

PROJECT REPORT

Build An Employee Travel Approval Application For Corporates-admin

Description :

To make the existing app more efficient for the HR team we create custom objects and relationships to store and access the data more efficiently. We install an unmanaged package in the org to get metadata that acts as existing data in the recruitment app.

Create Salesforce Org

1. Go to developers.salesforce.com/
2. Click on sign up
3. On the sign-up form, enter the following details:
 1. First name & Last name : chukka & venkatesh
 2. Email : chukkavenkatesh1234@gmail.com
 3. Role: Developer
 4. Company: College Name : GYATRI DEGREE COLLEGE-TIRUPATI
 5. County: India
 6. Postal Code: pin code : 517101
 7. Username: venky@gdctirupati.com
8. <https://developer.salesforce.com/signup>

Account Activation

Login To Your Salesforce Account

1. Go to [salesforce.com](https://login.salesforce.com) and click on login.

Enter the username and password that you just created.

2. After login this is the home page which you will see.

Salesforce Login URL <https://login.salesforce.com>

Object 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:

1. Standard Objects
2. Custom Objects

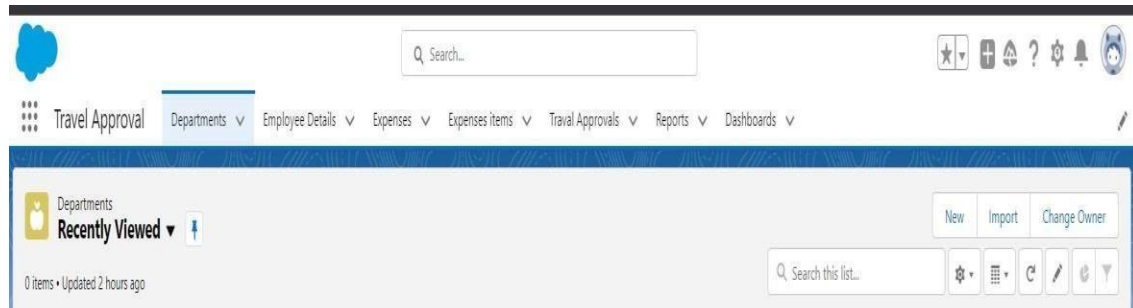
Creation Of Department Object For Travel Approval App

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 on 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.



What Is A Tab?

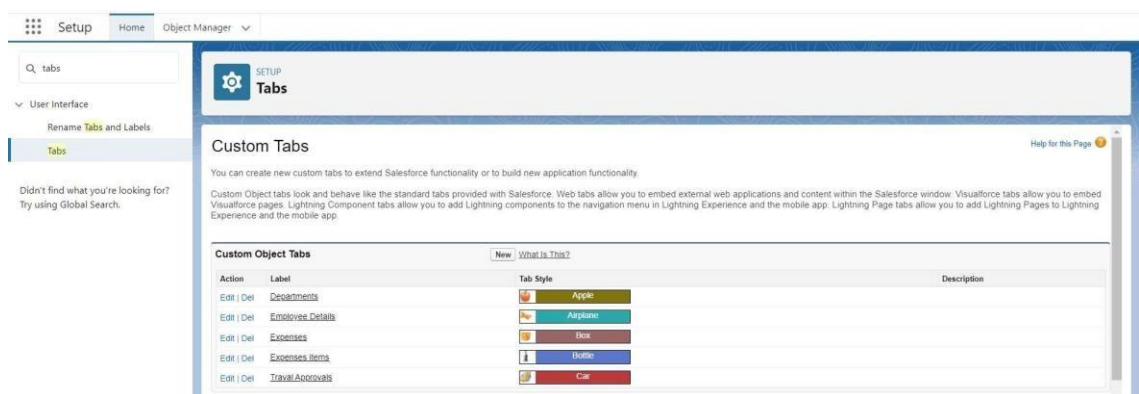
Tabs in Salesforce help users view the information at a glance. It displays the data of objects and other web content in the application. There are mainly 4 types of tabs:

- (A) Standard Object Tabs
- (B) Custom Object Tabs
- (C) Web Tabs
- (D) Visualforce Tabs

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 Object, select Department.
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.



Lightning App

Apps in Salesforce are a group of tabs that help the application function by working together as a unit.

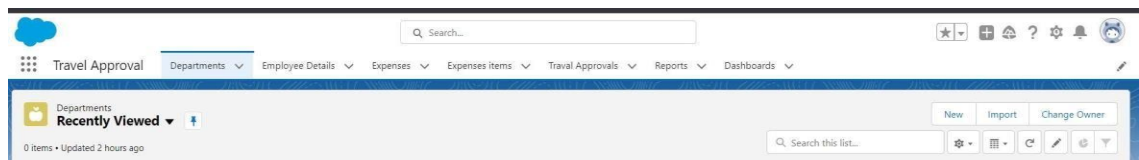
There are two types of apps – 1.

Standard App

2. Custom Apps

Create the Travel Approval
app

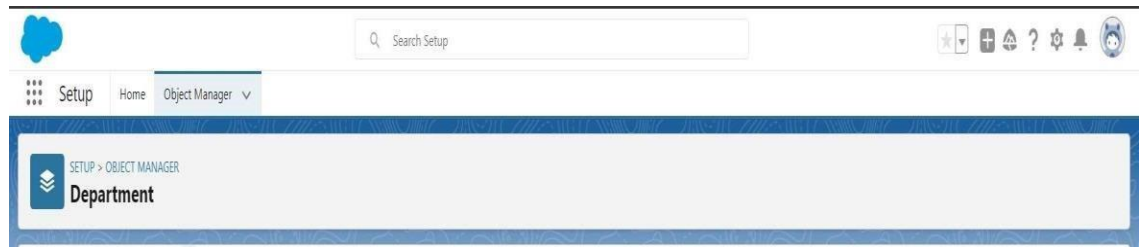
1. From Setup, enter App Manager in the Quick Find and select App Manager.
2. Click New Lightning App.
3. Enter Travel Approval as the App Name, then click Next
4. Under App Options, leave the default selections and click Next.
5. Under Utility Items, leave as is and click Next.
6. From Available Items, select Department, Employee Detail, Expense, Expense Items, Travel 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.



Fields And Relationships

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 Department Code and enter 5 in Length.
8. Click Next, Next, then Save & New.
9. Follow above steps and create two more Text type field - District & State.
10. Also, Provide Length 40 for both District and State field.
11. Create URL type field & give "School website" as the field label.

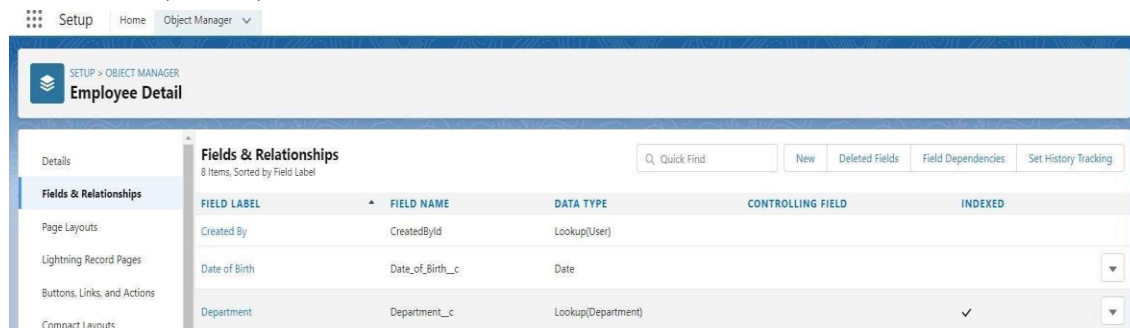


Lookup Relationship With Department

Let's create a Lookup relationship with Department object on Employee Detail object. Follow steps 1 to 5 of field creation then follow below steps. Select lookup Relationship as the Data Type and click Next.

For Related to, enter Department.
Click Next.

For Field Label, enter Department.
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 Manager

3. Select Expense.
4. Click Fields & Relationships
5. Click New.

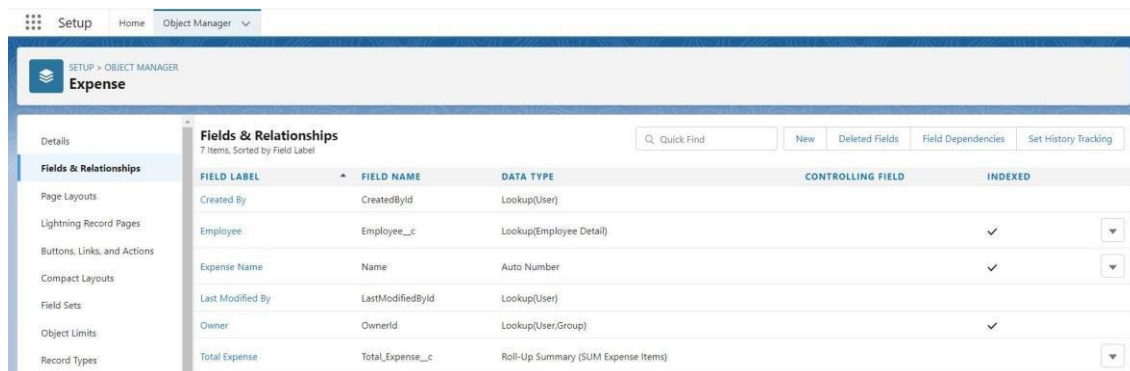
Select the Roll-up summary field as the data type

Enter the field label as Total Expense

Click Next

Then select the master object summarized as Expense items

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



FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Employee	Employee__c	Lookup(Employee Detail)		✓
Expense Name	Name	Auto Number		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Total Expense	Total_Expense__c	Roll-Up Summary (SUM Expense Items)		

Pick List Field

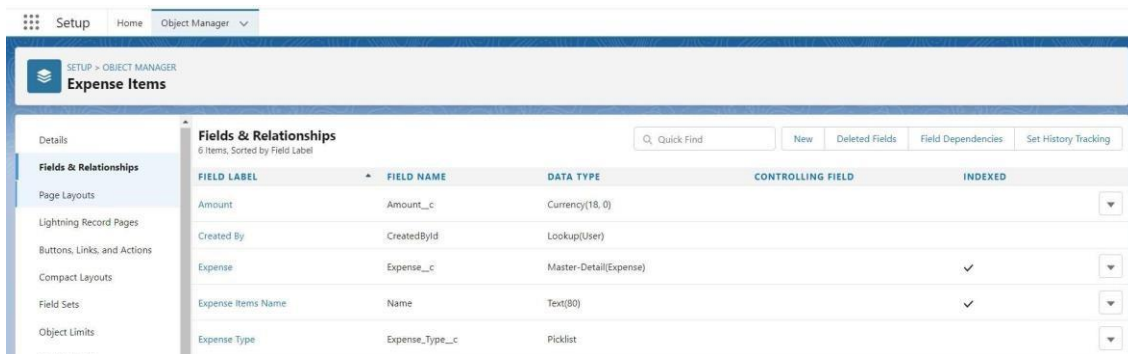
Let's create a Pick-List field:

- 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

Click Next, Next, then Save & New



Import Departments

Data Import

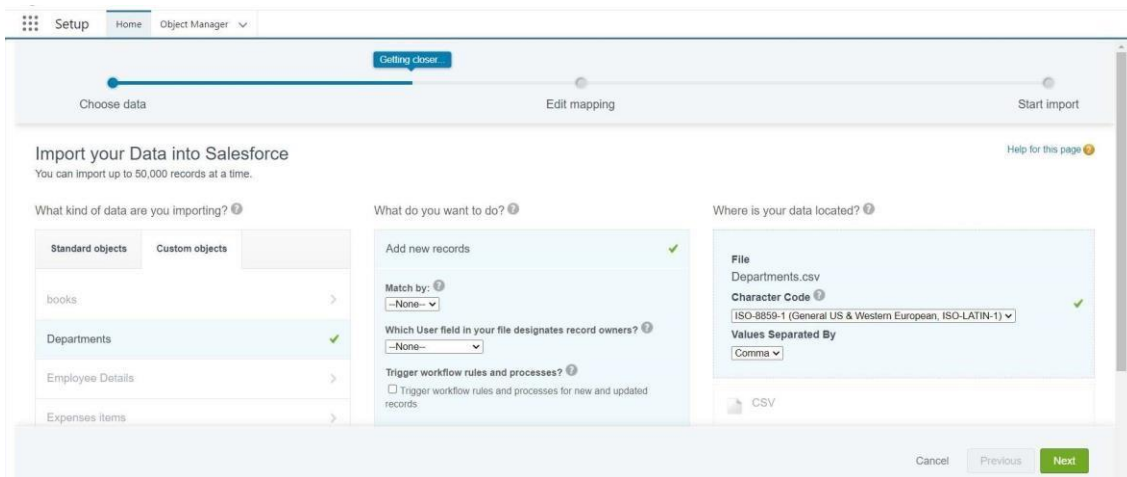
From Setup, click the Home tab.

- 1) In the Quick Find box, enter Data Import and select Data Import Wizard.
- 2) Click Launch Wizard!
- 3) Click the Custom Objects tab and select the Departments object.
- 4) Select Add new records.
- 5) Click CSV and choose file Department_CSV which we made earlier. Click Next.

6) 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.

The next screen gives you a summary of your data import. Click Start Import.

Click OK on the popup.

The screenshot shows the 'Import your Data into Salesforce' screen in the Salesforce interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager'. Below this is a progress bar with three steps: 'Choose data', 'Edit mapping', and 'Start import'. The 'Choose data' step is active. The main content area is divided into three columns. The first column, 'What kind of data are you importing?', has tabs for 'Standard objects' and 'Custom objects'. Under 'Standard objects', 'Departments' is selected with a green checkmark. The second column, 'What do you want to do?', has a section 'Add new records' with a green checkmark. It includes a 'Match by' dropdown set to 'None', a 'Which User field in your file designates record owners?' dropdown set to 'None', and a checkbox for 'Trigger workflow rules and processes for new and updated records' which is unchecked. The third column, 'Where is your data located?', shows a 'File' section with 'Departments.csv' selected. It also includes a 'Character Code' dropdown set to 'ISO-8859-1 (General US & Western European, ISO-LATIN-1)' and a 'Values Separated By' dropdown set to 'Comma'. At the bottom right, there are 'Cancel', 'Previous', and 'Next' buttons. A 'Getting closer' progress indicator is visible at the top of the main content area.

Users

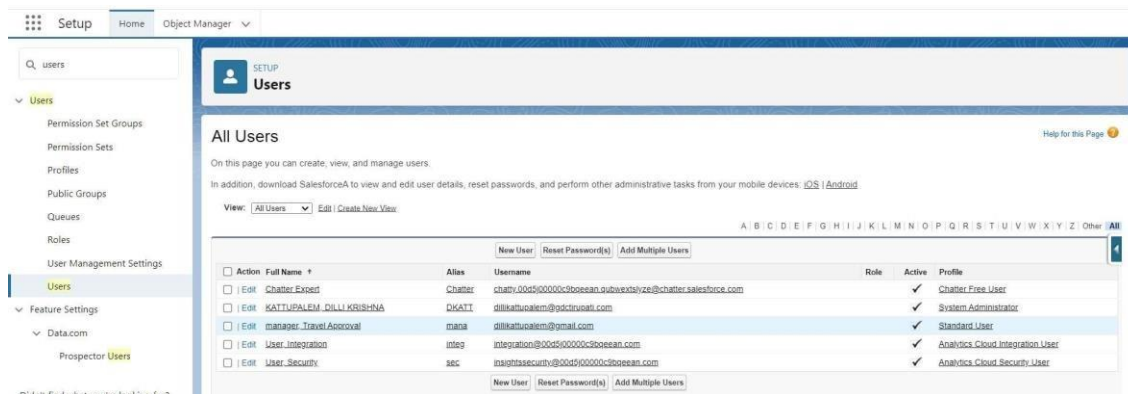
A user is anyone who logs into Salesforce.

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.

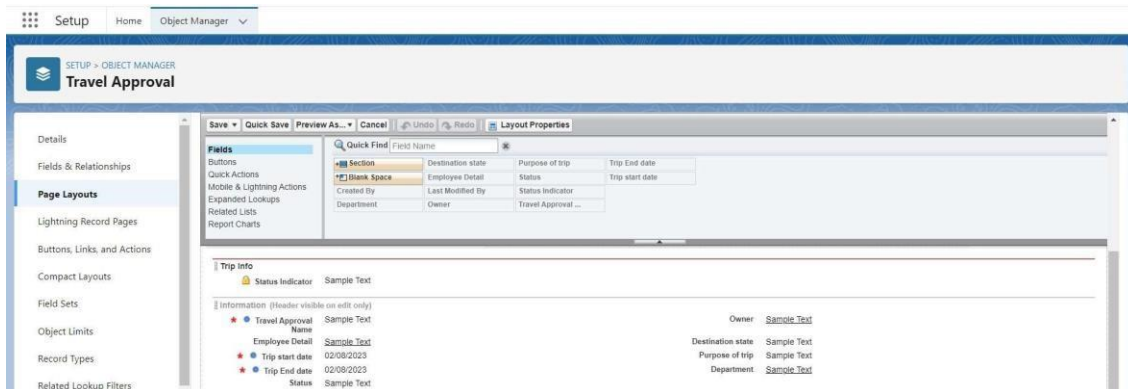
6. Select a profile as Standard user.

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



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 of where 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.



Add 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 c < Trip_Start_Date c`, click save.



Create Formulae Fields

- 1) First, we need to upload a zip file to your Salesforce environment that contains all the images we use. You should have 2) a file titled StatusImages.zip.

Now select the travel approval object.

Select Fields & Relationships, Click

New Select Formula data type, and

Click Next. Enter the following values:

Field Label: Status Indicator

Field Name: Status_Indicator (This automatically gets sent when you tab out of the Field

Label field) ☐

Formula Return Type: Text

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

```
IF( ISPICKVAL( Status c c, 'Approved'),  
IMAGE("/resource/StatusImages/thumbs-up.png", "Accepted", 20, 20),  
IF ( ISPICKVAL( Status c c, 'Rejected'),  
IMAGE("/resource/StatusImages/thumbs-down.png", "Rejected", 20,  
20), IMAGE("/resource/StatusImages/draft.png", "In-Process", 20,  
20)))
```

Click Next, Next, Save.



User Adoption - Create Record

Create Record

Click App Launcher and select Travel Approval App

1) Click reports tab

2) Click New Report.

3) Click the report type as Travel approval with Departments Click Start report.

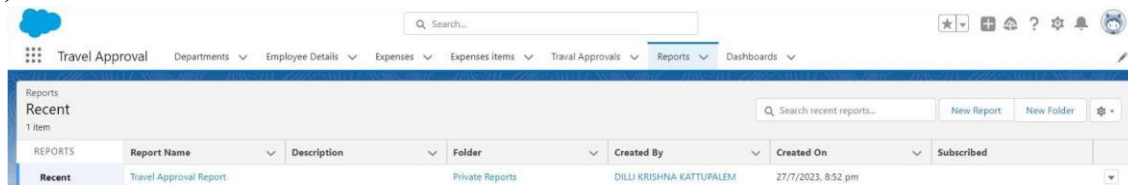
4)Customize your report, in group rows select - Department Name

5)Click refresh

6)Click save and run

7)Give report name – Travel Approval Report

8)Click Save



View Record

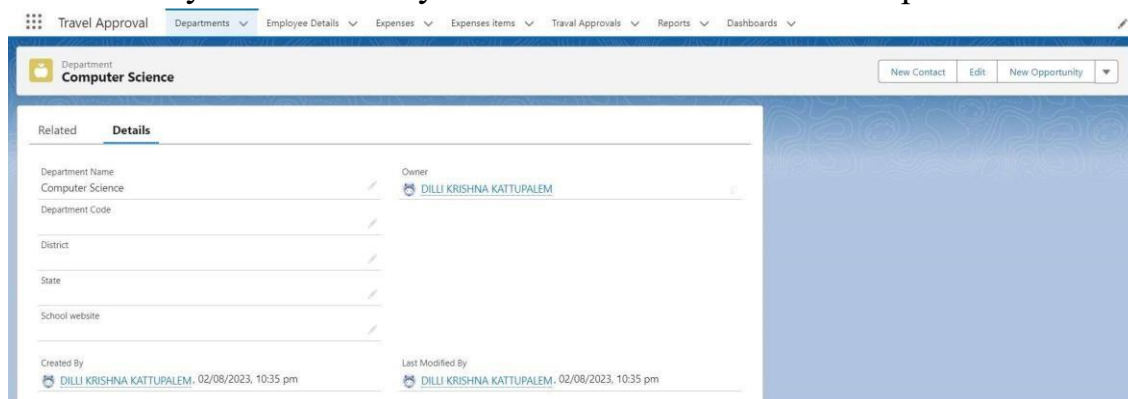
View Record (Department):

1.Click on App Launcher on left side of screen.

2.Search Travel Approval & click on it.

3.Click on Department Tab.

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

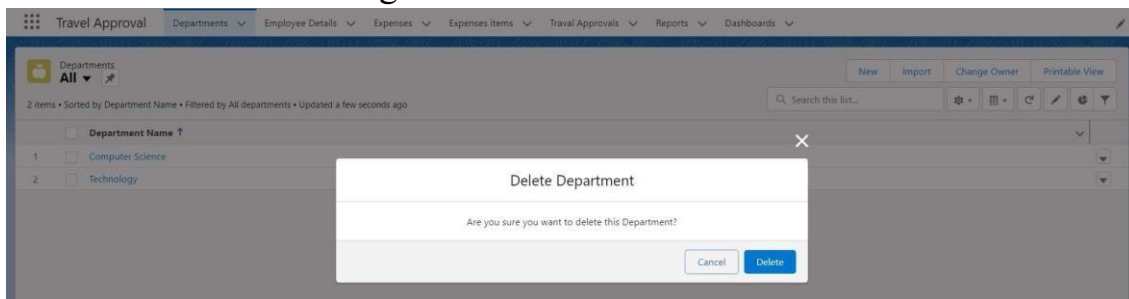


Delete Record

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 side on that particular record.
5. Click delete and delete again.

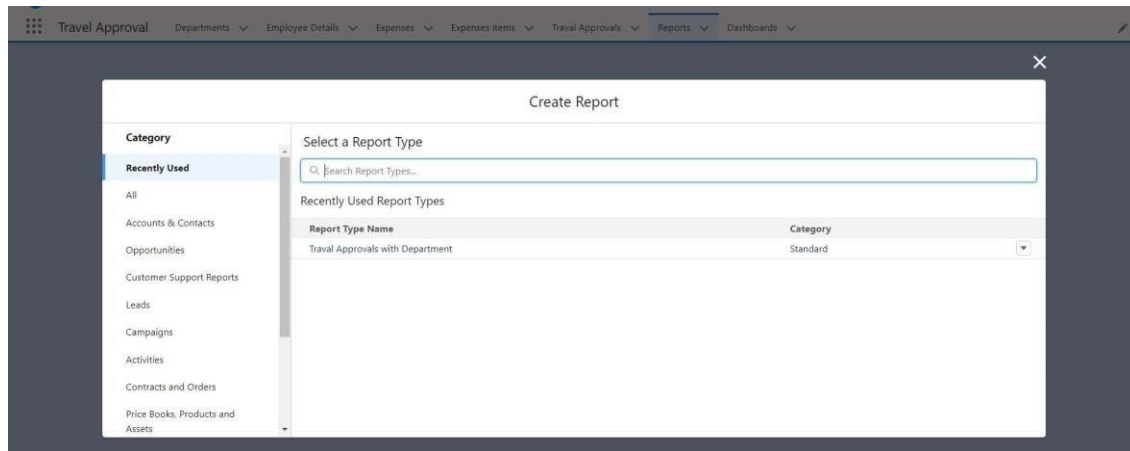


What Are Reports?

Reports in Salesforce is a list of records that meet a particular criterion which gives an answer to a particular question.

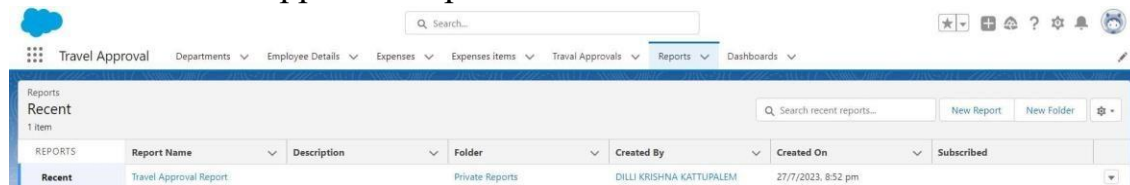
Create Report

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



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



Dashboards

Dashboards let you curate data from reports using charts, tables, and metrics.

Create Dashboard

Click on the Dashboards tab from the travel approval application,

Click on a new dashboard

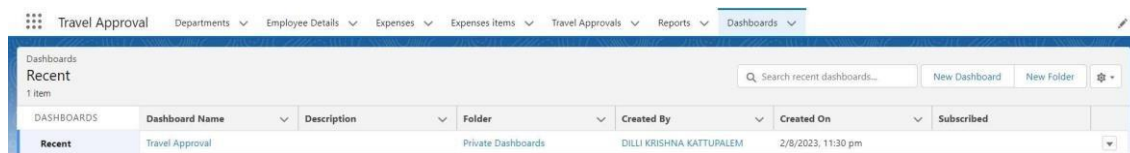
Give name- Travel Approval

Click Create

Give your dashboard a name and click on

+component, select the Travel Approval Report that you created.

For the data visualization select any of the chart, table etc as your wish. Click add Click save.



***** THE END*****