

BUILD AN EMPLOYEE TRAVEL APPROVAL APPLICATION FOR CORPORATES

INTRODUCTION

1.1 Overview

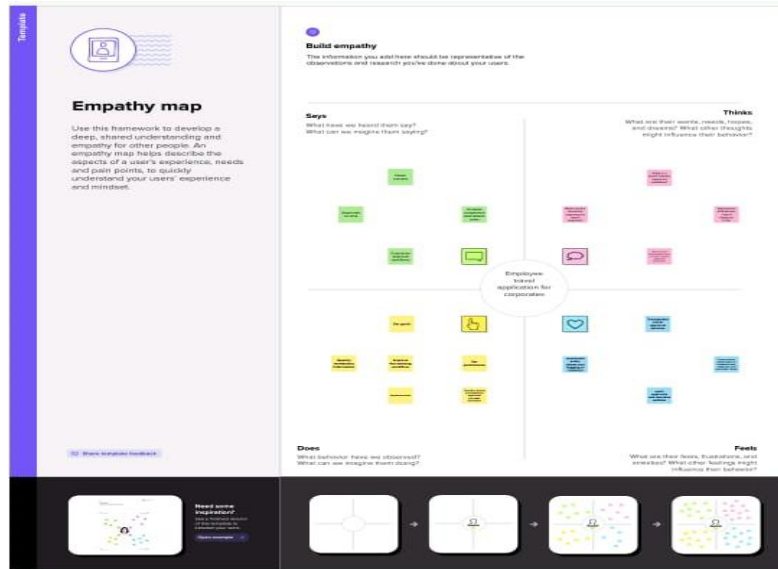
Project aim is to provide real-time knowledge for all the students who have basic knowledge of Salesforce and Looking for a real-time project. This project will also help to those professionals who are in cross-technology and wanted to switch to Salesforce with the help of this project they will gain knowledge and can include into their resume as well.

1.2 Purpose

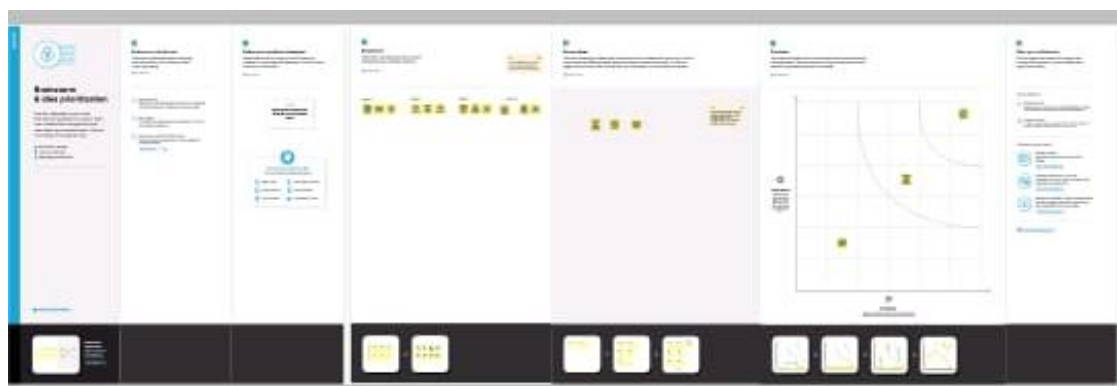
Travel request forms are designed **to give management an overview of the intended business trip from both a cost and a strategic point of view**. The fields that typically appear on a travel request form include; Employee name and contact information.

Problem Definition & Design Thinking

2.1 Empathy Map



2.2 Ideation & Brainstorming Map



RESULT

3.1 Data Model:

| Object Name | Fields in the Object | |
|-----------------|----------------------|---|
| Travel Approval | Field Label | Data Type |
| | Amount | Currency(16,2) |
| | Created By | Lookup(User) |
| | Expenses Item | Picklist |
| | Last Modified By | Lookup(User) |
| | Owner | Lookup(User,Group) |
| | Status Image | Picklist |
| | Status Indicator | Formula(Text) |
| | Total Expenses | Roll-Up Summary (SUM Expenses Item) |
| | Travel Approval # | Auto Number |
| | Trip end date | Date |
| | Trip start date | Date |

| | | |
|---------------|------------------|--------------------------------|
| Expenses Item | Field Label | Data Type |
| | Amount | Currency(16,2) |
| | Created By | Lookup(User) |
| | Expense Item | Picklist |
| | Expense Item # | Auto Number |
| | Last Modified By | Lookup(User) |
| | Travel Approval | Master-Detail(Travel Approval) |
| Department | Field Label | Data Type |
| | Amount | Currency(16,2) |
| | Created By | Lookup(User) |
| | Department # | Auto Number |
| | Last Modified By | Lookup(User) |
| | Owner | Lookup(User, Group) |

3.1 Activity & Screenshot

Activity-1:

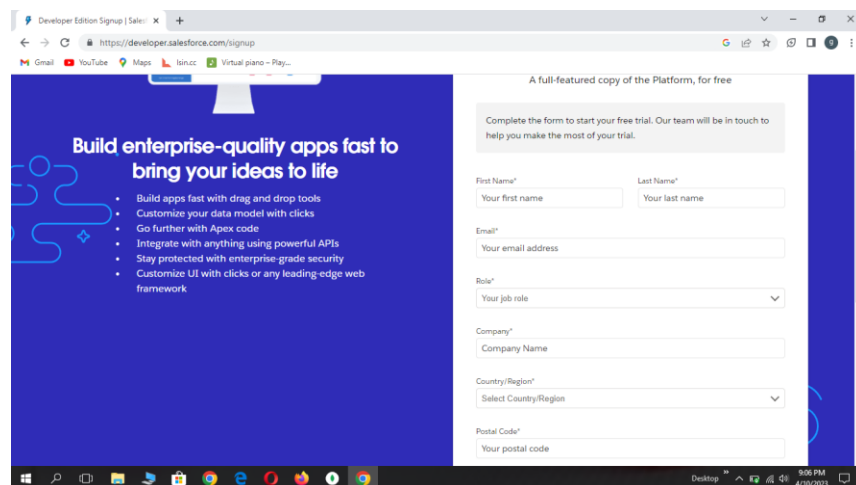
Creating Developer Account Creating a developer org in salesforce.

1. Go to developers.salesforce.com/
2. Click on sign up.

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

- First name & Last name
- Email
- Role: Developer
- Company: College Name
- County: India
- Postal Code: pin code
- 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.



The screenshot shows a web browser window with the URL <https://developer.salesforce.com/signup>. The page has a blue header with the text "Build enterprise-quality apps fast to bring your ideas to life" and a list of bullet points: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading-edge web framework". On the right side, there is a sign-up form titled "A full-featured copy of the Platform, for free". The form includes fields for "First Name*", "Last Name*", "Email*", "Role*", "Company*", "Country/Region*", and "Postal Code*", each with a corresponding input field or dropdown menu. A "Sign Up" button is visible at the bottom right of the form.

Activity-2:

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

Login To Your Salesforce Account

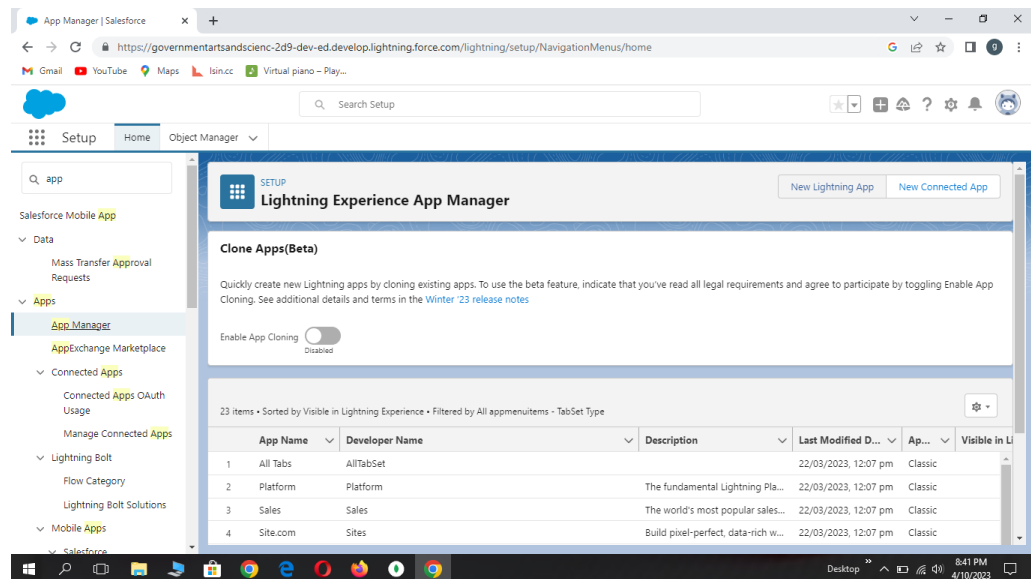
- 1.Go to salesforce.com and click on login.
- 2.Enter the username and password that you just created. 3.After login this is the home page which you will see.

Activity-3:

Create the Travel Application

Search AppManager in quick find box, click on new lightning app. Before creating the application download this zip file and extract it.<https://developer.salesforce.com/files/TravelAppWorkshopFiles.zip>
Steps

- From Setup, enter App Manager in the Quick Find and select App Manager.
- Click New Lightning App. Enter Travel Approval as the App Name, then click Next
- Under App Options, leave the default selections and click Next.
- Under Utility Items, leave as is and click Next.
- From Available Items, select Department, Travel Approval, Expense Item, Reports, and Dashboards and move them to Selected Items. Click Next.



Activity-4:

Custom Object Creation

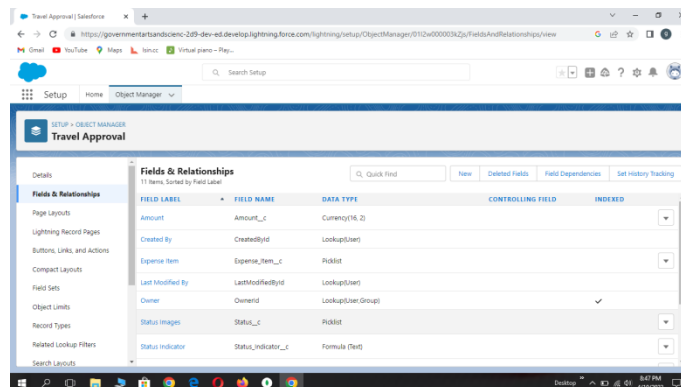
1. After you Login to your org, click create on the right side of the page and select custom object

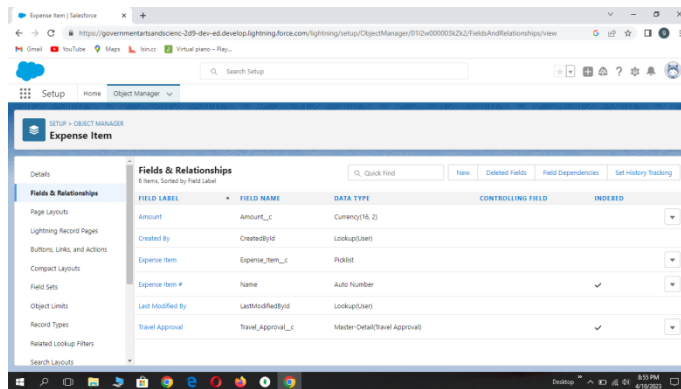
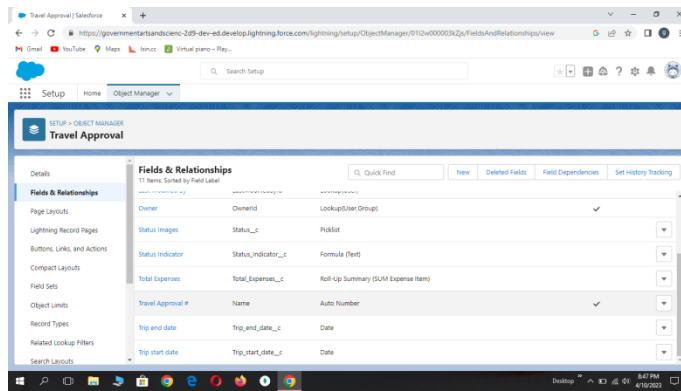
To create an object: From the setup page → Click on Object Manager → Click on Create → Click on Custom Object

On Custom object defining page: Enter the label name, plural label name, click on Allow reports, Allow search → Save.

Create 3 custom objects and tabs

a) Department b) Travel Approval c) Expense Item





1. Create Travel Approval Object
2. Navigate back to Object Manager
3. Click Create then select Custom Object
4. Allow Reports, search, and launch a new tab and add this tab to the travel app.

Activity-5:

1. For Object, select Event.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save

Activity-6:

Create the Expense Type field.

- Select Picklist as the data type.
- Select Enter values, with each value separated by a new line.

Add these values:(Airfare, Hotel, RentalCars, Meals,Others)

- Select Required.
- Click Next, Next, then Save & New.

Create the Travel Approval field.

- Select Master-Detail Relationship data type, click Next.
- Select Travel Approval from the Related To menu.
- Click Next four times, then click Save

Activity-7:

In order to complete this milestone, you need to download the reference file

https://developer.salesforce.com/files/TravelAppWorkshopFiles.zip?_ga=2.108173638.597564088.1674441525-733189446.1673935386

From Setup, click the Home tab.

1. In the Quick Find box, enter Data Import and select Data Import Wizard.
2. Click Launch Wizard!
 1. Click the Custom Objects tab and select the Departments object.
 2. Next, select Add new records.
3. Drag and drop the Departments.csv file you downloaded using zip file or click the CSV icon and browse to select your file. Select Next
4. Next, select Add new records. Drag and drop the Departments.csv file you downloaded using zip file or click the CSV icon and browse to select your file. Select Next

5. The next screen gives you a summary of your data import. Click Start Import.
6. Click OK on the popup.
7. This takes you to the bulk import summary window that shows that the process has completed and 16 records have been successfully imported or processed. You'll also get an email notification confirming the import.

Activity-8:

1. Enter users in the quickfind box and select users.
2. Click new user .
3. Now give the name as you wish but the email must be real email address.
4. For username field follow the instructions
 - Firstname.<yourlastname>@<yourcompany>.com • ...or create a username of your choice that should be unique
5. Give the role as CEO, Profile as System Administrator and license as Salesforce.
6. From Setup, enter Users in the Quick Find box and select Users
7. Select your user account in the list provided. (Click on your name in the All Users list.)
8. Click Edit.
9. Scroll down to Approver Settings. Set your manager as the user you have created recently.

10. Click Save.

Activity-9:

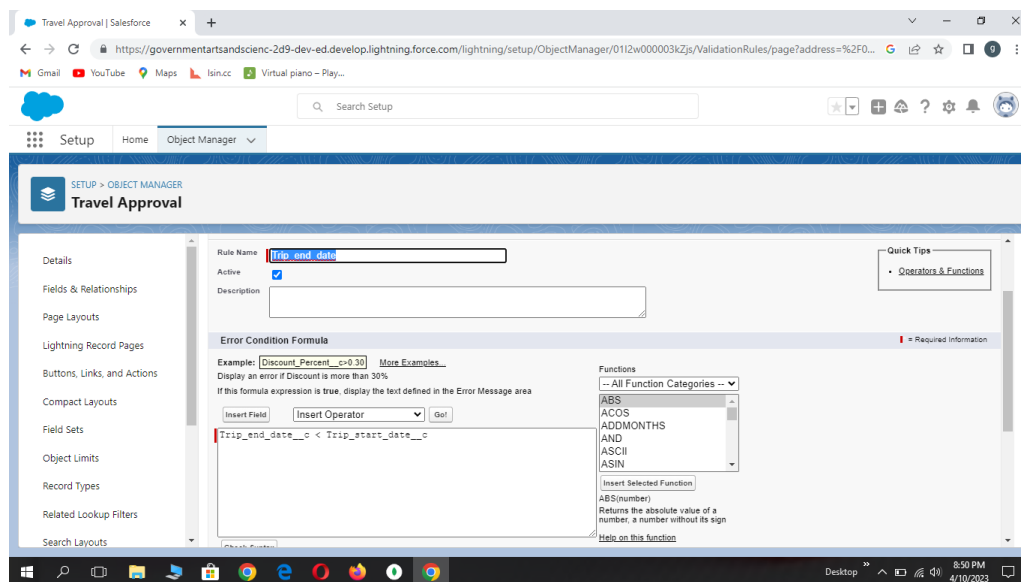
Customize Travel Approval Object Page layout

1. From the Object Manager, search for the travel approval object and click on page layouts and click edit.
2. Drag 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.
3. Name the section Trip Info, leave the rest of the settings at their default values, then click OK.
4. Drag the Purpose of Trip field from the Information section to the Trip Info section..
5. Drag Trip Start Date and Trip End Date from the top pane into the left-hand column of the Trip Info section.
6. Drag Out-of-State and Destination State from the top pane into the right-hand column of the Trip Info section.
7. Drag the Department field from the left-hand column of the Trip Info section to the right-hand column.
8. Click Save.

Activity-10:

Create Validation Rule

- Search for the travel approval object from the object manager and open the object.
- Click on validation rules and give your rule a name and make sure that the rule is set to active.
- In the error condition formula enter `Trip_End_Date__c < Trip_Start_Date__c`.
- For error location select field and pick trip end date as the location for error.



Create RollUp Summary Fields

1. From the Travel Approval object, select Fields & Relationships.
2. Click New.
3. Select the Roll-Up Summary data type.
4. Click Next.
 - Enter the following values for the field details
 - Field Label: Total Expenses

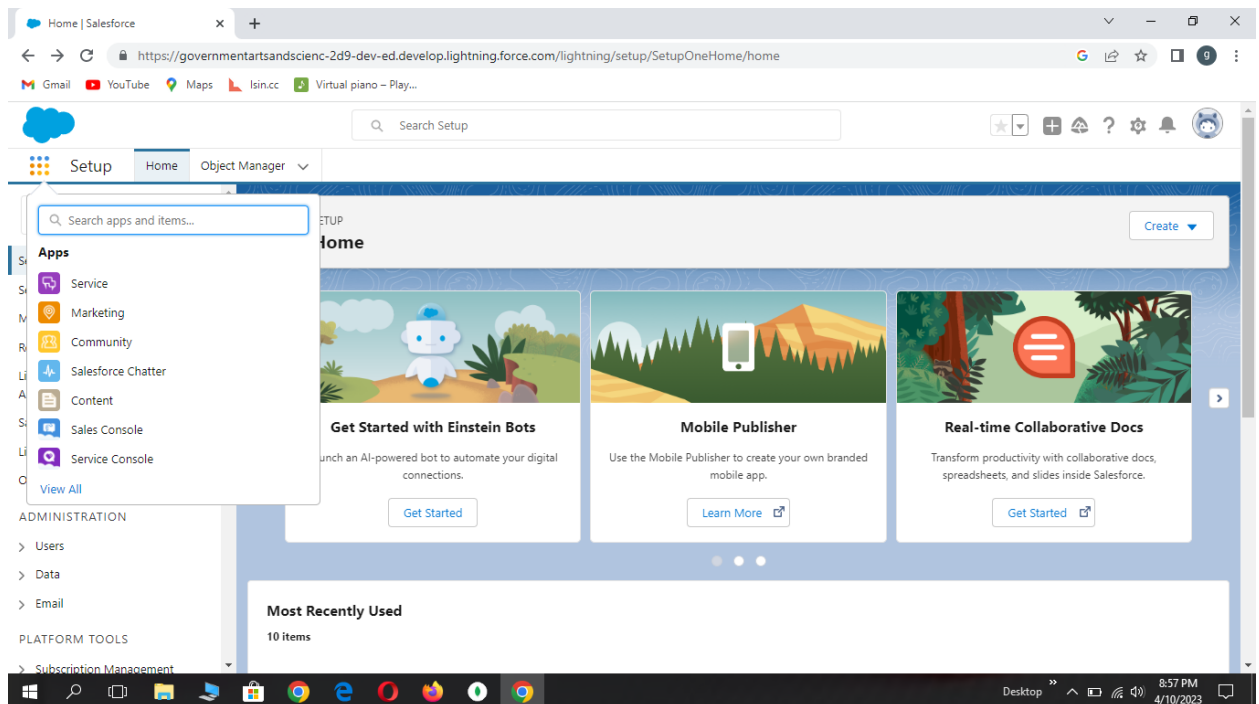
- Field Name: Total_Expenses (this automatically gets set when you tab out of the Field Label field)
5. Click Next.
- Configure the roll-up calculation.
 - Summarized Object: Expense Items
 - Roll-Up Type: SUM
 - Field to Aggregate: Amount
 - Filter Criteria: All records should be included in the calculation
6. Click Next, Next, Save

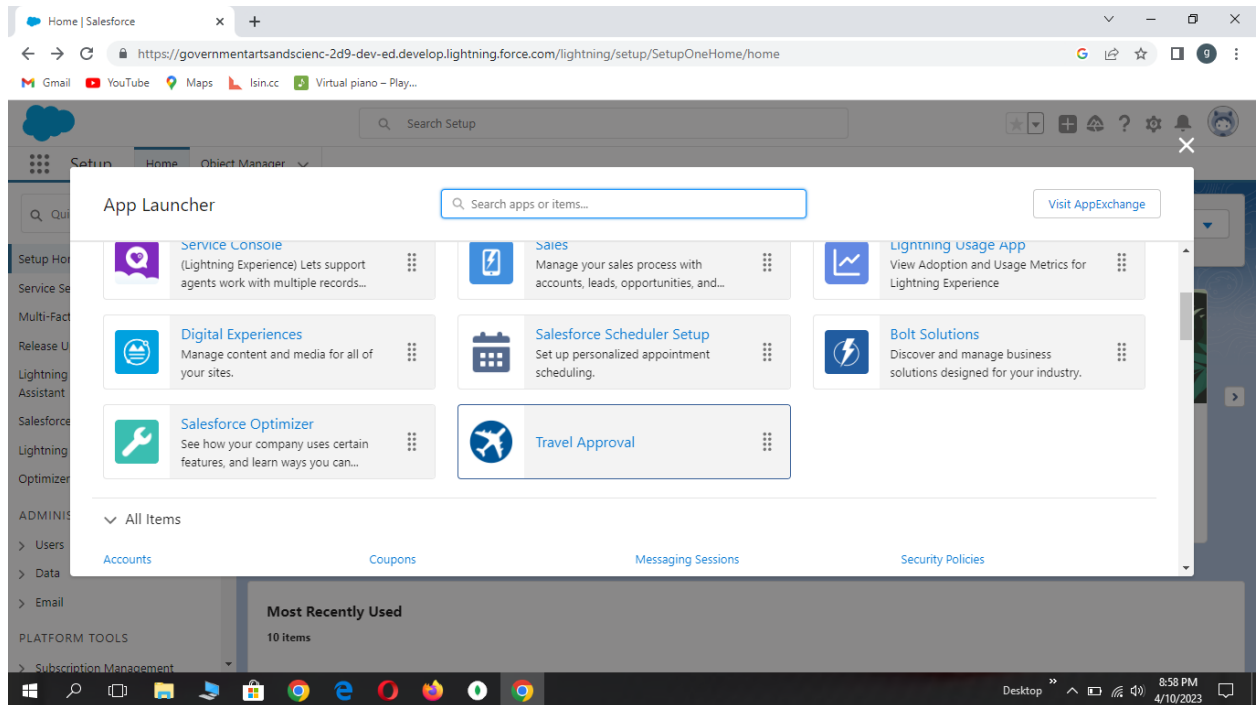
Create Formula Fields

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 Home tab to navigate back to the main setup page.
3. Click Custom Code | Static Resources (or enter Static in the Quick Find to filter down the options).
4. Click New.
5. Enter the following values for your static resource
6. Now select the travel approval object.
7. Select Fields & Relationships.
8. Click New
9. Select Formula data type.
10. Click Next.
11. Enter the following values:
12. Click Next
13. Copy and paste the following formula into the formula editor.
IF(ISPICKVAL(Status__c , 'Approved'),

IMAGE("/resource/StatusImages/thumbs-up.png", "Approved", 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)))

14.Click Next, Next, Save.





Activity-11:

Add Report To create a report:

Go to the app → click on the reports tab

Click New Report

Select report type from category or from report type panel or from search panel → click on start report

Customize your report, then save or run it.

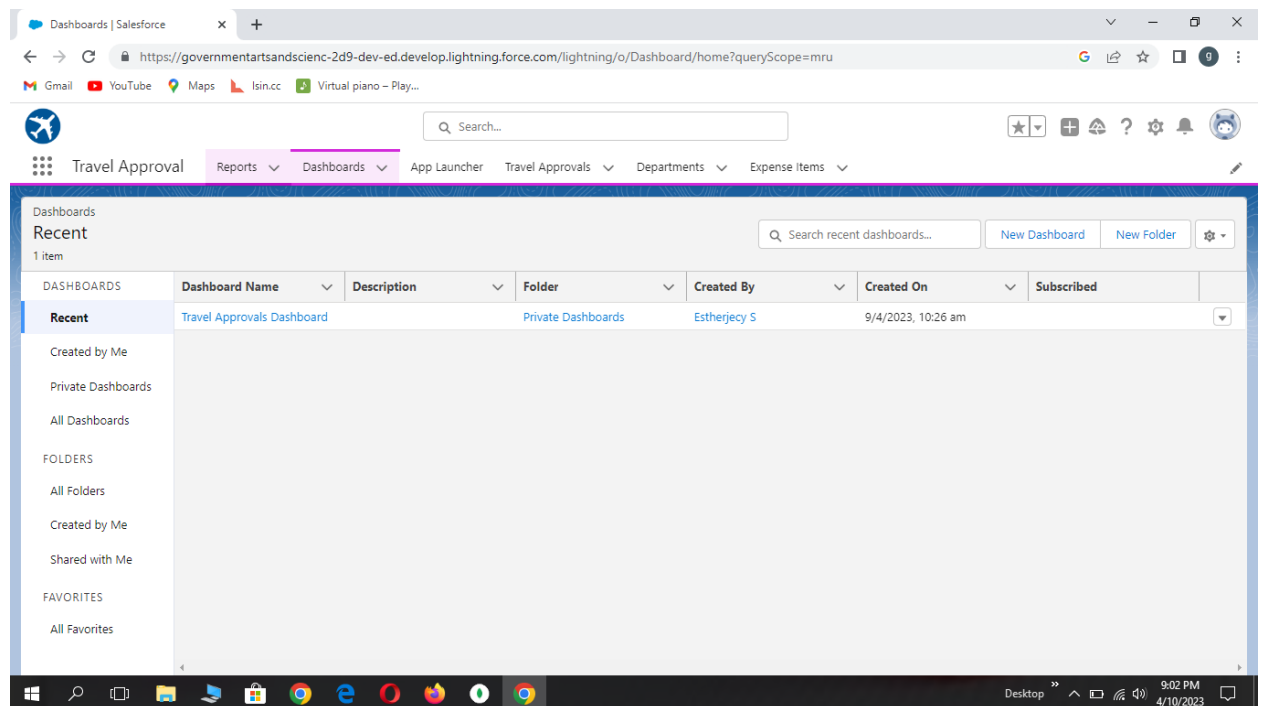
Activity-12:

Create Travel Approvals Dashboard

1.Click on Dashboards tab from the travel approval application,click on new dashboard

2. Give your dashboard a name and click on +component , select the report which you created .

3. For the data visualization select any of the chart, table etc as your wish.



Trailhead Profile public URL

Team Lead- <http://trailblazer.me/id/esths77>

Team Member 1- <https://trailblazer.me/id/gangav7>

Team Member 2- <https://trailblazer.me/id/dhanak7>

Team Member 3- <https://trailblazer.me/id/devic55>

ADVANTAGES & DISADVANTAGES

Advantages:

- Travel request approval is imperative for every business as facilitating your employees to travel easily will enable them to carry out their work in an efficient manner.
- When the company's process requires lots of traveling, it is important that you simplify the workflow and allow your employees to easily submit reimbursement requests.
- For team leaders and their subordinates traveling for business purposes, they may have to submit a request to the manager every time.

Disadvantages:

- Whether the app pulls data from the network, or you have a mobile optimised web site, keep data transfer very compact. It's really the size that matters.
- Don't use a big CSS with loads of effects and scripts that might be used only once. Don't build big XML APIs with tons of data "just in case" (forget SOAP, go REST). Cache everything you can to avoid reloading the same data multiple times.

Application

- Travel Approval Request App will help users quickly send a "Travel Request" through mobile using Power Apps.
- By adopting our Travel Approval Request App, here are instant benefits you get Advanced Digital System, Fund management system, Request generating system, Priority alert, Multi-level approvals & notifications, Multilingual knowledge management, Automation, Email Integration, and so on.
- Keeping business finances safe from unwanted travel expenses will not be difficult anymore, and an essential task of approval will be done under senior management's monitoring with such a multi-hierarchy automated approval process.

CONCLUSION

All employees travelling for work need to fill out a travel request form. This form is then approved and signed-off by supervisors and other members of the finance team. By completing a travel request form, all of the employee's expenses are covered by the company.

FUTURE SCOPE

- Pre-trip approval is the initial step of the travel process where employees raise travel requests to be approved by respective approvers.
- The main objective of pre-trip approval is to control undesirable travel buying behaviours of employees and cost.