standby Generators	Closed Won	Energy	http://www.uos.com
0062w0000HtcesAAB	0012w00001DUgKyAAL	675000	United Oil Plant Standby Generators	Needs Analysis	Energy	http://www.uos.com

Query Editor: `SELECT Id, AccountId, Amount, Name, StageName, Account.Industry, Account.Website FROM Opportunity where Account.Industry = 'Energy' AND Account.AnnualRevenue > 5000`

History: `SELECT Id FROM EventLogFile`, `SELECT Id, AccountId, Amount, Name, StageName, Account.Industr...`

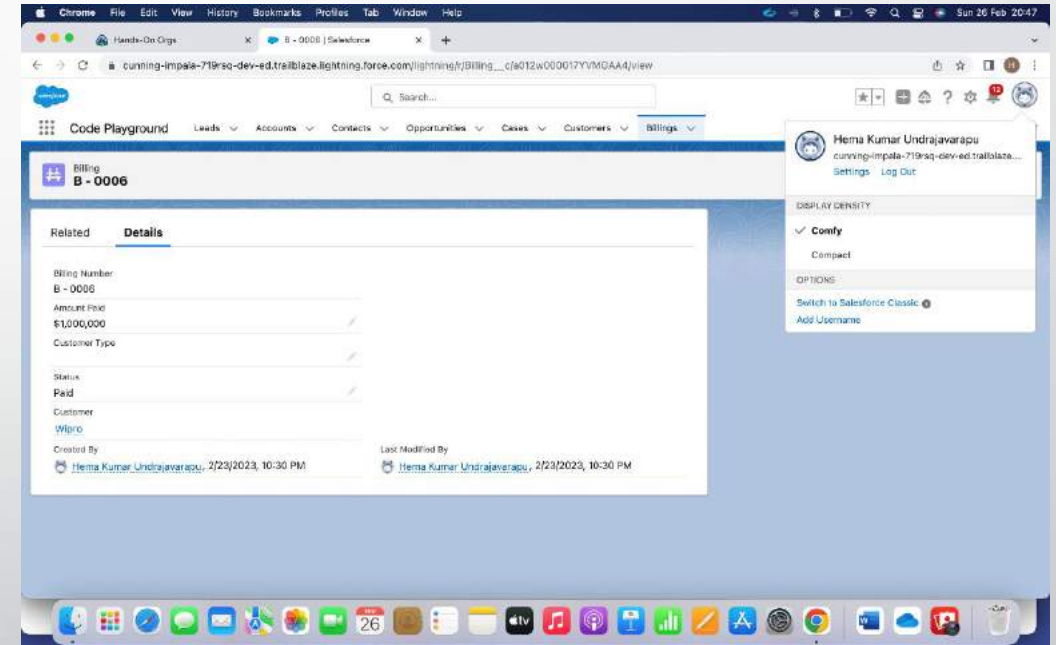
Exercise 12

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 =
15000
Perform the DML on a List.



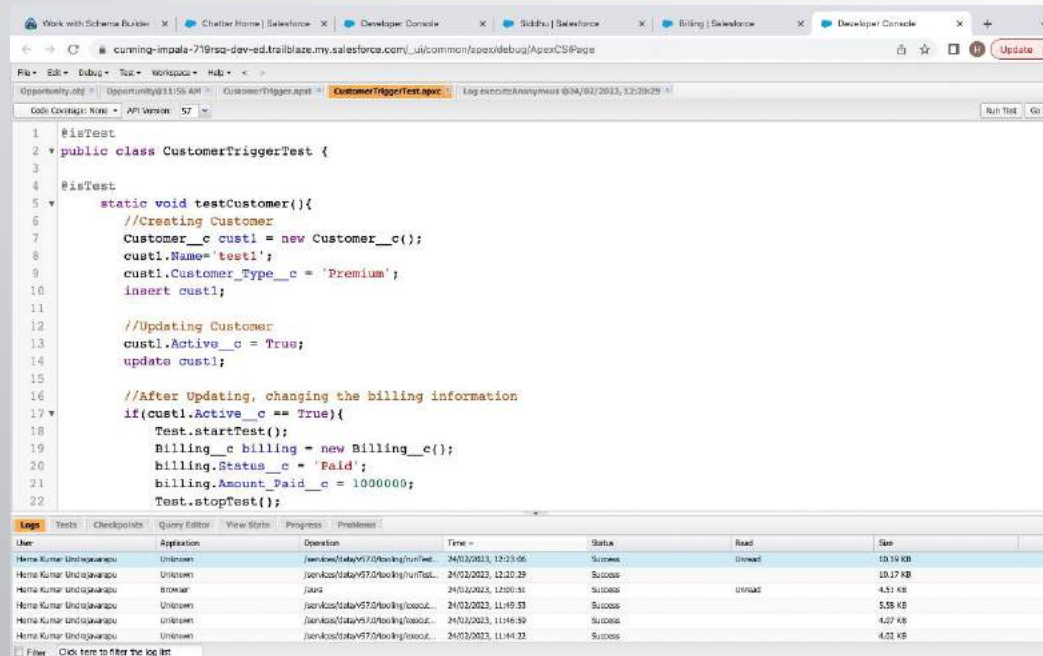
```
1 trigger CustomerTrigger on Customer__c (after update) {
2     if (Trigger.isUpdate && Trigger.isAfter) {
3         List<Customer__c> customers = Trigger.New;
4         for (Customer__c customer : customers) {
5             if (customer.Active__c == True) {
6                 Billing__c billing = new Billing__c();
7                 billing.Customer__c = customer.Id;
8                 billing.Status__c = 'Paid';
9                 billing.Amount_Paid__c = 1000000;
10                insert billing;
11            }
12        }
13    }
14 }
```

User	Application	Operation	Time	Status	Size
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/billing/creat...	2/23/2023, 11:41:53	Success	5.88 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/billing/creat...	2/23/2023, 11:41:55	Success	4.87 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/billing/creat...	2/23/2023, 11:41:55	Success	4.82 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/billing/creat...	2/23/2023, 11:41:53	Success	3.86 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/billing/creat...	2/23/2023, 11:41:54	Success	3.65 KB
Hema Kumar Undrajavarapu	Unknown	ApexBatchHandler	2/23/2023, 11:41:59	Maximum stack depth has been rea...	115.95 KB



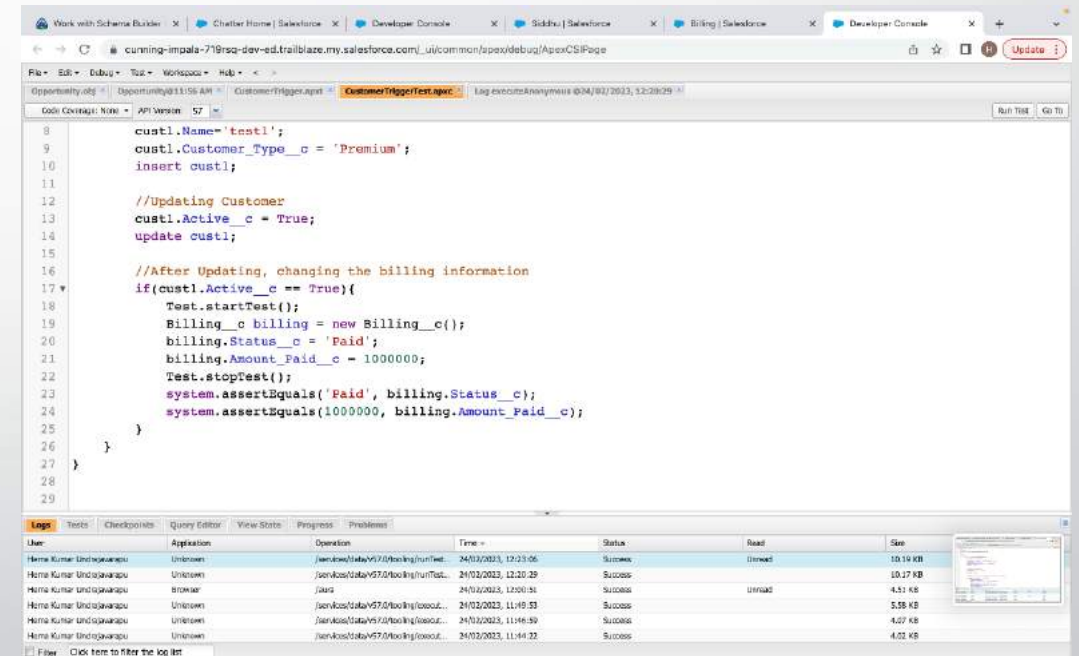
Exercise 13

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.



```
1 @isTest
2 public class CustomerTriggerTest {
3
4     @isTest
5     static void testCustomer(){
6         //Creating Customer
7         Customer__c cust1 = new Customer__c();
8         cust1.Name='test1';
9         cust1.Customer_Type__c = 'Premium';
10        insert cust1;
11
12        //Updating Customer
13        cust1.Active__c = True;
14        update cust1;
15
16        //After Updating, changing the billing information
17        if(cust1.Active__c == True){
18            Test.startTest();
19            Billing__c billing = new Billing__c();
20            billing.Status__c = 'Paid';
21            billing.Amount_Paid__c = 1000000;
22            Test.stopTest();
23        }
24    }
25 }
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:23:06	Success	Unread	10.19 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:20:29	Success	Unread	10.17 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:20:31	Success	Unread	4.51 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:49:53	Success	Unread	5.58 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:46:59	Success	Unread	4.07 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:44:22	Success	Unread	4.02 KB



```
8 cust1.Name='test1';
9 cust1.Customer_Type__c = 'Premium';
10 insert cust1;
11
12 //Updating Customer
13 cust1.Active__c = True;
14 update cust1;
15
16 //After Updating, changing the billing information
17 if(cust1.Active__c == True){
18     Test.startTest();
19     Billing__c billing = new Billing__c();
20     billing.Status__c = 'Paid';
21     billing.Amount_Paid__c = 1000000;
22     Test.stopTest();
23     system.assertEquals('Paid', billing.Status__c);
24     system.assertEquals(1000000, billing.Amount_Paid__c);
25 }
26 }
27 }
28 }
29 }
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:23:06	Success	Unread	10.19 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:20:29	Success	Unread	10.17 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 12:20:31	Success	Unread	4.51 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:49:53	Success	Unread	5.58 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:46:59	Success	Unread	4.07 KB
Hema Kumar Undirajwansu	Unknown	/services/data/v57.0/objects/runTest...	24/02/2023, 11:44:22	Success	Unread	4.02 KB

Exercise 14

ApexTrigger,Name=DisqualifyTestLeads

The screenshot displays the Salesforce Developer Console interface. The top navigation bar shows several tabs: 'Work with Schema Builder', 'Recently Viewed | Leads', 'Developer Console', 'Test run | Salesforce', 'Billing | Salesforce', and another 'Developer Console' tab. The address bar indicates the URL: `cunning-impala-719rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage`. Below the navigation bar, the file explorer shows the following files: `Opportunity.obj`, `Opportunity@11:56 AM`, `CustomerTrigger.apxc`, `CustomerTriggerTest.apxc`, `Log executeAnonymous @24/02/2023, 12:20:29`, and `DisqualifyTestLeads.apxc`. The 'Code Coverage: None' and 'API Version: 57' are displayed. The main editor shows the following Apex code:

```
1 trigger DisqualifyTestLeads on Lead (before insert,before update,after insert) {
2
3     List<Lead> li = new List<Lead>();
4     if(trigger.isBefore && trigger.isInsert){
5         for(Lead myLead : Trigger.New){
6             if(( String.isNotBlank(myLead.FirstName) && String.isNotBlank(myLead.LastName)) && (myLead.FirstName=='Test' || myI
7                 System.debug(myLead.FirstName + ' ' + myLead.LastName + 'Will be disqualified!');
8                 li.add(myLead);
9             }
10
11         else{
12             myLead.addError('Enter Name');
13         }
14     }
15
16     for(Lead myLead : li){
17         myLead.Status = 'Disqualified';
18     }
19 }
20
21 }
```

Below the code editor, the 'Logs' tab is selected, showing a table of recent operations:

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undrajavarapu	Browser	/aura	24/02/2023, 12:47:47	Success	Unread	3.03 KB
Hema Kumar Undrajavarapu	Browser	/aura	24/02/2023, 12:47:46	Success	Unread	6.6 KB
Hema Kumar Undrajavarapu	Browser	/aura	24/02/2023, 12:47:37	Success	Unread	3.61 KB
Hema Kumar Undrajavarapu	Browser	/aura	24/02/2023, 12:47:29	Success	Unread	3.61 KB
Hema Kumar Undrajavarapu	Browser	/aura	24/02/2023, 12:00:51	Success	Unread	4.51 KB
Hema Kumar Undrajavarapu	Unknown	/services/data/v57.0/tooling/runTest...	24/02/2023, 12:23:06	Success	Unread	10.19 KB

At the bottom left, there is a 'Filter' button and a link that says 'Click here to filter the log list'.

Write a Test Class for DisqualifyTestLeads.

The screenshot shows the Salesforce IDE interface. At the top, there are tabs for 'Work with Schema Builder', 'Recently Viewed | Leads', 'Developer Console', 'Recently Viewed | Views', 'Billing | Finance', 'Developer Console', and 'Developer Console'. Below the tabs is a search bar containing 'cunning-impala-719:rsq-dev-ed.trailblaze.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage'. On the right side of the search bar are icons for home, star, and a red 'Update' button.

The main editor area displays the following Apex code:

```
1 @isTest
2 public class DisqualifyTestLeads {
3
4     @isTest
5     private static void insertData1(){
6         Lead l1 = new Lead();
7         l1.FirstName = 'Test';
8         l1.LastName = 'Test';
9         l1.Company = 'Test';
10        Test.startTest();
11        insert l1;
12        Test.stopTest();
13        System.assertEquals('Test', l1.FirstName);
14        System.assertEquals('Test', l1.LastName);
15        System.assertEquals('Test', l1.Company);
16    }
17
18
19    @isTest
20    private static void insertData2(){
21        Lead l2 = new Lead();
22        l2.LastName = 'Test';
```

Below the code editor, there is a table with columns: Name, Tests, Checkpoints, Query Editor, View State, Progress, Problems, Time, Status, RowId, Size. The table contains 6 rows of test results. The first 5 rows show successful test execution with status 'Success' and row IDs. The last row shows a failed test with status 'Insert failed: First exception on row' and row ID '18.84 KB'.

Name	Tests	Checkpoints	Query Editor	View State	Progress	Problems	Time	Status	RowId	Size
Hema Kumar Undia@csrqsp	Success	/aura	/aura				24/02/2021, 12:47:47	Success	Unread	3.03 KB
Hema Kumar Undia@csrqsp	Success	/aura	/aura				24/02/2021, 12:47:46	Success	Unread	6.69 KB
Hema Kumar Undia@csrqsp	Success	/aura	/aura				24/02/2021, 12:47:37	Success	Unread	3.01 KB
Hema Kumar Undia@csrqsp	Success	/aura	/aura				24/02/2021, 12:47:29	Success	Unread	3.01 KB
Hema Kumar Undia@csrqsp	Success	/aura	/aura				24/02/2021, 12:01:51	Success	Unread	4.51 KB
Hema Kumar Undia@csrqsp	Unknown	/apex/test/1770250394Test					24/02/2021, 12:51:32	Insert failed: First exception on row	Unread	18.84 KB

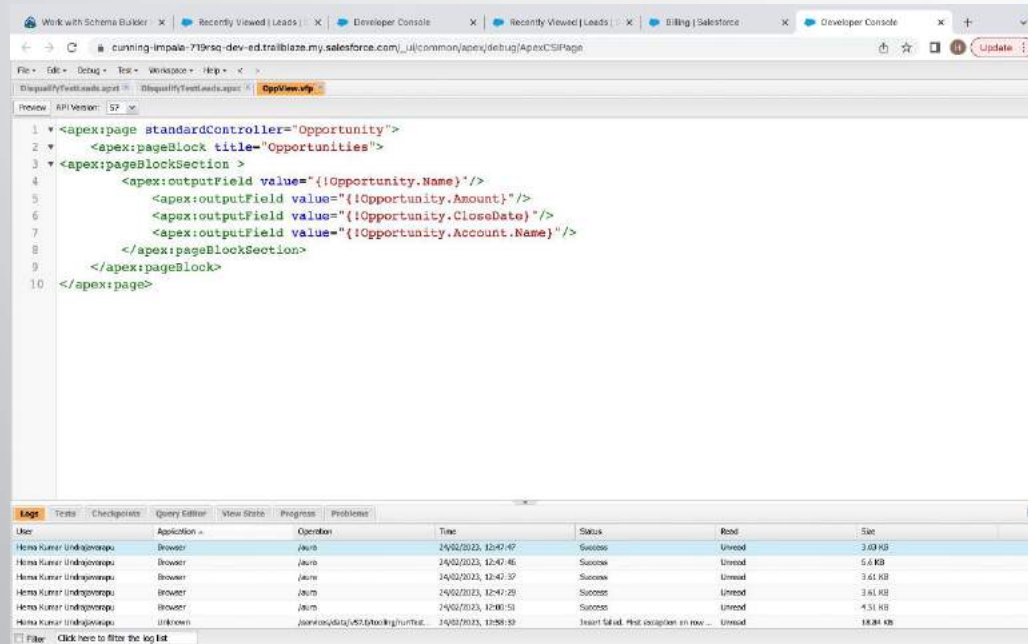
At the bottom left, there is a checkbox labeled 'Filter' and a link 'Click here to filter the log list'.

The screenshot displays the Visual Studio Code interface with a Java test file open. The code defines a test class with two methods: `stopTest()` and `insertData2()`. The `insertData2()` method creates a `Lead` object, sets its properties, and inserts it into the database. The bottom panel shows the Test Explorer with a table of test results.

Status	Test Run	Engaged Time	Duration	Failures	Total	Overall Code Coverage
✗	7072x0003Lbyan	Fri Feb 24 2023 11:13:46 GMT...		1	2	Client
✓	testRun @ 12:00:16 pm			0	1	DiscountTans
✓	CustomerWaggor			0	1	DisparifyTestLast2
✓	testCustomer	0.00		0	1	NormalCustomer
✓	TestRun @ 12:23:15 pm			0	1	OrderCancellation
✓	CustomerWaggorTest			0	1	OrderWaggor
✓	testRun @ 12:52:15 pm			0	1	orderTrigger

Exercise 16

Create a Visualforce page which displays Opportunity fields as output fields.

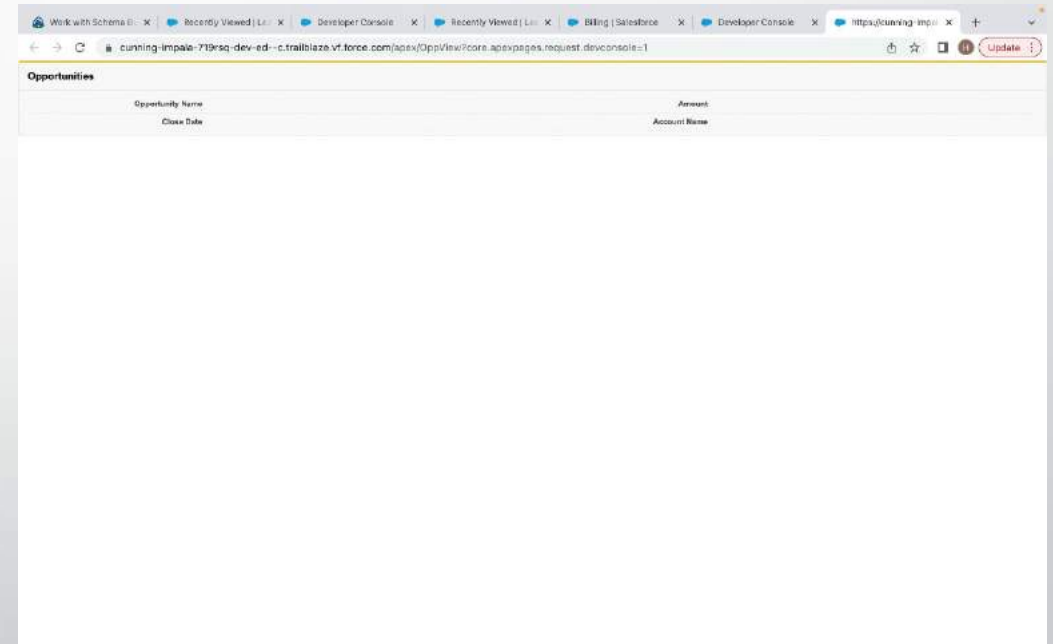


The screenshot shows the Salesforce Developer Console with the Apex code for a Visualforce page. The code is as follows:

```
1 <apex:page standardController="Opportunity">
2   <apex:pageBlock title="Opportunities">
3     <apex:pageBlockSection>
4       <apex:outputField value="{!Opportunity.Name}"/>
5       <apex:outputField value="{!Opportunity.Amount}"/>
6       <apex:outputField value="{!Opportunity.CloseDate}"/>
7       <apex:outputField value="{!Opportunity.Account.Name}"/>
8     </apex:pageBlockSection>
9   </apex:pageBlock>
10 </apex:page>
```

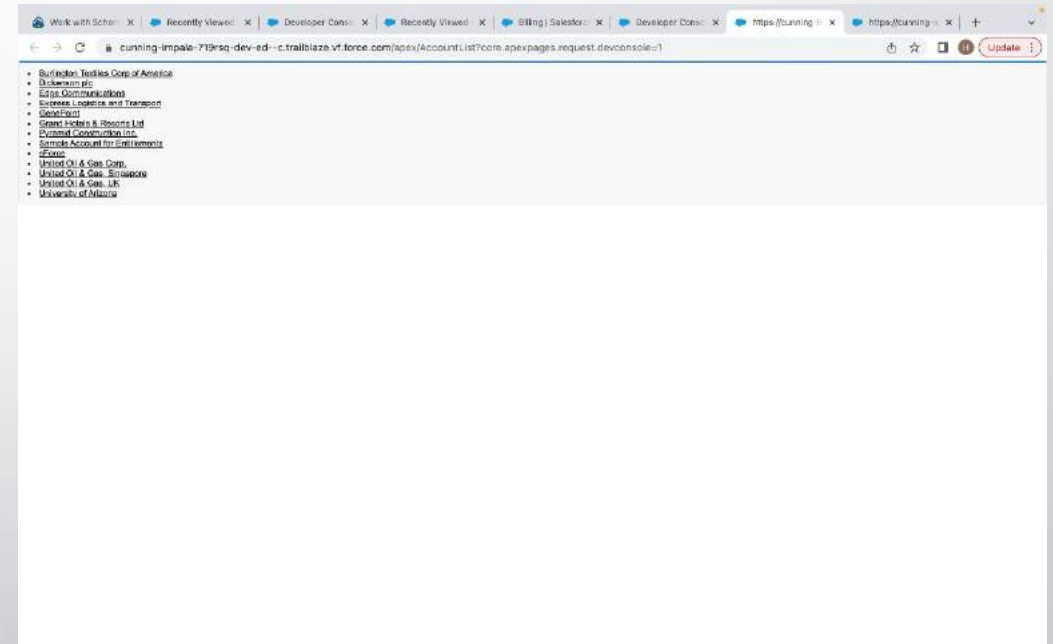
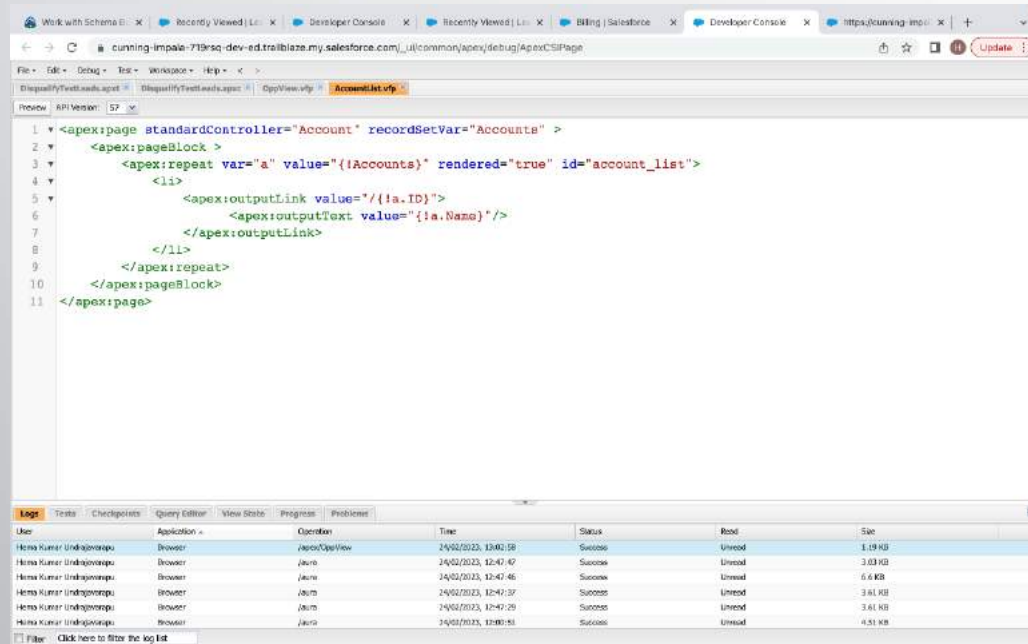
Below the code editor, the 'Logs' tab is selected, showing a table of log entries:

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undagovanapu	Browser	js:rb	24/02/2023, 12:47:47	Success	Unread	3.69 KB
Hema Kumar Undagovanapu	Browser	js:rb	24/02/2023, 12:47:46	Success	Unread	5.6 KB
Hema Kumar Undagovanapu	Browser	js:rb	24/02/2023, 12:47:57	Success	Unread	3.61 KB
Hema Kumar Undagovanapu	Browser	js:rb	24/02/2023, 12:47:29	Success	Unread	3.61 KB
Hema Kumar Undagovanapu	Browser	js:rb	24/02/2023, 12:46:51	Success	Unread	4.51 KB
Hema Kumar Undagovanapu	Unknown	js:rb	24/02/2023, 12:58:59	Insert failed. What description on row ...	Unread	18.84 KB



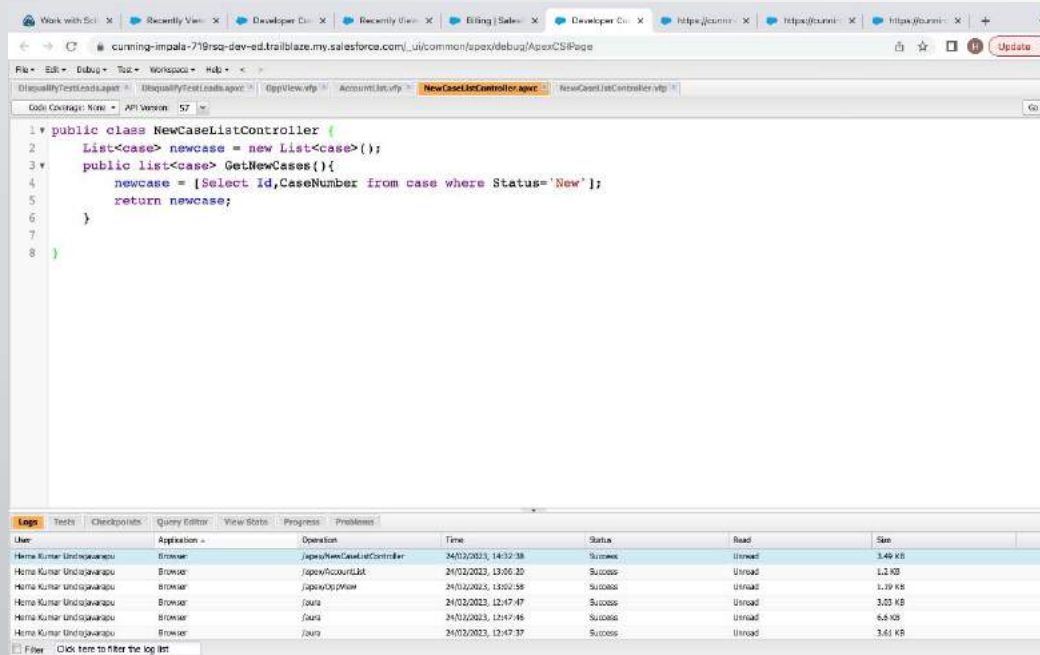
Exercise 17

Create a Visualforce page which shows a list of Accounts linked to their record pages



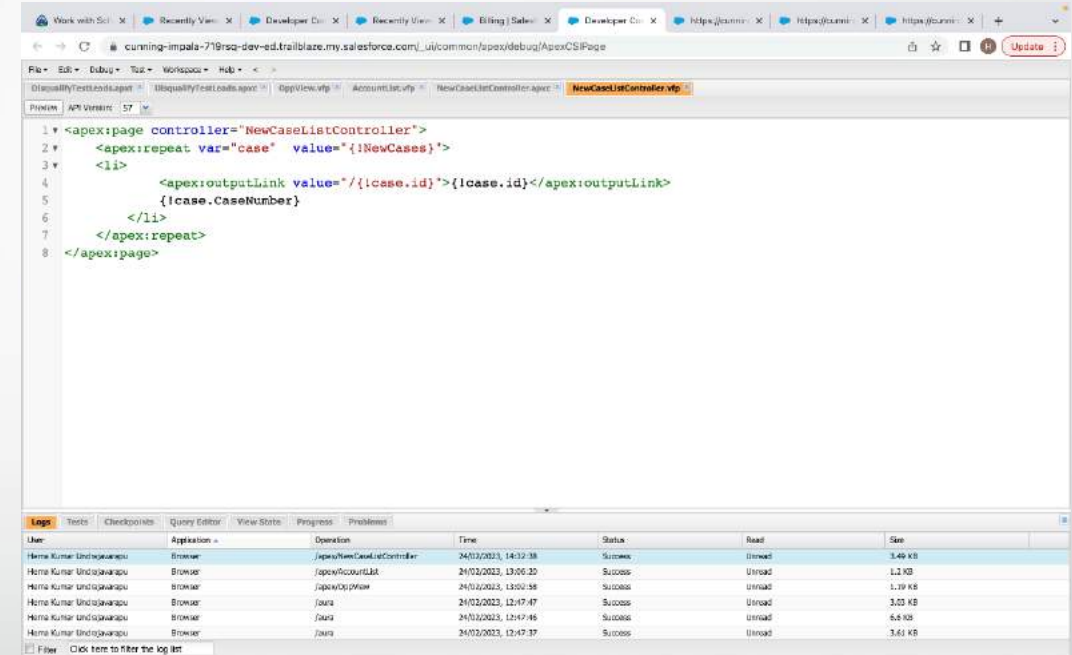
Exercise 18

Create a Visualforce page that uses a custom controller to display a list of cases with the status of 'New'. The page must be named NewCaseList.



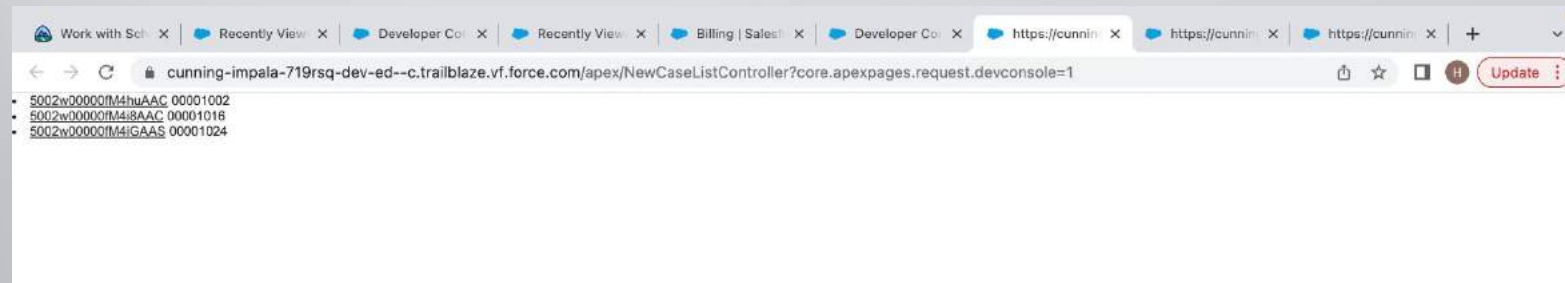
```
1 public class NewCaseListController {
2     List<Case> newcase = new List<Case>();
3     public List<Case> GetNewCases() {
4         newcase = [Select Id, CaseNumber from Case where Status = 'New'];
5         return newcase;
6     }
7 }
8 }
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undragavaru	Browser	/apex/NewCaseListController	24/02/2023, 14:32:38	Success	Unread	3.49 KB
Hema Kumar Undragavaru	Browser	/apex/AccountList	24/02/2023, 13:00:20	Success	Unread	1.2 KB
Hema Kumar Undragavaru	Browser	/apex/OpView	24/02/2023, 13:02:58	Success	Unread	1.19 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:47	Success	Unread	3.03 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:46	Success	Unread	6.6 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:37	Success	Unread	3.61 KB



```
1 <apex:page controller="NewCaseListController">
2     <apex:repeat var="case" value="{!NewCases}">
3         <li>
4             <apex:outputLink value="/{!case.id}">{!case.id}</apex:outputLink>
5                 {!case.CaseNumber}
6         </li>
7     </apex:repeat>
8 </apex:page>
```

User	Application	Operation	Time	Status	Read	Size
Hema Kumar Undragavaru	Browser	/apex/NewCaseListController	24/02/2023, 14:32:38	Success	Unread	3.49 KB
Hema Kumar Undragavaru	Browser	/apex/AccountList	24/02/2023, 13:00:20	Success	Unread	1.2 KB
Hema Kumar Undragavaru	Browser	/apex/OpView	24/02/2023, 13:02:58	Success	Unread	1.19 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:47	Success	Unread	3.03 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:46	Success	Unread	6.6 KB
Hema Kumar Undragavaru	Browser	/aura	24/02/2023, 12:47:37	Success	Unread	3.61 KB



https://cunnin...
cunning-impala-719rsq-dev-ed--c.trailblaze.vf.force.com/apex/NewCaseListController?core.apexpages.request.devconsole=1

- 5002w00000M4huAAC 00001002
- 5002w00000M4i8AAC 00001016
- 5002w00000M4iGAAS 00001024