

Build an employee travel approval application for corporate

PROJECT REPORT

1.INTRODUCTION

1.1 Overview

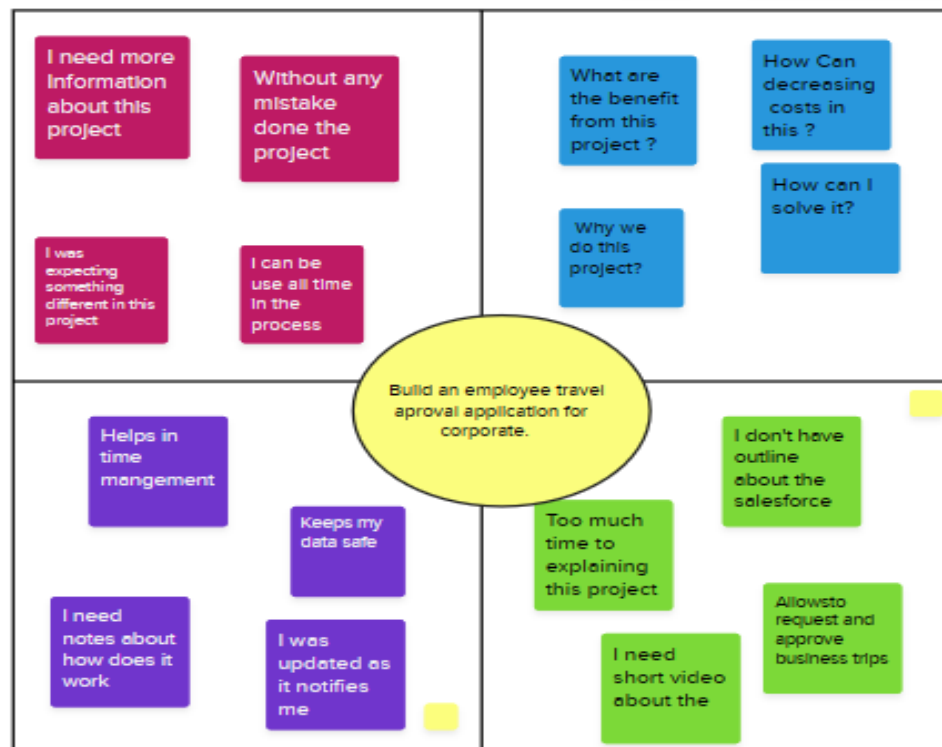
Employees travel on business trips to attend conferences, perform research, scout potential locations, meet suppliers, visit clients and for numerous other essential reasons. The employee then forwards the request to the assigned administrative authorities and stakeholders through outdated methods of communication.

1.2 Purpose

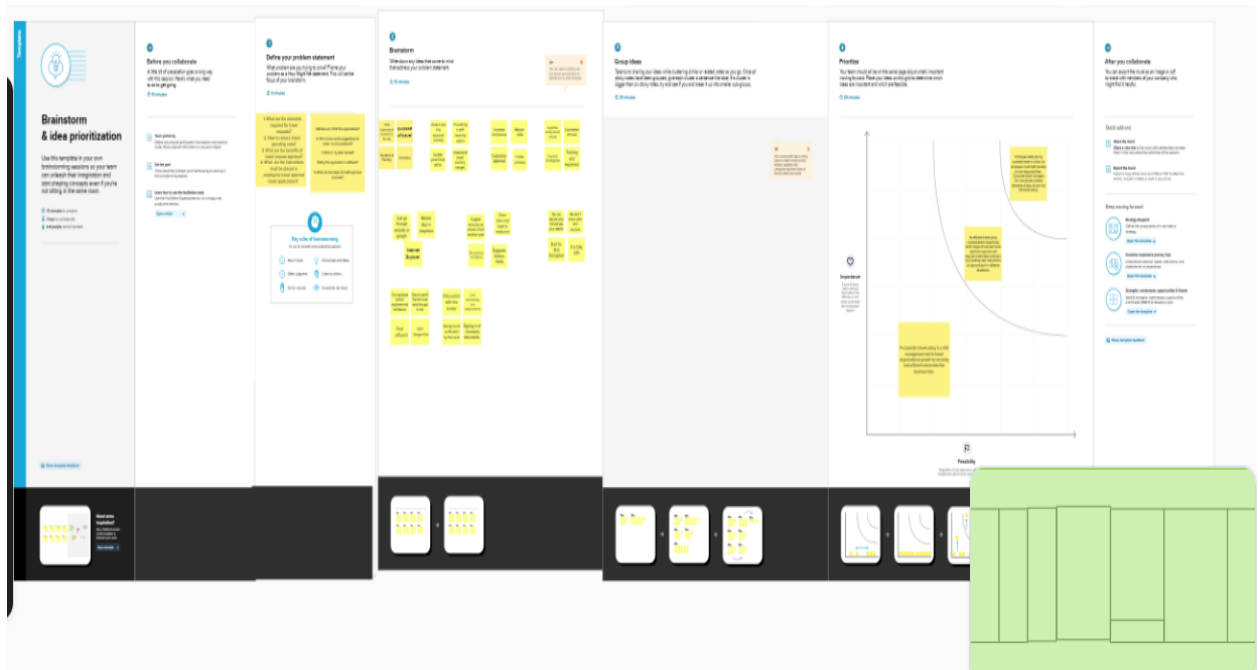
To give management an overview of the intended business trip from both a cost and a strategic point of view. People have to travel for work, to move location, to study or attend family. People like to travel for many kinds of pleasure. They like to see beautiful places, explore cultures and cuisines. There are three main reasons for travel. These are Leisure tourism or Visiting friends and relatives or Business tourism.

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 Empathy map



2.2 Ideation and Brainstorming Map



RESULT

Data Model:

Object Name	Fields in the object	
Travel Approval		
	Expense Type	Picklist
	Travel Approval	Master-Detail Relationship
	Status Indicator	Formula(Text)
	Total Expenses	Roll-up summary

	Purpose of Trip	Text
	Status	Picklist
	Trip end date	Date
	Destination state	Text
	Trip start date	Text
	Out-of-state	Text
	Last Modified By	Lookup
	Created By	Lookup
	Department	Text
	Amount	Currency
	Expense Items	Text

Activity and screenshot

Milestone 1: Creation Salesforfe Org:

Activity1:

Creating Developer Account

Creating a developer org in salesforce.

- Go to developers.salesforce.com
- Click on sign up
- On the sign up form, enter the following details

*First name and last name

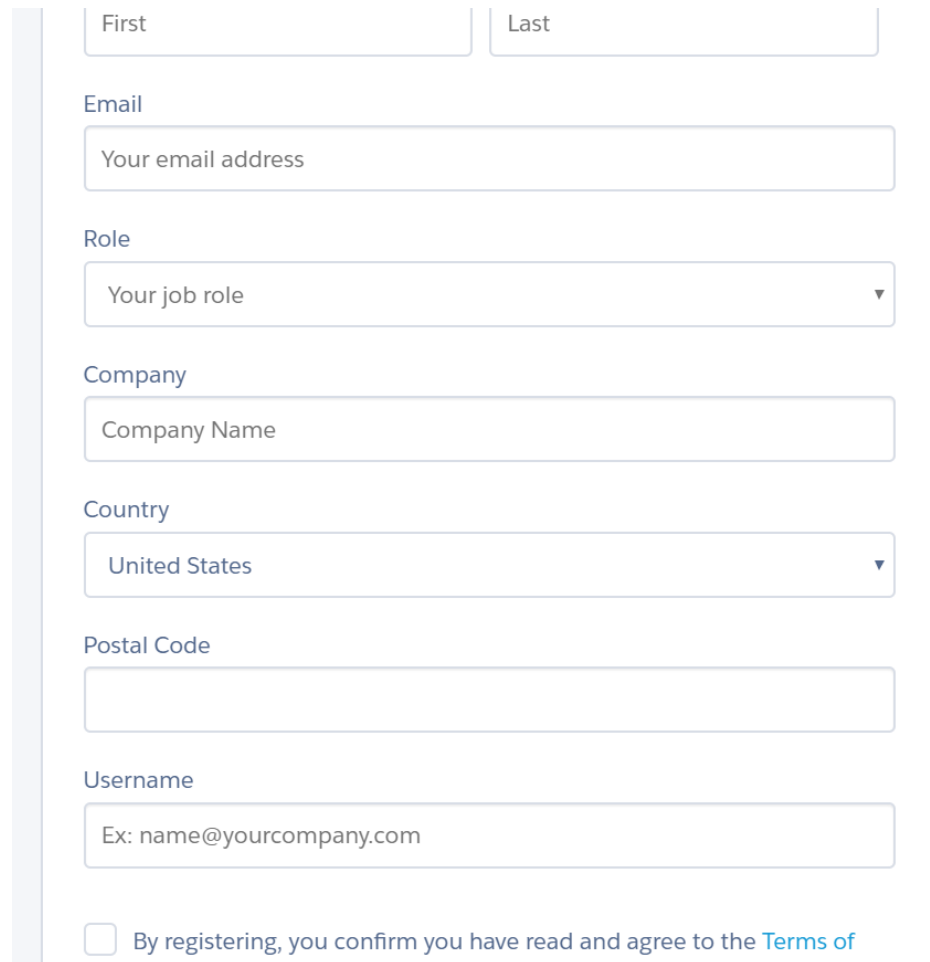
* Email

*Role:Developer

*Company: College Name

* Postal code

*Username

A screenshot of a Salesforce registration form. The form is enclosed in a light blue border. It contains several input fields: 'First' and 'Last' name fields at the top; an 'Email' field with the placeholder 'Your email address'; a 'Role' dropdown menu with 'Your job role' and a downward arrow; a 'Company' field with the placeholder 'Company Name'; a 'Country' dropdown menu with 'United States' and a downward arrow; a 'Postal Code' field; and a 'Username' field with the placeholder 'Ex: name@yourcompany.com'. At the bottom, there is a checkbox followed by the text 'By registering, you confirm you have read and agree to the [Terms of](#)'.

First Last

Email

Your email address

Role

Your job role ▼

Company

Company Name

Country

United States ▼

Postal Code

Username

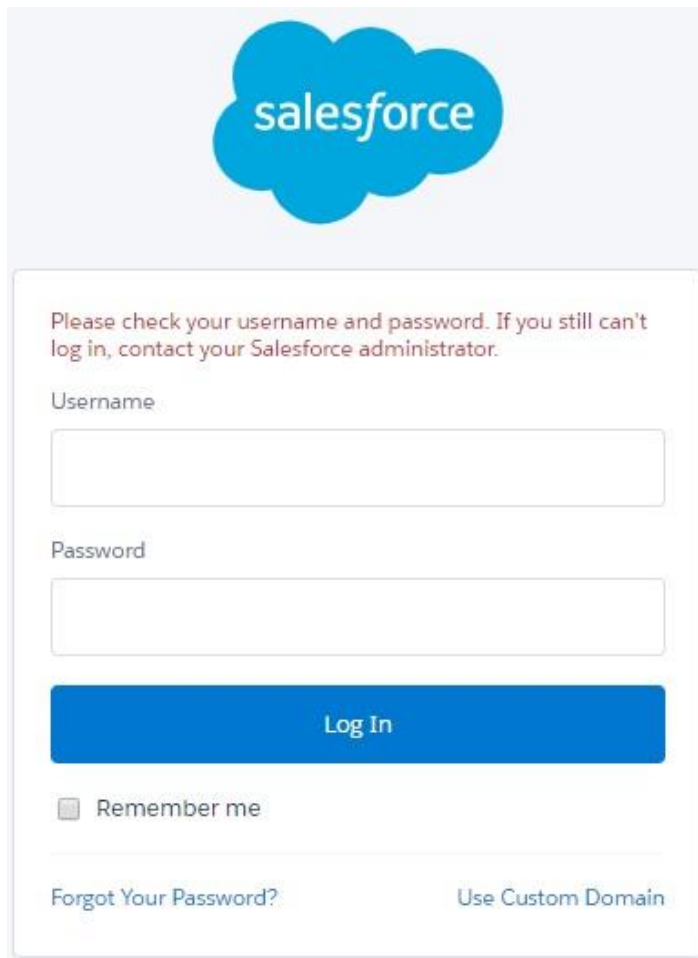
Ex: name@yourcompany.com

☐ By registering, you confirm you have read and agree to the [Terms of](#)

Activity-2:

Login to your salesforce account

1. Go to salesforce.com and click on login
2. Enter the username and password that you just created



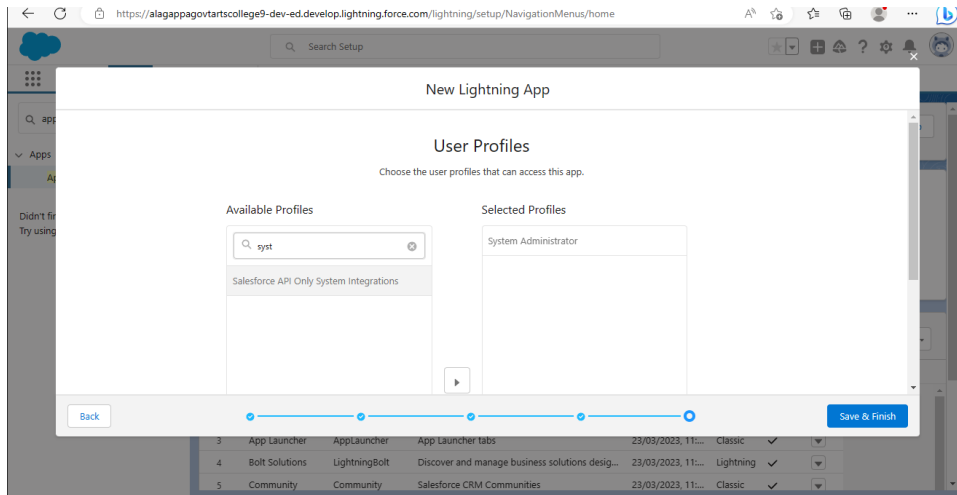
The image shows the Salesforce login interface. At the top is the Salesforce logo, which consists of a blue cloud shape with the word "salesforce" in white lowercase letters. Below the logo is a white rectangular box containing the login form. Inside this box, at the top, is a message in red text: "Please check your username and password. If you still can't log in, contact your Salesforce administrator." Below this message are two input fields: "Username" and "Password". The "Username" field is a simple white rectangle with a thin border. The "Password" field is a white rectangle with a thin border and a small eye icon on the right side to toggle visibility. Below the password field is a blue button with the text "Log In" in white. Under the button is a checkbox labeled "Remember me". At the bottom of the form are two links: "Forgot Your Password?" on the left and "Use Custom Domain" on the right.

Milestone 2 creating the Application

Activity-1:

Create the Travel Application

- 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, etc and move them to Selected Items. Click Next.
- From Available Profiles, select System Administrator and move it to selected Profiles. Click Save and Finish.

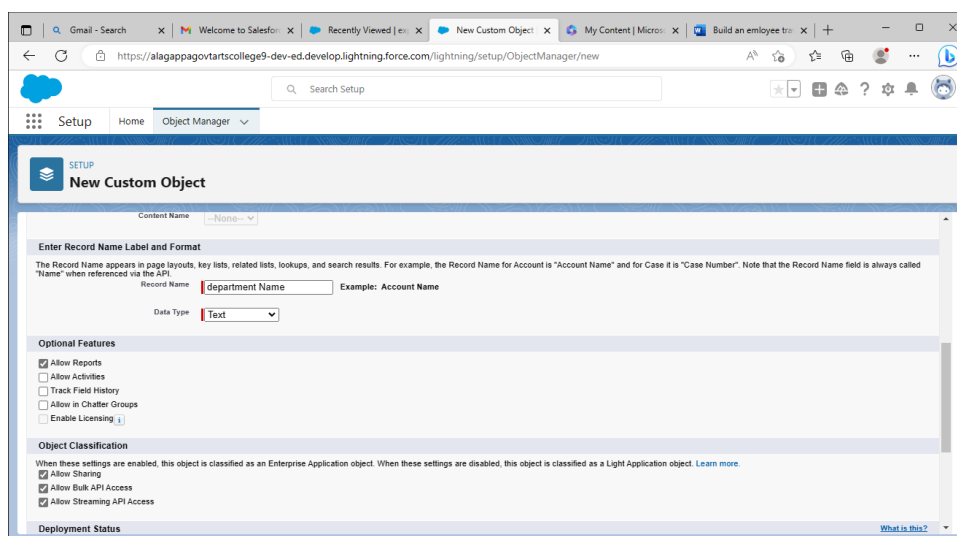


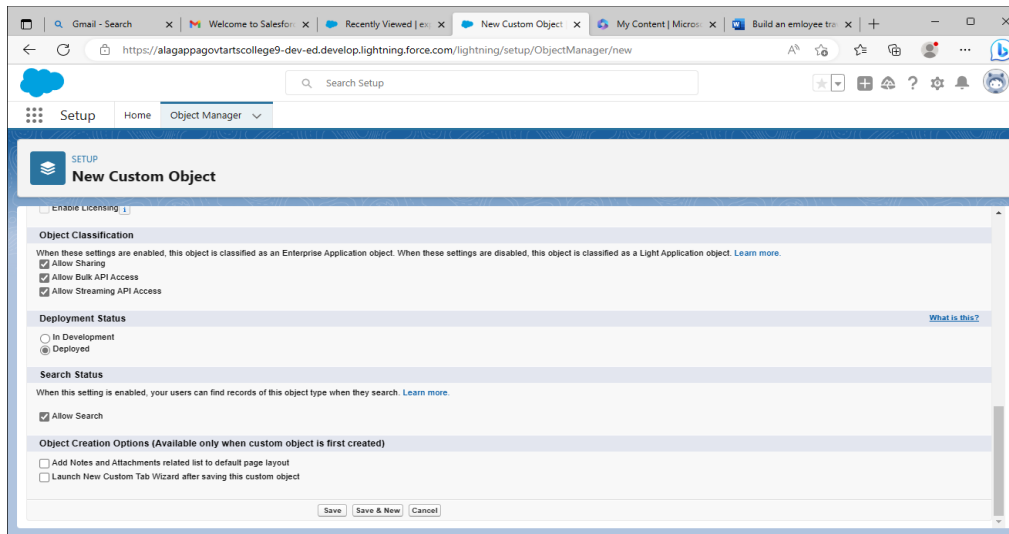
Milestone 3- What is an Object?

Activity-1:

From the setup page-->Click on object manager--> Click on create-->Click on custom object.

Enter the label name, plural label name, click on Allow reports, Allow search— save.





Activity-2:

Create custom object and tabs

A) Department

B) Travel Approval

C) Expense Item

Create Department Object

- From setup, click object manager
- Click create, then select custom object
- Give the name as Department

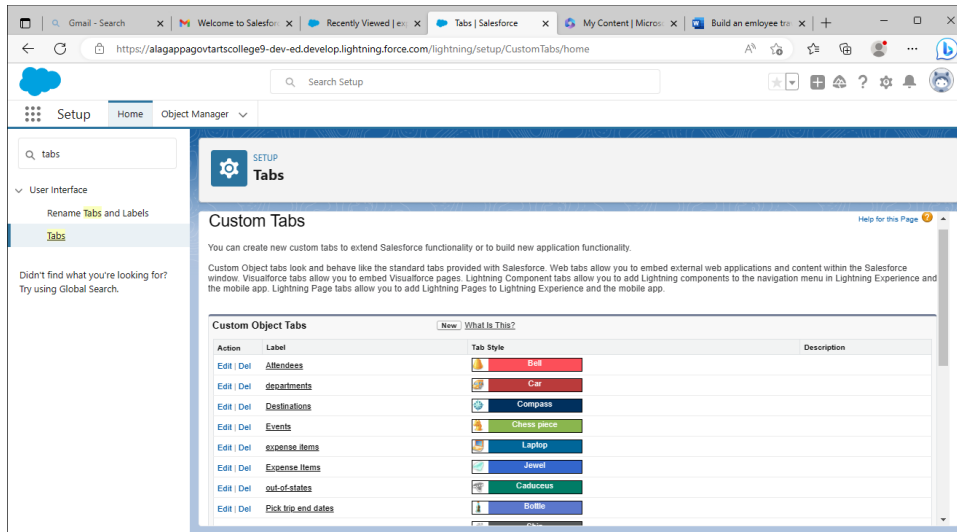
To Navigate to Setup page:

Click on gear icon-->click setup

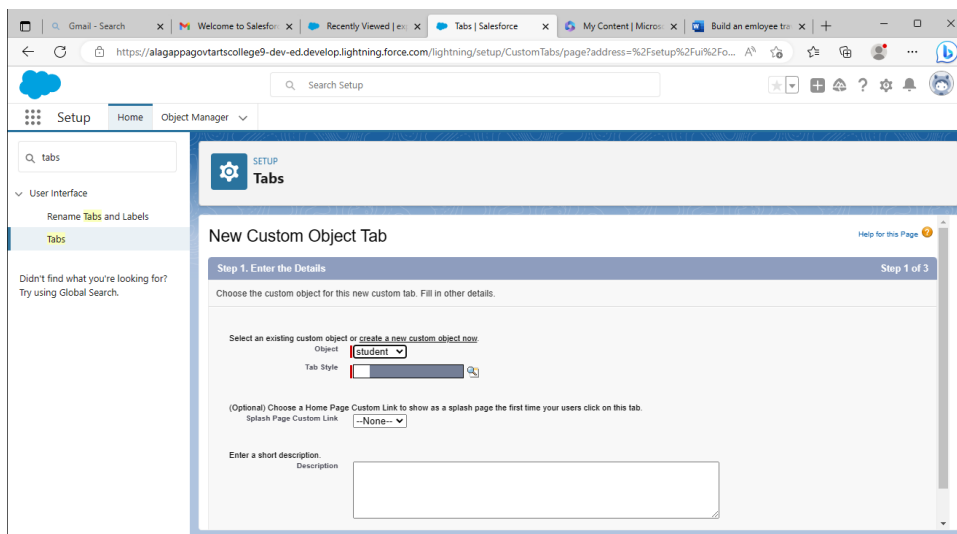
Milestone 4-What is a Tab?

Activity-1:

Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.



1. For object, select Event
2. For Tab style, select any icon
3. Leave all defaults as is, click Next, Next and save.



Milestone 4 Create-Fields and Relationships:

Activity-1:

1. Click Fields and Relationships, and click New.
2. For data type
3. Enter details

4. Click Next, Next, then Save and New.

The screenshot shows the Salesforce Setup interface. The left sidebar contains a navigation menu with options: 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 content area is titled 'Travel Approval' and 'New Custom Field'. It is at 'Step 2 of 5: Choose output type'. There are input fields for 'Field Label' and 'Field Name'. Below these, there is a checkbox 'Add this field to existing custom report types that contain this entity' which is checked. The 'Formula Return Type' section is expanded, showing a list of data types: None Selected, Checkbox, Currency, Date, and DateTime. Each type has a brief description and an example formula.

Activity-2:

Create the Expense Type field.

Activity-3:

Create the Travel Approval field.

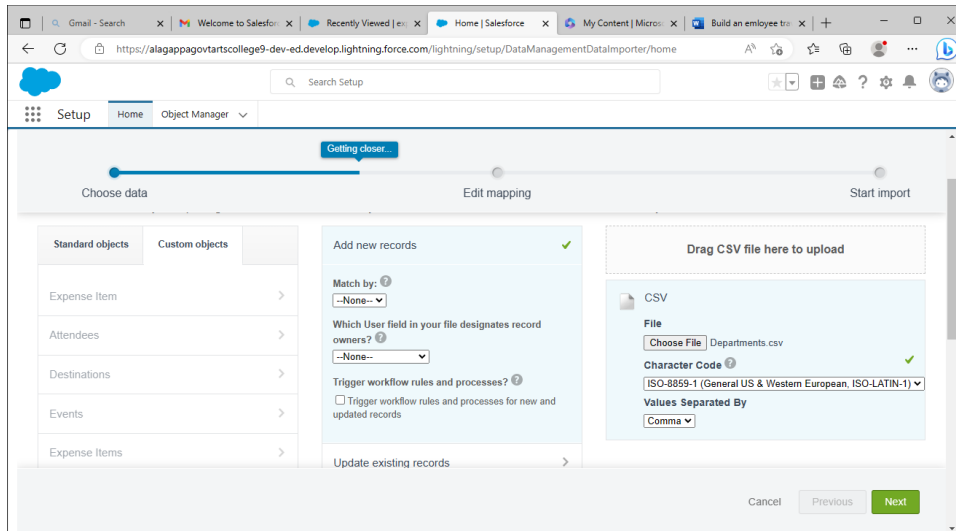
The screenshot shows the Salesforce Setup interface. The left sidebar contains a navigation menu with options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, and Search Layouts. The main content area is titled 'Travel Approval' and 'Fields & Relationships'. It shows a list of 16 fields, sorted by Field Label. The fields are:

Field Label	Field Name	Field Type
expense items	expense_items_c	Text(43)
Expense Type	Expense_Type__c	Picklist
Last Modified By	LastModifiedById	Lookup(User)
out-of-state	out_of_state__c	Text(32)
Owner	OwnerId	Lookup(User,Group)
Purpose of Trip	Purpose_of_Trip__c	Text(65)
status	status__c	Picklist
Status Indicator	Status_Indicator__c	Formula (Text)

Milestone 5-Import Departments

Activity-1:

1. In the Quick Find box, enter Data Import and select Data Import
2. Click Launch Wizard
3. Next, select Add new records
4. Drag and drop the Department.csv file , then select Next



5. The next screen gives you a summary of your data import. Click Start Import.
6. Click OK on the popup.

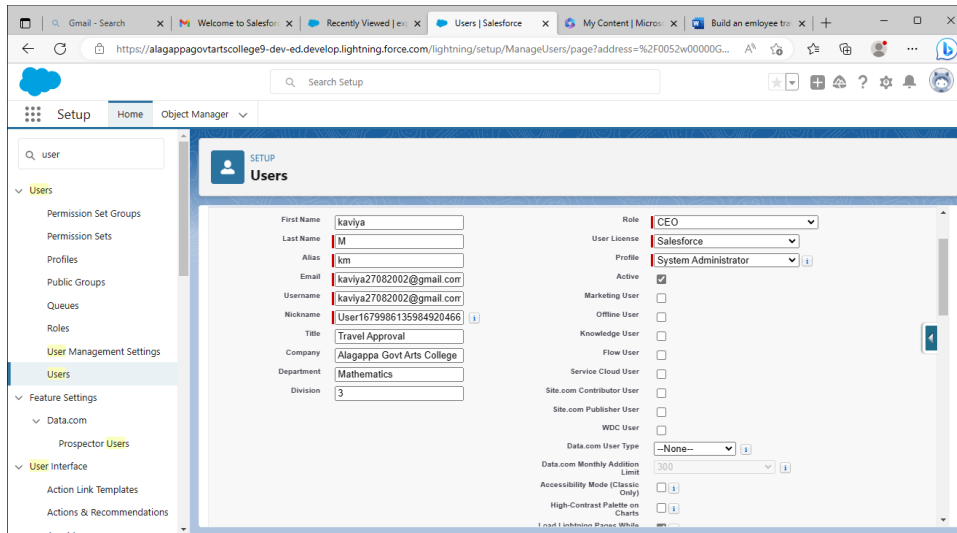
Milestone 6-Customize User Interface

Activity-1:

Create User and Setup Approvals

- Enter users in the quick find box and select users
- Click new user
- Now give the name as you wish but the email must be real email address
- For username field
- Give the role as CEO, Profile as System Administrator and license as Salesforce.

- From Setup, enter Users in the Quick Find box and select Users.
- Select user account in the list provided
- Click Edit
- Scroll down to Approver Settings.
- Click Save.



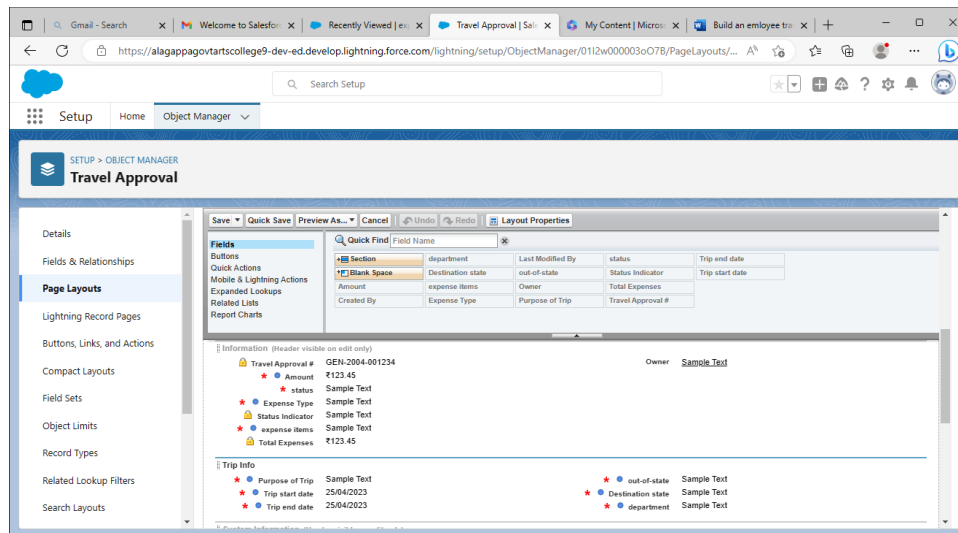
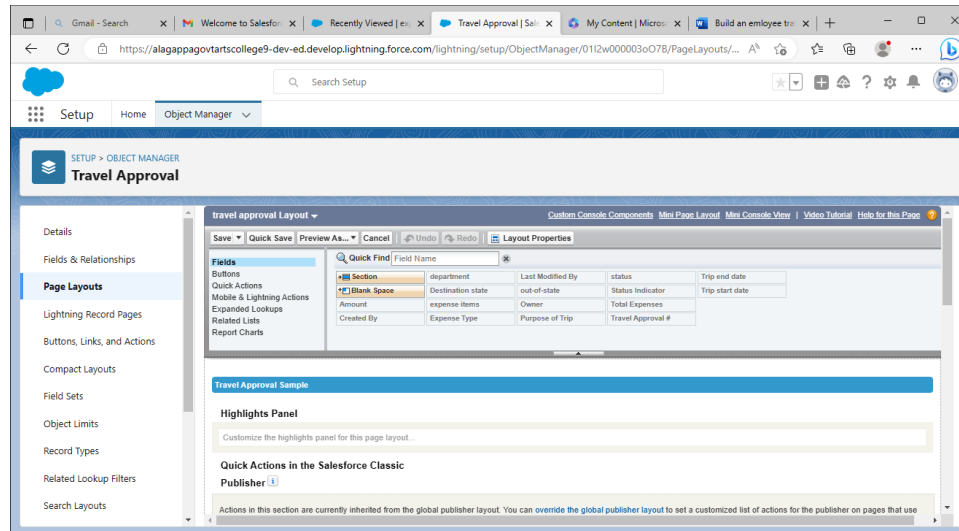
Milestone7-Use customization

Activiy-1:

Customize Travel Approval Object Page layout

- From the object manager, search for the travel approval object and click on page layouts and click edit.
- Drag section from the top plane to the lower pane directly below the information section.
- Name the section Trip Info, leave the rest of the settings at their default values, then click Ok.
- Drag the purpose of trip field from the information section to the trip info section.
- Drag trip state date and trip end date from the top pane into the left-hand column of the trip info section
- Drag out-of-state and destination state from the top pane into the right-hand column of the trip info section

- Drag the department field from the left-hand column of the trip info section to the right-hand column
- Click save.



Milestone –Add Business Logic to Travel App

Activity-1:

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.

The screenshot shows the Salesforce Setup interface for creating a validation rule. The left sidebar lists various setup options, and the main area is titled "Validation Rule Edit".

Validation Rule Edit

Rule Name:

Active: ☒

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:

Functions:

Insert Selected Function

Activity-2:

Create Rollup Summary Fields

The screenshot shows the Salesforce Setup interface for creating a rollup summary field. The left sidebar lists various setup options, and the main area is titled "Custom Field Definition Detail".

Custom Field Definition Detail

Field Information

Field Label	Field Name	API Name	Description	Help Text	Data Owner	Field Usage	Data Sensitivity Level	Compliance Categorization
Total Expenses	Total_Expenses	Total_Expenses__c						

Created By: Kavitha M. 30/03/2023, 5:12 pm

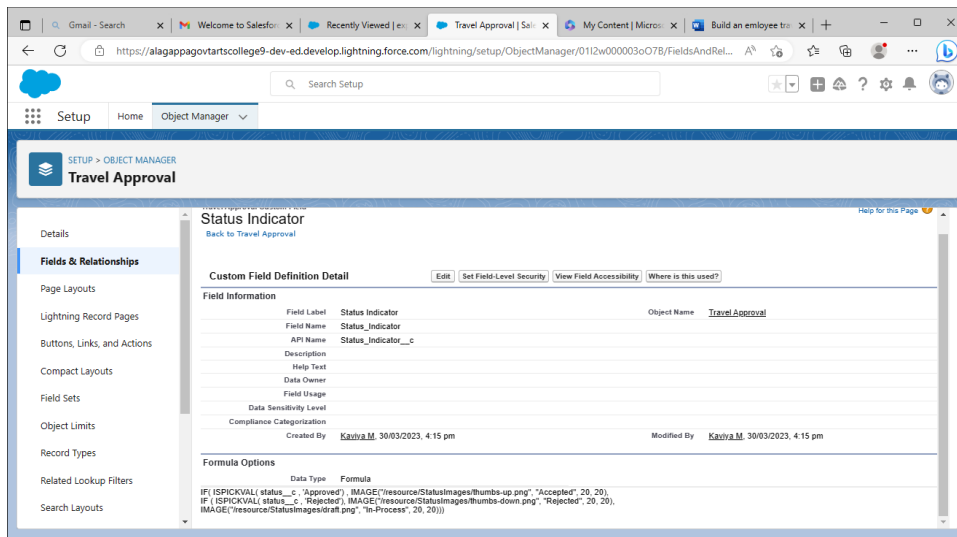
Modified By: Kavitha M. 30/03/2023, 5:12 pm

Roll-Up Summary Options

Data Type	Roll-Up Summary	Summary Type
Summarized Object	<u>student</u>	SUM
Field to Aggregate	<u>student.Amount</u>	
Filter Criteria		

Activity-3:

Create Formula Fields



Milestone 9- What are Reports?

Activity

Add Report

To create a report:

Go to the app-->click on the report tab

Click New Report

Select report type from category -->click on start report

Customize your report, then save or run it.

Report: Travel Approvals
Travel Approval Application

Enable Field Editing | Add Chart | Edit

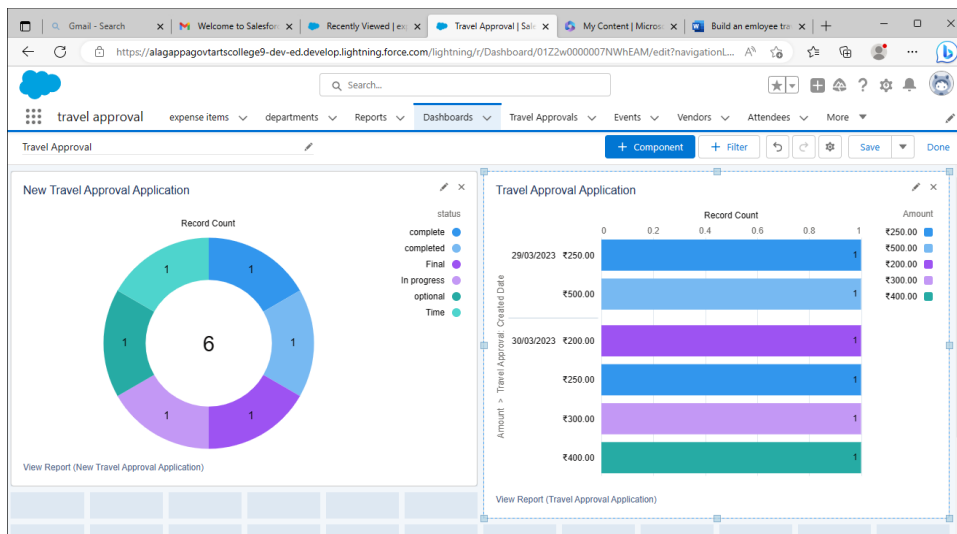
Travel Approval: Created Date	Amount	Travel Approval: Owner Name	30/03/2023	Subtotal	Total
	₹500.00	Record Count	1	1	1
	Subtotal	Record Count	2	2	2
30/03/2023	₹200.00	Record Count	1	1	1
	₹250.00	Record Count	1	1	1
	₹300.00	Record Count	1	1	1
	₹400.00	Record Count	1	1	1

Details (6 Rows) | Click an intersection in the table above to filter details.

Travel Approval: ID	Travel Approval: Travel Approval #	Travel Approval: Owner Alias	Travel Approval: Owner Role	Travel Approval: Created By	Travel Approval: Created Alias	Travel App
2	a002w00000bR1MD	TA-00001	KM	-	Kaviya M	KM
3	a002w00000bRQOm	TA-00003	KM	-	Kaviya M	KM
4	a002w00000bRRfm	TA-00006	KM	-	Kaviya M	KM
5	a002w00000bRRPV	TA-00004	KM	-	Kaviya M	KM

Row Counts | Detail Rows | Subtotals | Grand Total | Stacked Summaries

Milestone 10- What are Dashboards?



Trailhead Profile Public URL

Team leader -

Team Member 1 -

Team Member 2 -

Team Member 3 -

Advantages and Disadvantages

Advantages:

- **Streamlined process:** An employee travel approval application can help to streamline the approval process for corporate travel requests, making it faster and more efficient.
- **Enhanced visibility:** The application can provide managers with greater visibility into travel requests, including information about the employees itinerary and travel expenses.
- **Improved compliance :** The application can help to ensure compliance with corporate travel policies, reducing the risk of non-compliance and associated penalties.

Disadvantages:

- **Implementation code:** Building an employee travel approval application can be expensive, particularly if the company needs to hire a developer or software development team to create the application.
- **Adoption challenges:** Getting employees to adopt a new travel approval application may be challenging, particularly if they are used to existing approval processes.
- **Security and data privacy:** An employee travel approval application will need to be designed with security and data privacy in mind, which can add complexity to the development process and increase.

Application:

1. **Streamlined approval process:** The travel approval application can automate the approval process for employee for employee travel request, making it faster and more efficient. This can help save time for both employees and managers.
2. **Cost control:** The application can be designed to set limits on travel expenses based on company policies and budgets. This can help control costs and prevent employees from overspending on travel.

3. **Compliance:** The application can help ensure that all travel requests comply with company policies and legal regulations. This can help avoid legal and financial risks associated with non-compliant travel.
4. **Travel management:** The application can provide a centralized platform for managing employee travel, including booking flights, hotels and transportation. This can help simplify the travel planning process and ensure that all travel arrangements are made in a timely and cost effective manner.

FUTURE SCOPE:

1. **Integration with other corporate systems:** As more companies move towards integrated technology solutions, there is potential for employee travel applications to integrate with other corporate systems, such as human resources, finance, and accounting.
2. **Mobile optimization:** With the increasing use of smartphones and tablets, there is potential for employee travel approval applications to become more mobile-friendly, allowing employees to submit travel requests and managers to approve them on the go.
3. **Data analytics:** By analyzing employee travel data, companies can identify trends and patterns in travel behavior, helping to inform travel policies and optimize travel expenses.
4. **Virtual reality:** The use of virtual reality can potentially enhance the employee travel experience by allowing employees to preview their travel arrangements before departure, including hotel rooms, conference centers, and other venues.

CONCLUSION:

Tourism is a complex system that is built up of industry sectors including accommodation, recreation and entertainment, food and beverage services. It encompasses domestic, inbound, and outbound travel for business, leisure, or other purposes. And because of this large scope, tourism development requires participation from all walks of life, including private business, governmental agencies, educational institutions, communities and citizens.

Recognizing the diverse nature of the industry and the significant contribution tourism makes toward economic and social value for British

Columbians is important. There remains a great deal of work to better educate members of the tourism industry.