

Project Name:- Build An Employee Travel Approval
Application For Corporates - (Developer)

Team ID : LTVIP2024TMID12769

Team Size : 5

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Team Member : S VIGNESH

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Team Member : RANGASAMUDRAM RAMANJINEYULU

Team Member : R PALGUNA

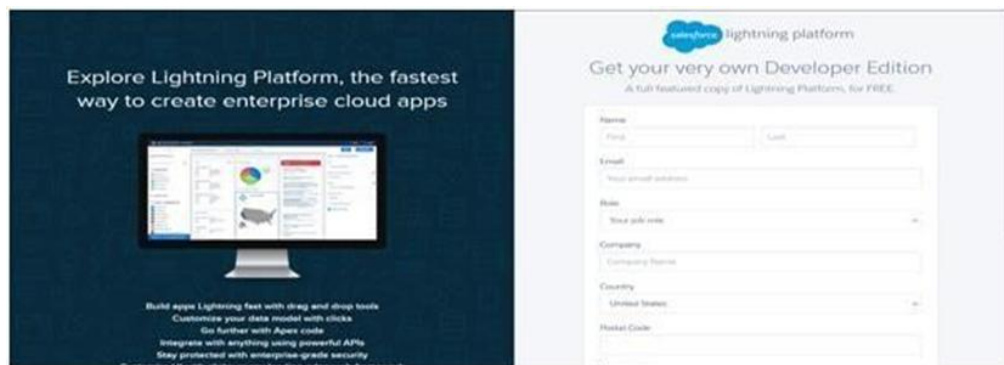
Milestone 1- Create Salesforce Org

Creating Developer Org

Creating a developer org in salesforce.

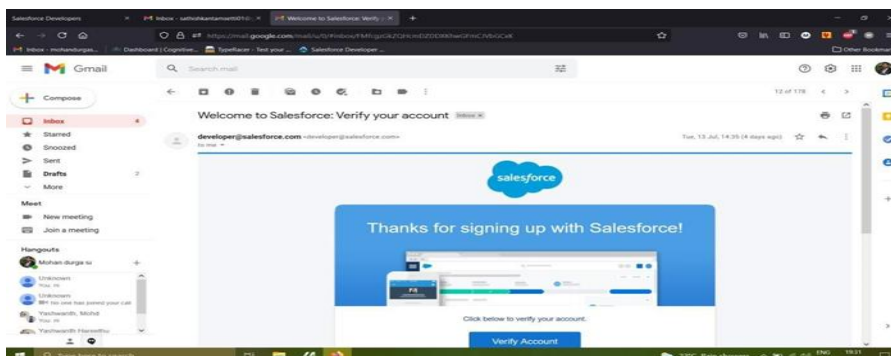
1. Go to developers.salesforce.com/
2. Click on sign up.
3. On the sign-up form, enter the following details:
 1. First name & Last name
 2. Email
 3. Role: Developer
 4. Company: College Name
 5. Country: India
 6. Postal Code: pin code
 7. Username: should be a combination of your name and company
This need not be an actual email id, you can give anything in the format:
username@organization.com

Click on sign up after filling these.



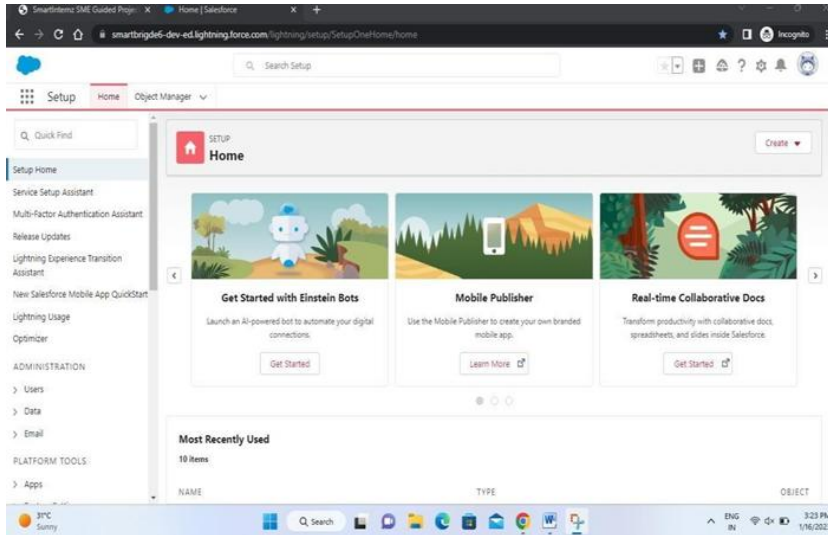
Account Activation

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 5-10mins, as

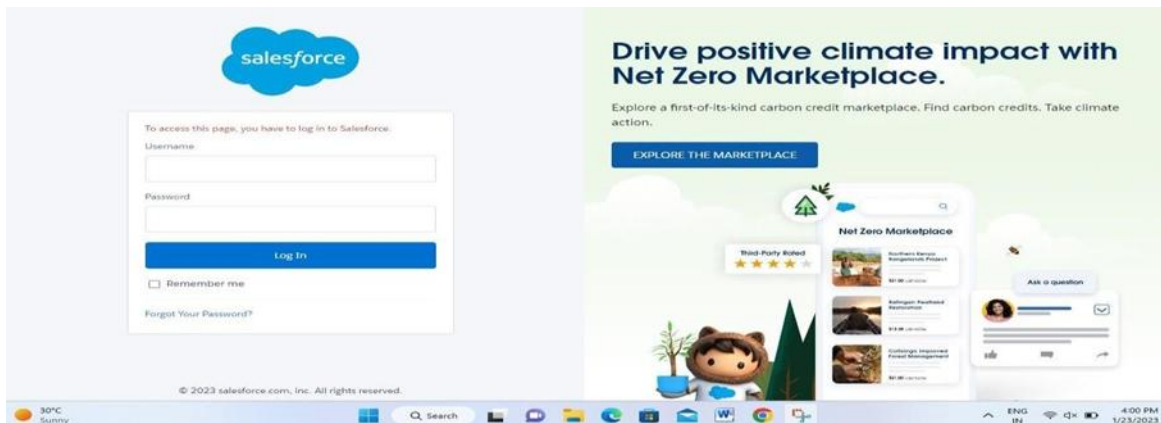


Login To Your Salesforce Account

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.



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



Object In Salesforce

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.

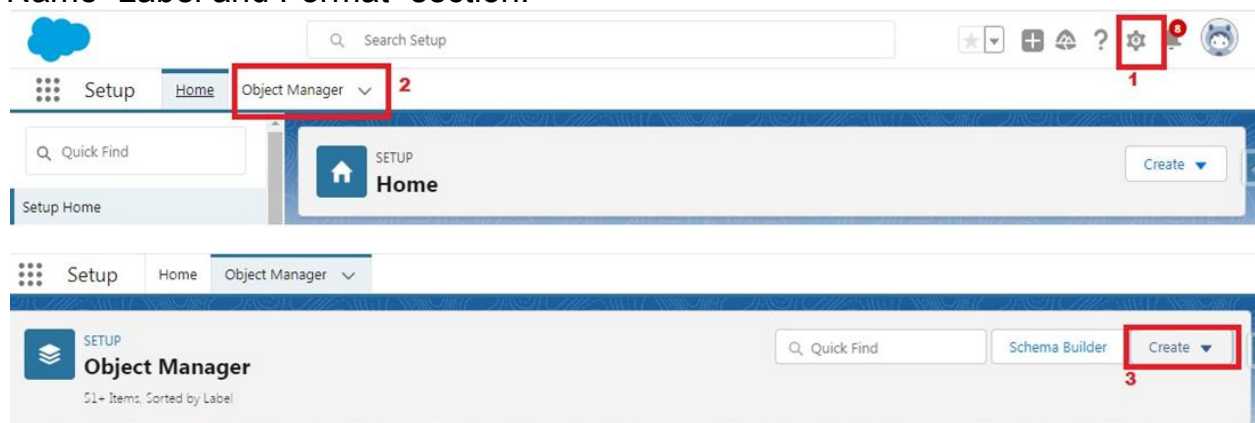
Create Department Object:

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.

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.



The singular and plural labels are used in tabs, page layouts, and reports.

5 Label Example: Account

6 Plural Label Example: Accounts

Starts with vowel sound ☐

The Object Name is used when referencing the object via the API.

Object Name Example: Account

Description

Context-Sensitive Help Setting ☒ Open the standard Salesforce.com Help & Training window
☐ Open a window using a Visualforce page

Content Name

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

7 Record Name Example: Account Name

Optional Features

☒ Allow Reports 8

☐ Allow Activities

☐ Track Field History

☐ Allow in Chatter Groups

☐ Enable Licensing

Search Status

When this setting is enabled, your users can find records of this object type when they search. [Learn more.](#)

☒ Allow Search 9

Object Creation Options (Available only when custom object is first created)

☐ Add Notes and Attachments related list to default page layout

☐ Launch New Custom Tab Wizard after saving this custom object

10

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 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.

Setup Home Object Manager

Q tabs

User Interface

Rename Tabs and Labels

Tabs 1

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

Q tabs

User Interface

Rename Tabs and Labels

Tabs

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

SETUP Home

Create

Get Started with Einstein Bots Mobile Publisher Real-time Collaborative Docs

SETUP Tabs

Custom Tabs

You can create new custom tabs to extend Salesforce functionality or to build new application functionality.

Custom Object Tabs

New What Is This?

Action	Label	Tab Style	Description
Edit Del	Buyers	Apple	
Edit Del	Customers	Globe	
Edit Del	Private	Box	

Step 1. Enter the Details Step 1 of 3

Choose the custom object for this new custom tab. Fill in other details.

Select an existing custom object or create a new custom object now.

Object --None--

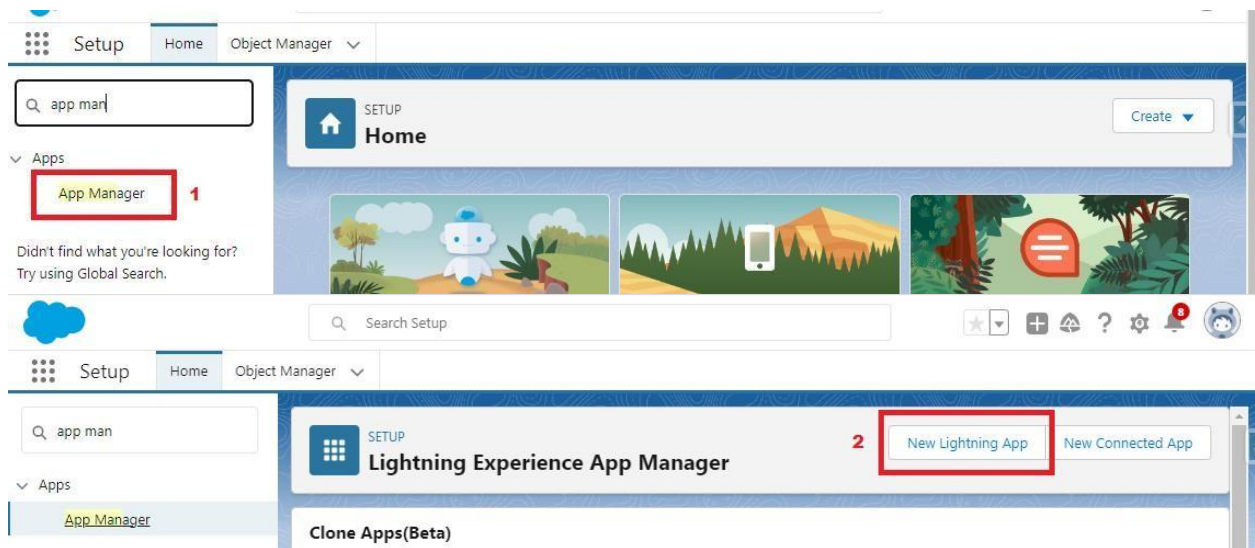
Tab Style

Lightning App

Create Travel Approval 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, 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.

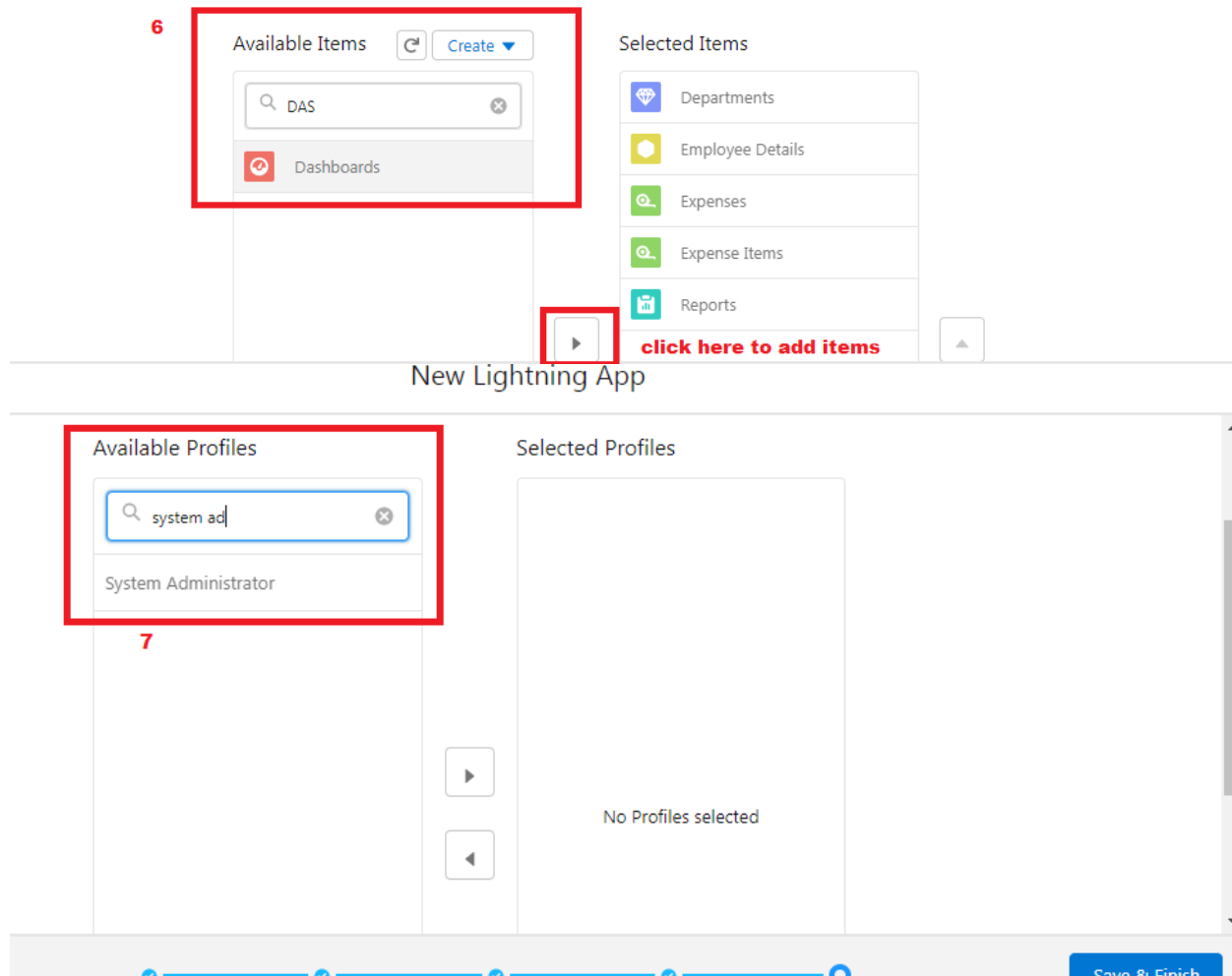


App Details & Branding

Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.

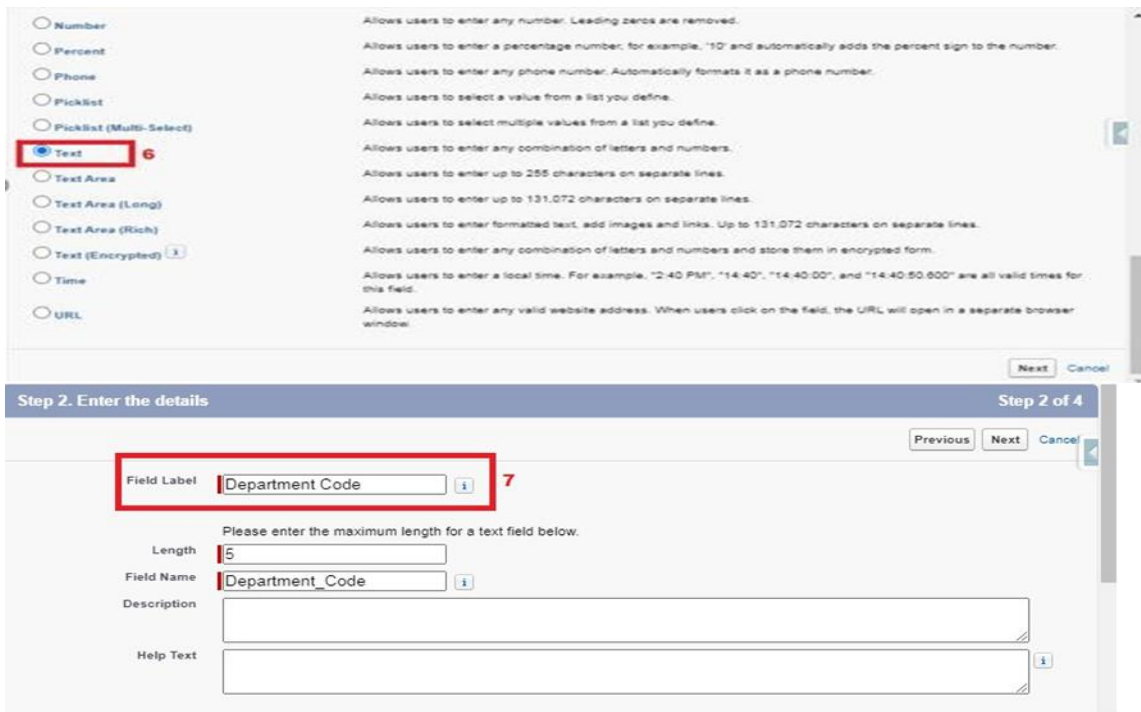
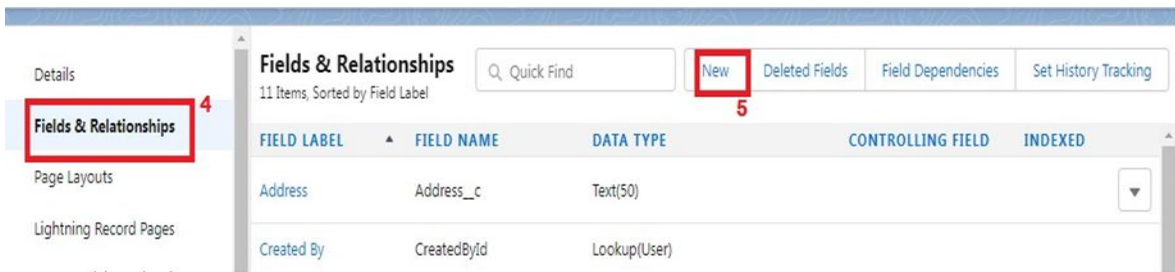
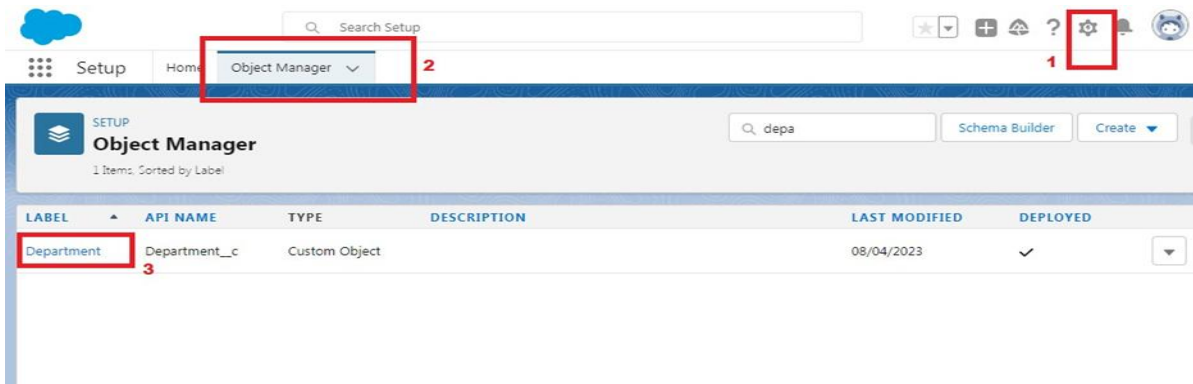
App Details	App Branding
<div>3</div> <div>* App Name ⓘ <input type="text" value="Travel Approval"/></div> <div>* Developer Name ⓘ <input type="text" value="Travel_Approval_"/></div>	<div>Image ⓘ <div> Upload</div></div> <div>Primary Color Hex Value ⓘ <div> #0070D2</div></div>

Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.



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 look up 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.

Step 2. Choose the related object Step 2 of 6

Select the other object to which this object is related.

Related To: Department

Step 3. Enter the label and name for the lookup field Step 3 of 6

Field Label: Department

Field Name: Department

Description:

Help Text:

Step 6. Add custom related lists Step 6 of 6

Field Label	Department
Data Type	Lookup
Field Name	Department
Description	


Specify the title that the related list will have in all of the layouts associated with the parent.

Related List Label: Employee Details

Let's create a master-detail relationship on Expense Item object Follow steps 1 to 5 of field creation then follow below steps.
Select Master-Detail Relationship as the Data Type and click Next.
For Related to, enter Expense.
Click Next.

For Field Label, enter Expense.
Click Next, Next, Next and Save

Formula

Roll-Up Summary 

Lookup Relationship

Master-Detail Relationship 1

Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.
- You can create rollup summary fields on the master record to summarize the detail records.

The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

SETUP > OBJECT MANAGER

Expense Item

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

Expense Item

New Relationship

Help for this Page 

Step 2. Choose the related object Step 2 of 6

Previous **Next** 

Select the other object to which this object is related. 2

Related To **Event** 3

Previous Next Cancel

SETUP > OBJECT MANAGER

Expense Item

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Object Limits


Record Types


Expense Item


New Relationship

Help for this Page 


Step 3. Enter the label and name for the lookup field Step 3 of 6

Previous **Next** 

Field Label **Expense**  4

Field Name **Expense** 

Description

Help Text 

5

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.

The screenshot shows the Salesforce Setup interface. At the top, the 'Setup' tab is selected. The 'Object Manager' link is highlighted with a red box and a '2'. Below this, the 'Expense' object is selected in the list, highlighted with a red box and a '3'. The 'Fields & Relationships' section is expanded, and the 'New' button is highlighted with a red box and a '5'. The 'Fields & Relationships' section is also highlighted with a red box and a '4'. The table below shows the fields for the 'Expense' object.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Expense	Expense__c	Custom Object		08/04/2023	✓
Expense Item	Expense_Item__c	Custom Object		08/04/2023	✓

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text(50)		
Created By	CreatedById	Lookup(User)		

Data Type

☐ None Selected

Select one of the data types below.

☐ Auto Number

A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

☐ Formula

6

A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

☒ Roll-Up Summary

A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

☐ Lookup Relationship

Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

☐ Master-Detail Relationship

Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent, or "master") where:

- The relationship field is required on all detail records.
- The ownership and sharing of a detail record are determined by the master record.
- When a user deletes the master record, all detail records are deleted.
- You can create rollup summary fields on the master record to summarize the detail records.

The relationship field allows users to click on a lookup icon to select a value from a popup list. The master object is the source of the values in the list.

☐ External Lookup Relationship

Creates a relationship that links this object to an external object whose data is stored outside the Salesforce org.

Step 2. Enter the details

Step 2 of 5

Previous Next Cancel

Field Label Total Expense

7

Field Name Total_Expense

Description

Help Text

Auto add to custom report type

☒ Add this field to existing custom report types that contain this entity

Select Object to Summarize

! = Required Information

Master Object Expense

Summarized Object Expense Items

9

Select Roll-Up Type

☐ COUNT

☒ SUM

☐ MIN

☐ MAX

Field to Aggregate Amount

10

Filter Criteria

☒ All records should be included in the calculation

☐ Only records meeting certain criteria should be included in the calculation

Previous Next Cancel

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

The screenshot shows the Salesforce Setup interface. At the top, the 'Object Manager' dropdown is highlighted with a red box and labeled '1b'. Below it, the 'Expense Item' object is selected in the list, also highlighted with a red box and labeled '1c'. On the left sidebar, the 'Fields & Relationships' tab is selected, highlighted with a red box and labeled '2a'. In the main content area, the 'New' button is highlighted with a red box and labeled '2b'. The table below shows the fields for the 'Expense Item' object.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Expense	Expense__c	Custom Object		08/04/2023	✓
Expense Item	Expense_Item__c	Custom Object		08/04/2023	✓

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Currency(10, 8)		
Created By	CreatedById	Lookup(User)		

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

☐ Date/Time

Allows users to enter a date and time, or pick a date from a popup calendar. When users click a date in the pop-up, that date and the current time are entered into the Date/Time field.

☐ Email

Allows users to enter an email address, which is validated to ensure proper format. If this field is specified for a contact or lead, users can choose the address when clicking Send an Email. Note that custom email addresses cannot be used for mass emails.

☐ Geolocation

Allows users to define locations. Includes latitude and longitude components, and can be used to calculate distance.

☐ Number

Allows users to enter any number. Leading zeros are removed.

☐ Percent

Allows users to enter a percentage number, for example, '10' and automatically adds the percent sign to the number.

☐ Phone

Allows users to enter any phone number. Automatically formats it as a phone number.

☒ Picklist

Allows users to select a value from a list you define.

☐ Picklist (Multi-Select)

Allows users to select multiple values from a list you define.

☐ Text

Allows users to enter any combination of letters and numbers.



SETUP > OBJECT MANAGER

Expense Item

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

Step 2. Enter the details

Step 2 of 4

Previous **Next** Cancel

Field Label **Expense Type**

Values ☐ Use global picklist value set

☒ Enter values, with each value separated by a new line

Transport
Hotel
Meal
others

☐ Display values alphabetically, not in the order entered

☐ Use first value as default value

☒ Restrict picklist to the values defined in the value set

Field Name **ex**

Description

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.

Import your Data into Salesforce


You can import up to 50,000 records at a time.


What kind of data are you importing? 


What do you want to do? 


Where is your data located? 


Standard objects	Custom objects
Attendees	
Buyers	


Add new records 


Update existing records 

Add new and update existing records 

 1-step: Prepare your data for import

 Choose data to import

 Edit field mapping

 Review and start import

Launch Wizard!

2


Let's do this

Choose data Edit mapping Start import

Customerss >

Departments > **3**

Drivers >



Choose data Edit mapping Start import

What kind of data are you importing? What do you want to do? Where is your data located?

Standard objects Custom objects

Attendees >

Buyers >

Customerss >

Departments > ✓


Add new records ✓

Match by:
 --None--

Which User field in your file designates record owners?
 --None--

Trigger workflow rules and processes?
 ☐ Trigger workflow rules and processes for new and updated records

Drag CSV file here to upload

 CSV

5

Cancel Previous **Next**

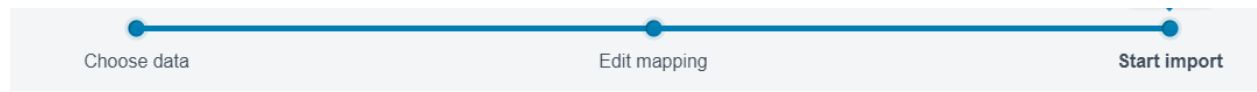
Edit Field Mapping: Departments

[Help for this page](#)

Your file has been auto-mapped to existing Salesforce fields, but you can edit the mappings if you wish. Unmapped fields will not be imported.

Edit	Mapped Salesforce Object	CSV Header	Example	Example	Example
Change	Department Name	Department Name	Office of Co	Disability D	Division of Disability and Rehabilitative Services
Change	Department Code	Department code	O001	D001	D002

Cancel Previous **Next** **6**



Review & Start Import

[Help for this page](#) ?

Review your import information and click Start Import.

Your selections:

Departments ✓
Add new records ✓
Departments csv.csv ✓

Your import **will include**:

Mapped fields
2

Your import **will not include**:

Unmapped fields
0

Cancel Previous **Start Import** ⁷

Congratulations, your import has started!

Click OK to view your import status on the Bulk Data Load Job page.

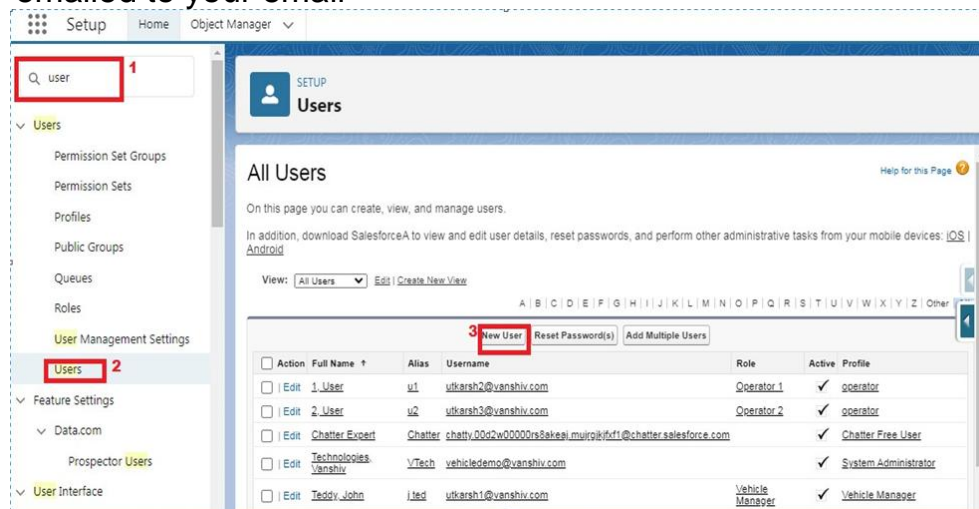
8

OK

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.
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



The screenshot shows the 'User Edit' form in Salesforce. The 'General Information' section is expanded. The 'First Name' field is 'Travel Approval' (labeled '4'), 'Last Name' is 'manager', 'Alias' is 'tmana', 'Email' is [redacted], and 'Username' is [redacted]. The 'Role' dropdown is '<None Specified>'. The 'User License' dropdown is 'Salesforce' (labeled '5'). The 'Profile' dropdown is 'Standard User' (labeled '6'). The 'Active' checkbox is checked. There are checkboxes for 'Marketing User', 'Offline User', 'Knowledge User', 'Flow User', and 'Service Cloud'.

User Edit [Save] [Save & New] [Cancel]

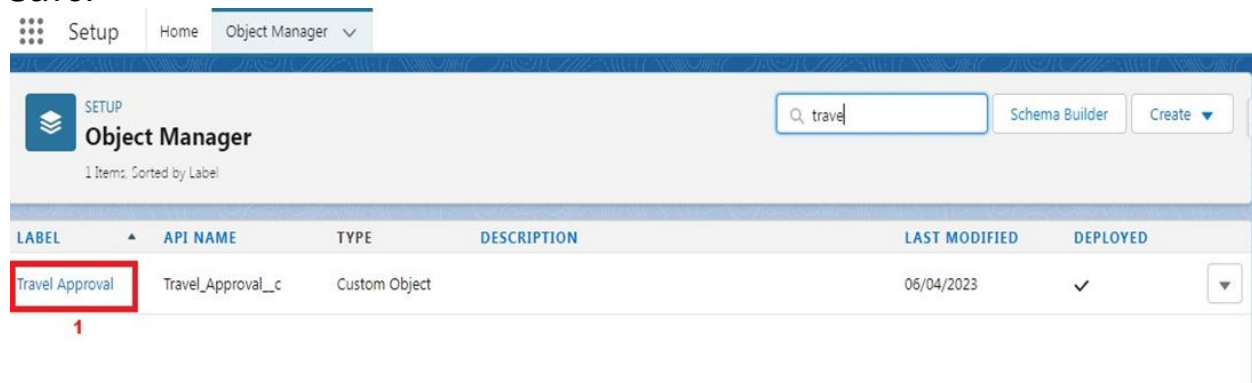
General Information ⓘ = Required Information

First Name: Travel Approval
Last Name: manager
Alias: tmana
Email: [redacted]
Username: [redacted]
Nickname: [redacted]
Title:
Company:
Department:
Role: <None Specified>
User License: Salesforce
Profile: Standard User ⓘ
Active: ☒
Marketing User: ☐
Offline User: ☐
Knowledge User: ☐
Flow User: ☐
Service Cloud: ☐

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.





SETUP > OBJECT MANAGER

Travel Approval

Details

Fields & Relationships

Page Layouts **2**

Lightning Record Pages

Details

Edit

Delete

Description

API Name

Travel_Approval__c

Enable Reports



Save Quick Save Preview As... Cancel Undo Redo Layout Properties

Fields

Buttons

Quick Actions

Mobile & Lightning Actions

Expanded Lookups

Related Lists

Report Charts

Quick Find Field Name

Section

Blank Space

Destination State

Purpose of Trip

Trip Start Date

Employee Name

Status

Created By

Last Modified By

Travel Approval Name

Department

Owner

Trip End Date

Information (Header visible on edit only)



Travel Approval Name GEN-2004-001234

Owner

Sample Text

Employee Name Sample Text

Department Sample Text

Destination State Sample Text

Purpose of Trip Sample Text

Trip Start Date 07/04/2023

Trip End Date 07/04/2023

Status Sample Text

System Information (Header visible on edit only)



Created By Sample Text



Last Modified By Sample Text

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`

NOTE- Make sure that there is no syntax error after you input this error condition

Give the Error message – “Trip end date must be the date greater than the Trip start date” &

For error location select the field and pick the Trip end date as the location for error.

Click save

The screenshot shows the Salesforce Object Manager interface. At the top, there are tabs for 'Setup', 'Home', and 'Object Manager'. Below the tabs, there is a search bar with 'travel' entered, and buttons for 'Schema Builder' and 'Create'. The main table lists objects, with 'Travel Approval' highlighted. Below the table, there is a section for 'Travel Approval' with a left sidebar and a main details area.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Travel Approval	Travel_Approval__c	Custom Object		06/04/2023	✓

1

SETUP > OBJECT MANAGER
Travel Approval

Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Triggers
Flow Triggers
Validation Rules

2

Details

Description

API Name
Travel_Approval__c
Custom
✓
Singular Label
Travel Approval
Plural Label
Travel Approvals

Enable Reports
✓
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

Edit Delete

SETUP > OBJECT MANAGER
Travel Approval

Validation Rule Edit [Save] [Save & New] [Cancel]

Rule Name: Date_Validation 3

Description:

Error Condition Formula

Example: [Discount_Percent__c > 30] More Examples...
Display an error if Discount is more than 30%.
If this formula expression is true, display the text defined in the Error Message area

Insert Field Insert Operator 4

Trip_End_Date__c < Trip_Start_Date__c

Check Syntax: No errors found

Functions: -- All Function Categories --
ABS
ACOS
ADDMONTHS
AND
ASCII
ASIN
Insert Selected Function
ABS(number)
Returns the absolute value of a number, a number without its sign
Help on this function

Error Message

Example: Discount percent cannot exceed 30%

This message will appear when Error Condition formula is true 5

Error Message: Trip end date must be the date greater then the Trip start date

This error message can either appear at the top of the page or below a specific field on the page

Error Location: ☐ Top of Page ☒ Field Trip End Date i

6 [Save] [Save & New] [Cancel]

Create Formulae Fields

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 2)a file titled StatusImages.zip.
- 3)Click the setup
- 4)Click Static Resources in Quick Find & Click New.
- 5)Enter the following values for your static resource

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

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.

The screenshot shows the Salesforce Setup interface. At the top, the 'Setup' tab is selected. A red box labeled '2' highlights the gear icon in the top right corner. Below the navigation bar, the 'Static Resources' section is visible. A red box labeled '3' highlights the 'Static Resources' link in the left sidebar. The main content area shows the 'Static Resource Edit' form for a resource named 'StatusImages'. A red box labeled '4' highlights the form fields: Name (StatusImages), Description, File (Choose File), and Cache Control (Private). Below the form, the 'Object Manager' section is visible. A red box labeled '5' highlights the 'Travel Approval' object in the list. The table below shows the details of the 'Travel Approval' object.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Travel Approval	Travel_Approval__c	Custom Object		06/04/2023	✓

Details

6

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Fields & Relationships

11 Items, Sorted by Field Label

Quick Find

New

Deleted Fields

Field Dependencies

Set History Tracking

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text(50)		
Created By	CreatedById	Lookup(User)		

Next

Cancel

Specify the type of information that the custom field will contain.

Data Type

None Selected

Select one of the data types below.

Auto Number

7

A system-generated sequence number that uses a display format you define. The number is automatically incremented for each new record.

Formula

A read-only field that derives its value from a formula expression you define. The formula field is updated when any of the source fields change.

Roll-Up Summary

1

A read-only field that displays the sum, minimum, or maximum value of a field in a related list or the record count of all records listed in a related list.

Lookup Relationship

Creates a relationship that links this object to another object. The relationship field allows users to click on a lookup icon to select a value from a popup list. The other object is the source of the values in the list.

Master-Detail Relationship

Creates a special type of parent-child relationship between this object (the child, or "detail") and another object (the parent).

Step 2. Choose output type

Step 2 of 5

Previous

Next

Cancel

8

Field Label

Status Indicator

Field Name

Status_Indicator

Auto add to custom report type

Add this field to existing custom report types that contain this entity

i

Formula Return Type

None Selected

Select one of the data types below.

Checkbox

Calculate a boolean value

Example: `TODAY() > CloseDate`

Currency

Calculate a dollar or other currency amount and automatically format the field as a currency amount.

Example: `Gross Margin = Amount - Cost__c`

Date

Calculate a date, for example, by adding or subtracting days to other dates.

Example: `Full Name = LastName & ", " & FirstName`

More Examples...

Simple Formula

Advanced Formula

Insert Field

Insert Operator

Status Indicator (Text) =

`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))`

Functions

-- All Function

ABS

ACOS

ADDMONTH

AND

ASCII

ASIN

Insert selected

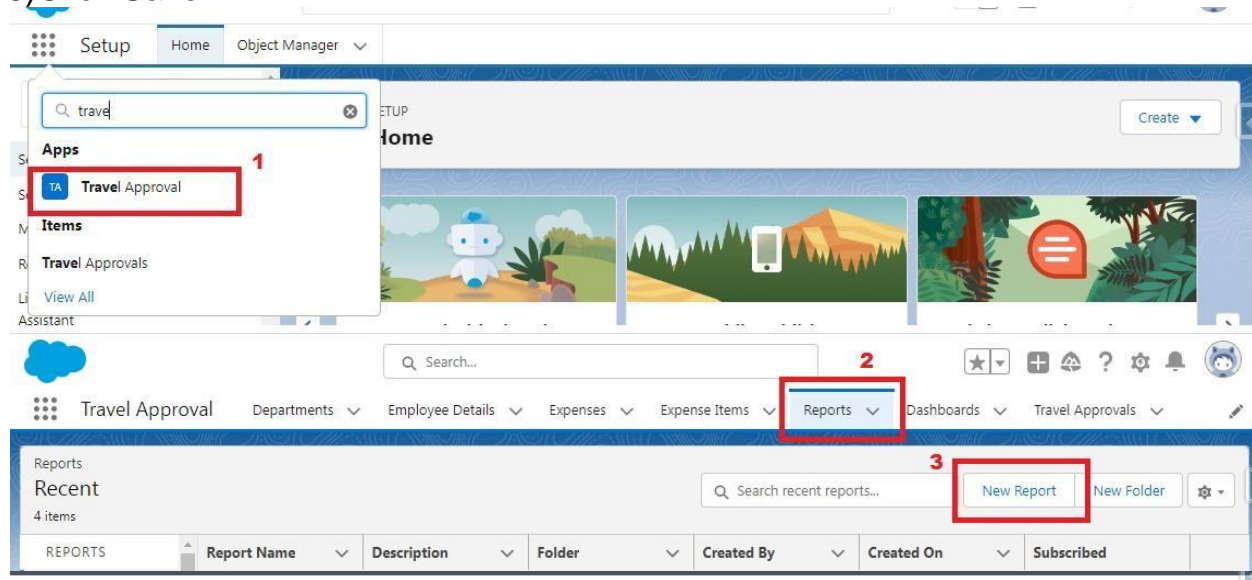
9

User Adoption - Create Record

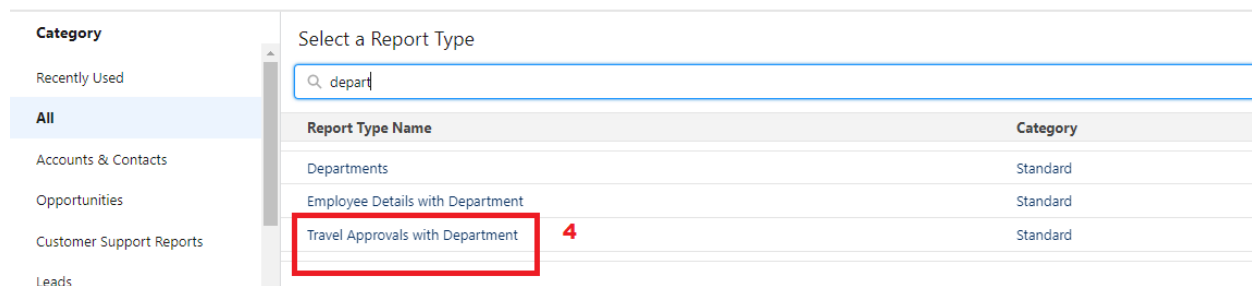
Create Record

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



Create Report



REPORT ▼
New Report ✎ Travel Approvals with Department

Refresh

Save & Run Save Close Run

Outline Filters 1

Groups 5

GROUP ROWS

Add group...

Department: Department Name ✕

GROUP COLUMNS

Add group...

Travel Approval: Travel Approval Name Department: Department Name

1	T-001	Computer Science
2	T-003	Office of Communications and Media
3	T-004	Disability Determination Bureau
4	T-002	Computer Science

Save Report

8

* Report Name

Travel Approval Report

Report Unique Name ⓘ

New_Report_iUr

Report Description

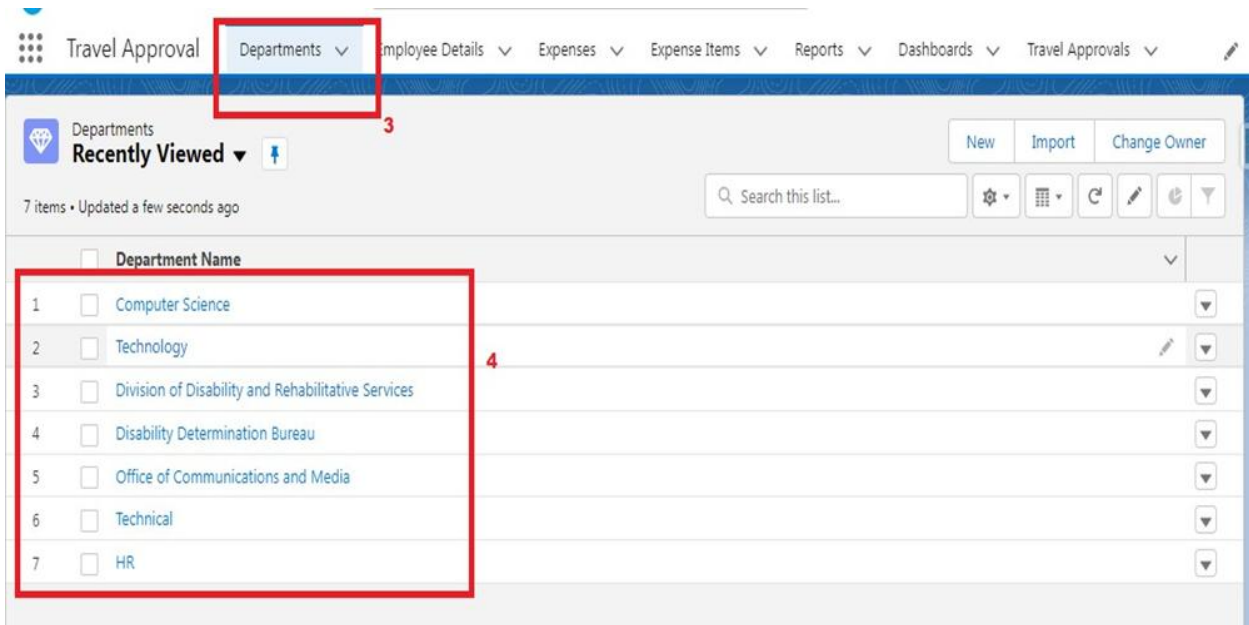
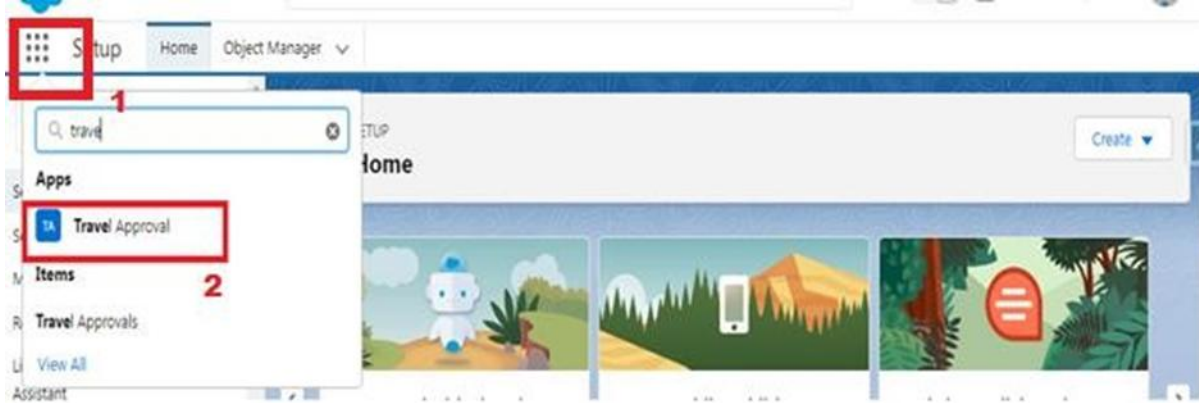
9

Cancel Save

View Record

View Record (Department):

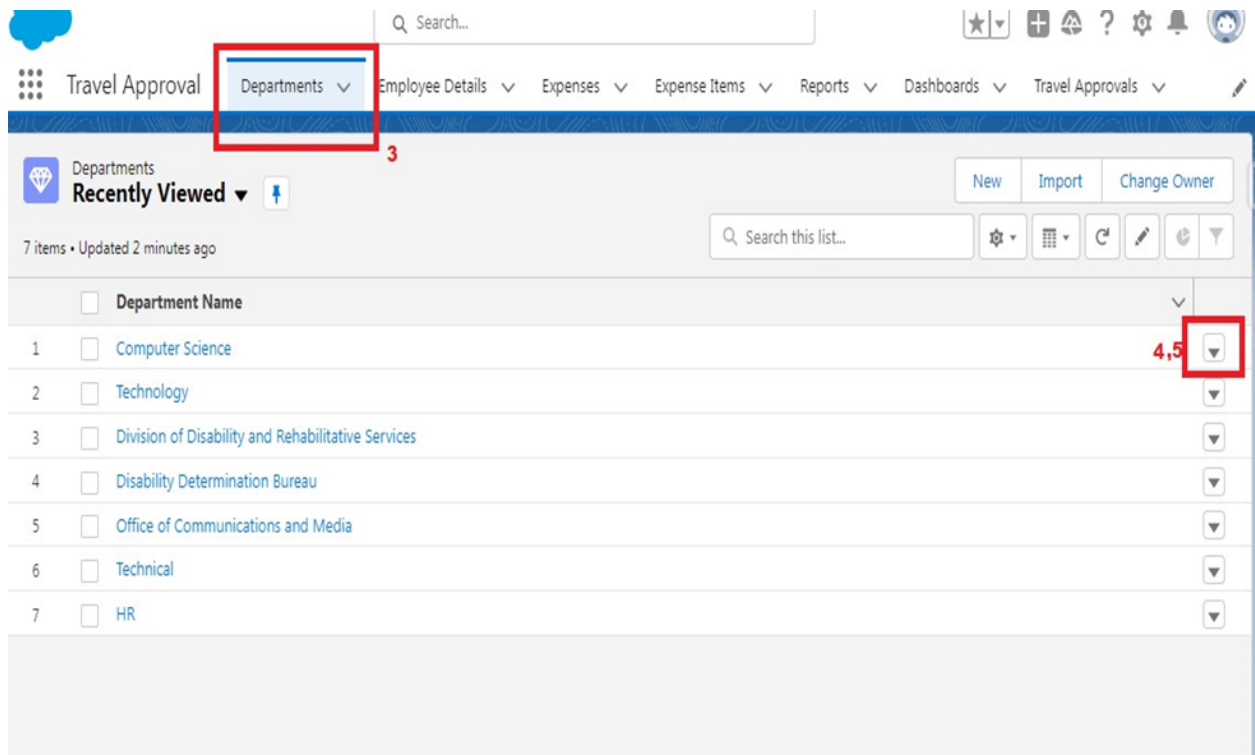
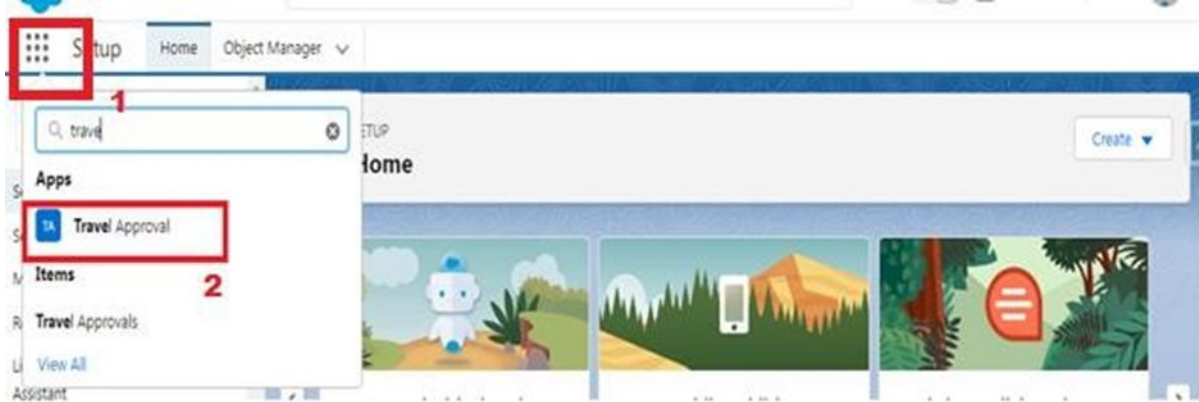
1. Click on App Launcher on left side of screen.
2. Search Travel Approval & click on it.
3. Click on Department Tab.
4. Click on any record name. you can see the details of the Department



Delete Record

Delete Record (Department):

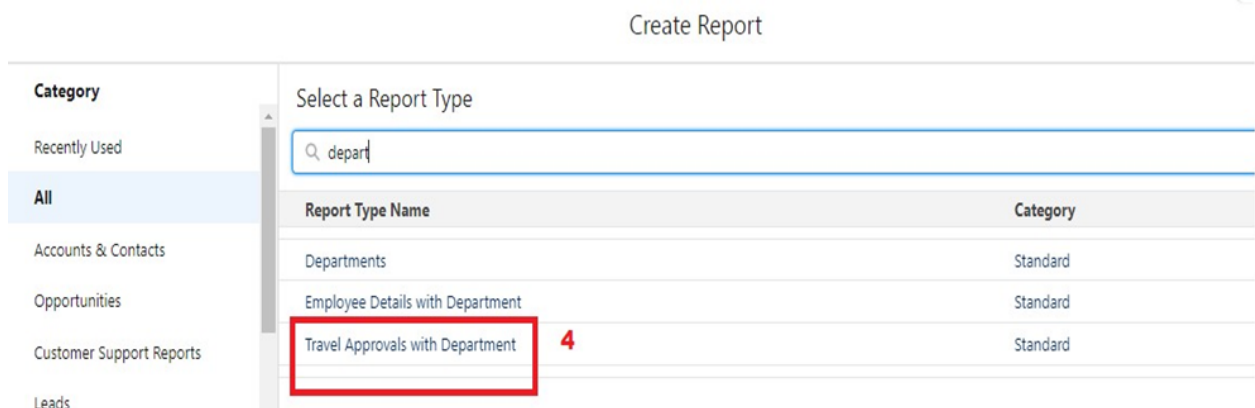
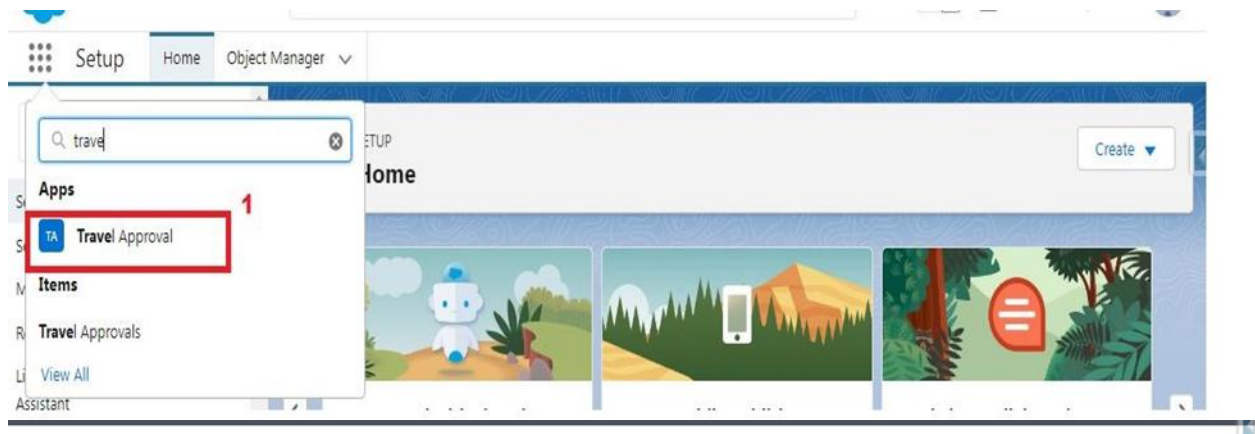
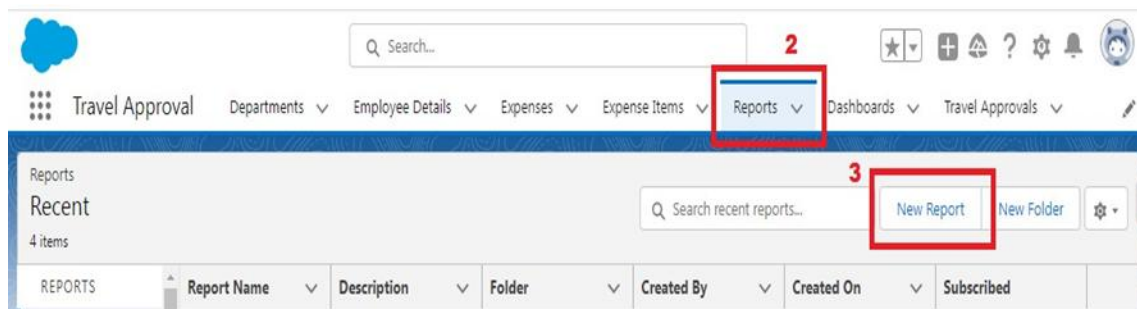
1. Click on App Launcher on the left side of the screen.
2. Search Travel Approval & click on it.
3. Click on Department Tab.
4. Click on Arrow at the right-hand side on that particular record.
5. Click delete and delete again.



What Are Reports?

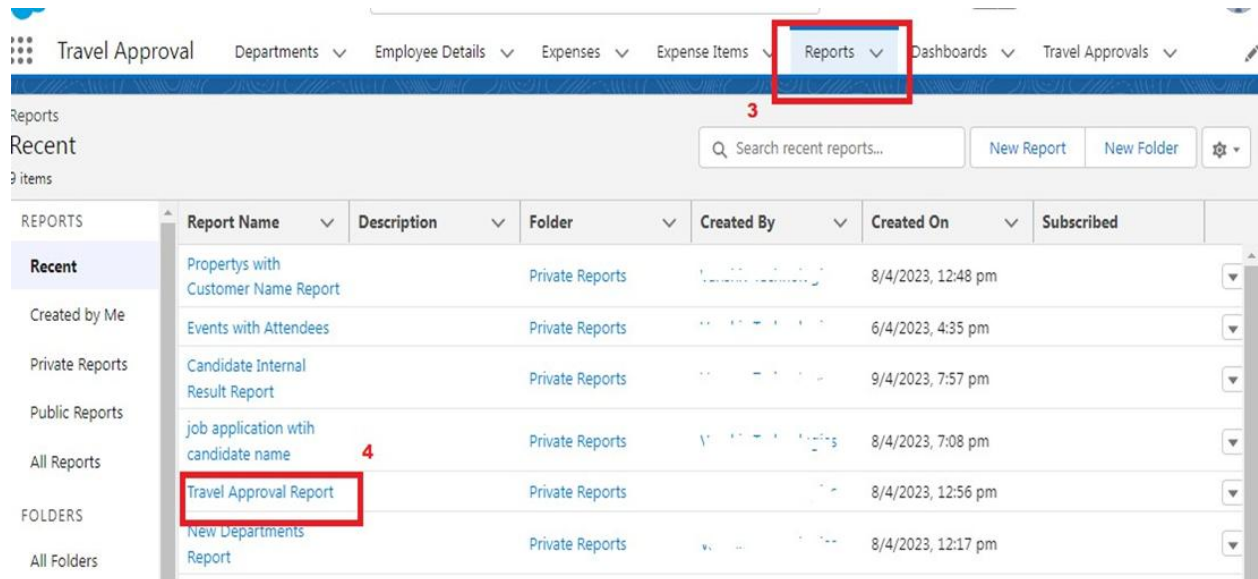
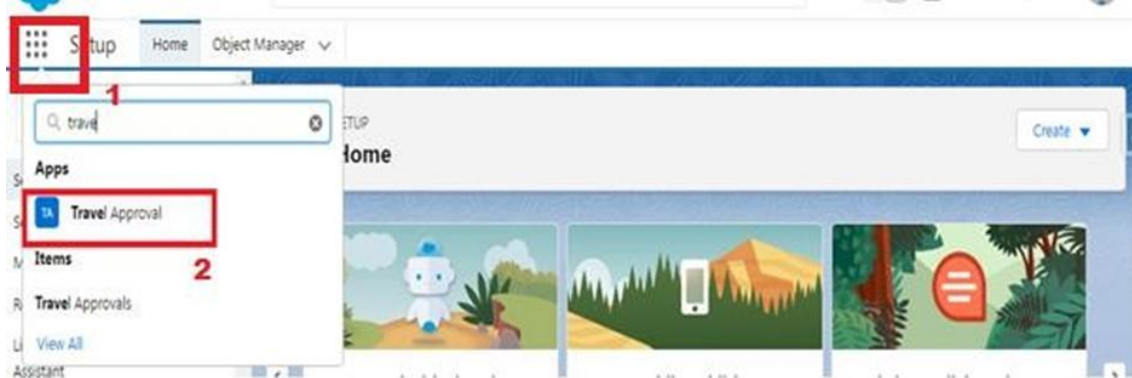
Create Report

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

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 image shows a two-step process for creating a dashboard. The top screenshot shows the 'New Dashboard' form with the following fields and actions:

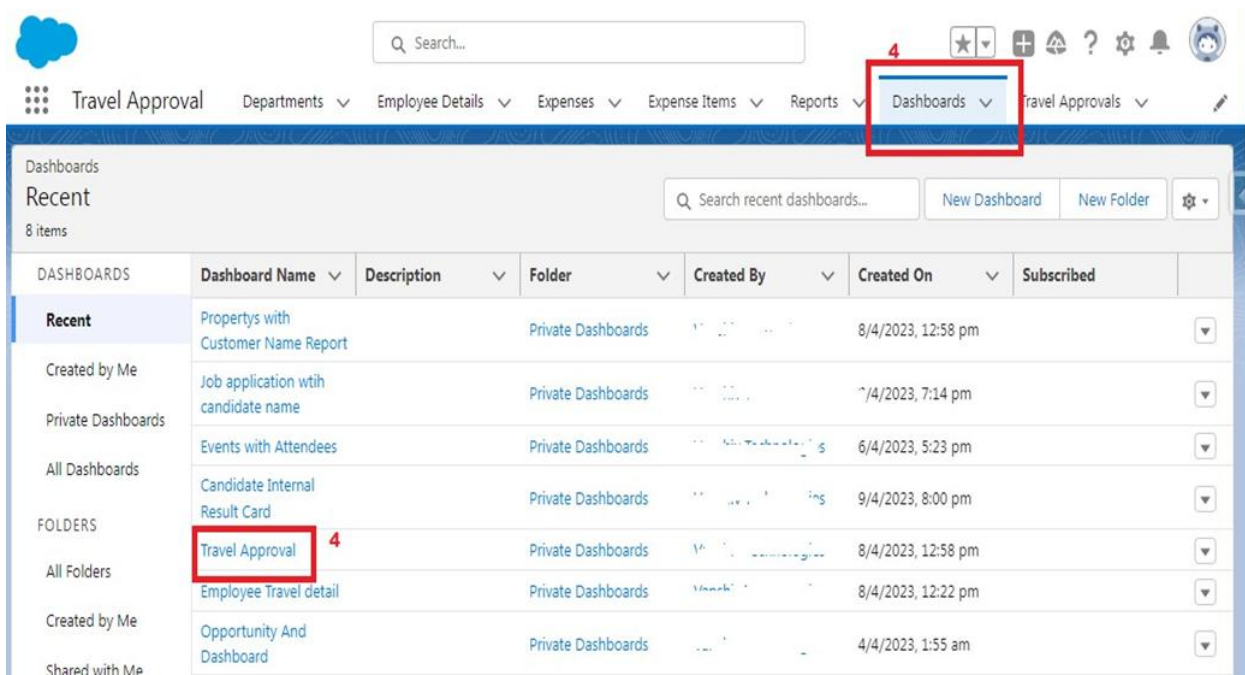
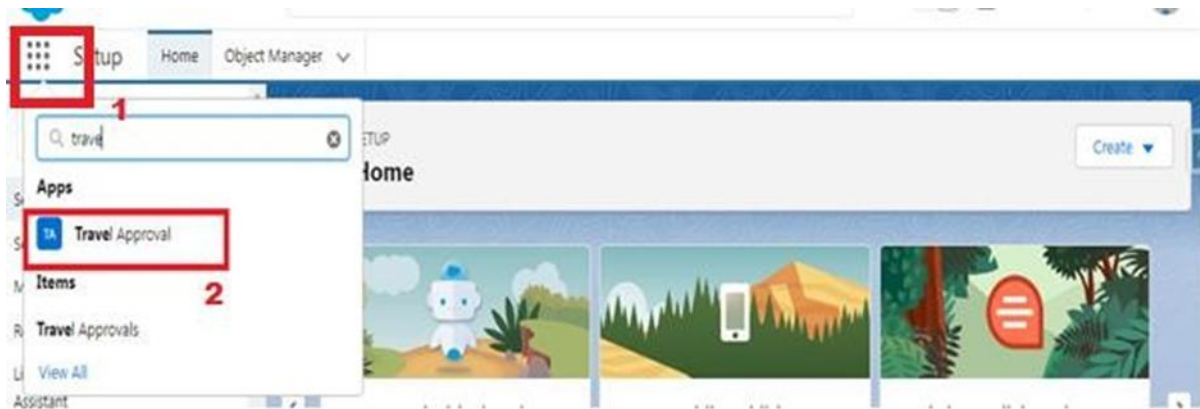
- 1**: The 'Dashboards' menu is selected in the top navigation bar.
- 2**: The 'New Dashboard' button is clicked in the 'Recent' dashboards list.
- 3**: The 'Name' field is filled with 'Travel Approval'.
- 4**: The 'Create' button is clicked.

The bottom screenshot shows the 'Select Report' dialog with the following details:

- 5**: The '+ Component' button is clicked in the dashboard editor.
- 6**: The 'Travel Approval Report' is selected from the list of reports.

The 'Select Report' dialog lists the following reports:

- Property with Customer Name Report
Vanshiv Technologies · 08-Apr-2023, 12:48 pm · Private Reports
- Travel Approval Report**
Vanshiv Technologies · 08-Apr-2023, 12:56 pm · Private Reports
- New Departments Report
Vanshiv Technologies · 08-Apr-2023, 12:17 pm · Private Reports

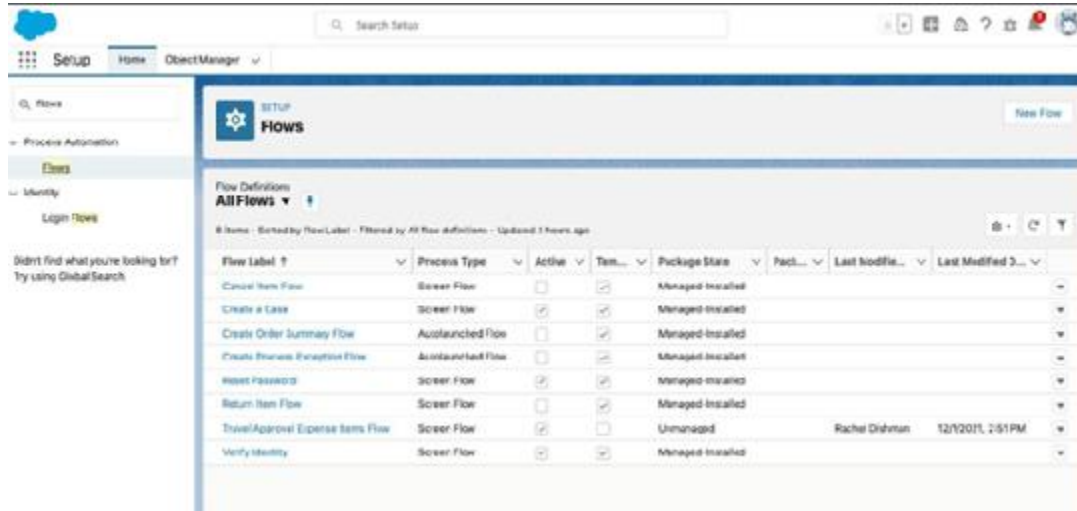


Flows

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: A record is created or updated
Condition Requirements	None
Optimize the Flow For:	Fast Field Updates

The Configure Start screen should look like this:

SETUP > OBJECT MANAGER

Travel Approval

Field Sets
Object Limits
Record Types
Related Lookup Filters
Search Layouts
List View Button Layout
Restriction Rules
Scoping Rules
Triggers
Flow Triggers
Validation Rules

Details

Edit Delete

Description

API Name
Travel_Approval__c

Custom
✓

Singular Label
Travel Approval

Plural Label
Travel Approvals

Enable Reports
✓

Track Activities

Track Field History

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Configure Start

Select Object

Select the object whose records trigger the flow when they're created, updated, or deleted.

* Object

Travel Approval

Configure Trigger

* Trigger the Flow When:

- ☐ A record is created
☐ A record is updated
☒ A record is created or updated
☐ A record is deleted

Set Entry Conditions

Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.

If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the **Only when a record is updated to meet the condition requirements** option for When to Run the Flow for Updated Records.

Condition Requirements

None

* Optimize the Flow for:

Fast Field Updates

Update fields on the record that triggers the flow to run. This high-performance flow runs before the record is saved to the database.

Actions and Related Records

Update any record and perform actions, like send an email. This more flexible flow runs after the record is saved to the database.

☐ Include a Run Asynchronously path to access an external system after the original transaction for the triggering record is successfully committed.

Cancel

Done

6. Click Done.

Freeform
Run
Debug
Activate
Save As
Save

Auto-Layout
Freeform

Start
Record-Triggered Flow

Object: Travel Approval
Trigger: A record is created or updated
Optimize for: Fast Field Updates
Open Flow Trigger Explorer for Travel ...

7. In the 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	Value
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 outcome, 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 field)
Condition Requirements to Execute Outcome	All Conditions Are Met (AND)
Resource	SRecord > Destination State
Operator	Does Not Equal
Value	TX
When to Execute the Outcome	Only if the record that triggered the flow to run is updated to meet the condition requirements

Your Edit Decision Screen should look like this:

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
<div> <div>+</div> <div>Yes Out of State</div> </div> <div> <div> </div> <div>In State</div> </div> <div>Default Outcome</div>	<div> <div>Label</div> <div>Yes Out of State</div> </div> <div> <div>Outcome API Name</div> <div>Yes_Out_of_State</div> </div> <div> <div>Condition Requirements to Execute Outcome</div> <div>All Conditions Are Met (AND)</div> </div> <div> <div>Resource</div> <div>A3 \$Record > Destination State X</div> </div> <div> <div>Operator</div> <div>Does Not Equal</div> </div> <div> <div>Value</div> <div>TX</div> </div> <div> <div>+ Add Condition</div> </div> <div> <div>When to Execute Outcome</div> <div> <input type="radio"/> If the condition requirements are met <input checked="" type="radio"/> Only if the record that triggered the flow to run is updated to meet the condition requirements </div> </div>

5. Next to Outcome 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 field)
Condition Requirements to Execute Outcome	All Conditions Are Met (AND)
Resource	\$Record > Destination State
Operator	Equals
Value	TX
When to Execute Outcome	Only if the record that triggered the flow to run is updated to meet the condition requirements

7. Click Done.

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
<div> <div>+</div> <div>Yes Out of State</div> </div> <div> <div> </div> <div>In State</div> </div> <div>Default Outcome</div>	<div> <div>Label</div> <div>In State</div> </div> <div> <div>Outcome API Name</div> <div>In_State</div> </div> <div> <div>Condition Requirements to Execute Outcome</div> <div>All Conditions Are Met (AND)</div> </div> <div> <div>Resource</div> <div>A3 \$Record > Destination State X</div> </div> <div> <div>Operator</div> <div>Equals</div> </div> <div> <div>Value</div> <div>TX</div> </div> <div> <div>+ Add Condition</div> </div> <div> <div>When to Execute Outcome</div> <div> <input type="radio"/> If the condition requirements are met <input checked="" type="radio"/> Only if the record that triggered the flow to run is updated to meet the condition requirements </div> </div>

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	Value
Label	Update Travel Approval Record
Outcome 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	Use the travel approval record that triggered the flow
Condition Requirements to Update the Record	None—Always Update the Record
Field	Out_of_State__c
Value	\$GlobalConstant.True (start typing True and this value will come up)

Your Update Record Screen should look like this:

Edit Update Records

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
- ☐ 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

Out_of_State__c

Value

←  True X

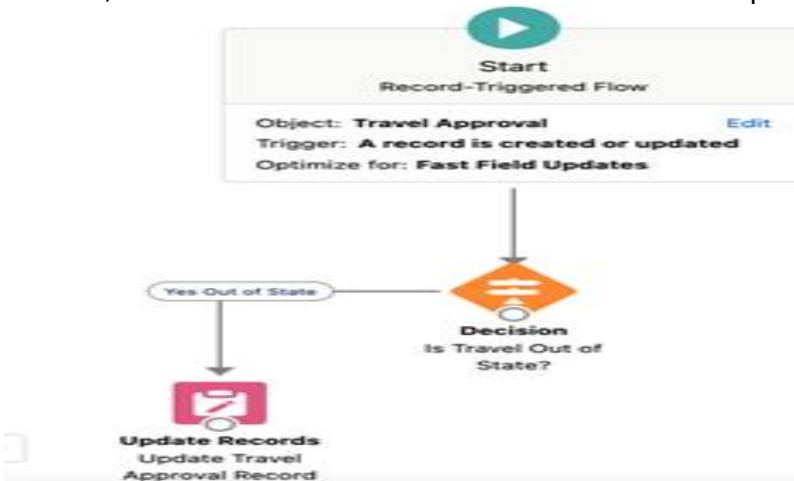


Cancel

Done

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.



To save time, you can simply duplicate the Update Records element you just created and update the criteria.

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 on 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. Select \$GlobalConstant.False.

Edit Update Records

Update Travel Approval Record (Update_Travel_Approval_Record_0) 

How to Find Records to Update and Set Their Values

- ☒ Use 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

Out_of_State__c

Value

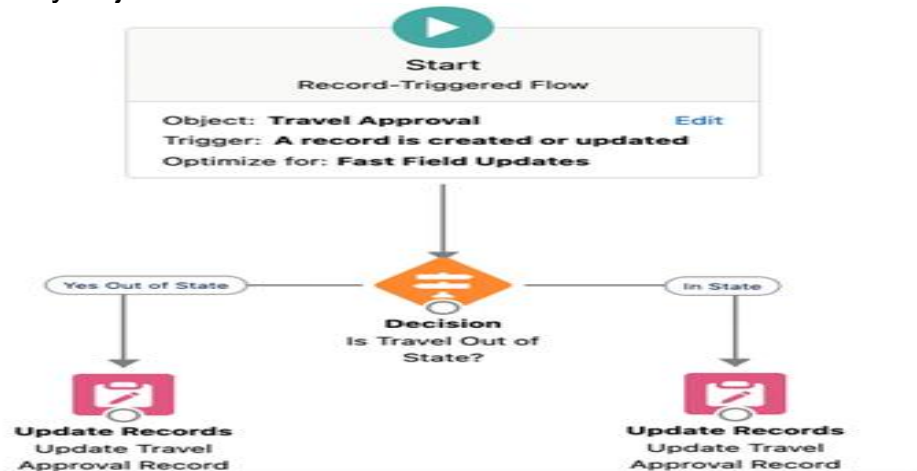
False

Cancel

Done

7. Click Done.

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



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.

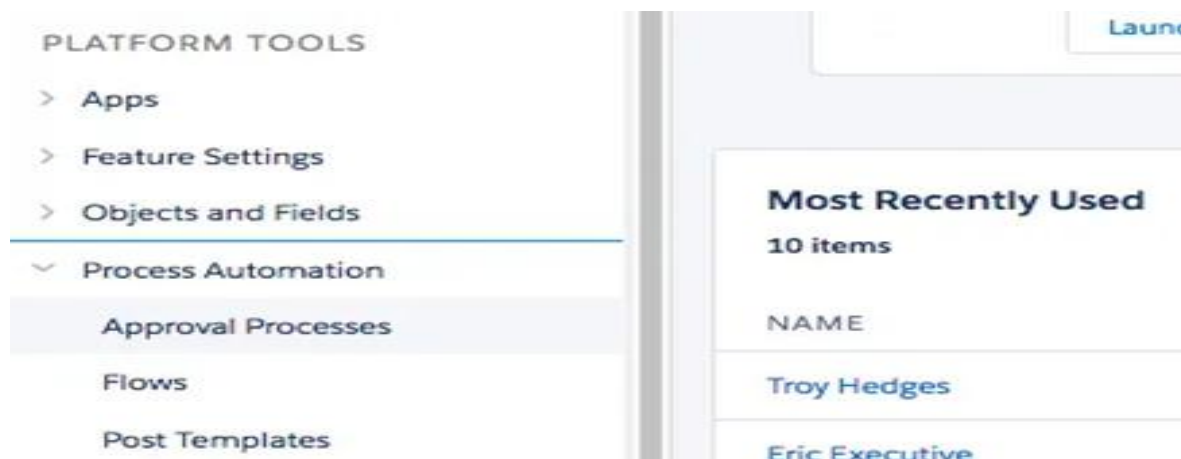
4. Click Activate.

Approval Process

Create A Approval Process

Let's get started.

1. Click and select Setup.
2. Select Process Automation | Approval Processes (or use the Quick Find and search for Approval Processes).



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 parameters

Parameter	Value
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 Approver Field of Travel Approval Owner	Leave unselected/unchecked.
Specify Entry Criteria	Use this approval process if the following: criteria are met
Field	Travel Approval: Total Expenses
Operator	greater than
Value	0
Select Approver	<ul style="list-style-type: none"> Automatically assign an approver using a standard or custom hierarchy field Select Manager from the option list

6. Click Save.

7. Click View Approval Process Detail Page.

Create an Approval Step for Out-of-State Travel

Now, let's create another approval step to send out-of-state travel to a travel coordinator.

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 from the dropdown and select your name as the travel coordinator.
NOTE: In the real world, a user would not be selected as an approver of their own request. Salesforce demo orgs are limited to two Salesforce users. For this project, just use your user account for 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. We do this by creating a Final Approval action and a Final Rejection action. Let's start by creating an action if the request was approved by all approvers.

- Click Add New in the Final Approval Actions area of the approval process form.
- Select Field Update from the dropdown list.

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:Troy.Hedges	Final Rejection

Final Approval Actions		Add Existing		Add New	
Action	Type	Description			
Edit	Record Lock	Lock the record			

Final Rejection Actions		Add Existing		Add New	
Action	Type	Description			

3. Enter the following values.

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

4. Click Save.

Next, let's set the status value to 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.

The screenshot shows the 'Final Rejection Actions' section of an approval process form. At the top, there are links for 'Edit', 'Remove', 'Field Update', and 'Set Status to Approved'. Below this, the 'Final Rejection Actions' section has an 'Add Existing' button and an 'Add New' dropdown menu. The dropdown menu is open, showing four options: 'Task', 'Email Alert', 'Field Update' (which is highlighted), and 'Outbound Message'. Below the dropdown, there is a table with columns 'Action Type' and 'Description'. The first row shows 'Record Lock' under 'Action Type' and 'Unlock' under 'Description'. Below this table is the 'Recall Actions' section, which also has 'Add Existing' and 'Add New' buttons.

3. Enter the following values.

Parameter	Value
Name	Set Status to Rejected
Unique Name	Set_Status_to_Rejected (This automatically gets sent when you tab out of the Name field)
Field to Update	Status
Re-evaluate Workflow Rules after Field Change	Leave unchecked
Picklist Options	Select A specific value and select Rejected from the dropdown list.

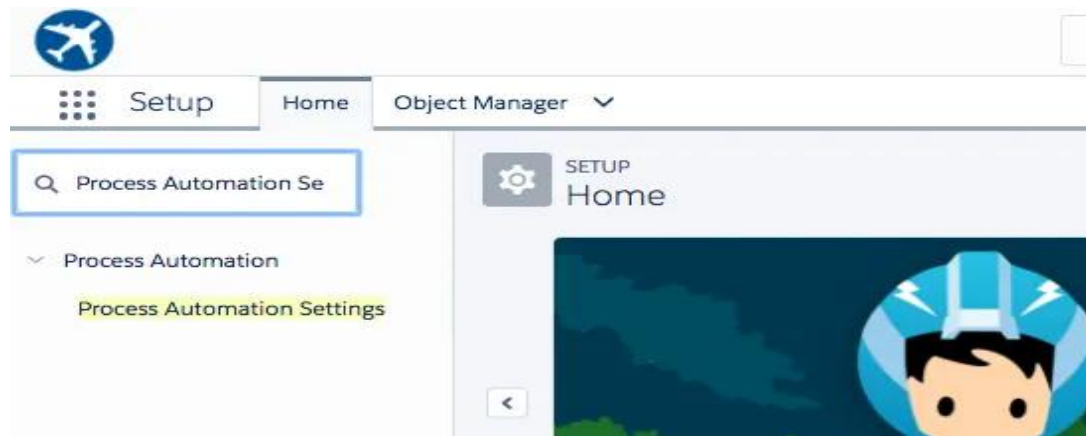
4. Click Save.
5. Click Activate.
6. Select OK in the popup window to confirm activation. Your approval process should now have the Active flag checked.

The screenshot shows the 'Travel Approval: Travel Approval Request' process definition detail page. At the top, there is a breadcrumb 'Approval Processes' and a link 'Back to Approval Process List'. The main title is 'Travel Approval: Travel Approval Request'. Below the title, there are buttons for 'Edit', 'Clone', 'Deactivate', and 'View Diagram'. The 'Process Definition Detail' section shows the following information:

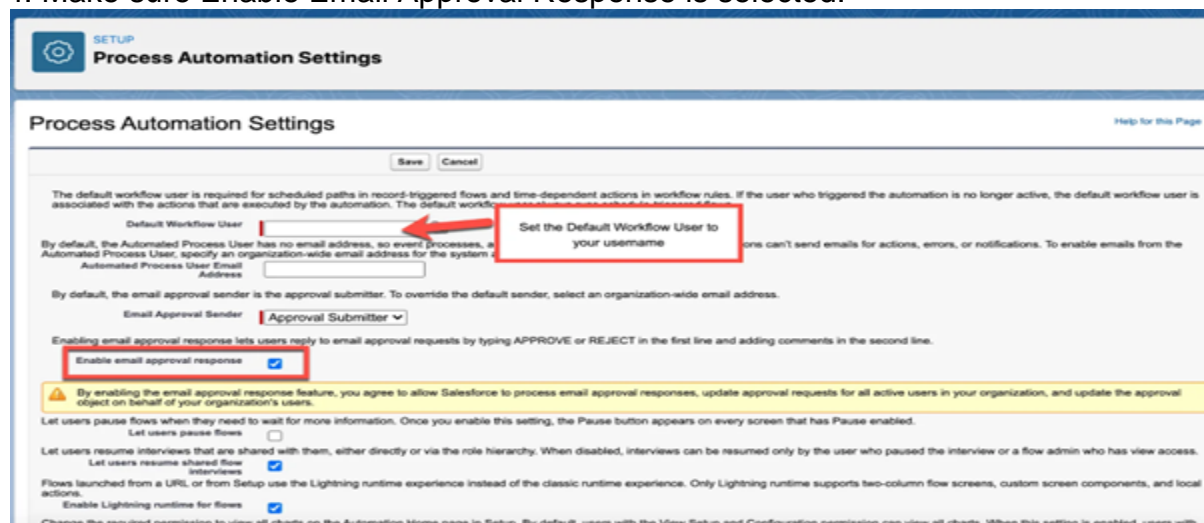
Process Name	Travel Approval Request	Active	<input checked="" type="checkbox"/>
Unique Name	Travel_Approval_Request	Next Automated Approver Determined By	Manager of Record Submitter
Description			

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.



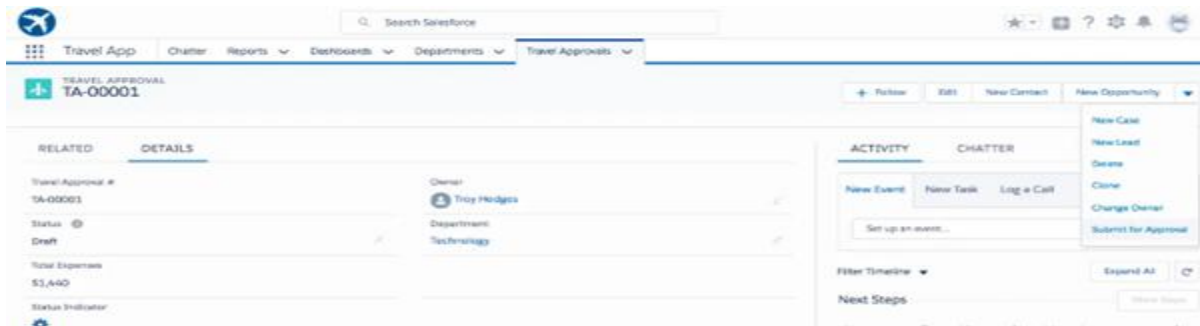
5. Set the Default Workflow User to your name.
6. Click Save.

Test Your Approval Process

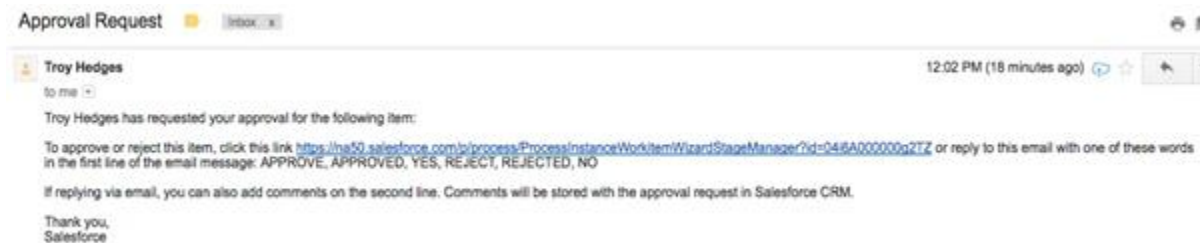
Time to Test

Now that you've created your approval process, let's test it out.

1. Using the App Launcher, navigate to the Travel App and click the Travel Approvals 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. You can find this travel approval record (or click the link in the email) and see the same view as above. Since you are a System Administrator, you have the authority to approve any requests even if they are pending on other users.
8. Click Approve in the Approval History section.
9. In the popup window, enter a comment and click the Approve button once again.

Add Comments

Looks good. Have fun!

Cancel Approve

10. Since this was for out-of-town travel, the approval was sent to the Travel Coordinator (remember, this is the logic we defined for the Approval Process). The approval is actually pending on yourself since you are acting as the travel coordinator (obviously, this wouldn't be the case in a real-world implementation).

TRAVEL APPROVAL TA-00001

RELATED DETAILS

Expense Items (3)

EXPENSE ITEM NUMBER	EXPENSE TYPE	AMOUNT
E-00001	Airfare	\$450
E-00002	Hotel	\$870
E-00003	Rental car	\$120

View All

Approval History (3)

STEP NAME	DATE	STATUS	ASSIGNED TO
Travel Coordinator Approval	6/21/2017 11:25 AM	Pending	Troy Hedges
Step 1	6/21/2017 11:25 AM	Approved	Eric Executive
Approval Request Submitted	6/21/2017 11:22 AM	Submitted	Troy Hedges

View All

ACTIVITY CHATTER

New Event New Task Log a Call Email

Set up an event...

Add

Filter Timeline

Expand All

Next Steps

No next steps. To get things moving, add a task or set up a meeting.

Past Activity

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

View Past Activity

11. Click Approve in the Approval History section to finish the approval.

12. Enter a comment in the popup window and click Approve.

13. The Approval History section should now look like the following:

Approval History (3)

STEP NAME	DATE	STATUS	ASSIGNED TO
Travel Coordinator Approval	6/21/2017 11:29 AM	Approved	Troy Hedges
Step 1	6/21/2017 11:25 AM	Approved	Eric Executive
Approval Request Submitted	6/21/2017 11:22 AM	Submitted	Troy Hedges


View All

14. Click the Details tab for your travel approval record. You should also notice the status value has been updated to Approved and the Status Indicator field now shows a green thumbs-up icon.


TRAVEL APPROVAL TA-00001

RELATED DETAILS

Travel Approval # TA-00001

Status  Approved

Total Expenses \$1,440

Status Indicator 

Owner Troy Hedges


Department Technology

15. Pick or create another travel request record and submit it for approval. Check your email and respond to the email with Reject. Navigate back to this travel approval record (or just click the link in the email). You should get the status value of Rejected and a red thumbs-down icon.


TRAVEL APPROVAL TA-00002

RELATED DETAILS

Travel Approval # TA-00002

Status  Rejected

Total Expenses \$500

Status Indicator 

Owner Troy Hedges

Department

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

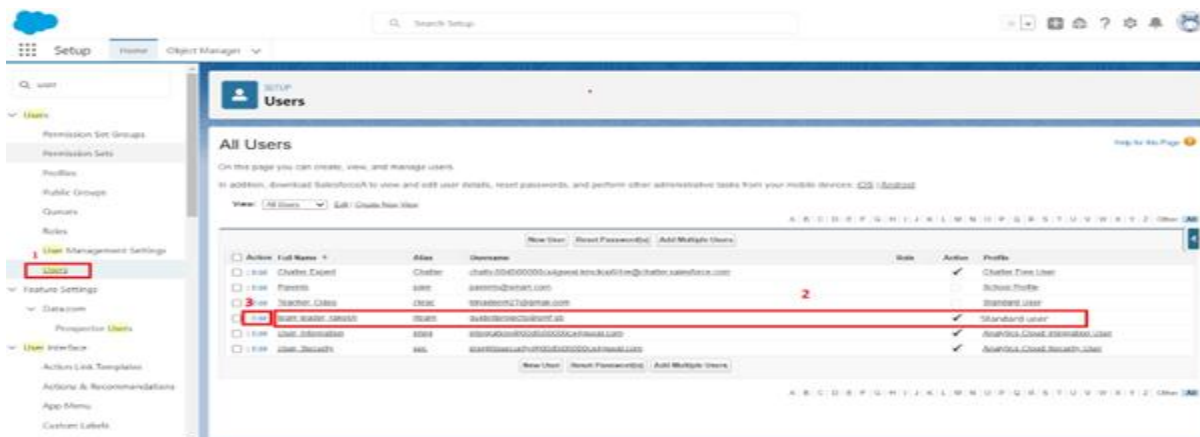
- Validations Rules
- Formula Fields
- Roll-Up Summary Fields
- Flow Builder
- Approval Processes

Note

Step-1: Go to users

Step-2: click on Standard user profile as a user

Step-3: Click on edit



Step-4: Go to Approver setting

Step-5: In the manager option select the user in which you have sent the approval

Step-6: Select the User and click on save.

