

BUILD AN EMPLOYEE TRAVEL APPROVAL APPLICATION FOR CORPORATES

INTRODUCTION

OVERVIEW

This project helps to develop a travel approval application using salesforce. Salesforce is Customer Relationship Management application which is being used in almost all companies to have a friendly relationship with the customer. In our project, we have created a travel approval application for employees in the corporate company.

PURPOSE

It aims to produce a real time knowledge of the salesforce and how can we build an app using salesforce. In this project we build a travel approval application for corporates, which would be useful for the employees as well as to the companies to reduce time and manage the travel approval of the employees with ease. It is helpful to have large number of data maintained under one roof.

PROBLEM DEFINITION AND DESIGN THINKING

EMPATHY MAP

You've reached the maximum number of murals. Upgrade your free plan for unlimited murals. [Upgrade](#)

Give them a name and

Employees can easily create online request

It will help to plan for the travel

Automatically approves business trip based on the company rules

It helps to produce scheduled reports on the business travel

Employees may fear that it may ask for so many requests

These fear and

productivity or the economy

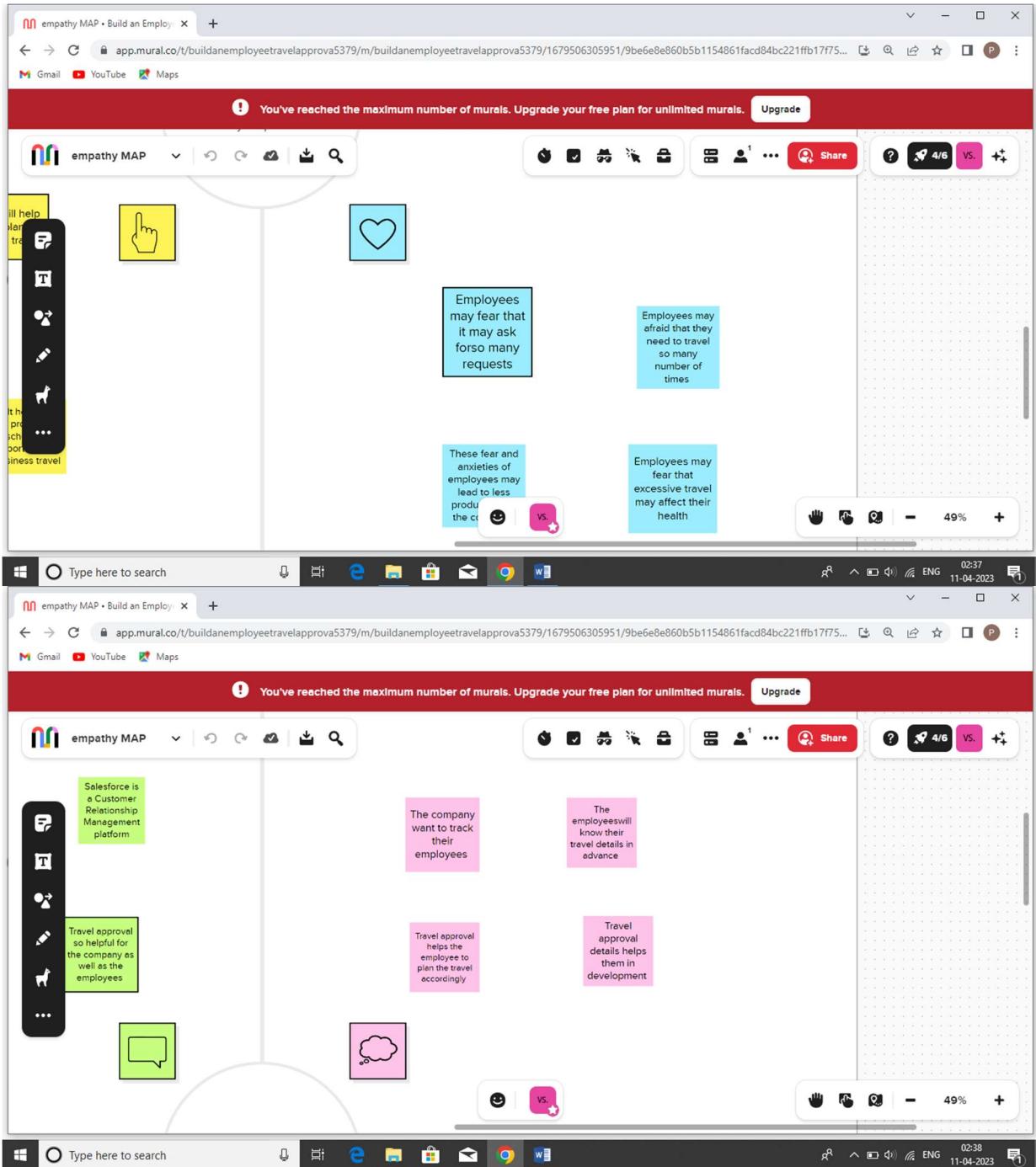
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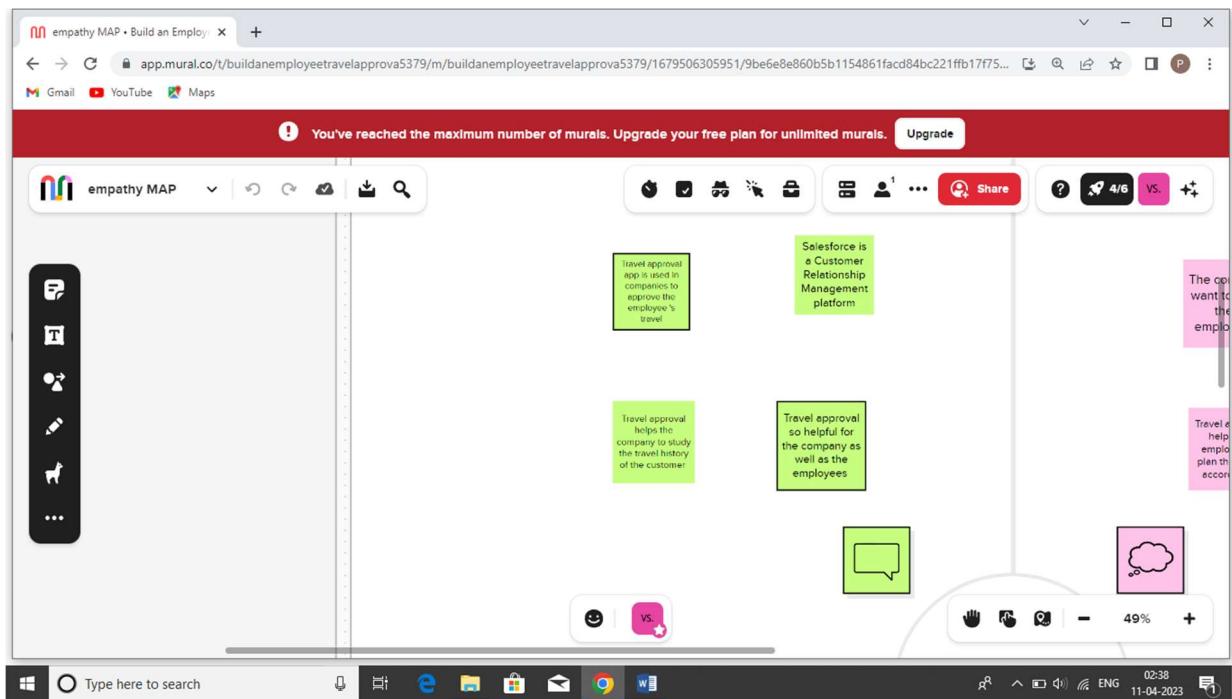
49%

The screenshot shows an empathy map on the Mural.co platform. The map is centered around the user "Employee" and includes sections for "User", "Employee", "Manager", and "Customer".

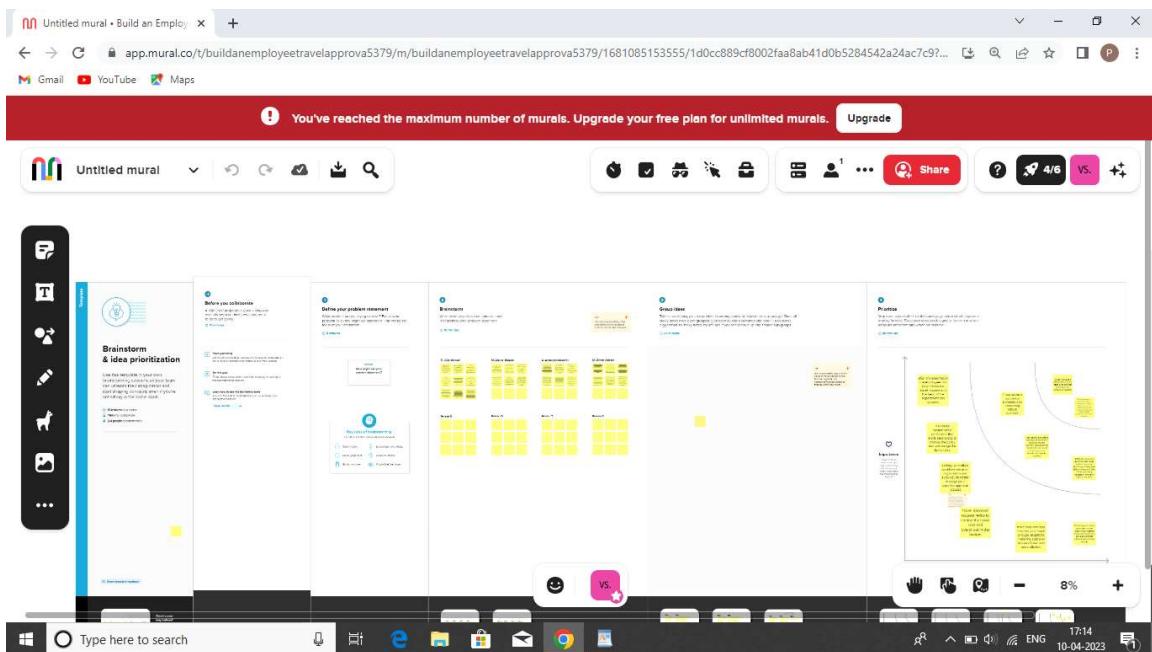
- User (Yellow):**
 - Concerns: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Opinions: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Needs: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Wants: "Employee may feel like they have to do more work than their hourly wage reflects."
- Employee (Green):**
 - Concerns: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Opinions: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Needs: "Employee may feel like they have to do more work than their hourly wage reflects."
 - Wants: "Employee may feel like they have to do more work than their hourly wage reflects."
- Manager (Pink):**
 - Concerns: "Manager may feel like they have to do more work than their hourly wage reflects."
 - Opinions: "Manager may feel like they have to do more work than their hourly wage reflects."
 - Needs: "Manager may feel like they have to do more work than their hourly wage reflects."
 - Wants: "Manager may feel like they have to do more work than their hourly wage reflects."
- Customer (Blue):**
 - Concerns: "Customer may feel like they have to do more work than their hourly wage reflects."
 - Opinions: "Customer may feel like they have to do more work than their hourly wage reflects."
 - Needs: "Customer may feel like they have to do more work than their hourly wage reflects."
 - Wants: "Customer may feel like they have to do more work than their hourly wage reflects."

At the bottom of the map, there is a "Share template feedback" button and a "Pins" section.





IDEATION AND BRAINSTORMING MAP



Untitled mural • Build an Employee Travel Approval Comparison

You've reached the maximum number of murals. Upgrade your free plan for unlimited murals. [Upgrade](#)

P. Vijay Sankari

Salesforce is a CRM platform which helps us to connect customer and company together.

With the help of Salesforce travel approval can be easily done online.

Travel approval by online reduces cost and save time.

Travel approval is made easy by making it online.

It allows administrators to design, build, use and modify travelling approval management processes via a highly responsive, web-based interface.

It helps to keep record of travel done by the employees.

Automated approval workflows can eliminate bottlenecks in the process, boost efficiency and improve workplace productivity.

Salesforce can help simplify travel request approvals in a few easy steps. The visual builder allows a person without coding knowledge to easily set up multiple workflows and share them with your employees.

The meaningful reports of the automated travel management solution helps in making decisions and streamlines the audit process. It helps approvers to review the detailed travel itineraries in a single dashboard.

M. Alpina Begam

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.

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.

Employees don't have to spend time visiting multiple departments in a company.

Can avoid using paper-based requests which are prone to errors and could go missing.

Timely notifications keep everyone notified of the upcoming trip.

setting up multiple workflows within your organization will allow you to better manage your expense approval requests.

Designed to reduce employee travel expenses, company policies are automatically updated to get approval.

Helps minute lead to travel also can be done online.

set to n and over

Outline

- 2 Before you collaborate**
A little bit of preparation goes a long way with this session. Here's what you need to do:
- 3 Define your problem**
What problem are you trying to solve? Frame your problem as a How Might We statement. This
- 4 Brainstorm**
Write down any ideas that come to mind that address your

Share

4/6

VS.

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Untitled mural • Build an Employee Travel Approval System

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M. Diwan Abbasi

Automation: It's effective automation eliminates time-consuming manual approvals.

After you set your goal is to create an expense and travel approval process.

First, identify and define the goals of the travel request approval workflow. Ensure all the stakeholders involved in the process are familiar with the new workflow and are on the same page.

It ensures that the employees are traveling within the budgets. It also monitors the effectiveness of approvals. If any delay has caused the company to pay more,

defining the roles and responsibilities for individuals involved in their tasks. Also, according to the grade, define the responsibilities of the approving manager in the travel request workflow.

you will have enough insights to make the approval process faster and more efficient. Using these insights, you can find the average approval time. The time employees take to file and other important information.

Without a travel request approval workflow, you have no control over travel costs and could overshoot the budget.

Outline

- Before you collaborate...
- Define your problem...
- Brainstorm

2 Before you collaborate... A little bit of preparation goes a long way with this session. Here's what you need to do to...

3 Define your problem... What problem are you trying to solve? Frame your problem as a How Might We statement. This...

4 Brainstorm Write down any ideas that come to mind that address your...

Type here to search

Untitled mural • Build an Employee Travel Approval System

You've reached the maximum number of murals. Upgrade your free plan for unlimited murals. [Upgrade](#)

Importance

If we add a new feature, how will any other feature change or affect the system?

After implementation, it will now reflect the travel requests and the head of the department can approve.

It involves customizable notifications that allow the organization to change the policy and encourage the right choice.

Setting up a travel request approval system will allow you to better manage your expense approval requests.

Travel approval request helps to control travel cost and overshoot in the budget.

Travel approval app ensures us to have enough insights to make the approval process faster and more efficient.

Travel approval helps to keep track of the travel requests and ensures that the travel requests are filed on time.

Travel approval app ensures us to have enough insights to make the approval process faster and more efficient.

Outline

- Before you collaborate...
- Define your problem...
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Type here to search

DATA MODEL

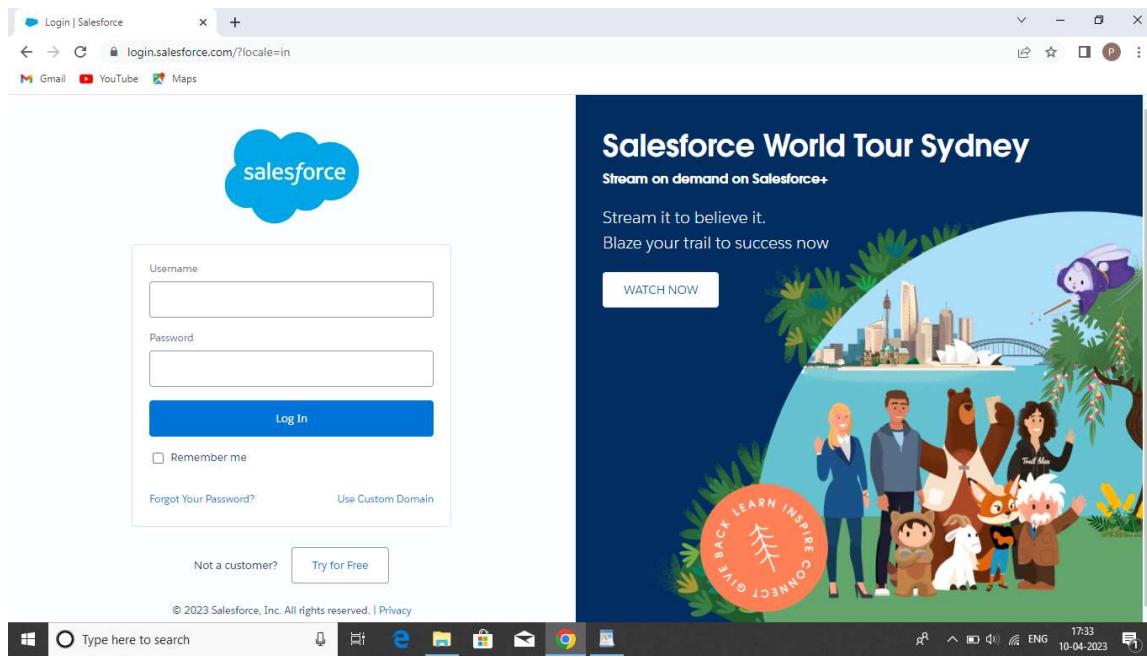
OBJECT NAME OBJECT	FIELD LABEL	FIELDS IN THE OBJECT DATA TYPE
Expense item	Amount	Currency
Expense item	Expense type	Picklist
Expense item	Travel approval	Master Detail
Travelapproval	Department	Lookup
Travel approval	Destination state	Text
Travel approval	Out of state	Checkbox
Travel approval	Purpose of trip	Textarea
Travel approval	Trip start date	Date
Travel approval	Trip end date	Date

ACTIVITY AND SCREENSHOT

1.CREATING AN SALESFORCE ACCOUNT

We went to the website [developers.salesforce.com](https://developer.salesforce.com) and signed up by giving our details and created our developers account.

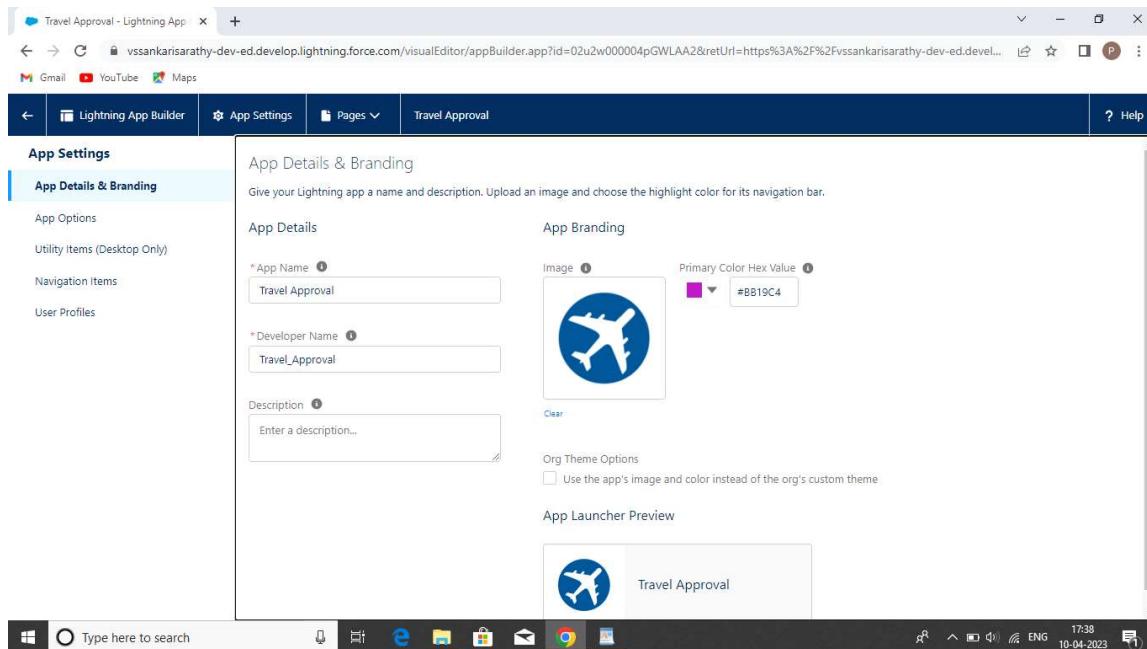
LOGIN TO SALESFORCE ACCOUNT



We gave our username and password which we created in the last step and logged in into the salesforce account.

2.CREATING THE TRAVEL APPROVAL APPLICATION

In the quick find box we typed app manage and went inside it and new lightning app and created a travel approval application by giving the required details.



Travel Approval - Lightning App

vssankarlisarathy-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02u2w000004pGWLA2&retUrl=https%3A%2F%2Fvssankarlisarathy-dev-ed.devel...

Gmail YouTube Maps

Lightning App Builder App Settings Pages Travel Approval ? Help

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Options

App Options

Navigation and Form Factor

- Navigation Style
 - Standard navigation (selected)
 - Console navigation

Setup and Personalization

- Setup Experience
 - Setup (full set of Setup options) (selected)
 - Service Setup

Supported Form Factors

- Desktop and phone (selected)
- Desktop
- Phone

App Personalization Settings

- Disable end user personalization of nav items in this app
- Disable temporary tabs for items outside of this app

javascipt:void(0); Type here to search 17:38 ENG 10-04-2023

Travel Approval - Lightning App

vssankarlisarathy-dev-ed.develop.lightning.force.com/visualEditor/appBuilder.app?id=02u2w000004pGWLA2&retUrl=https%3A%2F%2Fvssankarlisarathy-dev-ed.devel...

Gmail YouTube Maps

Lightning App Builder App Settings Pages Travel Approval ? Help

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

Utility Items (Desktop Only)

Give your users quick access to productivity tools and add background utility items to your app.

Add Utility Item

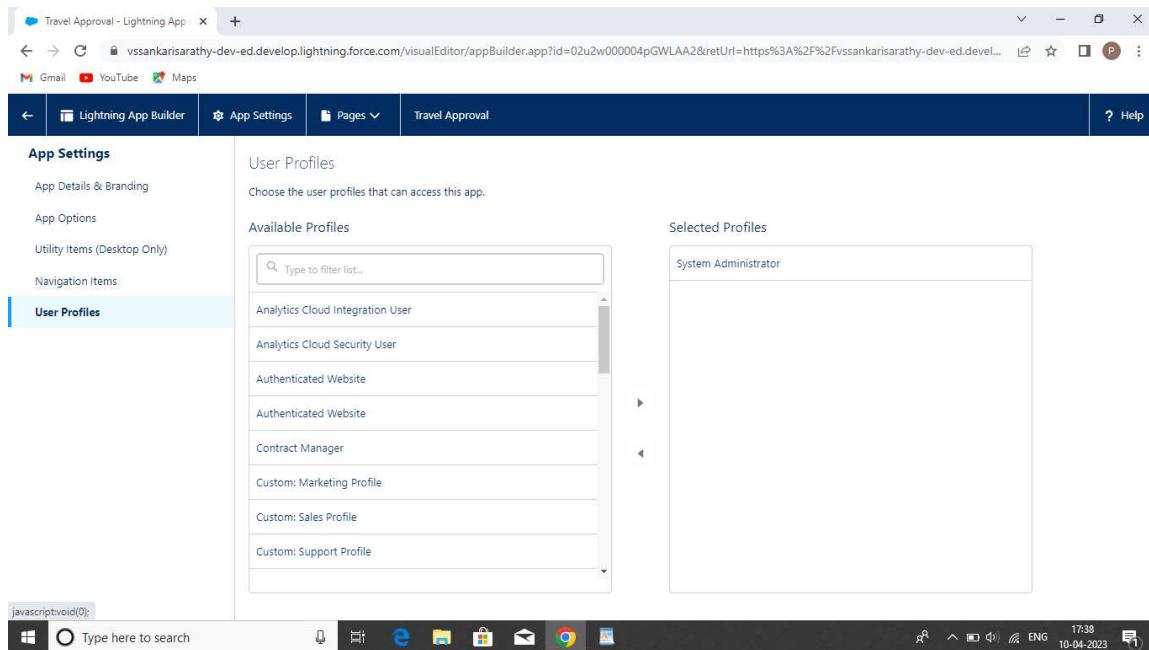
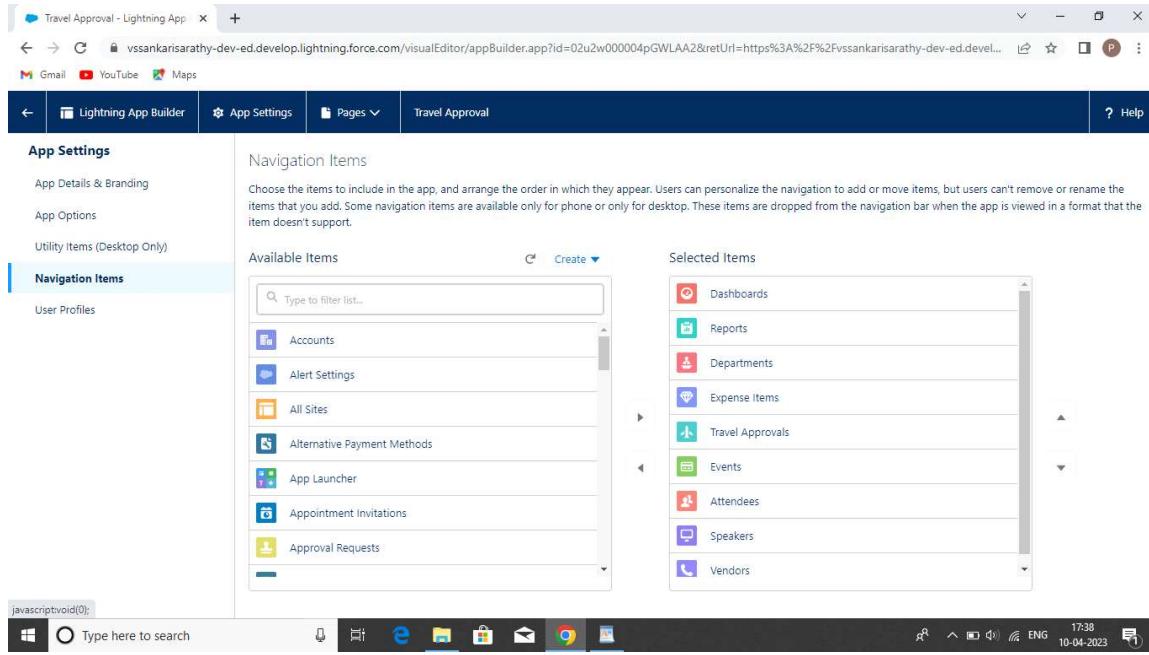
Utility Bar Alignment: Default

The utility bar is a fixed footer that opens components in docked panels. Available only when the app is viewed in Lightning Experience on a desktop.



To enable the utility bar for this app, add a utility item.

javascipt:void(0); Type here to search 17:38 ENG 10-04-2023



3.OBJECT CREATION

For this travel approval app ,we created three objects namely

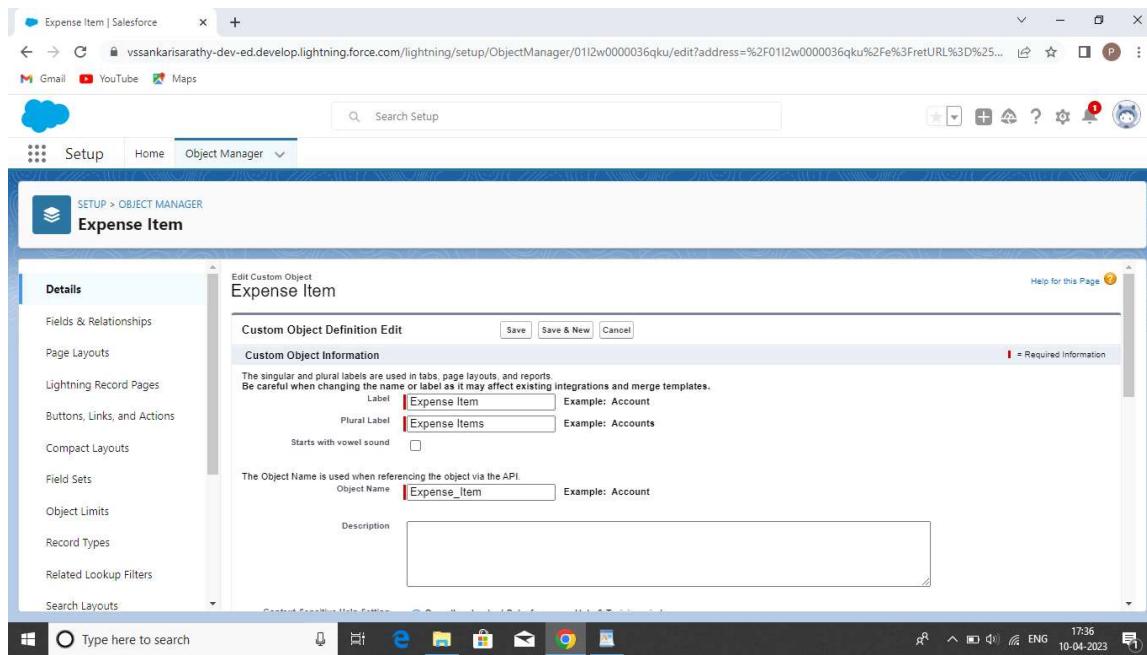
Department

The screenshot shows the Salesforce Setup interface with the URL vssankarlisarathy-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l2w0000036Zhy/edit?address=%2F01l2w0000036Zhy%2Fe%3FretURL%3D%25.... The page title is "Department". The main content is the "Edit Custom Object Definition Edit" for the "Department" object. The "Custom Object Information" section shows the Label as "Department" and Plural Label as "Departments". The "Object Name" field is set to "Department". A "Description" field is present but empty. On the left sidebar, under the "Details" tab, there are links for Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts.

Travel approval

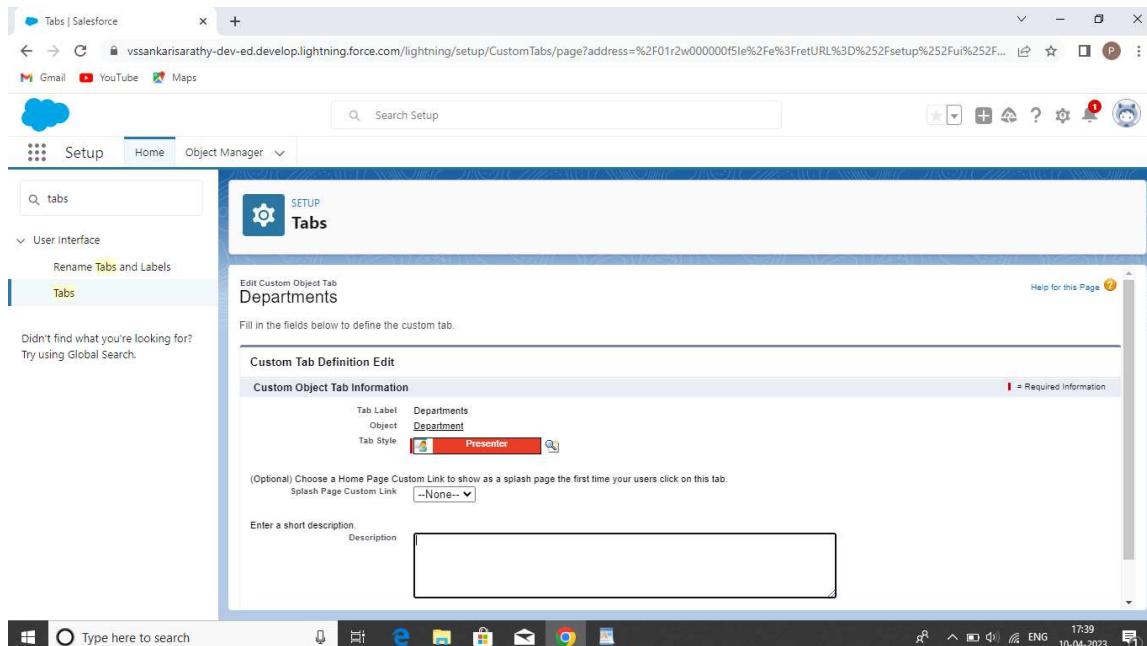
The screenshot shows the Salesforce Setup interface with the URL vssankarlisarathy-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l2w00000361kn/edit?address=%2F01l2w00000361kn%2Fe%3FretURL%3D%25.... The page title is "Travel Approval". The main content is the "Edit Custom Object Definition Edit" for the "Travel Approval" object. The "Custom Object Information" section shows the Label as "Travel Approval" and Plural Label as "Travel Approvals". The "Object Name" field is set to "Travel_Approval". A "Description" field is present but empty. On the left sidebar, under the "Details" tab, there are links for Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts.

Expense Item



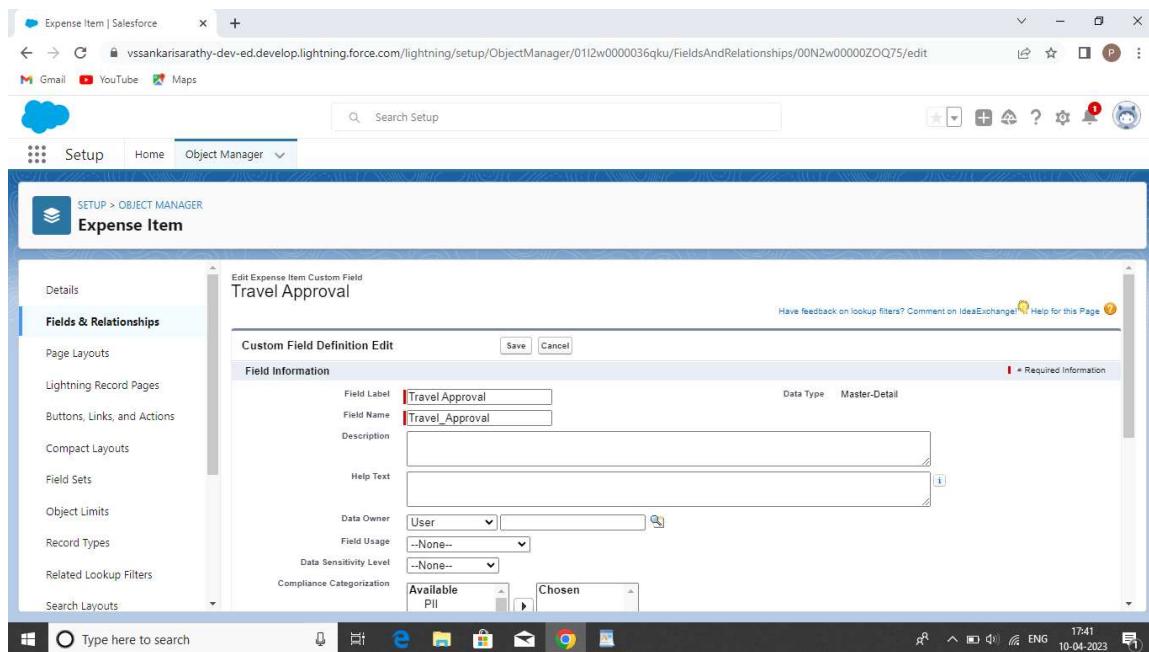
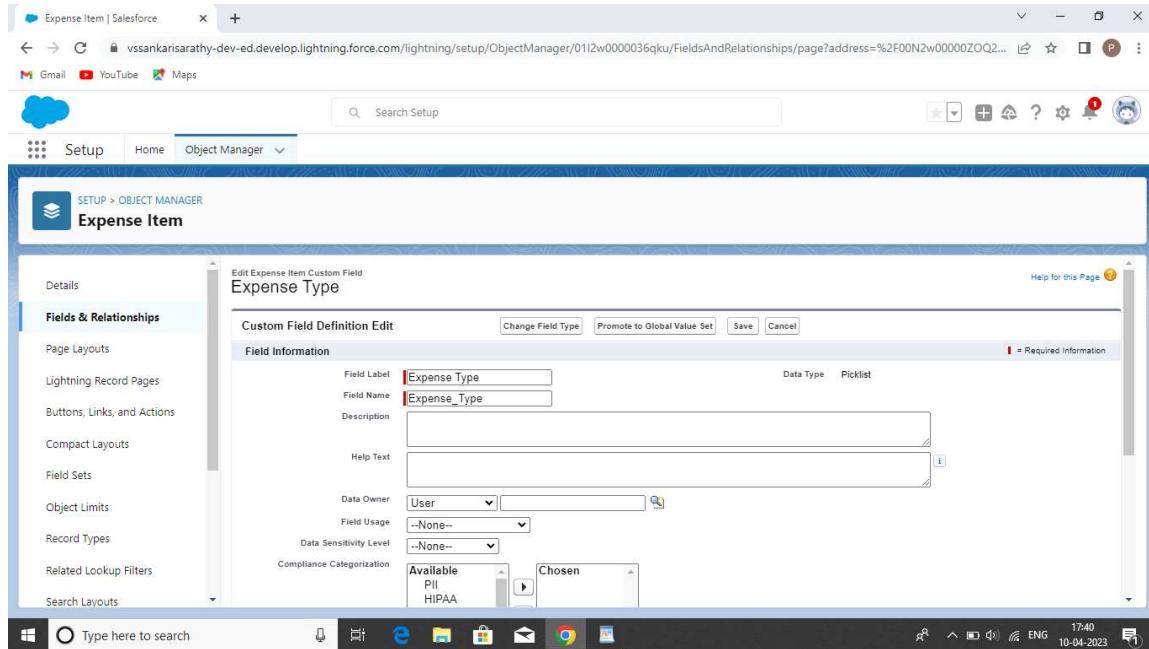
3. TAB CREATION

In the quick find box we typed tabs and went inside it and clicked new and we gave the required details to create 7 tabs (Department,Expense item,Travel approval,events, attendees,speakers,vendors)



4. FIELD AND RELATIONSHIP CREATION

IN fields and relationship creation we created 3 field in the travel approval object. They are amount of date type currency, expense type of data type picklist and Travel approval of data type master detail relationship.



In addition to that we created 6 fields in the object Travel approval. They are Department of date type lookup , Destination state of data type text,Out of state of data type Checkbox, Purpose of the trip of data type TextArea,Trip start date of data type date ,Trip end date of data type Date.

The screenshot shows the Salesforce Object Manager Fields & Relationships page for the 'Travel Approval' object. The left sidebar lists navigation options like Setup, Home, and Object Manager. The main content area displays a table of fields:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Department	Department__c	Lookup(Department)		✓
Destination State	Destination_State__c	Text(2)		▼
Last Modified By	LastModifiedById	Lookup(User)		▼
Out of State	Out_of_State__c	Checkbox		▼
Owner	OwnerId	Lookup(User.Group)		✓
Purpose of Trip	Purpose_of_Trip__c	Text Area(255)		▼

The screenshot shows the Salesforce Developer Portal with the URL vssankarisarathy-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l2w00000361kn/FieldsAndRelationships/view. The page title is "Travel Approval | Salesforce". The top navigation bar includes links for Gmail, YouTube, and Maps. The main header features the Salesforce logo, a search bar with the placeholder "Search Setup", and various navigation icons. Below the header, the setup menu is open, showing "Setup" as the selected item, along with "Home" and "Object Manager". The main content area is titled "SETUP > OBJECT MANAGER" and "Travel Approval". On the left, a sidebar lists categories: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main pane displays the "Fields & Relationships" section with 13 items, sorted by Field Label. Each item is listed with its name, field type, and description. For example, "Purpose of Trip" is a Text Area(255) field, and "Status" is a Picklist field.

	Purpose of Trip	Purpose_of_Trip__c	Text Area(255)
Status	Status__c	Picklist	
Status Indicator	Status_Indicator__c	Formula (Text)	
Total Expenses	Total_Expenses__c	Roll-Up Summary (SUM Expense Item)	
Travel Approval Name	Name	Auto Number	
Trip End Date	Trip_End_Date__c	Date	
Trip Start Date	Trip_Start_Date__c	Date	

5. IMPORT THE DATA FROM THE FILEDEPARTMENT

Before import we extracted the file Department from the zip file through the given link.

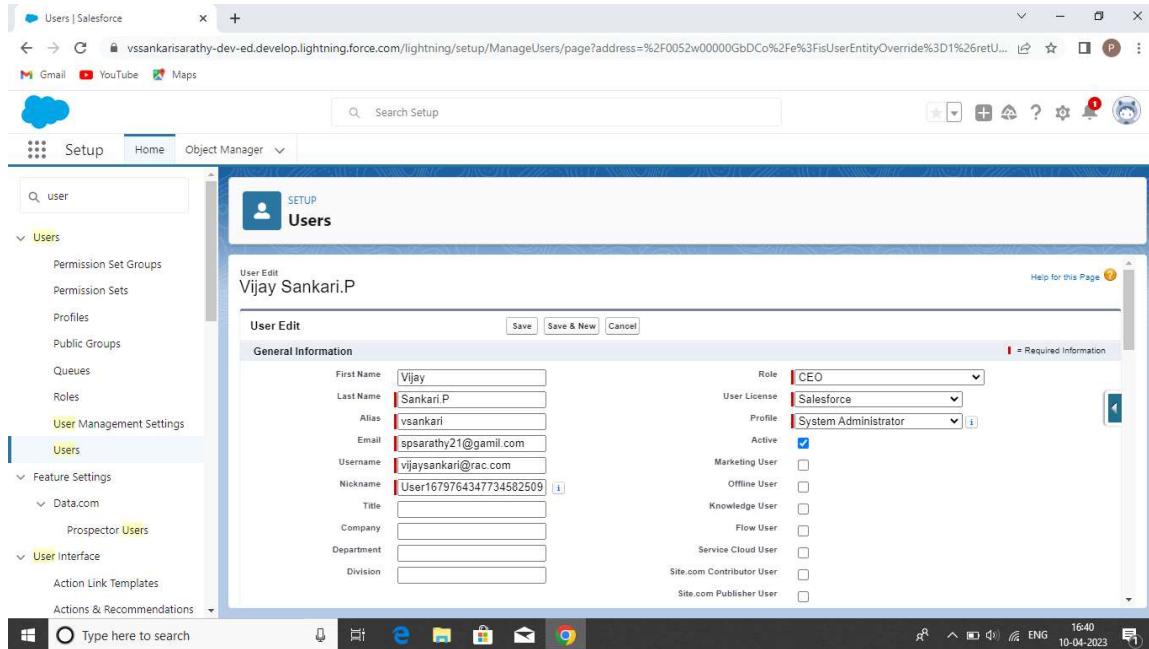
In quick find box we searched for data import and opened it and selected data import wizard and selected the required details and uploaded the department .csv file and it showed the bulk

report summary that we imported.

The screenshot shows the 'Data Import Wizard' page in the Salesforce Setup. At the top, there's a header with tabs for 'Dashboards | Salesforce', 'Home | Salesforce', and a search bar. Below the header, there's a 'Recent Import Jobs' section with a table header: Status, Object, Records Created, Records Updated, Records Failed, Start Date, and Processing Time (ms). A 'Bulk API Monitoring' button is also present. The main content area contains three sections: 'Clean up your data import file', 'Make sure your field names match Salesforce field names', and 'Don't import too many records at once'. Below these sections, there's a progress bar labeled 'Getting closer...' with three steps: 'Choose data', 'Edit mapping', and 'Start import'. On the left, there's a sidebar with options like 'Standard objects' and 'Custom objects'. On the right, there's a section for uploading a CSV file with fields for 'CSV', 'File', 'Character Code', and 'Values Separated By'. At the bottom, there are 'Cancel', 'Previous', and 'Next' buttons.

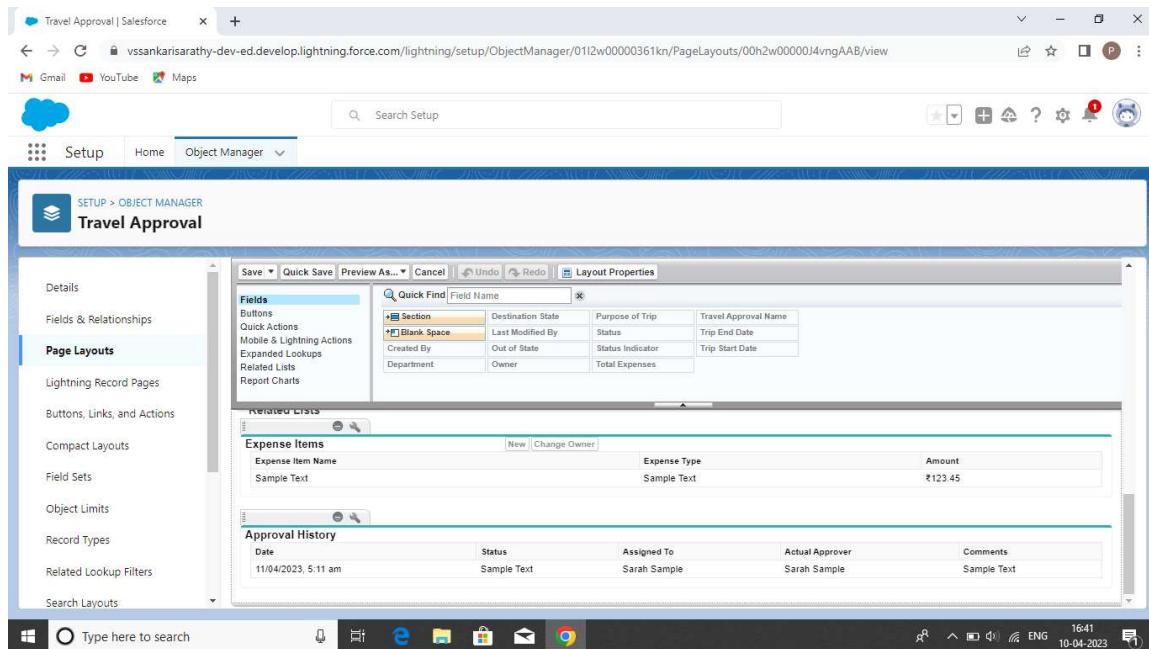
6.CUSTOMIZING USER INTERFACE

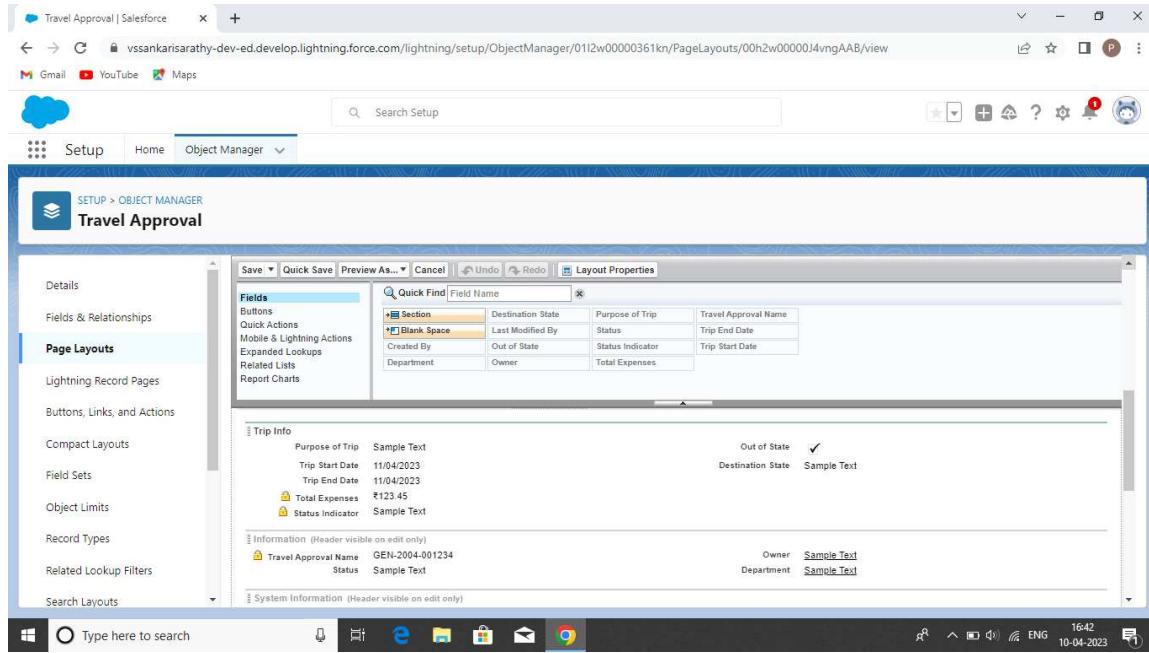
In quick find box we searched for users and we created a new user and assigned the position as the CEO



7. USE CUSTOMIZATION

In the object manager, Travel approval we edited the page layout and we dropped the fields (Purpose of trip, Trip start date, Trip end date, out of state, Destination State, Department) into Trip Info and saved it





8.ADDING BUSINESS LOGIC

VALIDATION RULE

In Travel approval object, we created a validation rule to ensure that the Trip end date is greater than or equal to Trip start date.

The screenshot shows the Salesforce Setup interface for creating a Validation Rule. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main area is titled "Travel Approval Validation Rule". It defines a validation rule with the formula `Trip_End_Date__c < Trip_Start_Date__c`. A tooltip for the `ABS` function is displayed, explaining it returns the absolute value of a number. The error message is set to "Trip end date must be greater than or equal to start date".

ROLL SUMMARY FIELD CREATION

In the Travel approval object, we created a field called Total expenses of data type Roll up summary and the roll up type as sum and summarized object as Expense type and fields to aggregate as amount and we saved it.

The screenshot shows the Salesforce Setup interface under the Object Manager for the 'Travel Approval' object. A modal window titled 'Custom Field Definition Edit' is open, displaying the configuration for a new field named 'Total_Expenses'. The 'Field Label' is set to 'Total Expenses'. The 'Data Type' dropdown is set to 'Text'. Under 'Calculation Options', the 'Automatic calculation (Recommended)' radio button is selected. In the 'Select Object to Summarize' section, 'Travel Approval' is designated as the 'Master Object' and 'Expense Items' as the 'Summarized Object'. The 'Select Roll-Up Type' section shows 'SUM' selected with 'Amount' chosen as the field to aggregate. The 'Filter Criteria' section has 'All records should be included in the calculation' selected.

CREATE FORMULA FIELDS

In the quick find box, we searched for static resources and gave the zip file that we downloaded earlier and created a field Status indicator of data type Formula and created a formula .

The screenshot shows the Salesforce Setup interface under the Static Resources section. The page title is "Static Resources". It displays a table of static resources with columns for Action, Name, Namespace Prefix, Description, MIME Type, Size, Created By Alias, Created Date, Last Modified Date, and Cache Control. Two entries are listed:

Action	Name	Namespace Prefix	Description	MIME Type	Size	Created By Alias	Created Date	Last Modified Date	Cache Control
Edit Del	StatusImages			application/x-zip-compressed	39,130	V.Sankari	01/04/2023	01/04/2023, 8:29 pm	Private
	dbo_intro1	Dashboard_Pal		image/png	33,847	V.Sankari	23/03/2023	23/03/2023, 11:39 pm	Public
	dbo_intro2	Dashboard_Pal		image/png	72,468	V.Sankari	23/03/2023	23/03/2023, 11:39 pm	Public

The browser address bar shows the URL: <https://vssankarisarathy-dev-ed.lightning.force.com/lightning/setup/StaticResources/home>. The system status bar at the bottom right indicates: 1646 ENG 10-04-2023.

10. REPORT CREATION

In travel approval app, we went inside the report tab and selected new reports and created a new report by giving the required details.

The screenshot shows the Salesforce Report Builder interface for the "Travel Approval" application. The report is titled "Travel Request by Department" and is grouped by "Department". The report preview shows the following data:

Department	Travel Approval Name	Status	Out of State	Destination State	Trip Start Date	Trip End Date
Technology (1)	TA-00001	Approved	<input checked="" type="checkbox"/>	CA	01/04/2024	06/04/2024
Subtotal			1			
Total (1)			1			

The browser address bar shows the URL: <https://vssankarisarathy-dev-ed.lightning.force.com/one/one.app#/setup/ReportBuilder/home>. The system status bar at the bottom right indicates: 1648 ENG 10-04-2023.

Travel Request by Department

Report: Travel Approvals

Travel Request by Department

Total Records	Total Out of State
1	1

Department	Travel Approval: Travel Approval Name	Status	Out of State	Destination State	Trip Start Date	Trip End Date
Technology (1)	TA-00001	Approved	<input checked="" type="checkbox"/>	CA	01/04/2024	06/04/2024
Subtotal			1			
Total (1)			1			

Row Counts Detail Rows Subtotals Grand Total

11.DASHBOARD CREATION

In the travel approval app, we went inside the dashboard tab and created a dashboard containing two graphs.

Travel request Dashboard

Travel Request by Department

Sum of Out of State Record Count

Department

Technology

View Report (Travel Request by Department)

Travel Request by Department

Sum of Out of State Record Count

Measure

Sum of Out of State Record Count

Department

Technology

View Report (Travel Request by Department)

TRAILHEAD PROFILE PUBLIC URL

TEAM LEADER: P. Vijay Sankari: <https://trailblazer.me/id/vsankarip>

TEAM MEMBER 1: M. Alpina Begam: <https://trailblazer.me/id/abegam12>

TEAM MEMBER 2: A.Antonyamalacerlin:<https://trailblazer.me/id/acerlin6>

TEAM MEMBER 3: M.Diwan Abbasi:<https://trailblazer.me/id/mabbasi18>

ADVANTAGES

1. Approval on time
2. Save time
3. Increase appliance
4. Reduce cost
5. Faster process
6. Expense is less
7. Less paper work

DISADVANTAGES

1. Data must be always on
2. Poor internet connectivity causes problem since it is internet dependent
3. Poor data synchronization.
4. Requesting too many permissions.
5. Less connection between the employees and higher official in the company.

APPLICATIONS

It can be used in companies having to approve more travel requests. It can be used for so many companies to approve their employee's travel request. It is used to reduce the cost.

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.

A streamlined workflow approval will allow them to spend less time on gaining approvals and the program should also be capable of automatically notifying managers of requests that need their immediate attention.

CONCLUSION

By using the app, both the companies and the employees get benefitted. This app is used to approve the travel request sent by the employees by the higher official without any intermediate and without any paper work. This app saves time of the company and reduces the cost of the travel. This app makes less tension of the employees to submit their travel approval request. Travel approval is made easy through this app is the main advantage of this project.

FUTURE SCOPES

This app saves the this would be best idea to implement this app everywhere in the future. In future it would be implemented in all fields. Notification should be sent within seconds to respective authority .within seconds employees knows the result. This would save the cost greatly. This app would be in every fields in the future. If I continue to work on this project, I would like to make change which allows the employees to write the travel schedule in with the travel approval request.

