

**Project Report on**  
**Build an Employee Travel Approval Application For Corporate**  
**(Developer) – (Long Term)**

**Milestone – 01 : Create Sales force Org**

Go to developer.salesforce.com/Signup

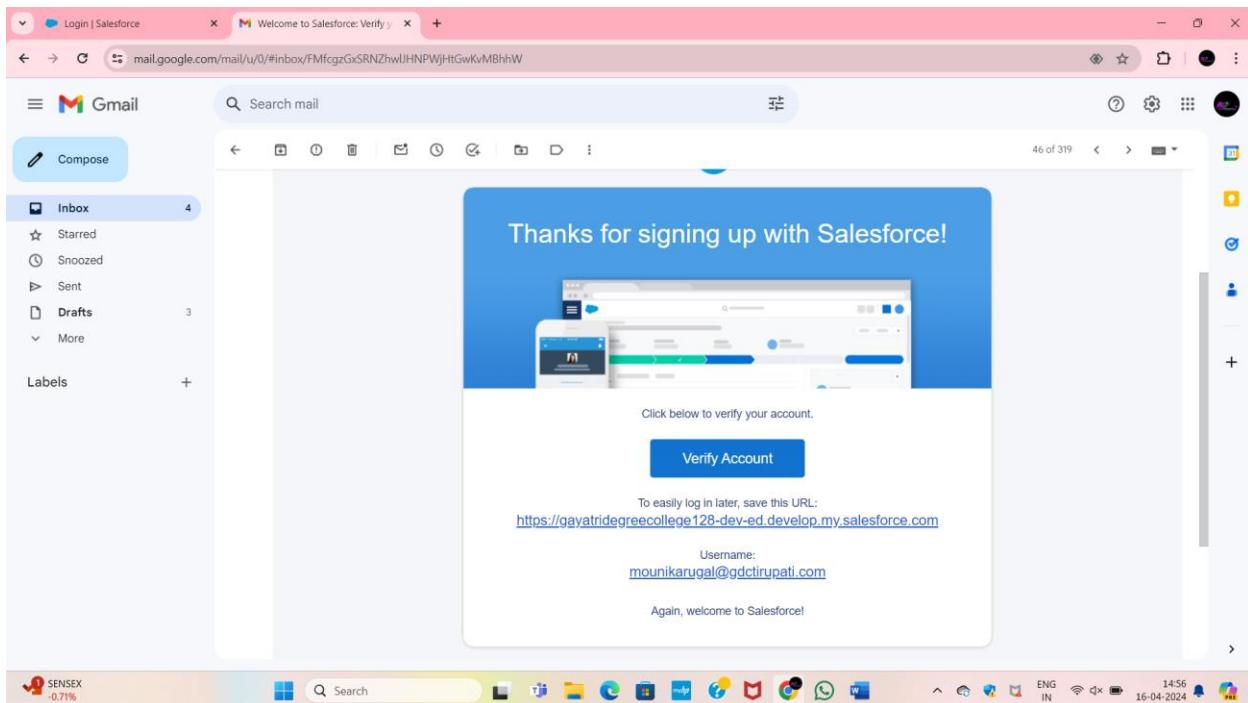
Click on Sign up.

On the sign-up form, enter the following details:

1. First Name & Last Name – Prabhu Mounika
2. Email – mounikarugal@gmail.com
3. Role – Developer
4. Company – GAYATRI DEGREE COLLEGE – TIRUPATI
5. Country – India
6. Postal Code – 517501
7. Username – mounikarugal@gdctirupati.com

**Account Activation**

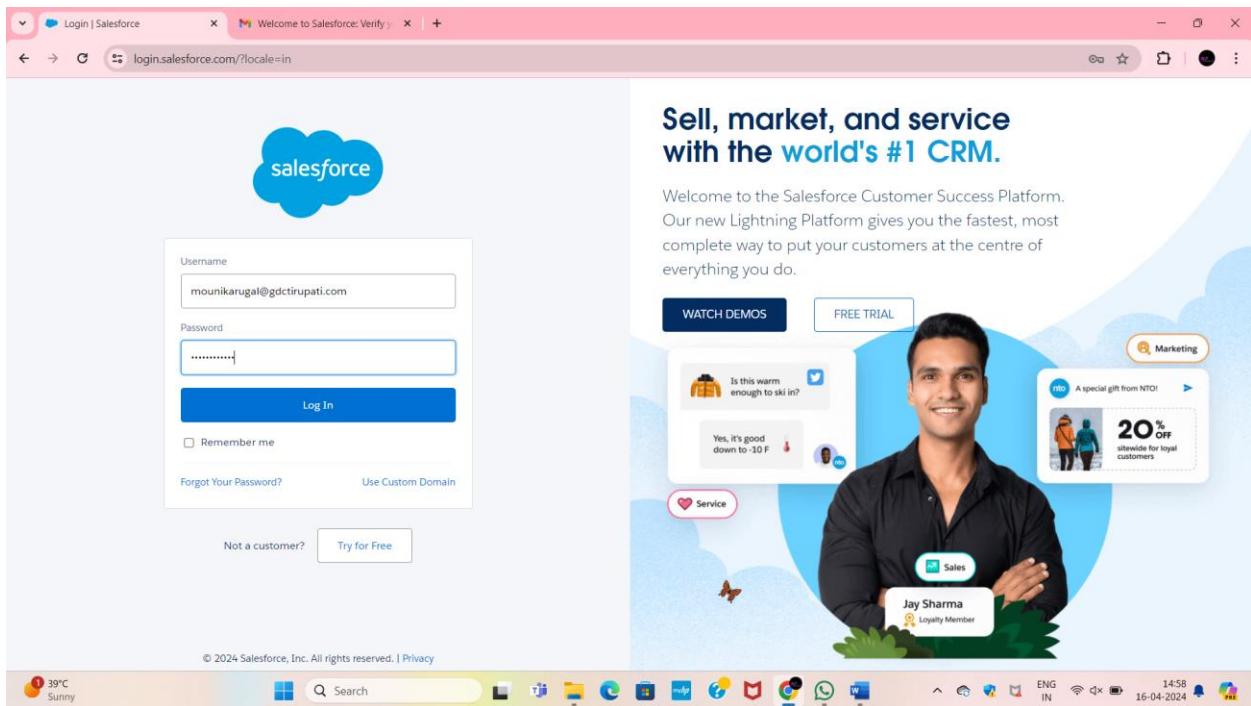
Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10 min, as



**Log in to your Salesforce Account**

1. Go to salesforce.com and click on login.

2. Enter the username and password that you just created.
3. After login this is the home page which you will see.



## Milestone – 02 : Objects in Salesforce

Salesforce objects are database tables that permit you to store data that is specific to an organization. Salesforce objects are of two types: Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards,etc.

### Salesforce objects are of two types:

- 1. Standard Objects:** Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
- 2. Custom Objects:** Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

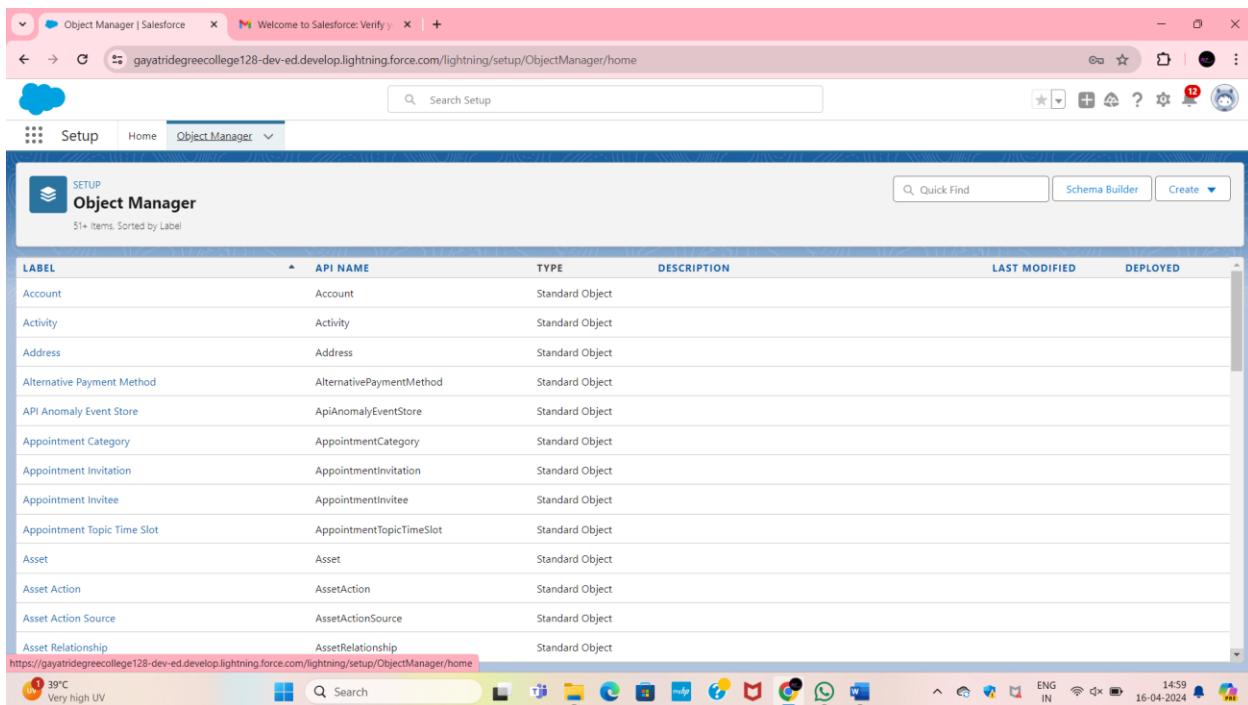
### Creation Of Department Object For Travel Approval App

For this Travel Approval we need to create 5 objects **Department, Employee Detail, Expense, Expense Items, and Travel Approval**. The below steps will assist you in creating those objects.

#### Create Department Object:

1. Click on the gear icon and then select Setup.

2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look in the extreme right you will find a Create Dropdown Click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label : Department
6. Plural Label : Departments
7. Record Name : Department Name
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save.



The screenshot shows the Salesforce Object Manager page. The browser title bar reads "Object Manager | Salesforce" and "Welcome to Salesforce: Verify". The URL in the address bar is "https://gayatridegreecollege128-dev-ed.lightning.force.com/lightning/setup/ObjectManager/home". The page header includes "SETUP", "Object Manager", "Home", and "Object Manager" tabs. A search bar at the top right contains "Search Setup". Below the header is a table titled "Object Manager" with 51+ items sorted by Label. The table has columns for LABEL, API NAME, TYPE, DESCRIPTION, LAST MODIFIED, and DEPLOYED. The first few rows show standard objects like Account, Activity, Address, etc. The bottom status bar displays weather information ("39°C Very high UV"), a search bar, and system details ("ENG IN 14:59 16-04-2024").

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Account	Account	Standard Object			
Activity	Activity	Standard Object			
Address	Address	Standard Object			
Alternative Payment Method	AlternativePaymentMethod	Standard Object			
API Anomaly Event Store	ApiAnomalyEventStore	Standard Object			
Appointment Category	AppointmentCategory	Standard Object			
Appointment Invitation	AppointmentInvitation	Standard Object			
Appointment Invitee	AppointmentInvitee	Standard Object			
Appointment Topic Time Slot	AppointmentTopicTimeSlot	Standard Object			
Asset	Asset	Standard Object			
Asset Action	AssetAction	Standard Object			
Asset Action Source	AssetActionSource	Standard Object			
Asset Relationship	AssetRelationship	Standard Object			

The screenshot shows the Salesforce Object Manager interface. The left sidebar lists various configuration options under 'Details'. The main 'Details' section shows the following fields:

Field	Value
Description	
API Name	Department__c
Custom	✓
Singular Label	Department
Plural Label	Departments
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

At the bottom of the page, there are 'Edit' and 'Delete' buttons. The status bar at the bottom of the browser window shows the date as 16-04-2024.

In the same way create 4 more objects Employee Detail, Expense , Expense Items, and Travel Approval

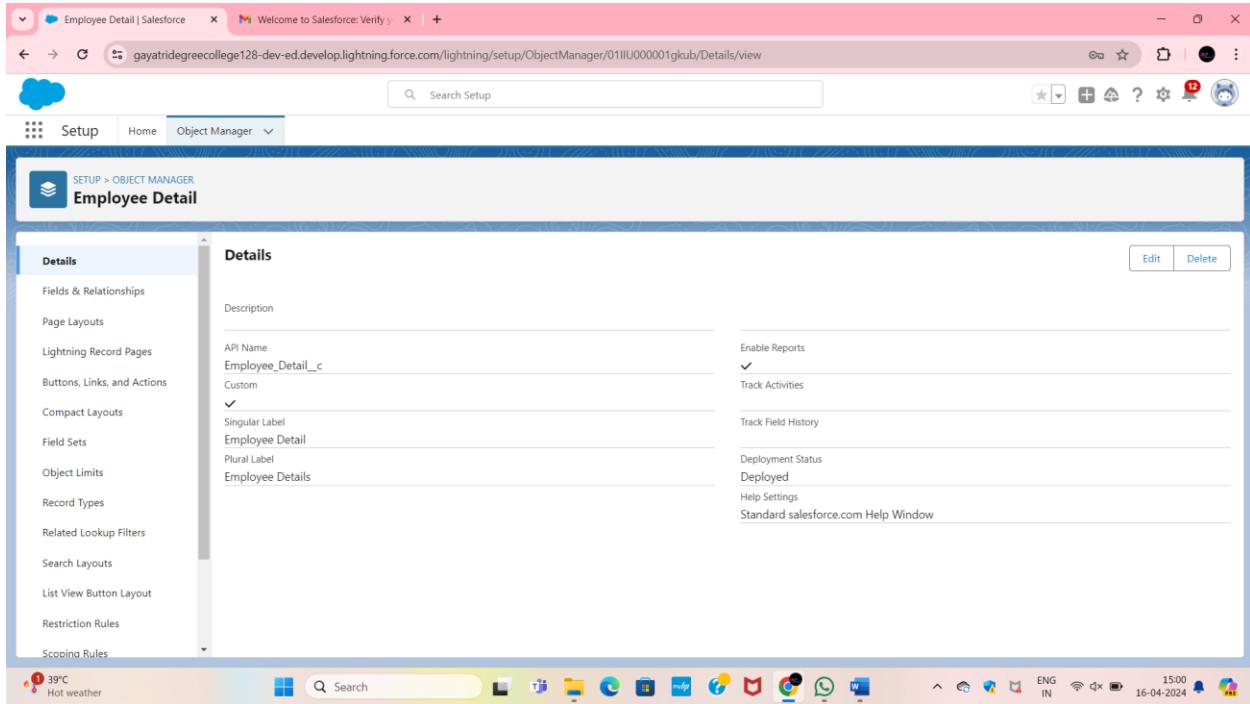
#### Note -

1. While making Expense Object select data type “Auto Number” in “Enter Record Name Label and Format” Section.
2. While making Employee Detail Object put “Employee Name” in “Enter Record Name Label and Format” section.

#### Object – Employee Detail

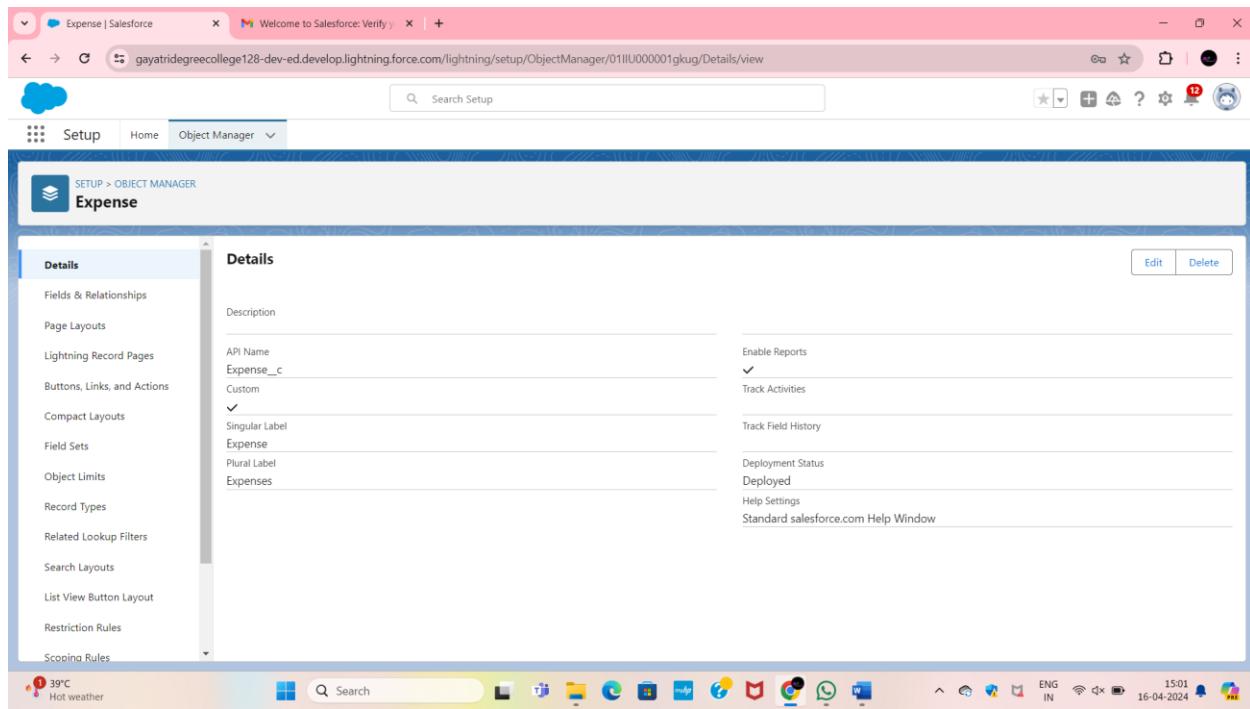
1. Click on the gear icon and then select Setup.
2. Click in the object manager tab just beside the home tab.
3. After the above steps, have a look in the extreme right you will find a Create Dropdown Click on that and selecet Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label : Employee Detail
6. Plural Label : Employee Details
7. Record Name : Employee Name
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox

10. Click Save.



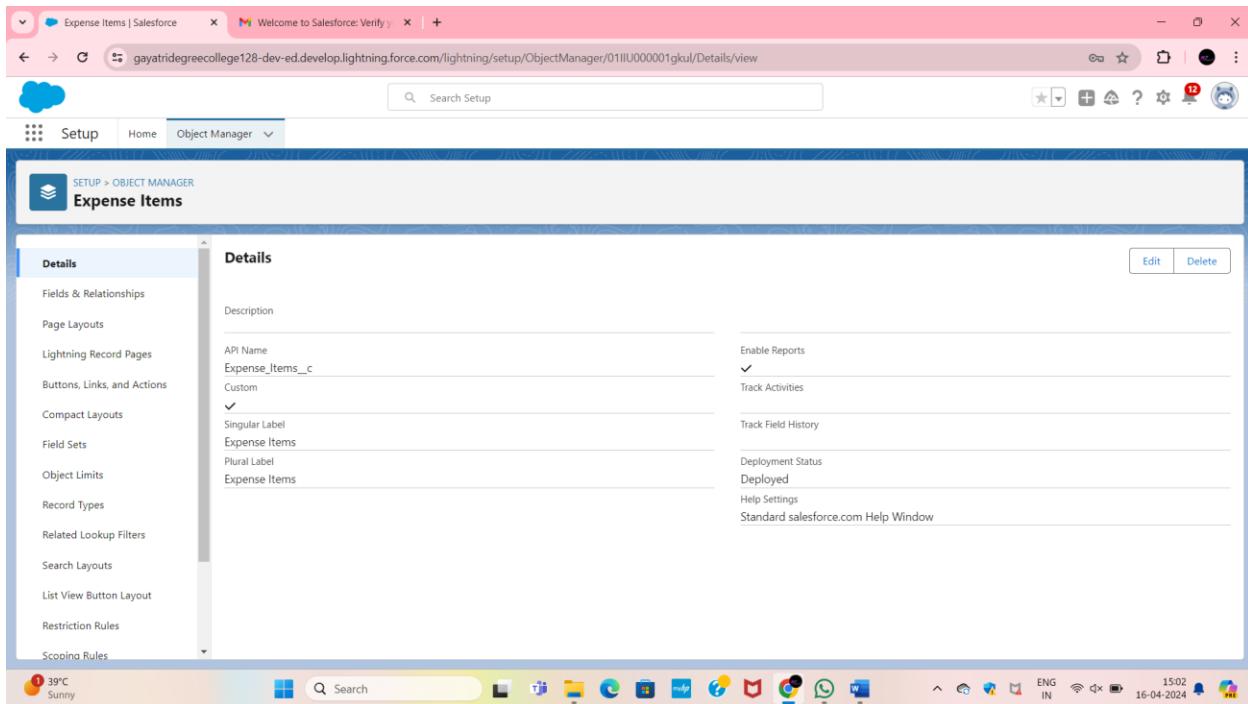
## Object – Employee Detail

1. Click on the gear icon and then select Setup.
2. Click in the object manager tab just beside the home tab.
3. After the above steps, have a look in the extreme right you will find a Create Dropdown Click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
  5. Label : Expense
  6. Plural Label : Expenses
  7. Record Name : Expense Name
  8. Date type : Select **Auto Number**.
  9. Display Format : A-{0000}
  10. Click the Allow Reports checkbox
  11. Click the Allow Search checkbox
12. Click Save.



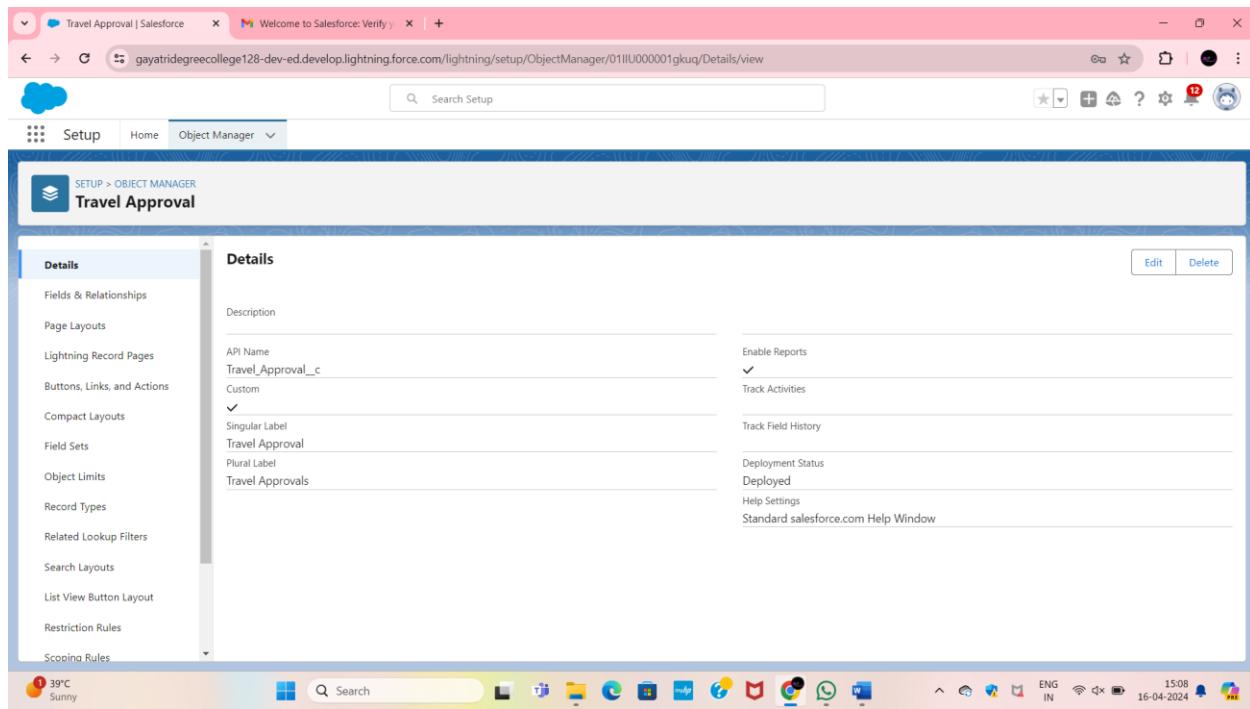
## Object – Expense Items

1. Click on the gear icon and then select Setup.
2. Click in the object manager tab just beside the home tab.
3. After the above steps, have a look in the extreme right you will find a Create Dropdown Click on that and select Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label : Expense Items
6. Plural Label : Expense Items
7. Record Name : Expense Items Name
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save.



## Object – Travel Approval

1. Click on the gear icon and then select Setup.
2. Click in the object manager tab just beside the home tab.
3. After the above steps, have a look in the extreme right you will find a Create Dropdown Click on that and selecet Custom Object.
4. On the Custom Object Definition page, create the object as follows:
5. Label : Travel Approval
6. Plural Label : Travel Approvals
7. Record Name : Travel Approval Name
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save.

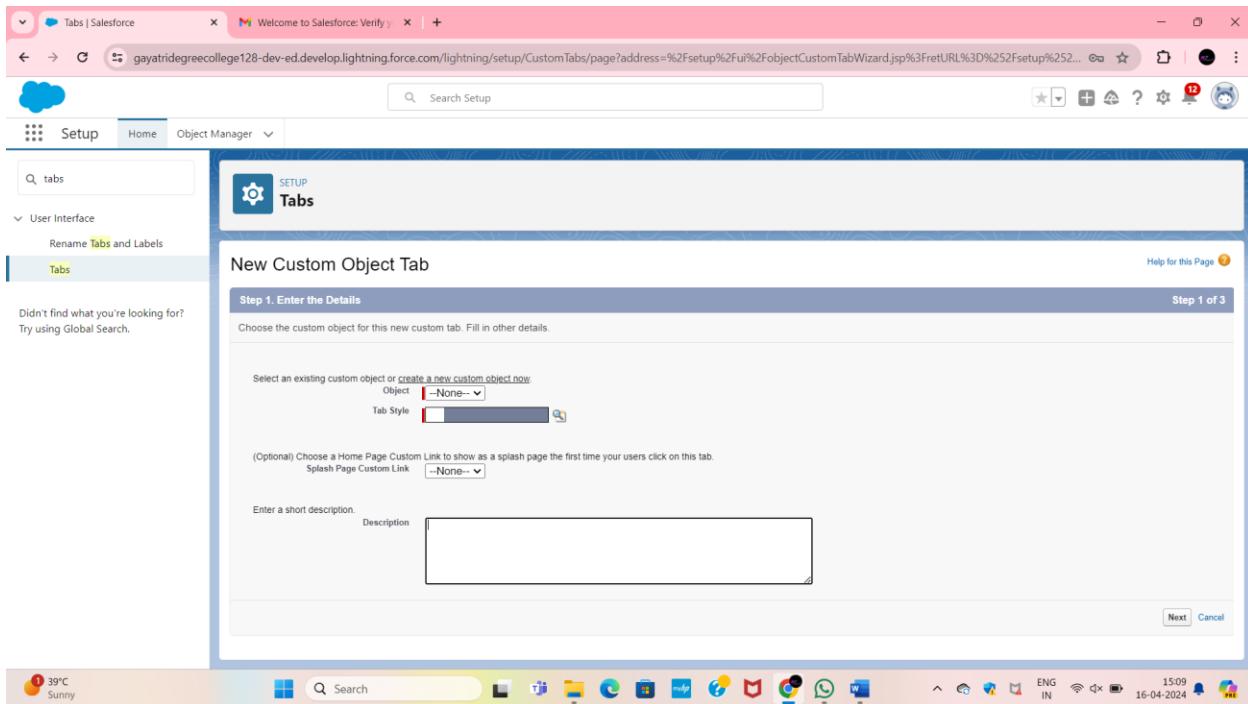


## Milestone – 03 : What is A Tab?

### Custom Tab Creation

Now create a custom tab. Click the Home tab,

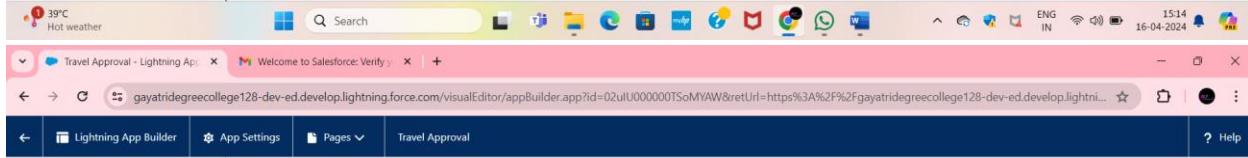
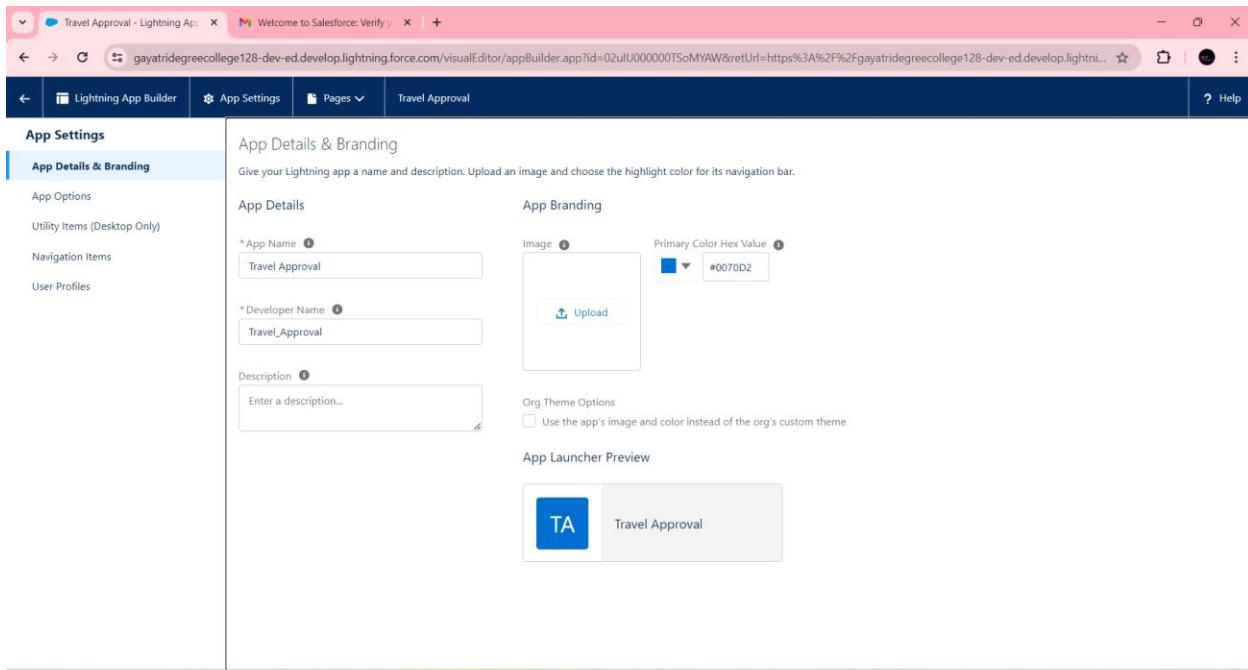
1. Enter Tabs in Quick Find and select Tabs.
2. Under Custom Object Tabs, click New.
3. For Objects, select Departments.
4. For Tab Style, select any icon.
5. Leave all defaults as is. Click Next, Next, and Save.
6. In the same way create Tabs for all Custom Objects – Employee Detail, Expense, Expense Items, Travel Approval.



## Milestone – 04 :Lightning App

### Create the Travel Approval App

1. From Setup, enter App Manager in the Quick Find and select App Manager.
2. Click New Lightning App.
3. Enter **Travel Approval** as the App Name, then click Next.
4. Under App Options, leave the default selections and click Next.
5. Under Utility Items, leave as is and click Next.
6. From Available Items, select **Department, Approval, Reports, and Dashboards** and move them to Selected Items. Click Next.
7. From Available Profiles, select System Administrator and move it to Selected Profiles. Click Save & Finish.



To Verify your changes, click the App Launcher, type **Travel Approval** and select the **Travel Approval** app.

Note :

App Launcher-Displays available apps.

App Name -Displays the current selected app.

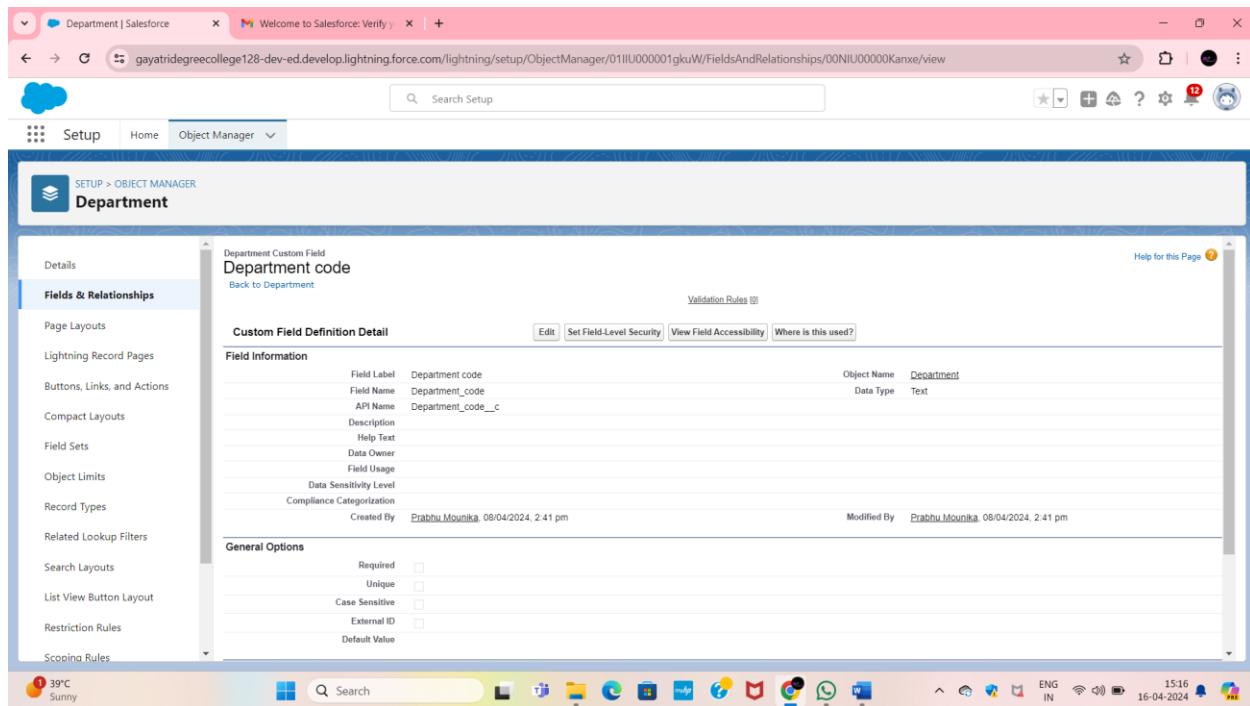
## Milestone – 05 : Fields and Relationship

Enrollment in local colleges, 2005

Object Name	Field Name	Data Type
<b>Employee Details</b>	Date of Birth	Date
	Gender	Picklist (Male, Female)
	Department	Lookup (Department)(See activity 2 to create lookup)
	Employee ID	Text (Length – 12)
<b>Expense</b>	Employee	Lookup (Employee Detail)
	Total Item	Rollup Summary (Expense Item)
<b>Expense Item</b>	Expense	Master Detail (Expense)
	Expense Type	Pick List (Values are – Transport, Hotel, Meal, Others)
	Amount	Currency
<b>Travel Approval</b>	Employee Name	Lookup (Employee Detail)
	Department	Lookup (Department)
	Destination State	Text (Length – 40)
	Purpose of Trip	Text (Length – 256)
	Trip Start Date	Date
	Trip End Date	Date
	Status	Picklist (values are – Approved Rejected)

## **Creation of Field for the Department Object :**

1. click the gear icon and select setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select Department
4. Select Fields & Relationships from the left navigation
5. Click New.
6. Select the Text as the Data Type, click Next.
7. For Field Label , enter Department code and enter 5 in Length.
8. Click Next, Next, then Save & New.



## **Creation of Fields for the Department Object :**

1. Click the gear icon and select setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to home.
3. Select Department.
4. Select Fields & Relationships from the left navigation

5. Click new.

6. Select the text as the Data Type, click Next.

7. For Field Label, enter District and State code and enter 40 in Length.

8. Click Next, Next, then Save.

The screenshot shows the 'Custom Field Definition Detail' page for a 'Department' custom field named 'District'. The 'Field Information' section displays the following details:

- Field Label: District
- Field Name: District
- API Name: District\_\_c
- Description: (empty)
- Help Text: (empty)
- Data Owner: (empty)
- Field Usage: (empty)
- Data Sensitivity Level: (empty)
- Compliance Categorization: (empty)

The 'General Options' section includes the following settings:

- Required:
- Unique:
- Case Sensitive:
- External ID:
- Default Value: (empty)

Other visible fields include 'Object Name: Department' and 'Data Type: Text'. The page also shows the creation date and time: 'Created By: Prabhu Mounika 08/04/2024, 2:41 pm' and 'Modified By: Prabhu Mounika 08/04/2024, 2:41 pm'. The status bar at the bottom indicates it's 39°C, sunny, and the system is running on Windows 10.

The screenshot shows the 'Custom Field Definition Detail' page for a 'Department' custom field named 'State'. The 'Field Information' section displays the following details:

- Field Label: State
- Field Name: State
- API Name: State\_\_c
- Description: (empty)
- Help Text: (empty)
- Data Owner: (empty)
- Field Usage: (empty)
- Data Sensitivity Level: (empty)
- Compliance Categorization: (empty)

The 'General Options' section includes the following settings:

- Required:
- Unique:
- Case Sensitive:
- External ID:
- Default Value: (empty)

Other visible fields include 'Object Name: Department' and 'Data Type: Text'. The page shows the creation date and time: 'Created By: Prabhu Mounika 08/04/2024, 2:42 pm' and 'Modified By: Prabhu Mounika 08/04/2024, 2:42 pm'. The status bar at the bottom indicates it's 39°C, sunny, and the system is running on Windows 10.

## Lookup Relationship with Department

Let's create a Lookup relationships with Department object on Employee Detail onbject

1. Click the gear icon and select setup. This launches Setup in a new tab.

2. Click the Object Manager tab next to home.
3. Select Department.
4. Select Fields & Relationships from the left navigation
5. Click new.
6. Select look up Relationship as the Data type and click Next.
7. For Related to, enter Department .
8. Click Next.
9. For Field Label, enter Department.
10. Click Next, Next, Next and Save.

The screenshot shows the Salesforce Setup interface with the following details:

- Page Title:** Department | Salesforce
- URL:** gayatridegreecollege128-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01lU000001gkuW/FieldsAndRelationships/view
- Header:** Search Setup, Setup, Home, Object Manager
- Left Navigation:** 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.
- Section:** SETUP > OBJECT MANAGER Department
- Table:** Fields & Relationships (8 Items, Sorted by Field Label)
 

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Department Name	Name	Text(80)		✓
Department code	Department_code_c	Text(5)		▼
District	District_c	Text(40)		▼
Last Modified By	LastModifiedById	Lookup(User)		▼
Owner	OwnerId	Lookup(User,Group)		✓
School Website	School_Website_c	URL(255)		▼
State	State_c	Text(40)		▼
- Bottom:** Search bar, various icons (File, Home, etc.), system status (39°C, ENG IN, 16-04-2024, 15:18).

Let's create a master-detail relationship on Expense Item object

1. Click the gear icon and select setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to home.
3. Select Department.
4. Select Fields & Relationships from the left navigation
5. Click new.

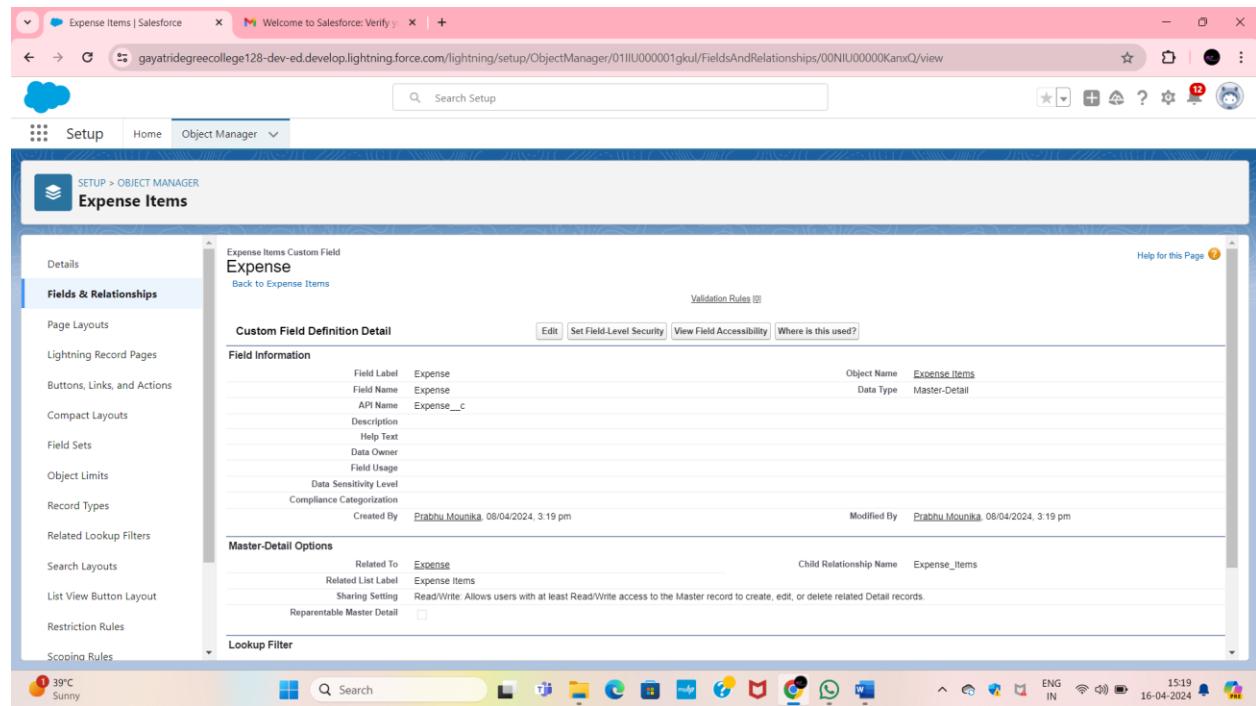
6. Select Master-Details Relationship as the Data Type and click Next.

7. For Related to, enter Expense.

8. Click Next.

9. For Field Label, enter Expense.

10. Click Next, Next, Next and Save.



## Roll Up Summary Fields On Expense Object

**Let's create Roll-up summary fields on Expense object to Calculate the expense**

1. Click the gear icon Select Setup, This launches Setup in a new tab.

2. Click Object Maanger.

3. Select Expense.

4. Click Fields & Relationships

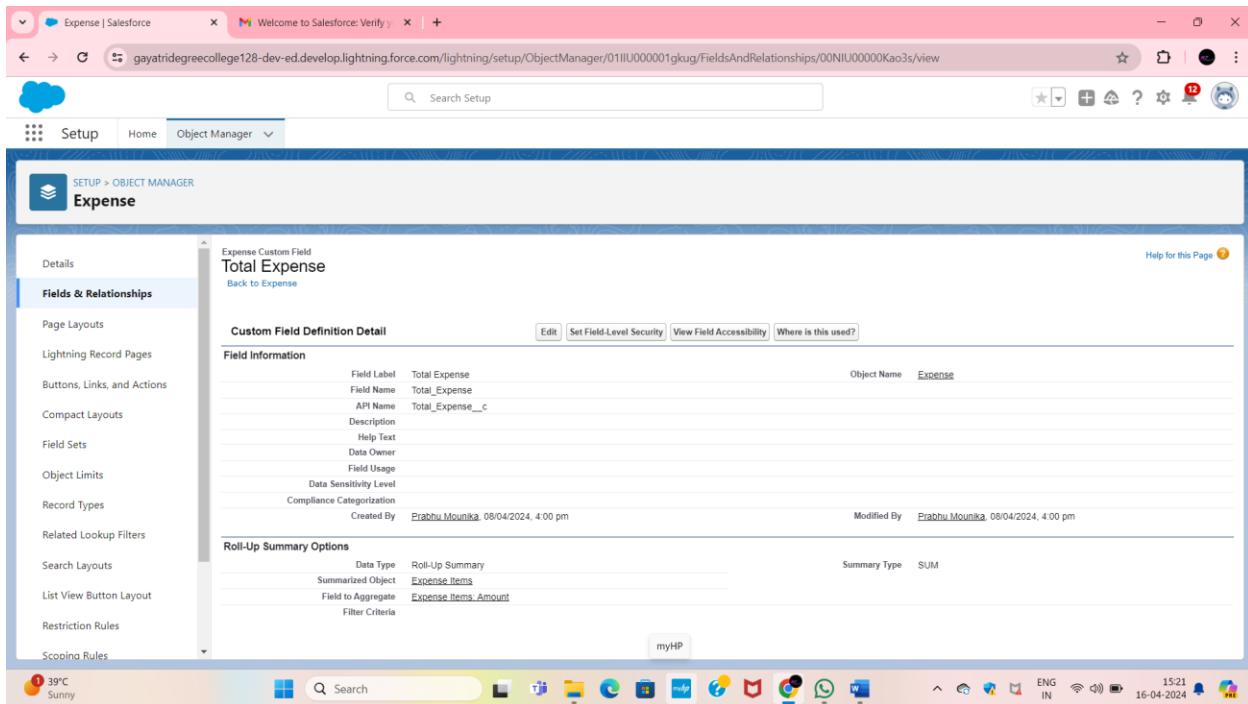
5. Click New.

6. Select the Roll-up summary field as the data type Enter the field label as Total Expense.

7. Click Next.

8. Then select the master object summarized as expense items.

9. Select Sum as roll-up and Field to aggregate Amount then click Next, Next and save.



## Pick List Field

### Let's create a Pick-List field:

1. From Setup, click Object Manager and select Expense Item.
2. Click Fields & Relationships, then New.
3. Select Picklist as the Data Type and Click Next.
4. For Field Label enter Expense Type
5. Select Enter values, with each value separated by a new line, and enter these values:

- Transport
- Hotel
- Meal
- Others

6. Click Next, Next, then Save & New.

The screenshot shows the Salesforce Setup interface with the following details:

- Page Title:** Expense Items | Salesforce
- URL:** https://gayatridegreecollege128-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01IIU000001gkul/FieldsAndRelationships/00NIU00000Kao2z/view
- Section:** SETUP > OBJECT MANAGER
- Object:** Expense Items
- Custom Field:** Expense Type
- Field Label:** Expense Type
- Field Name:** Expense\_Type
- API Name:** Expense\_Type\_c
- Description:** (empty)
- Data Type:** PICKLIST
- Object Name:** Expense Items
- Created By:** Prabhu Mounika, 08/04/2024, 3:26 pm
- Modified By:** Prabhu Mounika, 08/04/2024, 3:26 pm
- Validation Rules:** None
- General Options:**
  - Required:
  - Default Value:
- Picklist Options:**
  - Restrict picklist to the values defined in the value set:

## Milestone – 06 : Import Departments

### Data Import :

1. From Setup, click the Home Tab.
2. In the Quick Find box, enter Data Import and select Data Import Wizard.
3. Click Launch Wizard.
4. Click the Custom Objects tab and select the Departments object.
5. Select the Add new records.
6. Click CSV and choose file Department\_CSV which we made earlier. Click Next.
7. Since the field names in the CSV file (CSV Header) are the same as the field names in your object (Mapped Salesforce Object), the fields are automatically Mapped click Next.
8. The next screen gives you a summary of your data import.
9. Click Start Import.
10. Click Ok on the popup.

**Note –** Do Field mapping carefully.

### Department CSV File

<https://developer.salesforce.com/files/TravelAppWorkshopFiles.zip>

The screenshot shows the Salesforce Data Management Data Importer home page. At the top, there are several tips: 'Clean up your data import file', 'Make sure your field names match Salesforce field names', and 'Don't import too many records at once'. Below this, a section titled 'Import your data in 3 easy steps!' provides a step-by-step guide: 'Pre-step: Prepare your data for import' (with a checkmark icon), 'Choose data to import' (with a cloud icon), 'Edit field mapping' (with a document icon), and 'Review and start import' (with a checkmark icon). A large green button labeled 'Launch Wizard!' is centered below these steps. At the bottom of the page, there are links for 'FAQ', 'Data Import video series', and 'Additional Resources', along with a weather widget showing 39°C and 'Sunny'.

The screenshot shows the 'Choose data' step of the Data Import Wizard. A progress bar at the top indicates 'Getting closer...'. The step is divided into three sections: 'Choose data' (selected), 'Edit mapping', and 'Start import'. In the 'Choose data' section, users can select the type of objects to import: 'Standard objects' or 'Custom objects'. Under 'Standard objects', 'Departments' is selected. In the 'Edit mapping' section, users can choose how to map their data: 'Add new records' (selected) or 'Update existing records'. They can also specify the user field for record ownership and trigger workflow rules. In the 'Where is your data located?' section, users can upload a CSV file. A file named 'CSV' is shown, with options to choose a file, set character code (ISO-8859-1), and specify values separated by commas. Navigation buttons 'Cancel', 'Previous', and 'Next' are at the bottom right.

## Milestone – 07 : Users

### Creating A User In Salesforce

1. From Setup, in the Quick Find Box, enter Users.
2. Select Users.
3. Click New User.

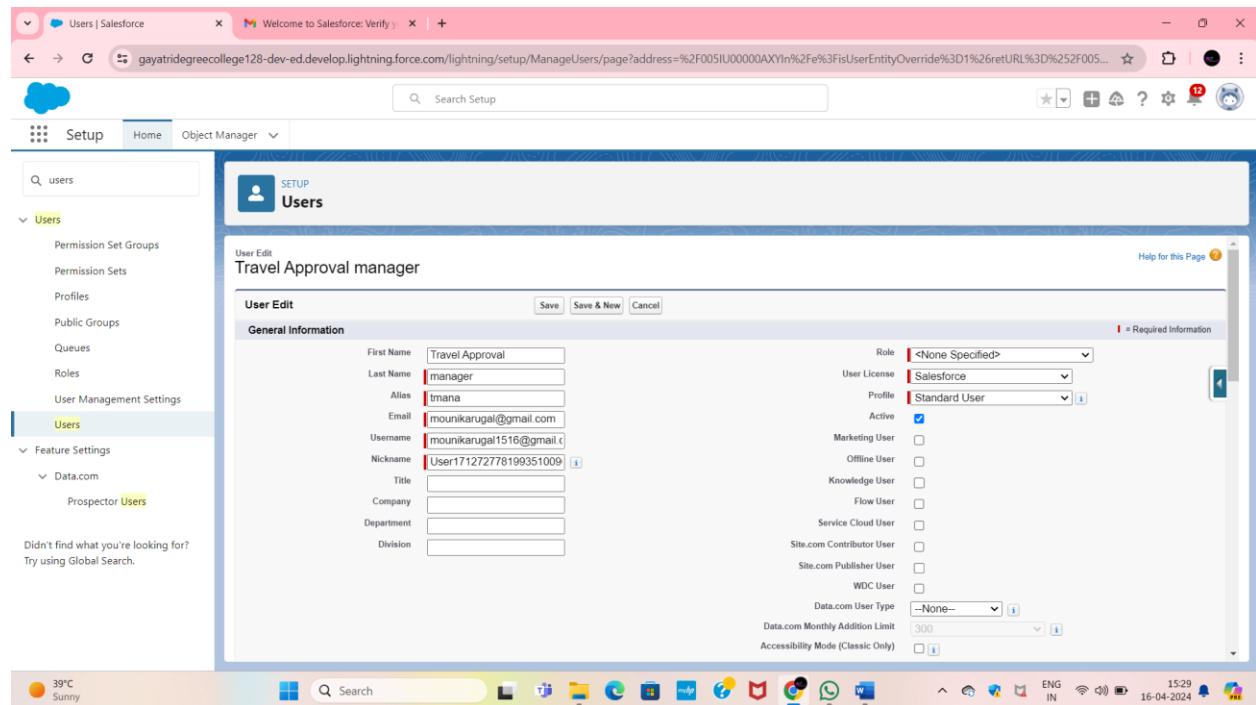
4. Enter the First Name Travel Approval and Last Name manager and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.

5. Select a User License as Salesforce.

**Note** – In the Developer edition Salesforce license can only be used by 2 users at a time in Dev Org, If you don't find Salesforce licence than deactivate a user who has Salesforce license Or change the license type from Salesforce to any other.

6. Select a profile as Standard User.

7. Check Generate new password and notify the user immediately to have the User's login name and a temporary password emailed to you email.



## Milestone – 08 : Use Customization

### Customize Travel Approval Object Page Layout

1. From the Object Manager, search for the Travel approval object.

2. Click on page layouts and click Travel Approval Layout.

3. Drag the Section from the top pane to the lower pane directly below the

Information section. When dragging over the page, you get a visual indicator

You can drop the new section.

4. Name the section Trip Info, leave the rest of the settings at their default

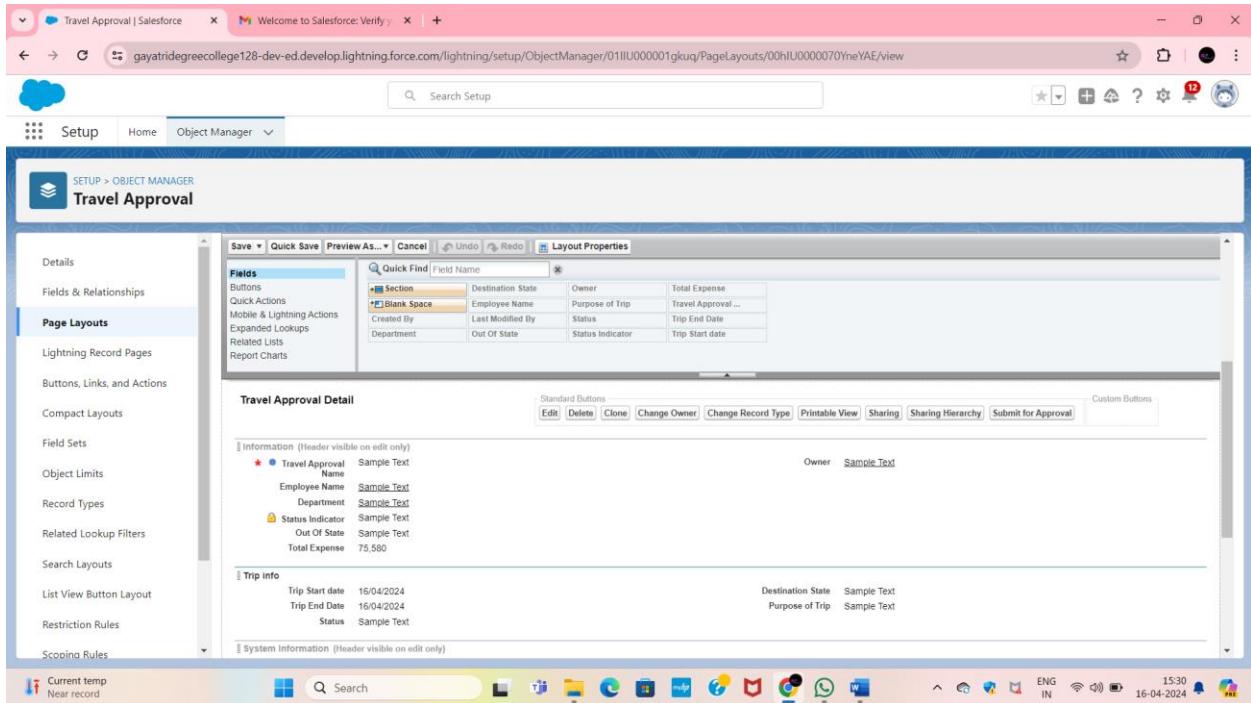
values, and

5. Then click on OK.

6. Drag Trip Start Date and Trip End Date, Status from the top pane into the left-hand column of the Trip Info section.

7. Drag the Destination State and Purpose of a trip from, department the top pane into the right-hand column of the Trip Info Section.

8. Click Save.



## Milestone – 09 : App Business Logic To Travel App

### Create Validation Rule

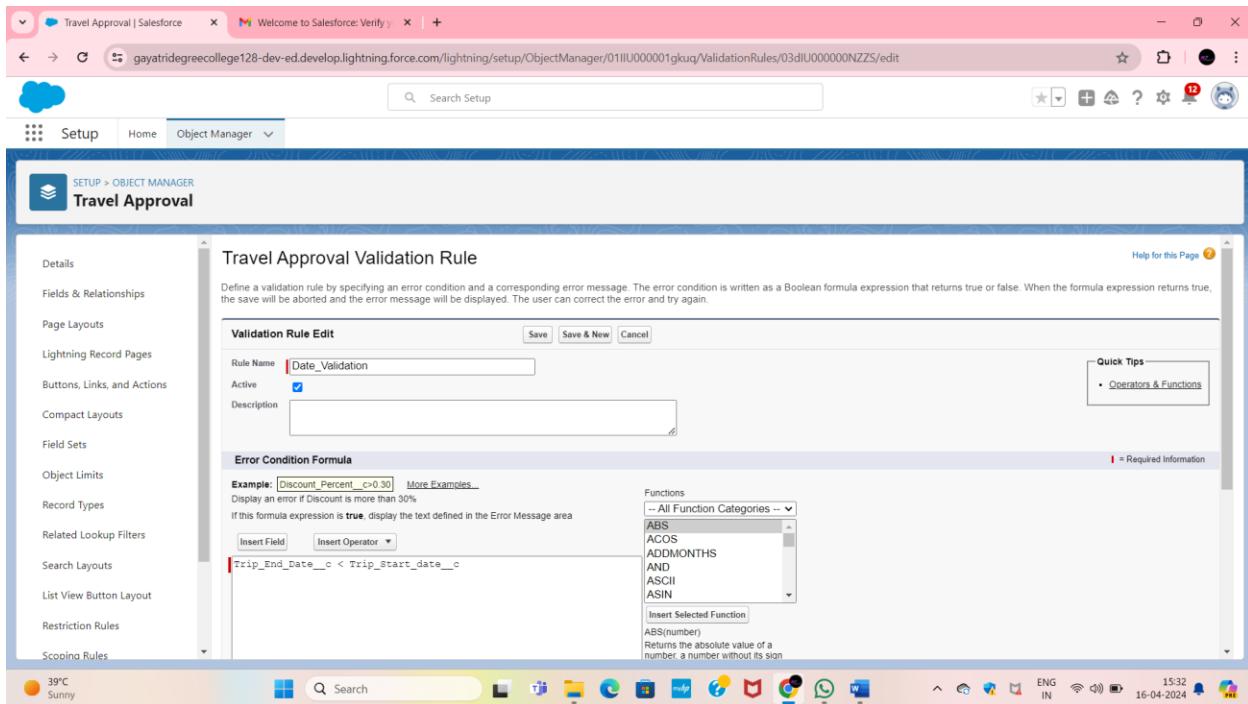
Search for the travel approval object from the object manager and open the object.

1. Click on validation rules and click new on the left corner.

2. Give your rule name Date\_Validation and make sure that the rule is set to

Active.

3. In the error condition formula enter Trip\_End\_Date < Trip\_Start\_Date , Click Save .



## Create Formula Fields:

1. First, we need to upload a zip file to your salesforce environment that contains all the images we use. You should have a file titled StatusImages.zip
2. Click the setup
3. Click Static Resources in Quick Find & Click New.
4. Enter the following values for your static resource

Parameter	Value
Name	StatusImages
File	StatusImages.zip
Cache-Control	Private

Now select the travel approval object.

1. Select Fields & Relationships, Click New
2. Select Formula data type, and Click Next.
3. Enter the following values:
4. Field Label : Status Indicator

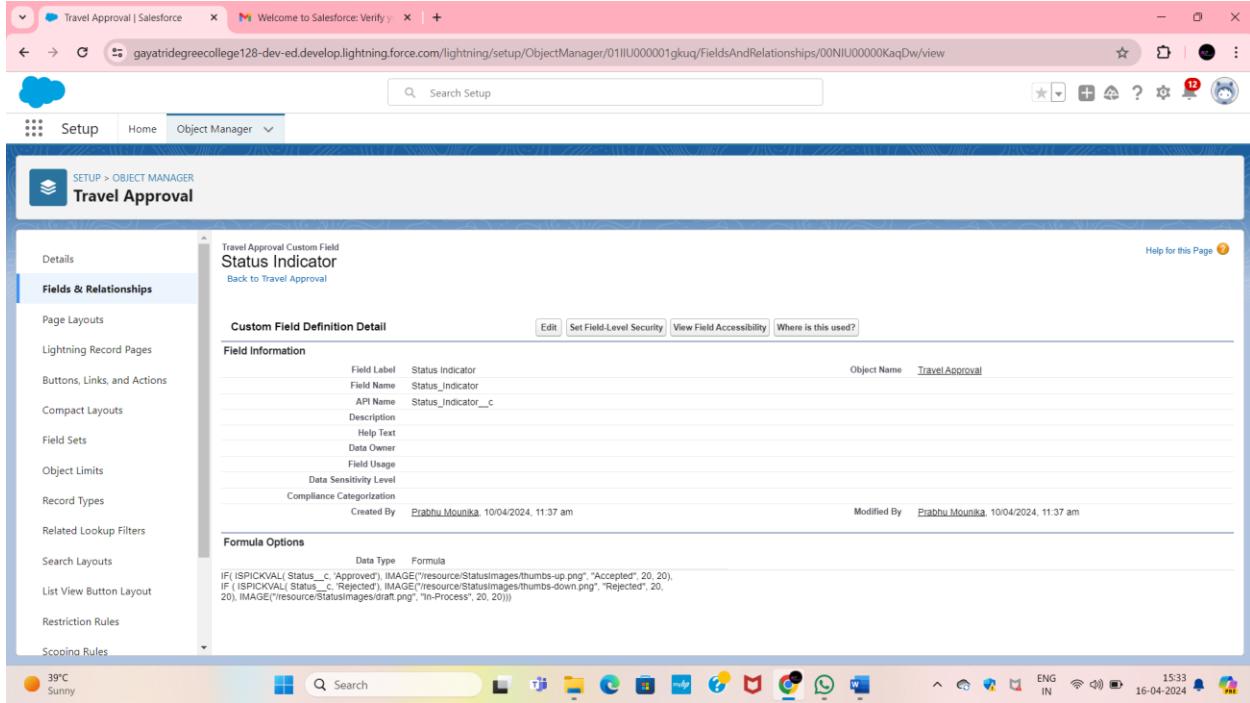
5. Field Name :Status\_Indicator (This automatically gets send when you tab out of the Field Label field)

6. Formula Return Type : Tex

Click next & Copy and paste the following formula into the formula editor.

```
IF( ISPICKVAL( Status__c, 'Approved'), IMAGE("/resource/StatusImages/thumbs-up.png", "Accepted", 20, 20),
```

```
IF ( ISPICKVAL( Status__c, 'Rejected'), IMAGE("/resource/StatusImages/thumbs-down.png", "Rejected", 20, 20), IMAGE("/resource/StatusImages/draft.png", "In-Process", 20, 20))
```

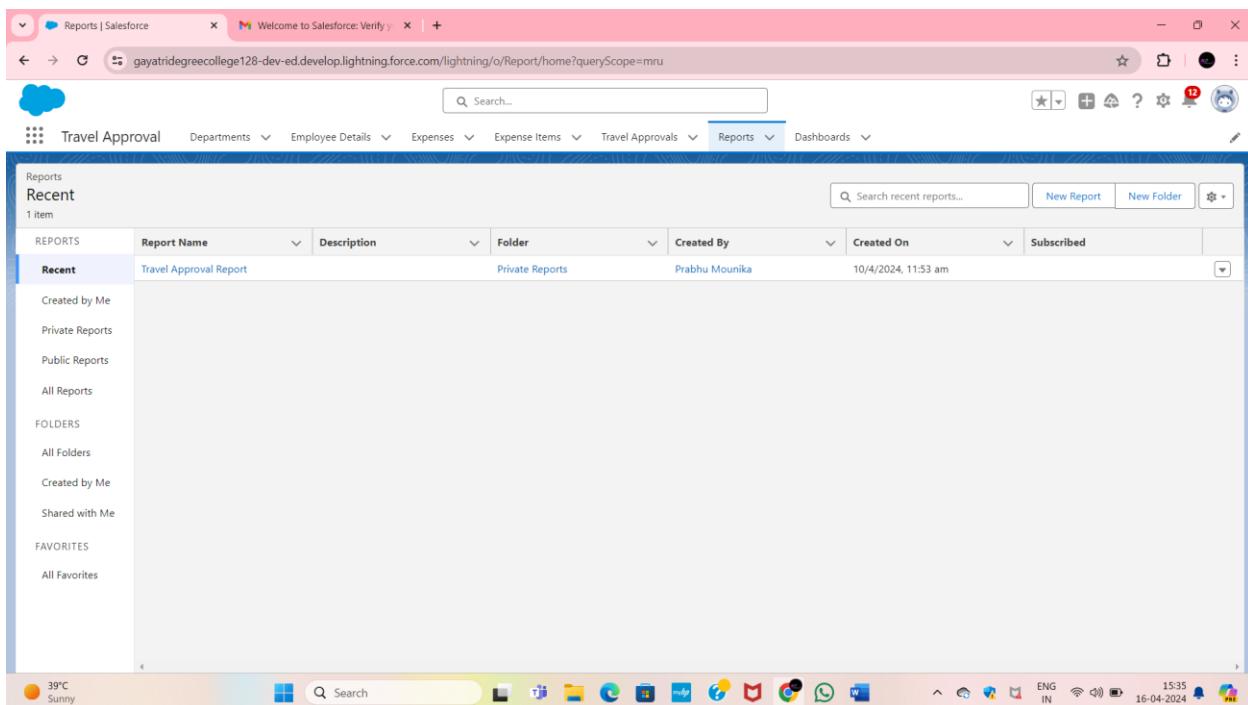
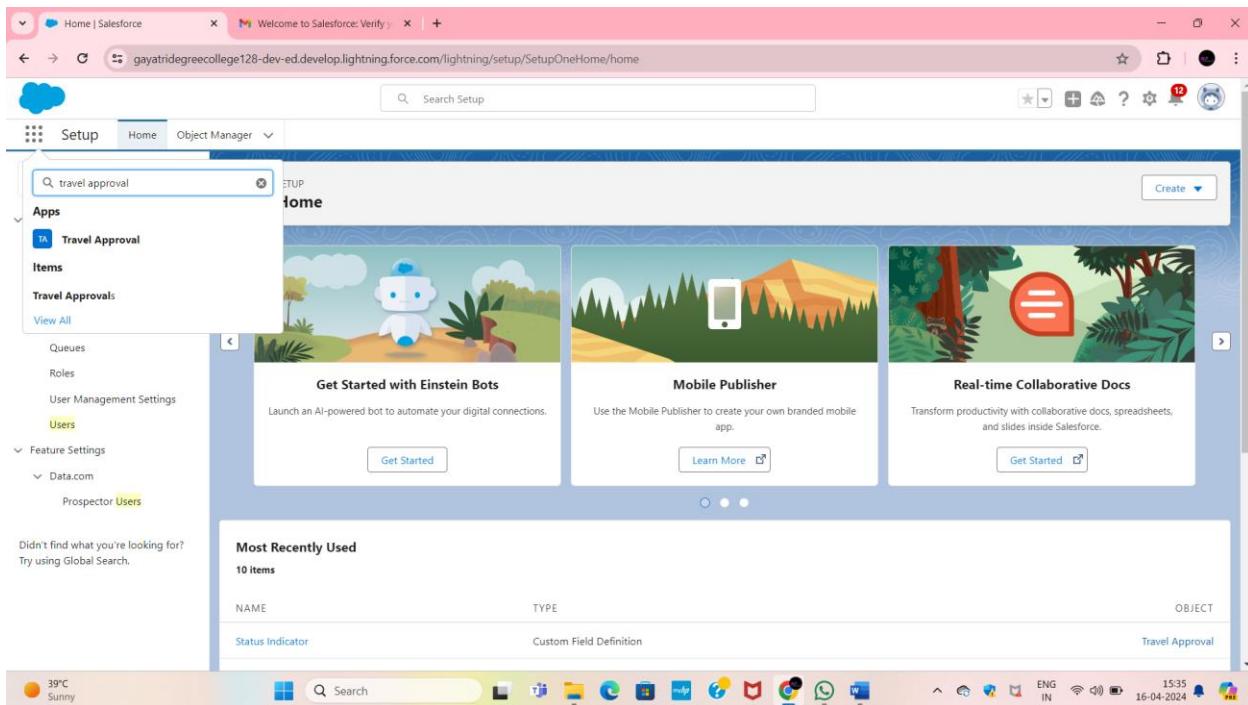


## Milestone – 10 : User Adoption – Create Record

### Create Record

1. Click App Launcher and select Travel Approval App
2. Click New Report.
3. Click the report type as Travel approval with Departments Click Start report.
4. Customize your report, in group rows select – Department Name
5. Click refresh
6. Click save and run
7. Give report name – Travel Approval Report

## 8. Click Save.



## View Record :

### View Record (Department) :

1. Click on App Launcher on left side of screen.
2. Click on Department Tab.
3. Click on Department Tab.

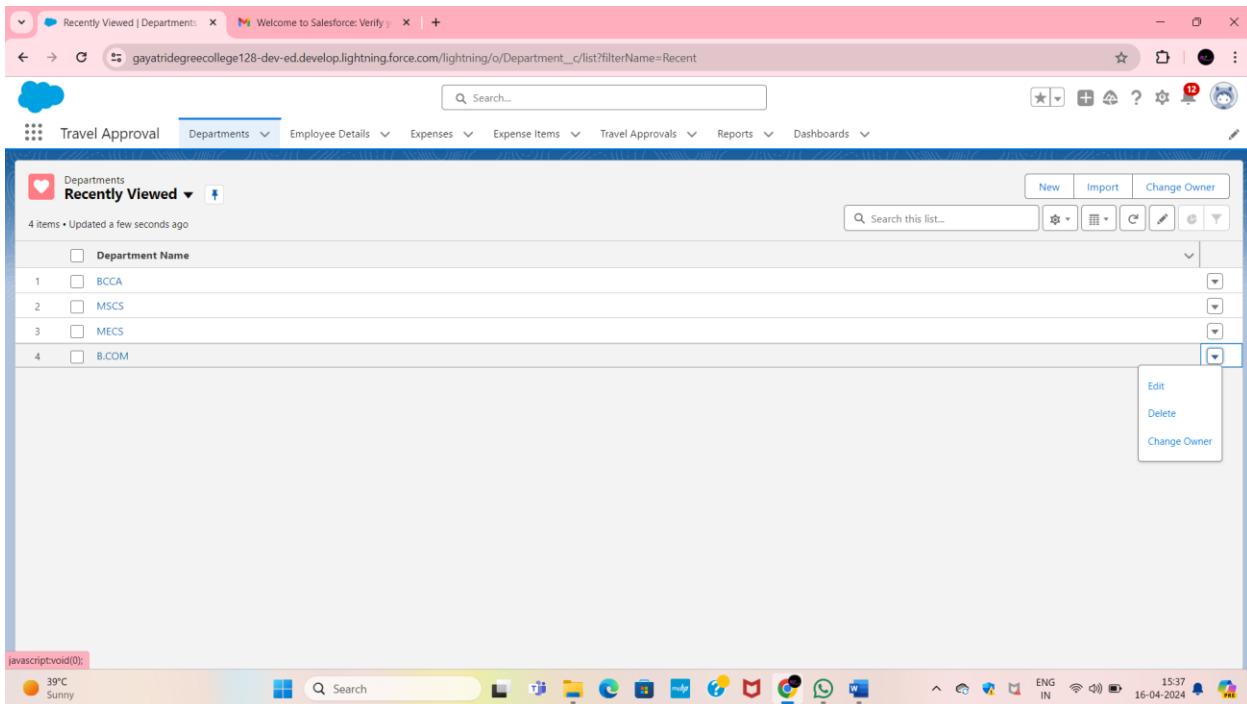
4. Click on any record name. You can see the details of the Department.

Department: Department Name	Travel Approval: Travel Approval Name
B.COM (2)	JAHNAVI LEELAVATHI
Subtotal	
BCCA (1)	JYOTHIKA
Subtotal	
MECS (1)	PALLAVI
Subtotal	
MSCS (2)	PRABHU MOUNIKA NEHA
Subtotal	
Total (6)	

### Delete Record :

Delete Record (Department):

1. Click on App Launcher on the left side of the screen.
2. Search Travel Approval & click on it.
3. Click on Department Tab.
4. Click on Arrow at the right-hand on that particular record.
5. Click delete and delete again.



## Milestone – 11 : What Are Reports?

Reports in Salesforce is a list of records that meet a particular criterion which gives an answer to a particular question. These records are displayed as a table that can be filtered or grouped based on any field.

There are 4 types of report formats in Salesforce:

### 1. Tabular Reports :

This is the most basic report format. It just displays the row of records in a table with a grand total. While easy to set up they can't be used to create groups of data or charts and also cannot be used in Dashboards. They are mainly used to generate a simple list or a list with a grand total.

### 2. Summary Reports :

It is the most commonly used type of report. It allows grouping of rows of data, view subtotal, and create charts.

### 3. Matrix Report :

It is most complex report format. Matrix report summarizes information in a grid

Format . It allows records to be grouped by both columns and rows. It can also be used to generate dashboards. Charts can be added to this type of report.

### 4. Joined Reports :

This types of reports let us create different views of data from multiple report types. The data is joined reports are organized in blocks. Each block acts as a subreport with its own fields, Columns, sorting, and filtering. They are used to group and show data from multiple report types in different views.

### **Report Types :**

Reports types determines which set of records will be available in report. Every report is based on a particular report type. The report type is selected first when we create a report. Every report type has a primary object and one or more related objects. All these objects must be linked together either directly or indirectly.

- A report type cannot include more than 4 objects.
- Once a report is created its report type cannot be changed.

There are 2 types of reports types :

#### **1. Standard Report Types :**

Standard Report Types are automatically included with standard objects and also with custom objects where “Allow Reports” is checked.

Standard report type cannot be customized and automatically include standard and custom fields for each object within the report type. Standard report types get created when an object is created, also when a relationship is created.

#### **2. Custom Report Types :**

Custom report types are reporting templates created to streamline the reporting process. Custom Reports are created by an administrator or user with “Manage Custom Report Types” permission.

Custom reports types are created when standard report types cannot specify which records will be available on reports.

In custom report types we can specify objects which will be available in a particular report. The primary object must have a relationship with other objects present in a report type either directly or indirectly.

There are 3 types of access levels of folders :

#### **1. Viewer :**

With this access level, users can see the data in a report but cannot make any changes except cloning it into a new report.

#### **2. Editor :**

With this access level, users can view and modify the reports it contains and can also move them to/from any other folders they have access level as Editor or Manager.

### **3. Manager :**

With this access level, users can do everything Viewers & Editors can do, plus they can also control other user's access levels can delete the report.

From this milestone we are going to import the data and create the reports and dashboards for data visualization in the application.

#### **Create Report :**

1. Click App Launcher and select Travel Approval App
2. Click reports tab
3. Click New Report.
4. Click the report type as Travel Approval with Departments Click Start Report.
  
5. Customize your report, in group rows select – Department Name
6. Click Refresh
7. Click Save and Run
8. Give report name – Travel Approval Report
9. Click Save.

The screenshot shows the Salesforce Lightning interface. At the top, there are two tabs: 'Reports | Salesforce' and 'Welcome to Salesforce: Verify'. The main content area is titled 'Travel Approval' and shows a navigation bar with links: Departments, Employee Details, Expenses, Expense Items, Travel Approvals, Reports, and Dashboards. The 'Reports' tab is currently selected. On the left, a sidebar titled 'Recent' lists categories like 'REPORTS', 'FOLDERS', and 'FAVORITES'. The main table displays a single record: 'Travel Approval Report' under 'Report Name', 'Private Reports' under 'Folder', 'Prabhu Mounika' under 'Created By', and '10/4/2024, 11:53 am' under 'Created On'. A search bar at the top right allows searching for recent reports, and buttons for 'New Report' and 'New Folder' are available. The bottom status bar shows weather (39°C, Sunny), system icons, and the date/time (16-04-2024, 15:38).

## View Report :

1. Click on App Launcher on left side of screen.
2. Search Travel Approval App & Click on it.
3. Click on Reports Tab.
4. Click on Travel Approval Report and see records.

The screenshot shows the 'Travel Approval Report' page. The title bar includes the report name and the URL 'gayatridegreecollege128-dev-ed.develop.lightning.force.com/lightning/r/Report/00OIU00000B89Xw2A/view?queryScope=userFolders'. The main content area shows a table with the following data:

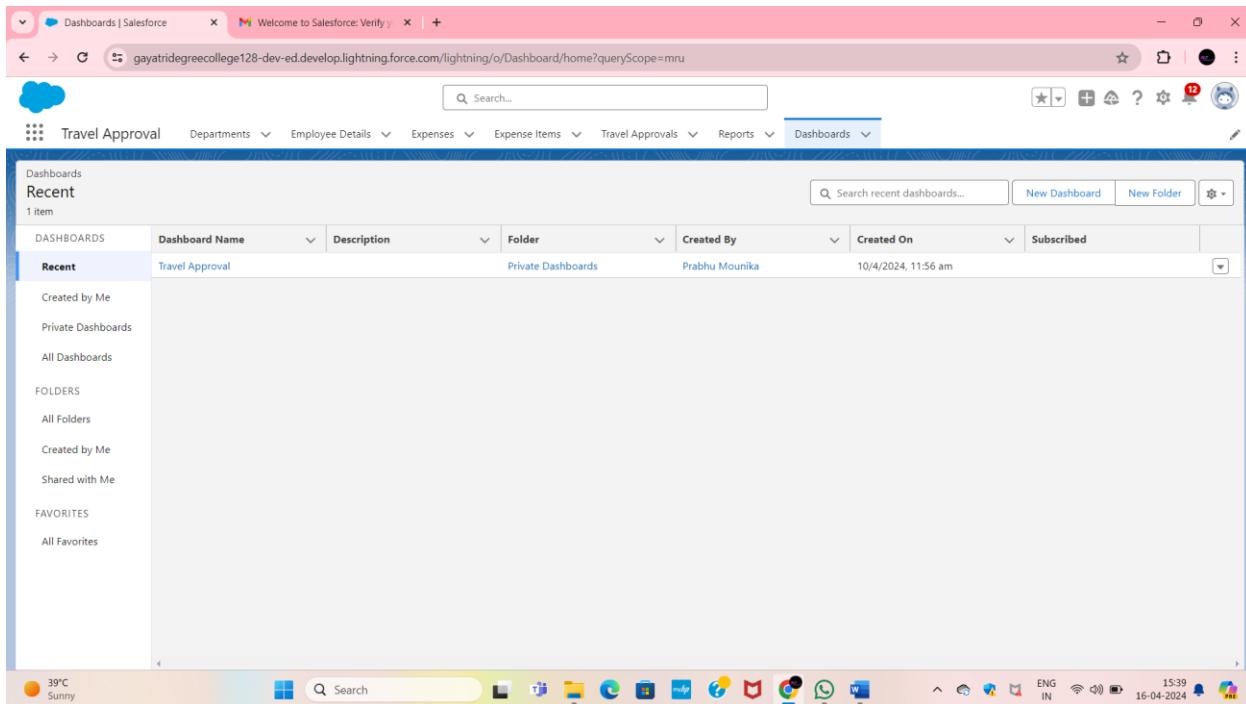
Department: Department Name	Travel Approval: Travel Approval Name
B.COM (2)	JAHNAVI LEELAVATHI
Subtotal	
BCCA (1)	JYOTHIKA
Subtotal	
MEDS (1)	PALLAVI
Subtotal	
MSCS (2)	PRABHU MOUNIKA NEHA
Subtotal	
Total (6)	

At the bottom, there are buttons for 'Enable Field Editing', 'Add Chart', and 'Edit'. The bottom status bar shows weather (39°C, Sunny), system icons, and the date/time (16-04-2024, 15:39).

## Milestone – 12 : Dashboards

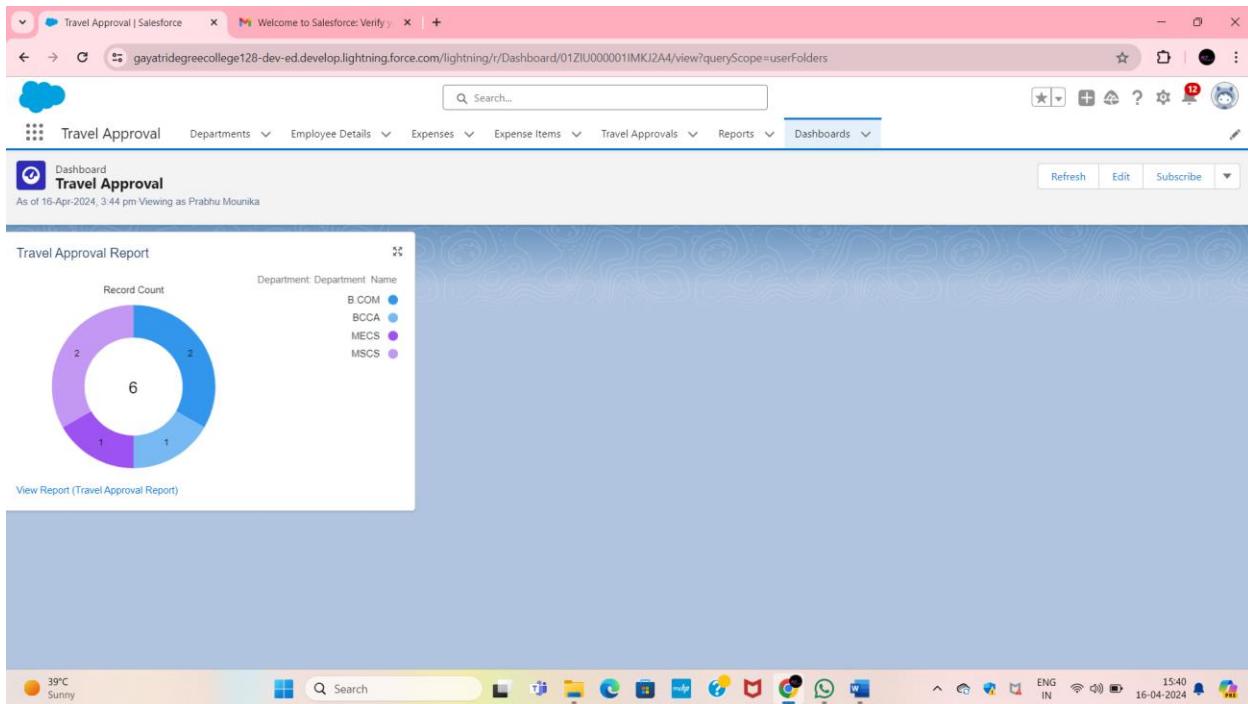
### Create Dashboard

1. Click on the Dashboards tab from the Travel Approval application
2. Click on a new dashboard
3. Give name – Travel Approval
4. Click Create
5. Give your dashboard a name and click on +component, select the Travel Approval Report that you created.
6. For the data visualization select any of the chart, table etc as your wish.
7. Click add.
8. Click Save.



### View Dashboard :

1. Click on App Launcher on left side of screen.
2. Search Travel Approval App & click on it.
3. Click on Dashboard Tab.
4. Click on Travel Approval and see graph view of records.

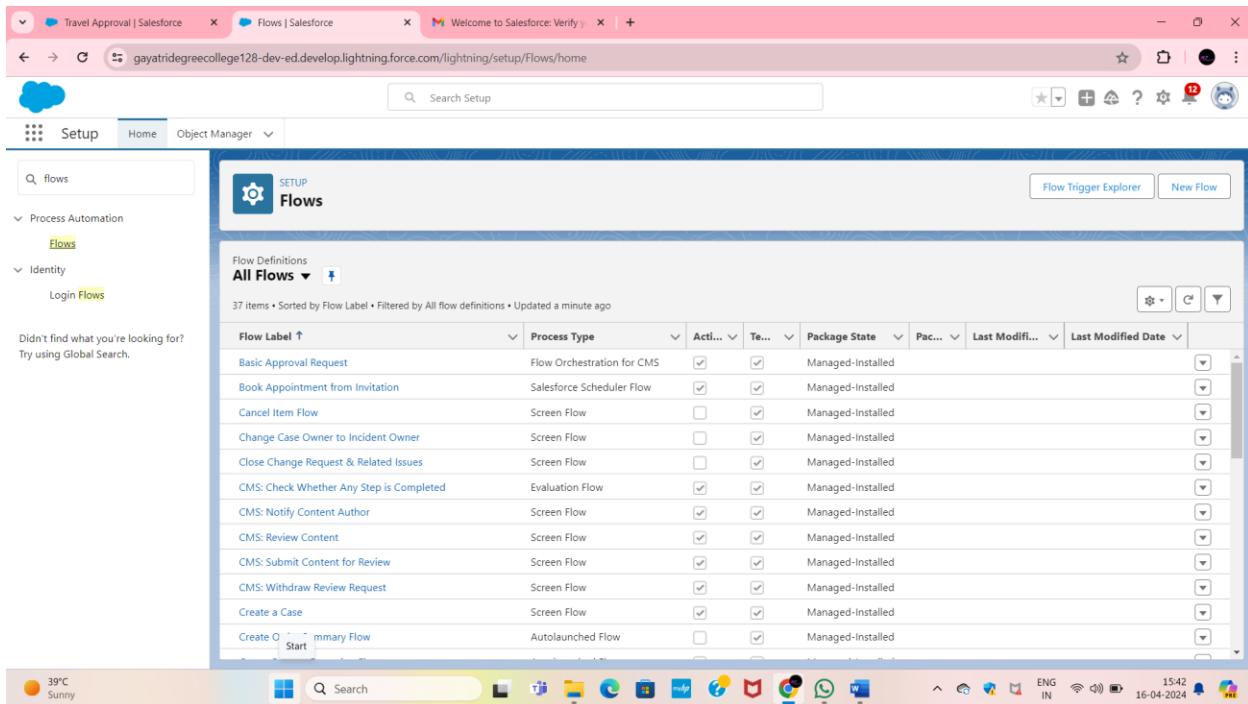


## Milestone – 13 : Flows

### Create a Flow

Now create a flow that uses the update record node to set the out-of-state flag.

1. From Setup, click the Home tab.
2. Select Process Automation | Flows (or use the Quick Find and search for flows)



3. Click New Flow

4. Select Record-Triggered Flow then click Create.

5. Enter these values :

Parameter	Value
Object	Travel Approval
Configure Trigger	Trigger the flow when: <b>A record is Created or Updated</b>
Conditional Requirements	None
Optimize the Flow For	Fast Field Updates

6. Click Done.

7. In this Layout dropdown, select Freeform.

#### Add a Decision Element

1. From the left-hand toolbox column, drag a Decision element onto the flow builder screen.

2. Set the following parameters:

Parameter	Values
Label	Is Travel Out of State
API Name	Is_Travel_Out_of_State (This automatically gets set when you tab out of the Label field)
Description	Leave blank

3. Set the Outcomes.

4. For the first outcomes, set these parameters :

Parameter	Value
Label	Yes Out of State
Outcome API Name	Yes_Out_of_State (This automatically gets set when you tab out of the label filed)
Condition Requirement to Execute Outcome	<b>All Conditions Are Met(AND)</b>
Resource	\$Record > Destination State
Operator	Does Not Equal
Value	TX
When to Execute the Outcomes	<b>Only if the record that triggered the flow to run is updated to meet the condition requirements</b>

5. Next to Outcomes Order click the +button to add another outcome.

6. Set these parameters :

Parameter	Value
Label	In State
Outcome API Name	In_State(This automatically gets set when you tab out of the label filed)
Condition Requirement to Execute Outcome	<b>All conditions Are Met (AND)</b>
Resource	\$Record > Destination State
Operator	Does Not Equal
Value	TX
When to Execute the Outcomes	<b>Only if the record that triggered the flow to run is updated to meet the condition requirements</b>

7. Click Done.

8. Drag the white circle from the start Flow element to the Decision element you

just created to link the direction of the arrow.

## Create an Action for the Flow Using Update Records Elements

1. From the left-hand column, the flow toolbox, drag an Update Records element onto the flow screen.

2. Set the parameters for the element :

Parameter	Values
Label	Update Travel Approval Record
Ourcome Api Name	Update_Travel_Approval_Record(This automatically gets set when you tab out of the Label field)
How to find Records to Update and set their values	<b>Use the travel approval record that triggered the flow</b>
Conditions Requirements to Update the Records	<b>None-Always Update the Record</b>
Field	Out_of_State__c
Value	<b>\$GlobalConstant.True</b> (start typing True and the value will be come up).

3. Click Done.

4. Drag the white circle from the Decision Node to the Update Records you just created, and select the decision Yes Out of State | Done.

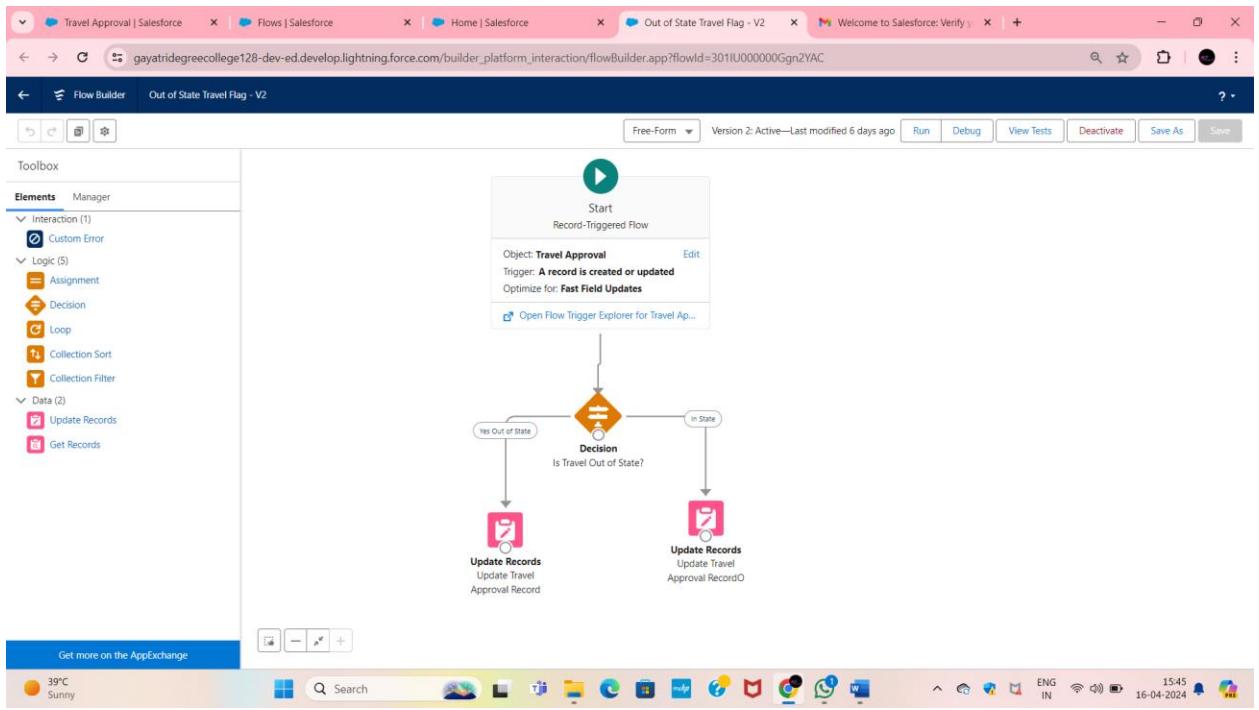
5. Click the Update Records node and make sure it is highlighted in blue. In the top-left corner of the Flow Builder screen, find the and click the duplicate button Duplicate button. Double-click in the new update Records element just created. Note the API name has been automatically updated to Update\_Travel\_Approval\_Record\_0.

6. Then update the value of the Out\_of\_State\_\_c field to FALSE.

7. Delete the True Value and enter False. Selecet \$GlobalConstant.False.

8. Click Done.

9. Drag the white circle form the Decision Node to the second Update Records you just created and select the decision In State.



Congratulations!! You've completed your first Record Triggered Automation Flow! Last but not least, make sure to save and activate the flow.

1. Click Save.
2. Flow Label : Out of State Travel Flag. Flow API Name will auto populate to Out\_of\_State\_Travel\_Flag. Leave Description blank and advanced settings as is.
3. Click Save.
4. Click Active.

### **Milestone – 14 : Approval Process**

#### **Create a Approval Process :**

Let's get started.

1. Click and select Setup.
2. Select Process Automation | Approval Process (or use the Quick Find and search for Approval Process).
3. In the Manage Approval Processes For list, select Travel Approval.
4. Click Create New Approval Process and select Use Jump Start Wizard.
5. Enter the following parameter

Parameter	Values
Name	Travel Approval Request
Unique Name	Travel_Approval_Request(This automatically gets sent when you tab out of the name field.)

Approval Assignment Email Template	Leave Blank
Add the submit for Approval button and approval history related list to all travel approval page layouts.	Leave this selected/checked.
Use Approval Field of Travel Approval Owner	Leave Unselected/Unchecked
Specify entry criteria	Use this Approval Process : <b>criteria are met</b>
Field	Travel Approval:Total Expenses
Operator	<b>Greater than</b>
Value	0
Select Approval	<ul style="list-style-type: none"> <li>Automatically assign and approval using a standard or custom hierarchy field.</li> <li>Select manager from the option list</li> </ul>

6. Click Save.

7. Click View Approval Process Detail Page.

Create an Approval Step for Out-of-State Travel

1. Click New Approval Step.

2. Enter the following details

Parameter	Value
Name	Travel Coordinator Approval
Unique Name	Travel_Coordinator_Approval (This automatically gets set when you tab out of the Name field)
Step Number	2

3. Click Next.

4. Ensure Enter this step if the following is selected and the criteria are met option is selected.

5. Enter the following formula criteria

Field : Travel Approval:Out-of-State

Operator : equals

Value : True

6. Click Next.

7. Select the Automatically assign to the approver(s) option.

8. Select user form the dropdown and select your name as the travel coordinator.

9. Click Save.

10. Select No,I'll do this later. Take me to the approval process detail page to review what I've created and then click Go!

## Add Logic

Next, add logic to set the status of the approval request based on if it was approved or rejected.

Let's start by creating an action if the request was approved by all approvers.

1. Click Add New in the Final Approval Actions area of the approval process form.
2. Select Field Update from the dropdown list.
3. Enter the following values.

Parameter	Values
Name	Set Status to Approved
Unique Name	Set_Status_to_Approved (This automatically gets set when you tab out of the Name field)
Field to Update	Status
Re-evaluated Workflow Rules after Field Change	Leave unchecked
Picklist Options	Select <b>A specific value</b> and select <b>Approved</b> from the dropdown list.

4. Click Save.

Next, let's set the status value of Rejected if any approver rejects the travel approval request.

1. Click Add New in the Final Rejection Actions area of the approval process form.
2. Select Field Update from the dropdown list.
3. Enter the following values.
4. Click Save.
5. Click Activate.
6. Select OK in the popup window to confirm activation. Your approval process should now have the Active flag checked.

Next, you enable email approval responses.

1. Click and select Setup.
2. From setup, enter process automation settings in the quick find box and select it.
3. Click the Process Automation Settings link.
4. Make sure Enable Email Approval Response is selected.
5. Set the Default Workflow User to your name.
6. Click Save.

**Process Definition Detail**

- Process Name:** Travel Approval Request
- Unique Name:** Travel\_Approval\_Request
- Description:** Travel Approval: Total Expense GREATER THAN 0
- Entry Criteria:** Administrator ONLY
- Record Editability:** Next Automated Approver Determined By Manager of Record Submitter
- Approval Assignment Entry Template:** Initial Submitters
- Initial Submitters:** Travel Approval Owner
- Created By:** Prabhu Mounika 16/04/2024, 11:10 am
- Modified By:** Prabhu Mounika 16/04/2024, 11:15 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	1	Step 1		Travel Approval: Out Of State equals True	Manager	Final Rejection
Show Actions   Edit 2		Travel Coordinator Approval			User:Prabhu Mounika	Final Rejection

**Final Approval Actions**

Action	Type	Description
Record Lock		Lock the record from being edited

**Final Rejection Actions**

Action	Type	Description
Record Lock		Unlock the record for editing
Edit   Remove	Field Update	Set Status To:Rejected

**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	1	Step 1		Travel Approval: Out Of State equals True	Manager	Final Rejection
Show Actions   Edit 2		Travel Coordinator Approval			User:Prabhu Mounika	Final Rejection

**Final Approval Actions**

Action	Type	Description
Record Lock		Lock the record from being edited
Edit   Remove	Field Update	Set Status To:Approved

**Final Rejection Actions**

Action	Type	Description
Record Lock		Unlock the record for editing
Edit   Remove	Field Update	Set Status To:Rejected

## Test Your Approval Process :

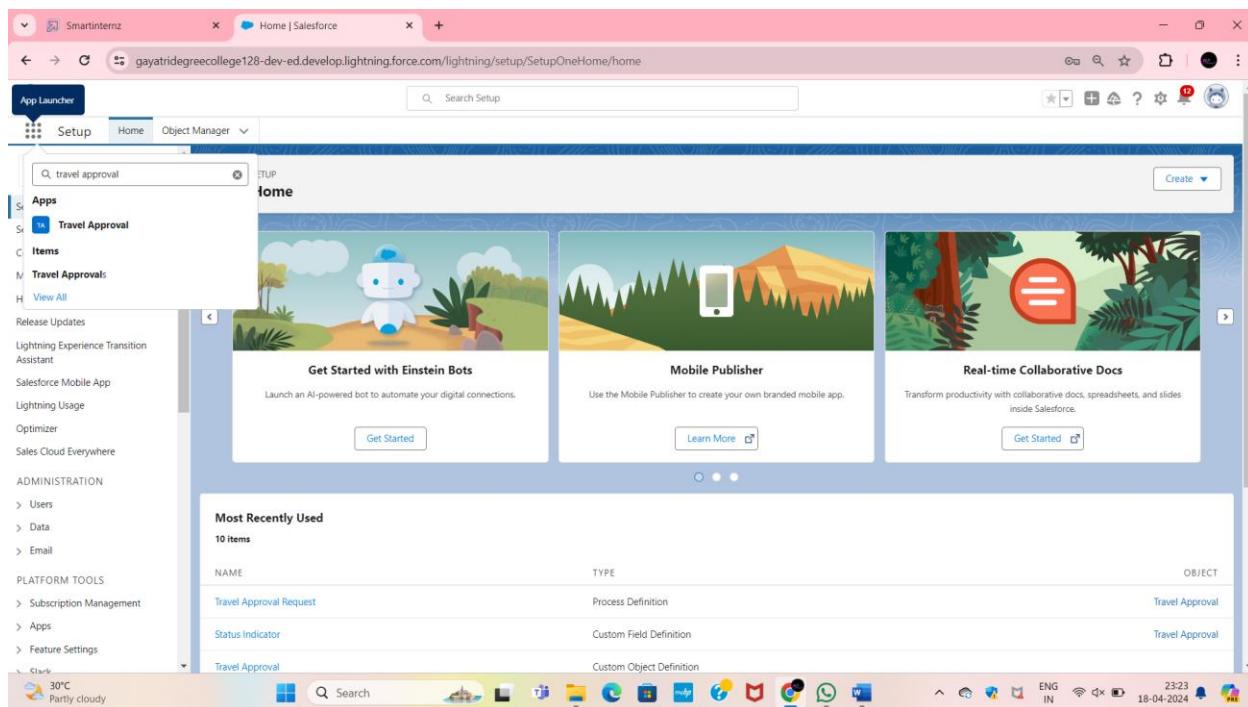
Time to Test now you've created your approval process, let's test it out.

1. Using the App Launcher, navigate to the Travel App and click the Travek Approval tab..
2. Select a record from the list. Make sure this is a travel approval record that has at least one expense item and a total expense amount greater than \$0.
3. Click the down arrow next to the New Opportunity button and select Submit for Approval..
4. Enter a comment and click Submit.
5. You should receive an email alert like the following that lets Eric Executive know that he has a travel approval to process. Notice that it provides a link to directly access the Travel Approval record so that Eric could review it. Also, the email includes the option to just respond to the email and reply with text like APPROVE, YES, REJECT, NO.

6. On your Travel Approval record, click the Related tab and you can see the new section titled Approval History that has details of your approval submission. Its status is Pending and it's assigned to Eric Executive.
7. At this point you could log out of Salesforce and log back in as Eric Executive.
8. Click Approve in the Approval History section.
9. In the popup window, enter a comment and click the Approve button once again.
10. Since this was for out-of-town travel, the approval was sent to the Travel Coordinator.
11. Click Approve in the Approve History section to finish the approval.
12. Enter a comment in the popup window and click Approve.
13. Click the detail tab for your travel approval record.
14. Pick or create another travel request record and submit it for approval. Check your email and respond to the email with reject.

Congratulations! You have added automation to your application using point and click tools such as :

- Validations Rules
- Formula Fields
- Roll-Up Summary Fields
- Flow Builder
- Approval Processes



Travel Exp | Travel Approval | +

gayatridegreecollege128-dev-ed.develop.lightning.force.com/lightning/r/Travel\_Approval\_\_c/a04IU00003B9E0RYAV/view

Travel Approval Departments Employee Details Expenses Expense Items Travel Approvals Reports Dashboards

Travel Approval Travel Exp

New Contact Edit New Opportunity

Related Details

Travel Approval Name: Travel Exp Owner: Prabhu Mounika

Employee Name: Madhu

Department: Computer Science

Status Indicator:

Out Of State: true

Total Expense: 5,000

Trip info

Trip Start date: 20/04/2024 Destination State: Kashmir

Trip End Date: 26/04/2024 Purpose of Trip: Vacations

Status: Approved

Created By: Last Modified By:

Tomorrow's high To tie record