BUILD AN EMPLOYEE TRAVEL APPROVAL APPLICATION FOR CORPORATES

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INTRODUCTION:

Overview:

An employee travel approval application for corporate is a software system designed to streamline and automate the process of submitting and approving employee travel requests. The application allows employees to submit travel requests, which are then reviewed and approved by their supervisors and other relevant stakeholders within the company.

The travel approval application typically consists of a backend and a frontend. The backend is responsible for handling business logic, data storage, and communication with other systems. The frontend provides a user interface for employees and supervisors to interact with the application. The travel approval application also provides a way for employees to submit expense reports after the trip is complete. Employees can upload receipts and other documentation, and then the expenses are reviewed and approved by their supervisor. The application can then generate reimbursement requests and manage the payment process.

Overall, an employee travel approval application for corporate can help streamline the travel request and approval process, reduce errors and delays, and provide a centralized system for managing travel-related expenses.

Purpose:

As an AI language model, I cannot build an actual employee travel approval application for corporate project, but I can provide you with a high-level overview of what it might look like and what it might include.

Here are some key features and components that you might consider including in an employee travel approval application for corporate project:

1. **User authentication:** To ensure that only authorized employees and supervisors can access the application, you'll need to implement user authentication. This might involve using a third-party authentication service or building your own authentication system.

2. **Travel request submission:** Employees should be able to submit travel requests through the application. This might involve filling out a form with details such as the destination, purpose of the trip, dates of travel, and estimated expenses.

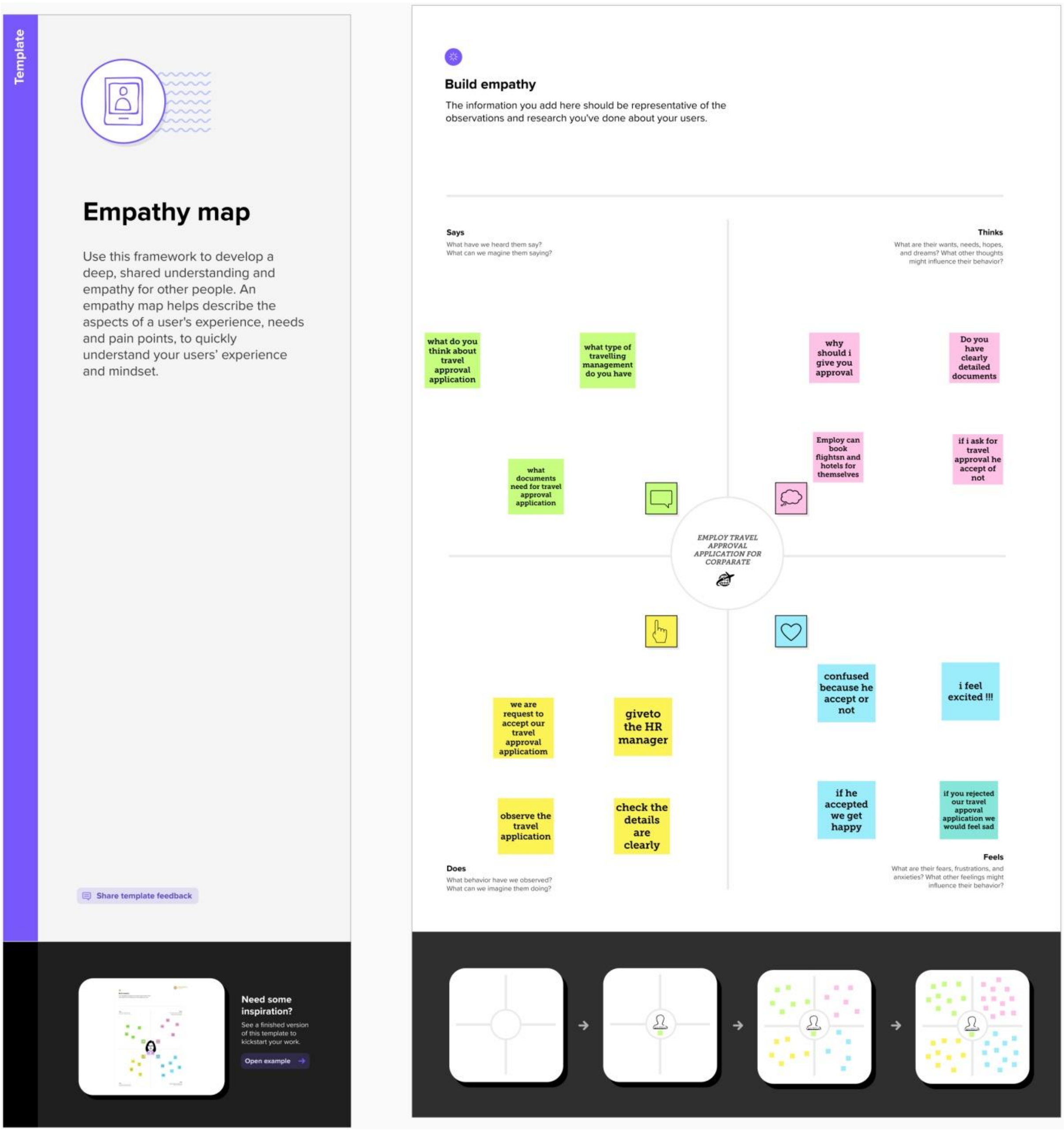
3. **Travel request approval workflow**: Once a travel request is submitted, it should be routed to the appropriate supervisor for approval. The application should provide a workflow for supervisors to review and approve or deny travel requests.

4. **Expense management:** Employees should be able to submit expense reports through the application, including uploading receipts and other documentation. Supervisors should be able to review and approve or deny expense reports, and the application should be able to generate reimbursement requests and manage the payment process.

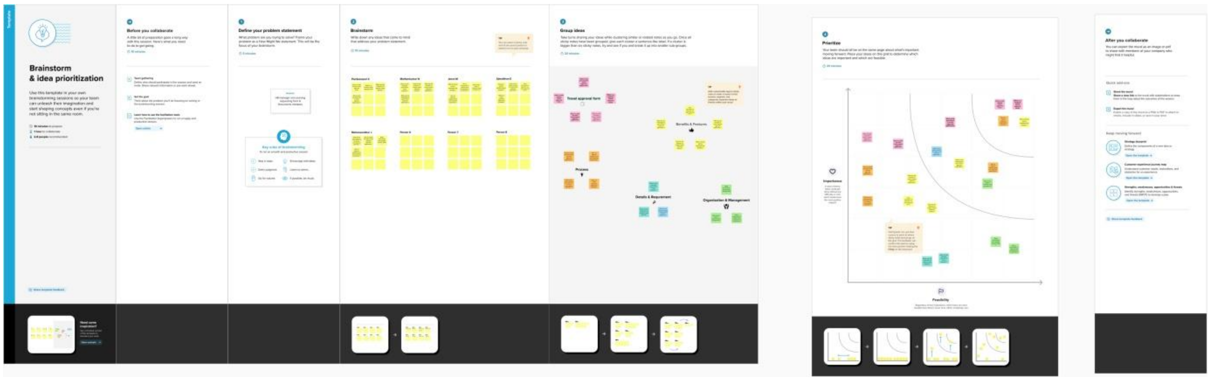
5. **Reporting and analytics:** The application should provide reporting and analytics functionality to help managers and other stakeholders understand travel-related expenses and trends.

Problem Definition & Design Thinking:

Empathy map:



Ideation & Brainstorming map:



Data Model:

<table>
<tr><th>Object Name</th><th>Fields In The Object</th></tr>
<tr><td>Department</td><td><table><tr><th>Field Label</th><th>Data Type</th></tr><tr><td>Amount</td><td>Currency</td></tr><tr><td>Length</td><td>16</td></tr><tr><td>Decimal</td><td>2</td></tr></table></td></tr>
<tr><td>Travel Approval</td><td><table><tr><th>Field Label</th><th>Data Type</th></tr><tr><td>Travel Approval</td><td>Master-Detail relationship</td></tr><tr><td>Values</td><td>(Airfare, Hotel, Rental Care, Meals, Others.)</td></tr></table></td></tr>
<tr><td>Expense Item</td><td><table><tr><th>Field Label</th><th>Data Type</th></tr><tr><td>Expense Type</td><td>Pick list</td></tr><tr><td>Values</td><td>(Airfare, Hotel, Rental Care, Meals, Others.)</td></tr></table></td></tr>
</table>

01. Create Sales force Org:

Introduction:

Are you new to Sales force? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you.

Welcome to Sales force! Sales force is game-changing technology, with a host of productivityboosting features that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Sales force, anyway?"

What Is Sales force?

Sales force is your customer success platform, designed to help you sell, service, market, analyze, and connect with your customers.

Sales force has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

So what does that really mean? Well, before Sales force, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

https://youtu.be/r9EX3lGde5k

Activity-1:

Creating Developer Account:

Creating a developer org in sales force.

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

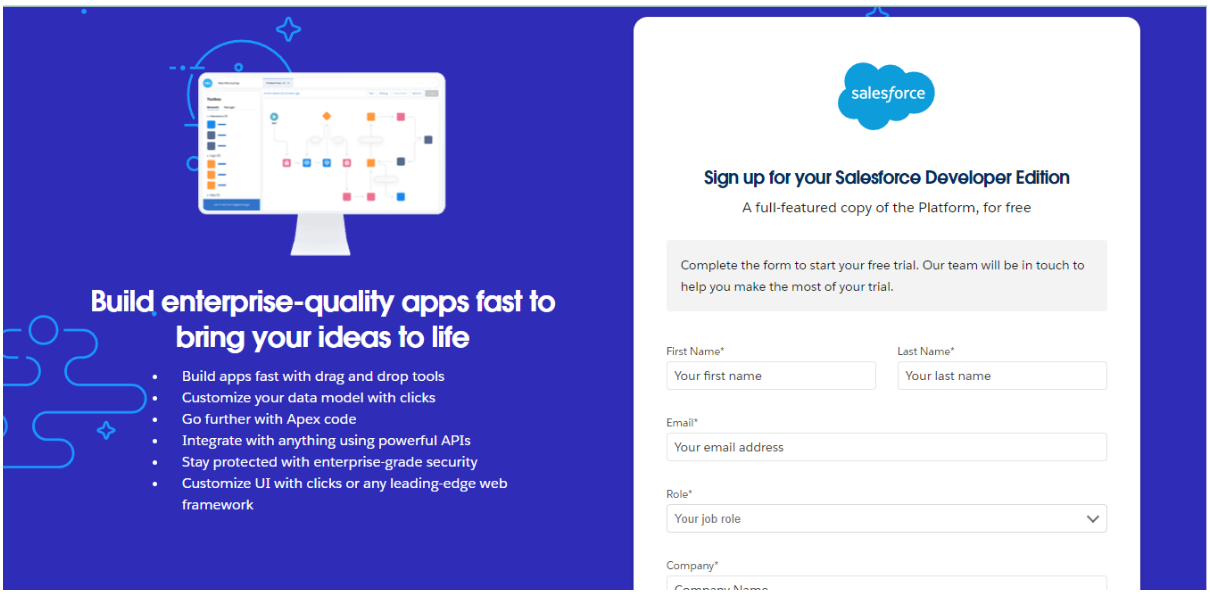
    5. County: India

    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

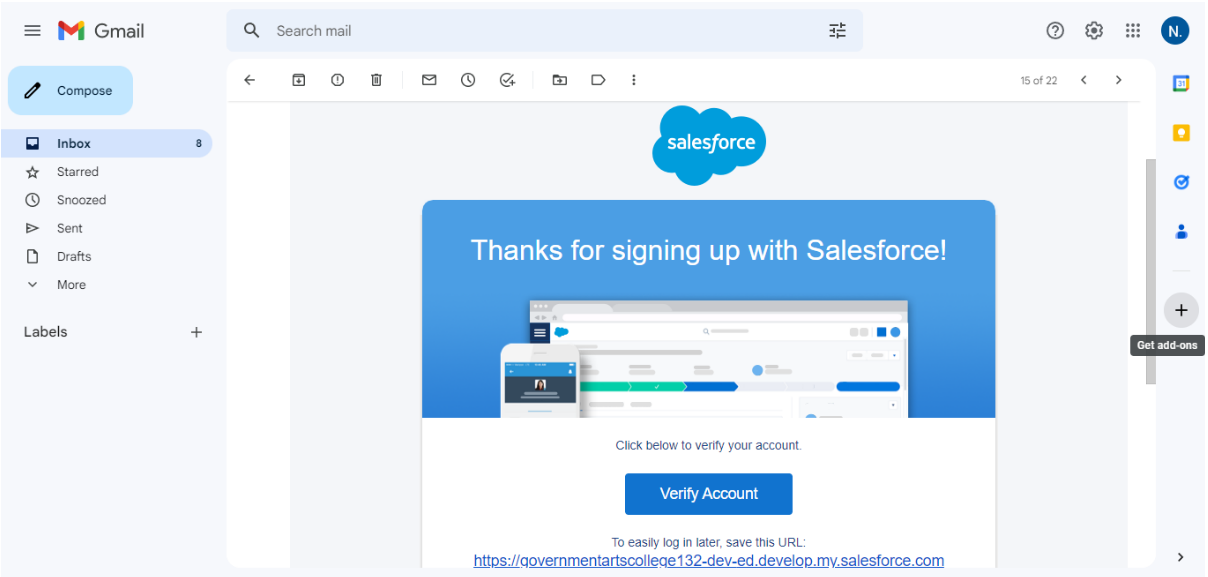
Click on sign up after filling these.



Activity-2:

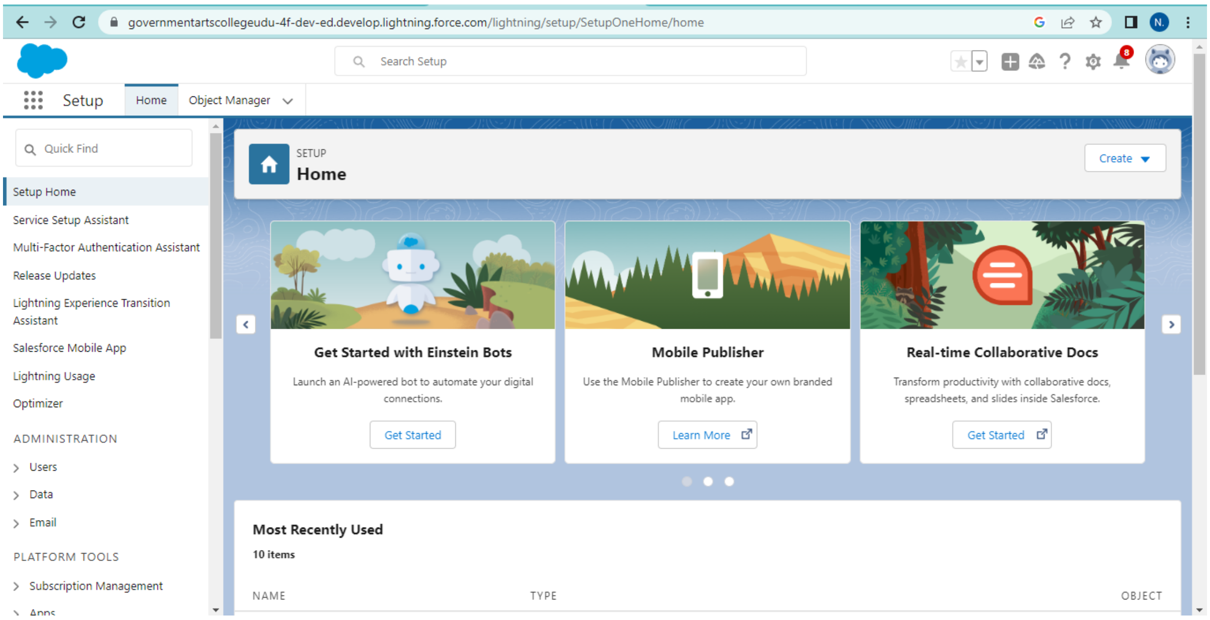
Account Activation:

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, as



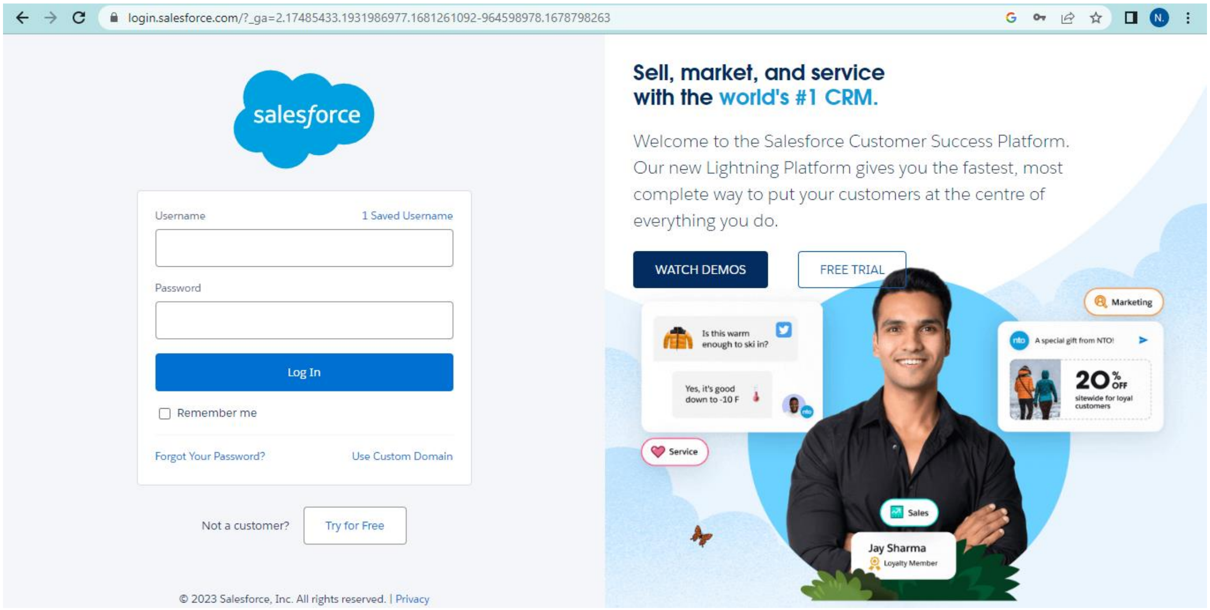
Login To Your Sales Force Account

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

htttps://login.salesforce.com



02. Creating the Application:

The AppManager is your go to place for managing apps for lightning experience. It shows all your connected apps and sales force apps. Use the lightning experience app manager to view all your sales force apps.

https://youtu.be/GR61sx2Kdis

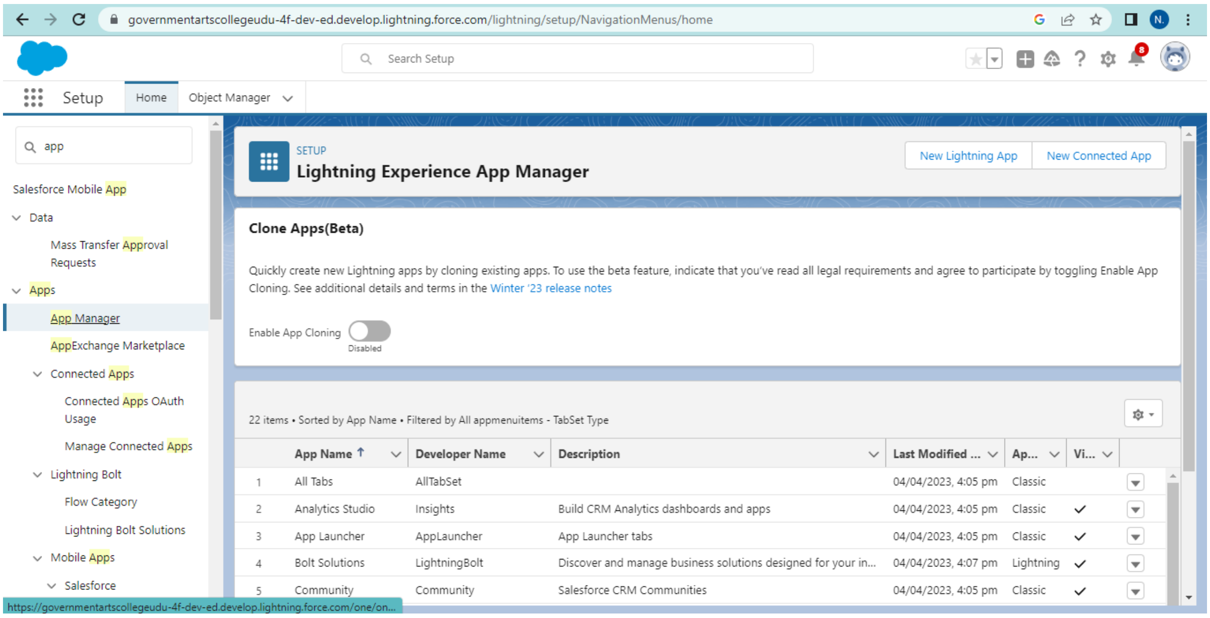
Create the Travel Application

Activity-1:

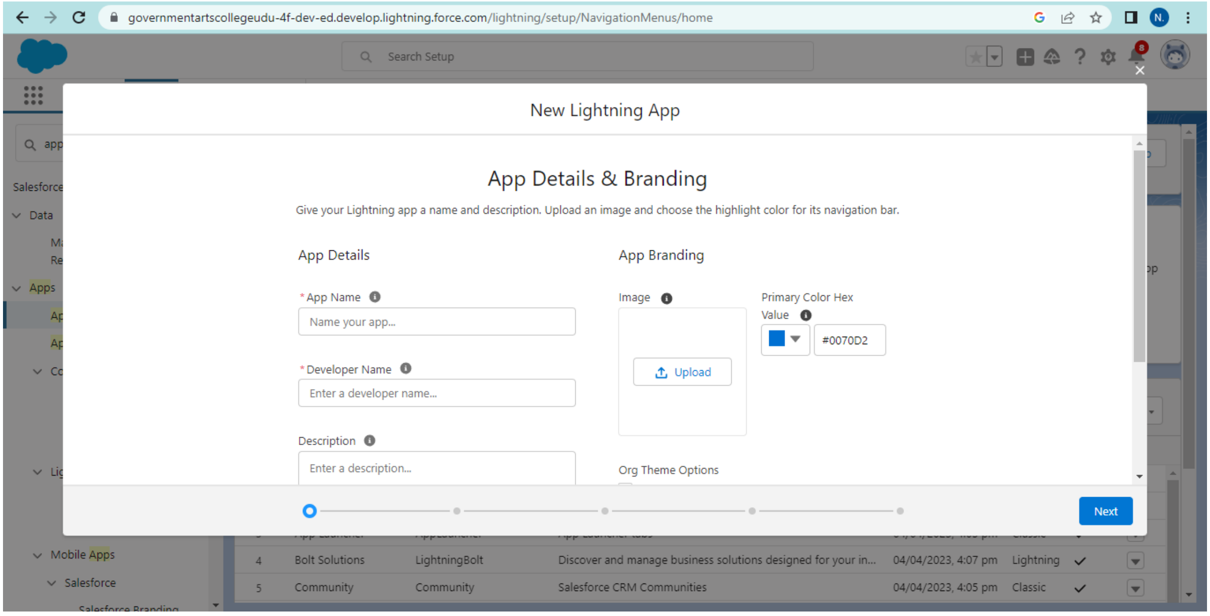
Search AppManager in quick find box, click on new lightning app. Before creating the application download this zip file and extract it.https://developer.salesforce.com/files/TravelAppWorkshopFiles.zip

Steps

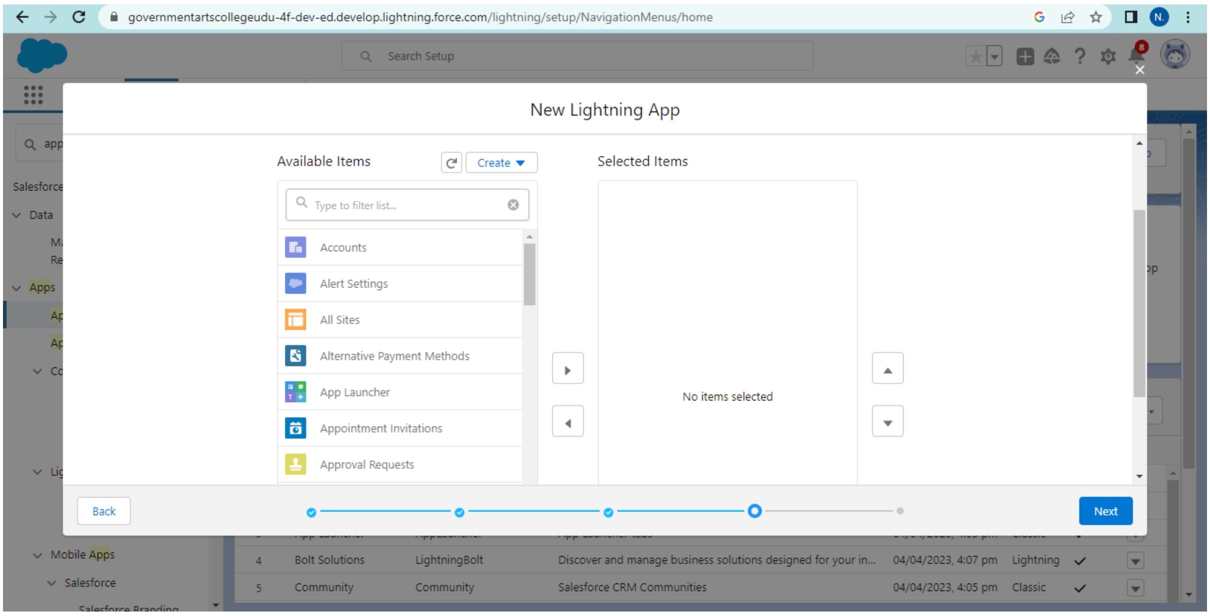
- From Setup, enter App Manager in the Quick Find and select App Manager.



- Click New Lightning App. Enter Travel Approval as the App Name, and 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.



- From Available Profiles, select System Administrator and move it to Selected Profiles. Click Save & Finish.

03. What is an object?

Salesforce objects are database tables that permit you to store data that is specific to an organization. It consists of fields (columns) and records (rows).

Salesforce objects are of two types:

- Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

- Custom Objects: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

In this Travel Approval application we will be creating 3 objects:

Department.

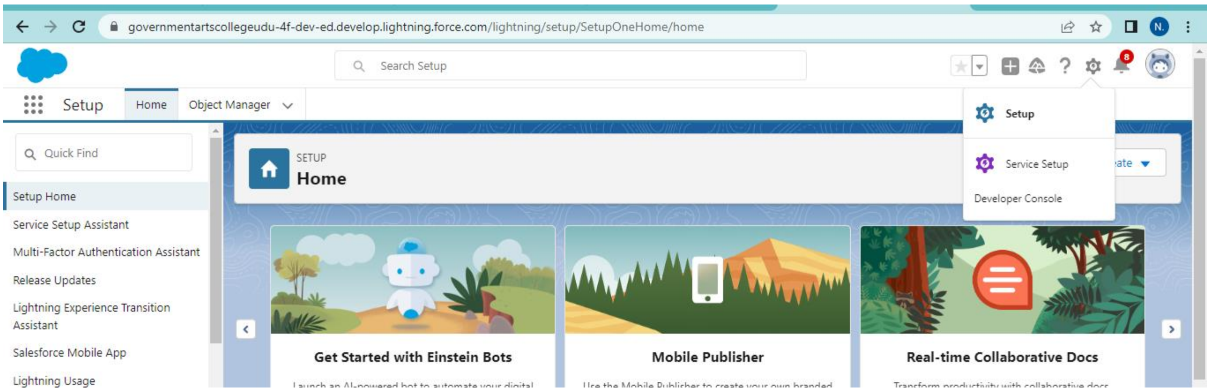
Travel approval.

Expense Item.

Activity-1:

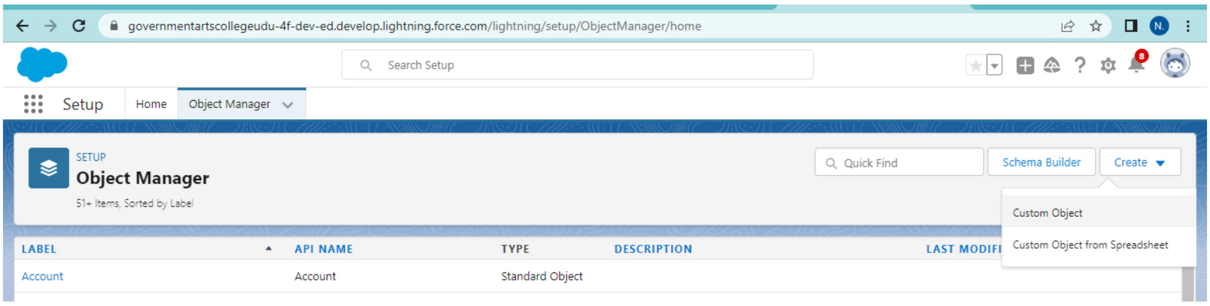
Custom Object Creation

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



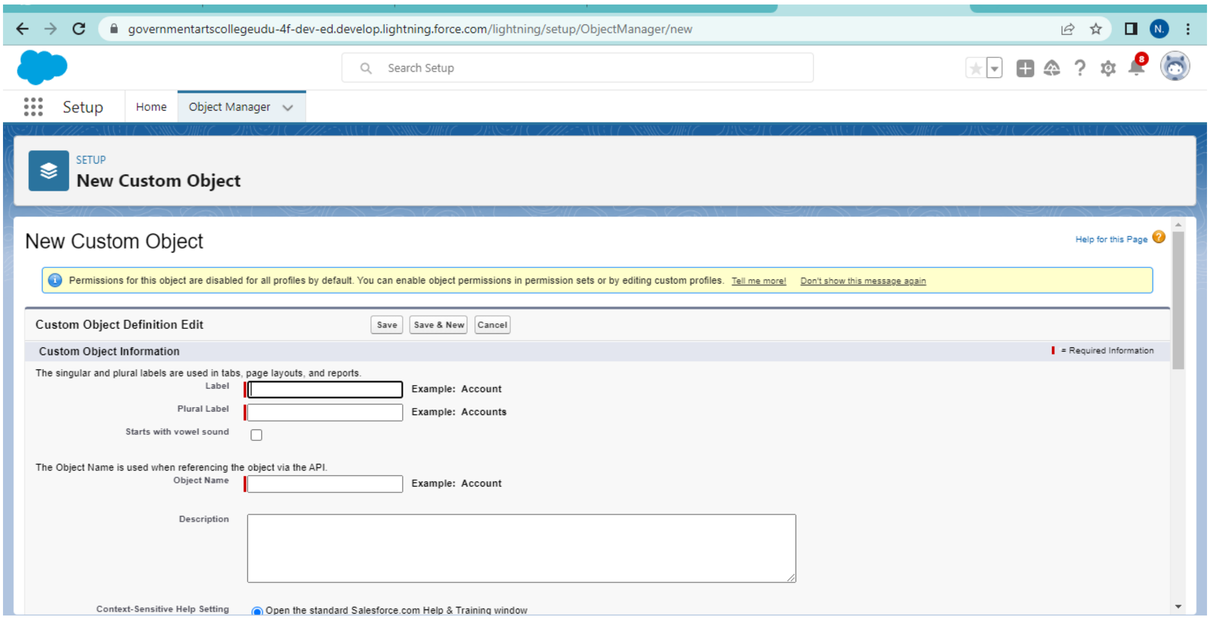
To create an object:

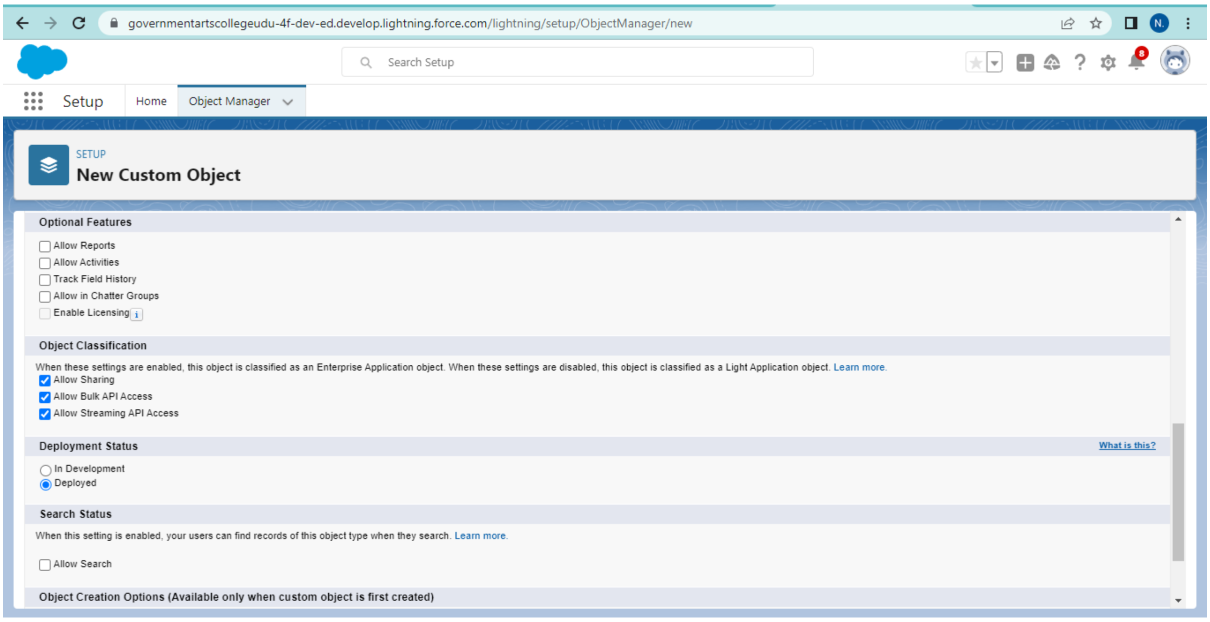
From the setup page → Click on Object Manager → click on Create → Click on Custom Object



On Custom object defining page:

Enter the label name, plural label name, click on Allow reports, Allow search → Save.





Activity-2:

Create 3 custom objects and tabs

a) Department

b) Travel Approval

c) Expense Item

Create Department Object

1. From Setup, click Object Manager.

2. Click Create, and then select Custom Object.

3. Give the name as Department

To Navigate to Setup page:

Click on gear icon → click setup.

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.

4. Now the tabs section opens, add this tab to the travel app.

Create Travel Approval Object

1. Navigate back to Object Manager

2. Click Create then select Custom Object.

3. Enter these details.

Parameter	Value
Label	Travel Approval
Plural Label	Travel Approvals
Object Name	Travel Approval_ Approval (this field auto – populates)
Record Name	Travel Approval #
Data Type	Auto Number
Display Format	TA-{00000}
Starting Number	1

4. Allow Reports, search, and launch a new tab and add this tab to the travel app.

04. What is a Tab?

Tabs in Salesforce help users view the information at a glance. It displays the data of objects and other web content in the application.

There are mainly 4 types of tabs:

Standard Object Tabs:

Standard object tabs displays data related to standard objects.

Custom Object Tabs:

Custom object tabs displays data related to custom objects. These tabs look and function just like standard tabs.

Web Tabs:

Web Tabs display any external Web-based application or Web page in a Salesforce tab.

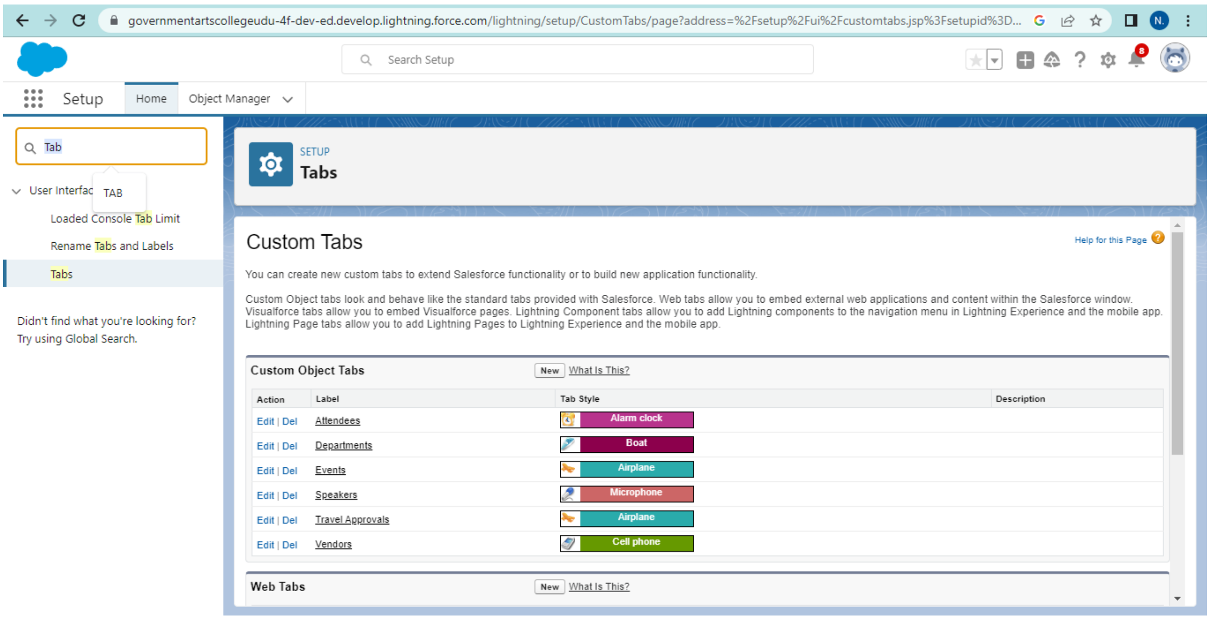
Visual force Tabs:

Visual force Tabs display data from a Visual force Page.

Activity-1:

Now create a custom tab:

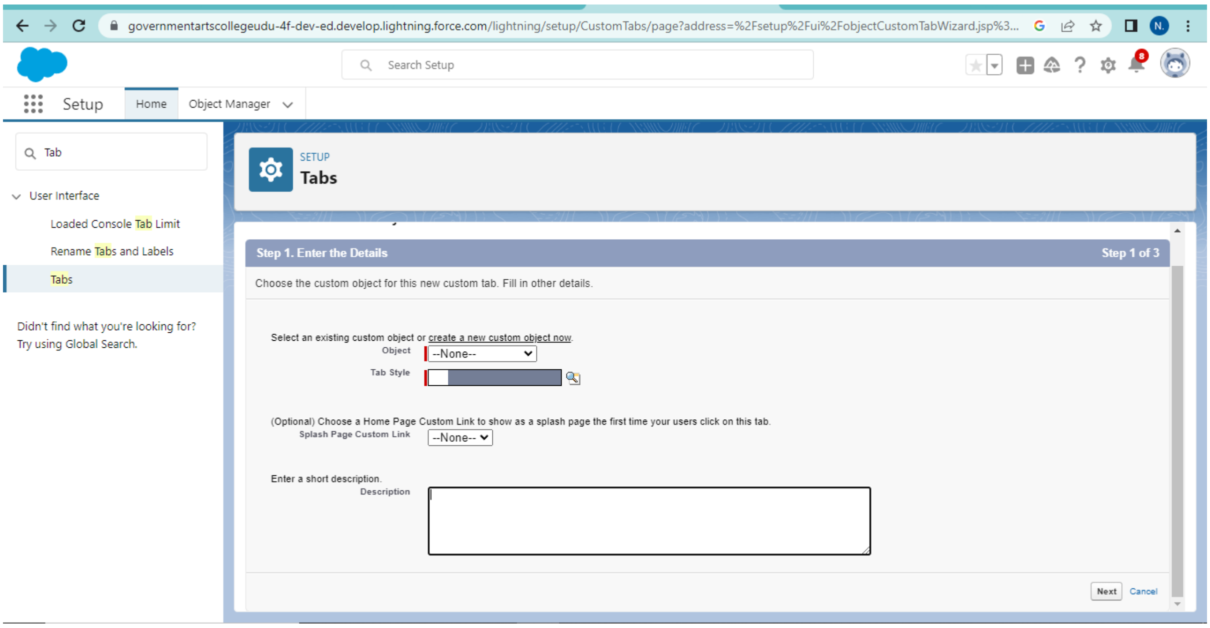
Click the Home tab, enter Tabs in Quick Find and select Tabs. Under Custom Object Tabs, click New.



1. For Object, select Event.

2. For Tab Style, select any icon.

3. Leave all defaults as is. Click Next, Next, and Save.



In the same way create other objects such as Attendees, Speaker and Vendor.

04. Create- Fields & Relationships

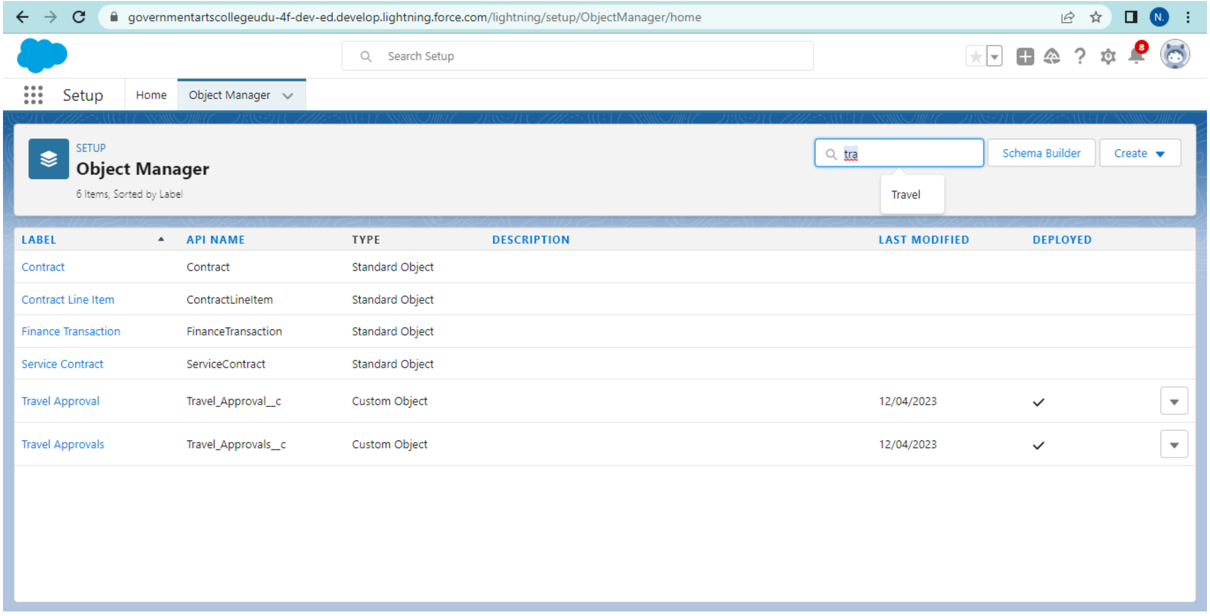
What are fields? Fields in Salesforce represents what the columns represent in relational databases. It can store data values which are required for a particular object in a record. There are 2 types of fields in sales force:

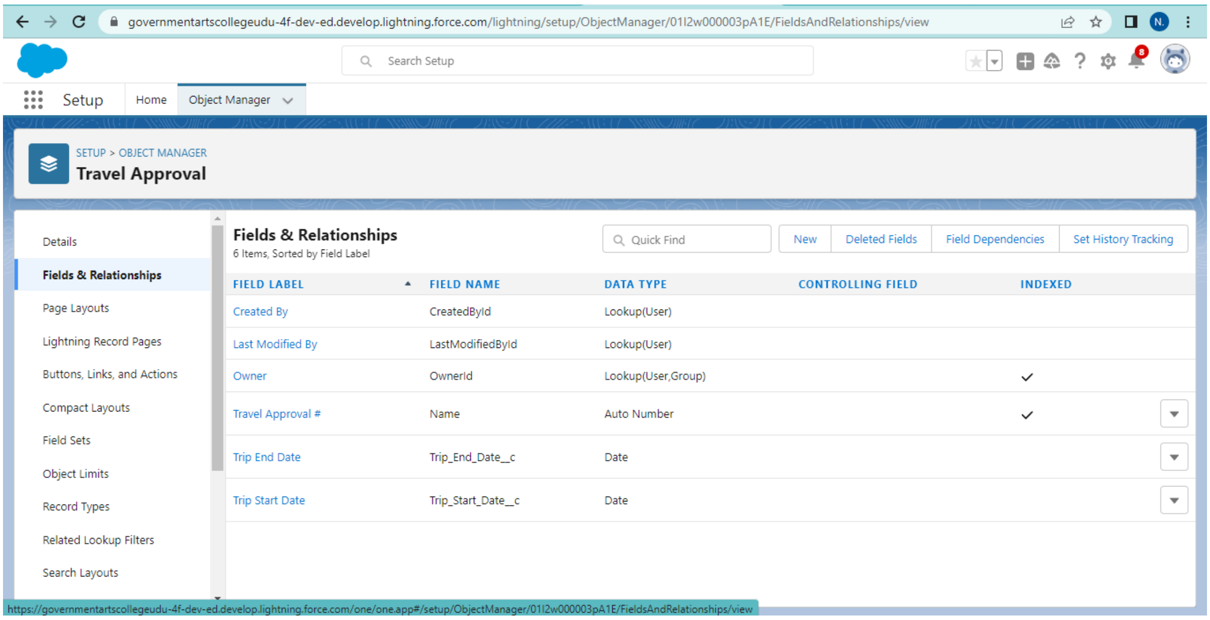
• Standard fields: There are four standard fields in every custom object that are Created By, Last Modified By, Owner, and the field created at the time of the creation of an object. These fields cannot be deleted or edited and they are always required. For standard objects, the fields which are present by default in them and cannot be deleted from standard objects are standard fields.

• Custom fields: The Custom fields which are added by the administrator/developer to meet the business requirements of any organization. They may or may not be required.

Activity-1:

1. Click Fields & Relationships, and click New.





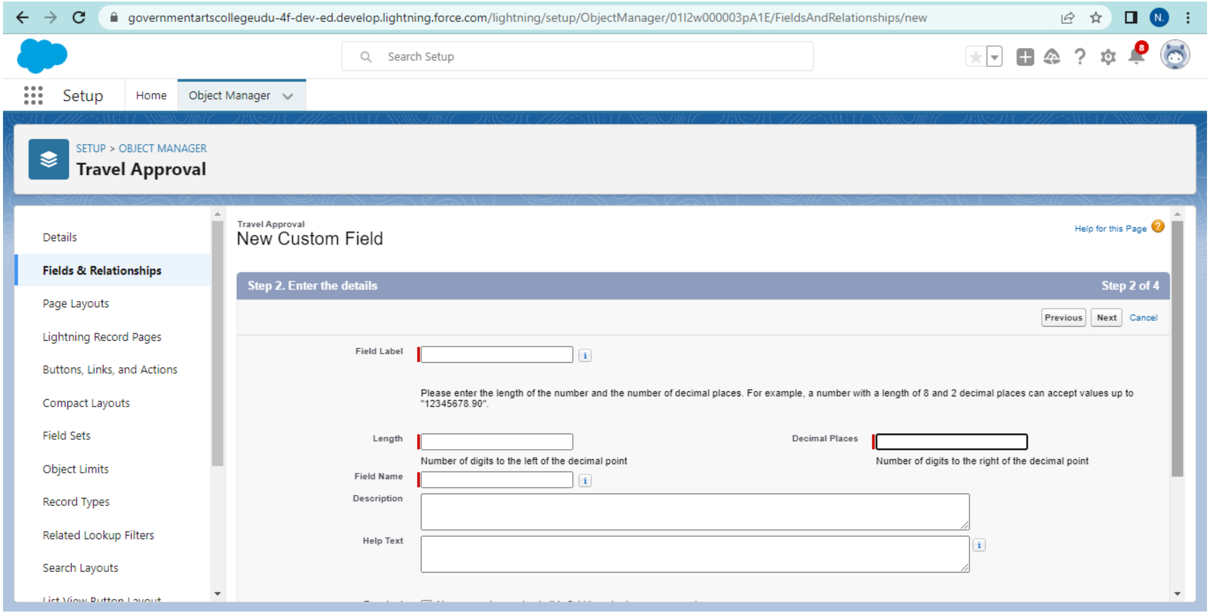
2. For data type, select Currency.

3. Enter these details.

   A. For Field Label, enter Amount

   B. For Length, enter 16

   C. for Decimal places, enter 2



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

Activity-2:

Create the Expense Type field.

- Select Pick list as the data type.
- Select Enter values, with each value separated by a new line.
- Add these values: (Airfare, Hotel, Rental Cars, 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.

05. Import Departments

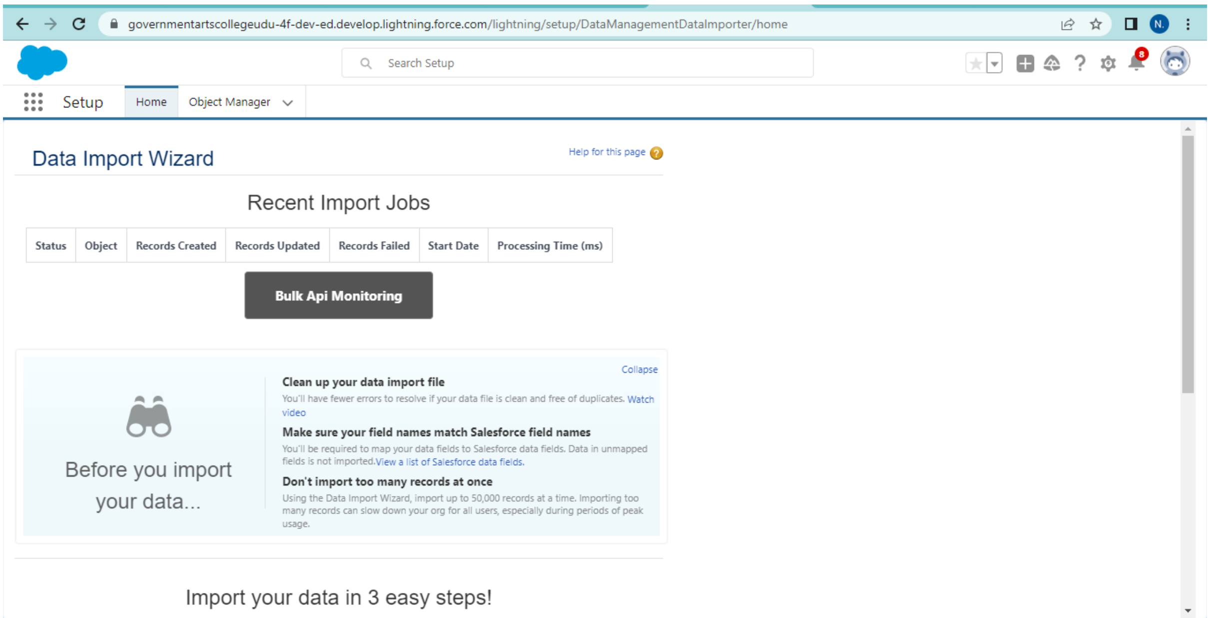
In order to complete this milestone, you need to download the reference file https://developer.salesforce.com/files/TravelAppWorkshopFiles.zip?_ga=2.108173638.597564088.1674441525-733189446.1673935386

Activity-1:

From Setup, click the Home tab.

1. In the Quick Find box, enter Data Import and select Data Import Wizard.

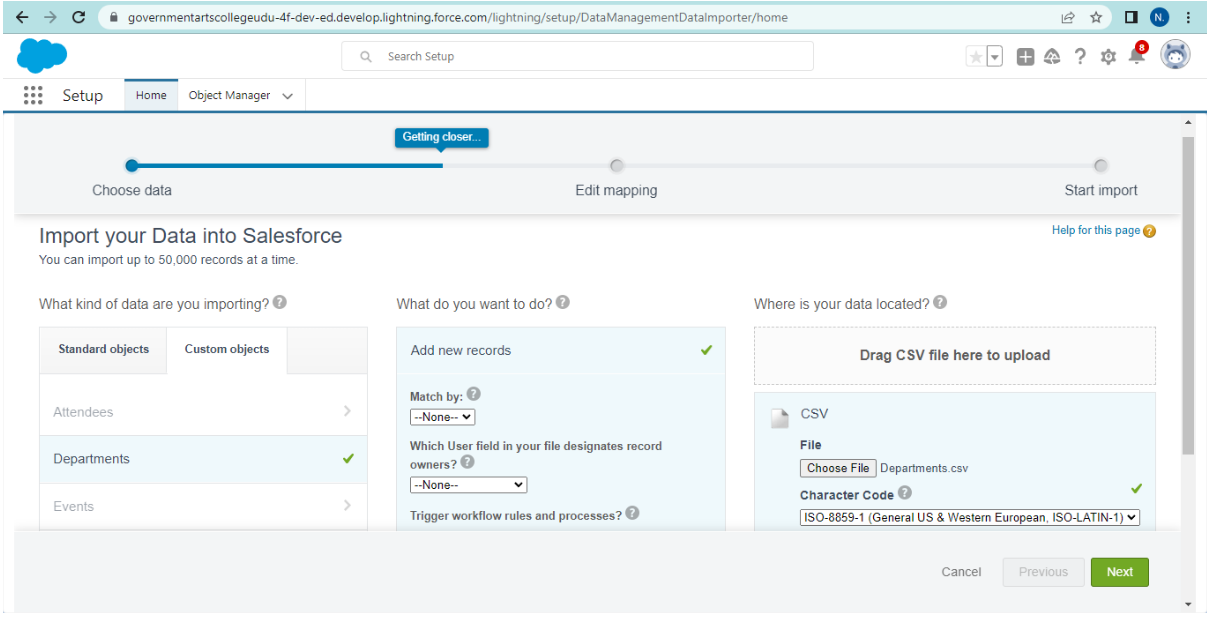
2. Click Launch Wizard!



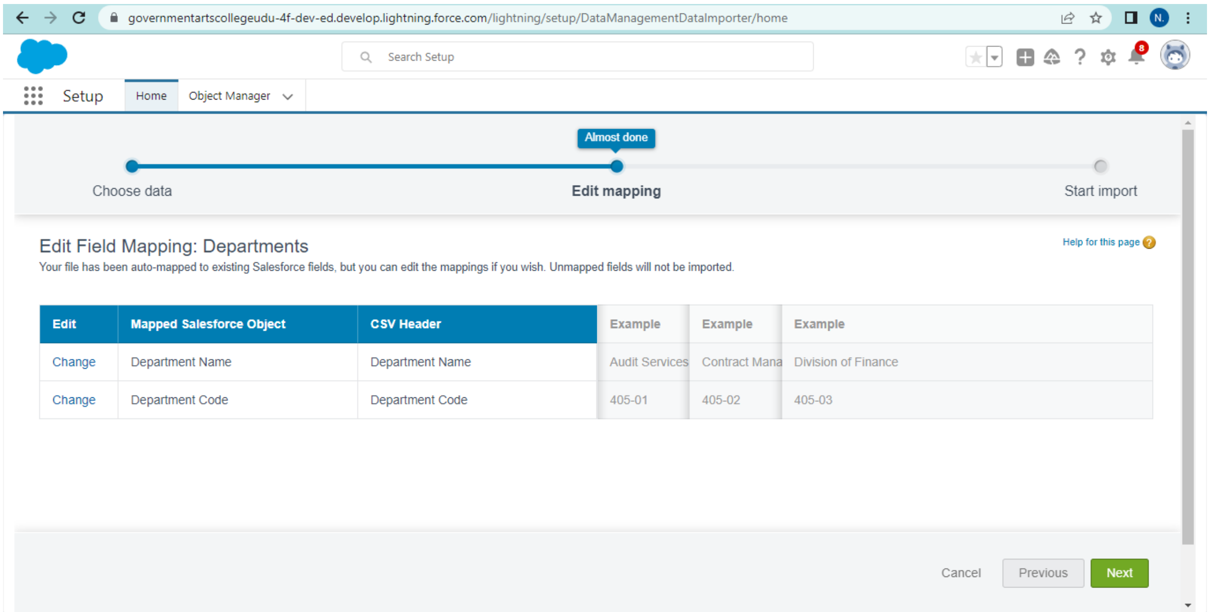
Click the Custom Objects tab and select the Departments object.

3. Next, select Add new records.

4. 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.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.



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

7. Click OK on the popup.

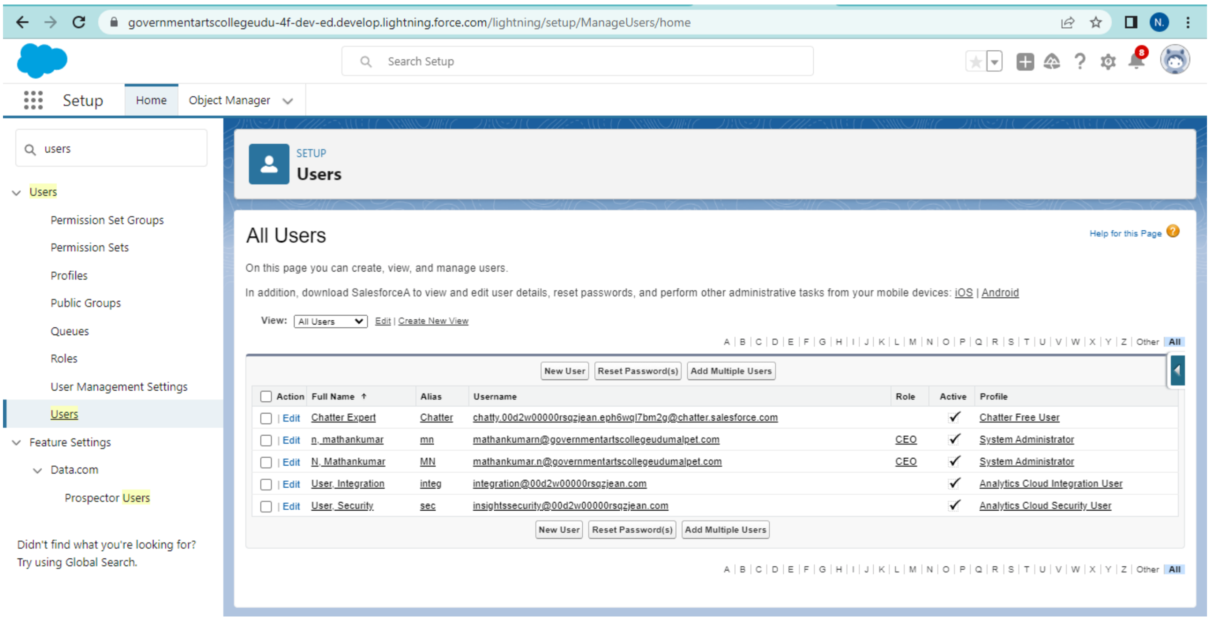
8. This takes you to the bulk import summary window that shows that the process has completed and 16 records have been successfully imported or processed. You'll also get an email notification confirming the import.

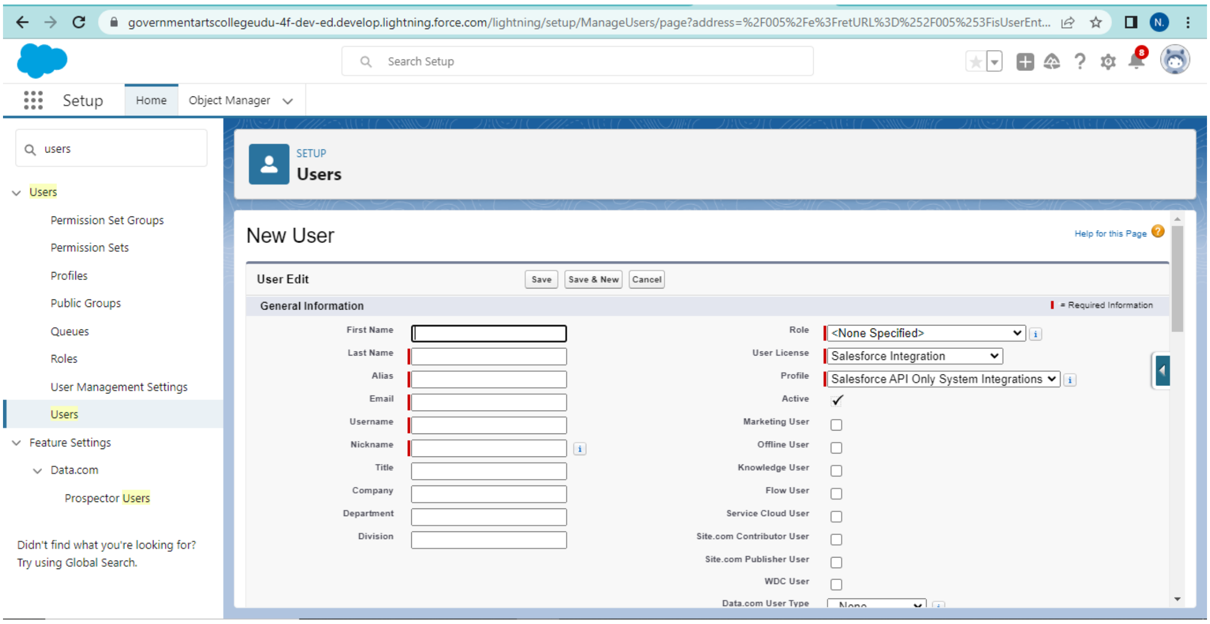
06. Customize User Interface:

In this Milestone we are going to setup the users, customizing the page layouts

Activity-1:

Create User and Setup Approvals:





1. Enter users in the quick find 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

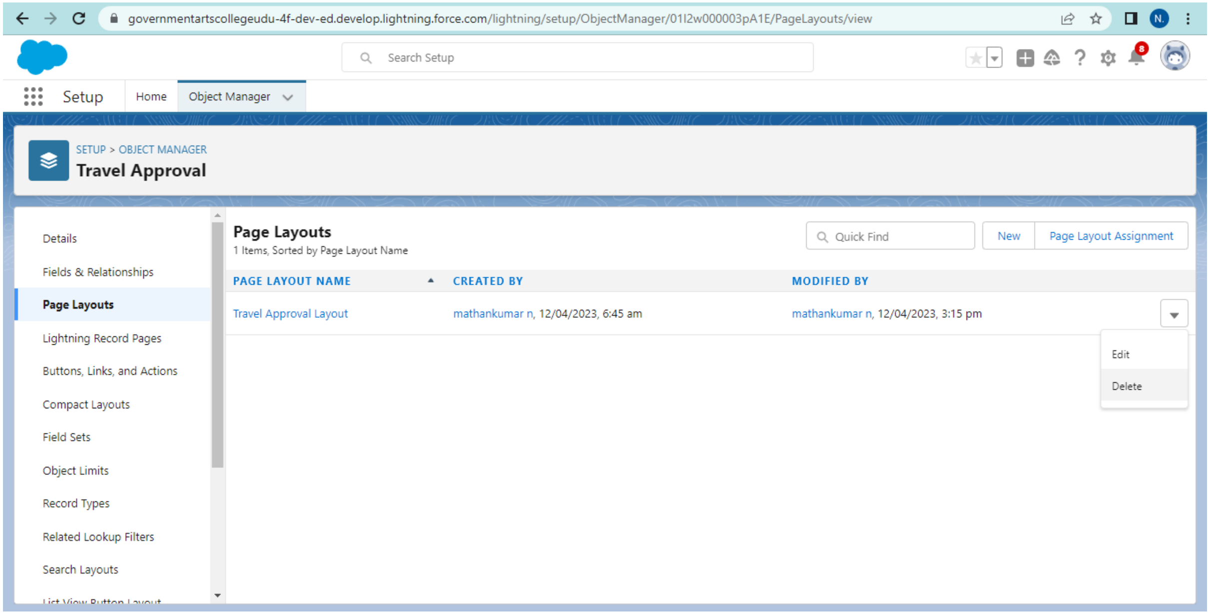
07. Use customization:

Customization refers to custom software development and coding to add robust features to your CRM platform. These features can be integrated with your business to have a scalable impact.

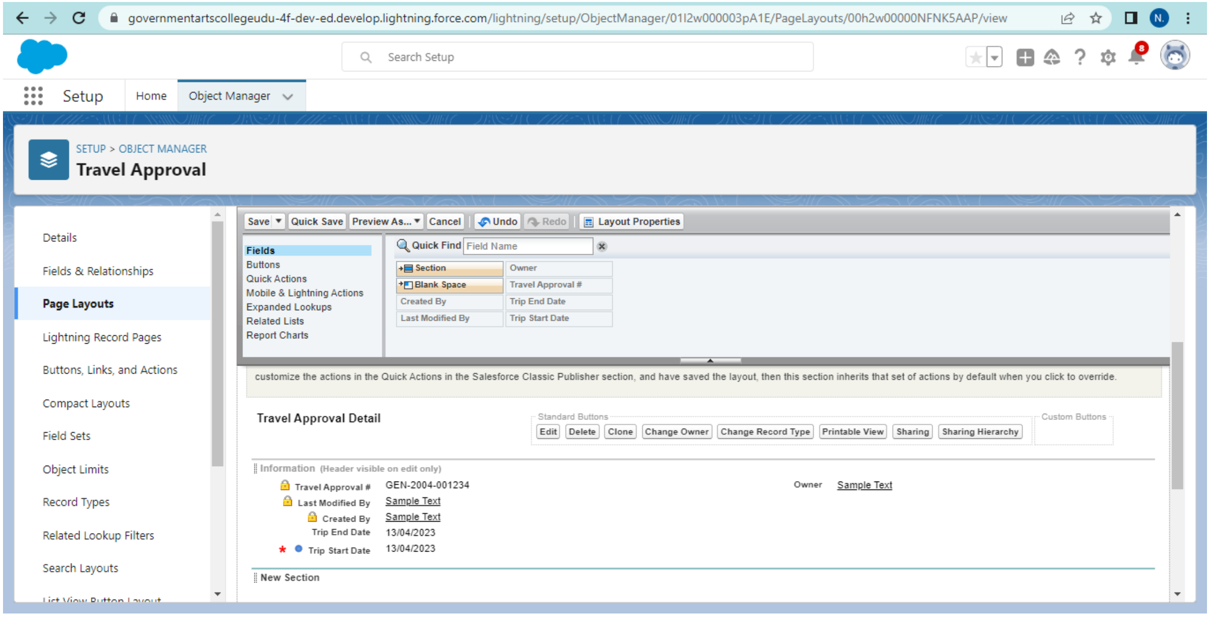
Activity-1:

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, and 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

Note: You may need to refresh your browser screen for the changes to show up.

08. Add Business Logic to Travel App:

From this milestone we are going to create validation rules, rollup summary fields, formula fields, workflows and approval process.

Activity-1:

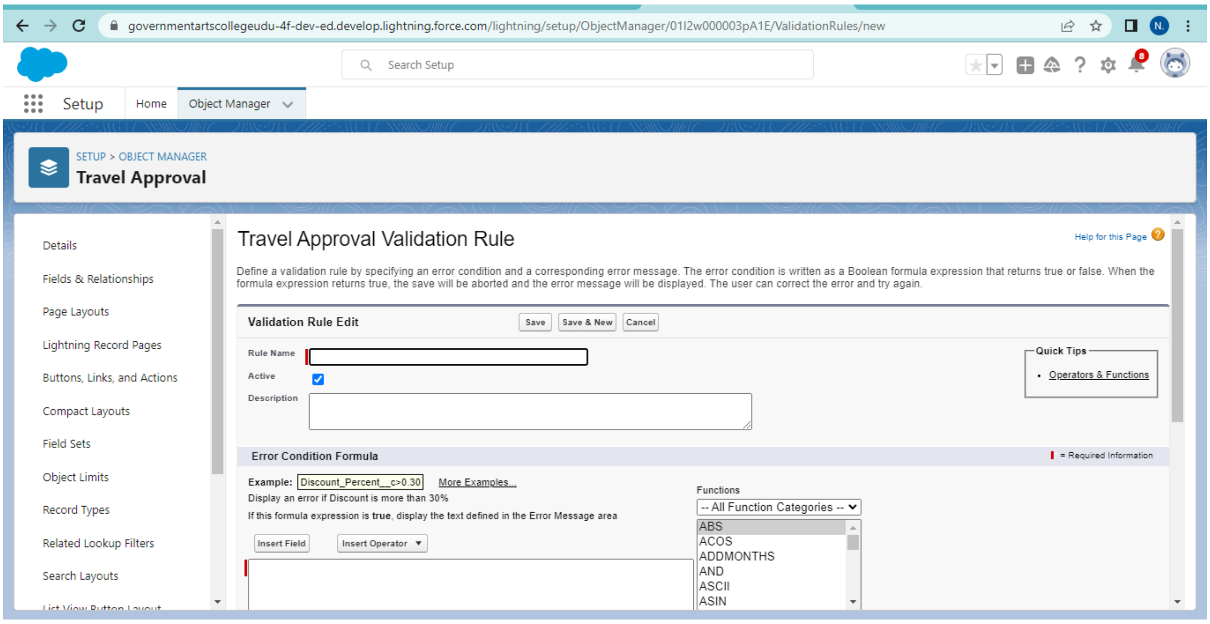
Create Validation Rule:

1. Search for the travel approval object from the object manager and open the object.

2. Click on validation rules and give your rule a name 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.

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



Activity-2

Create Roll-Up 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.

5. Enter the following values for the field details

   o Field Label: Total Expenses

   o Field Name: Total_Expenses (this automatically gets set when you tab out of the Field Label field

6. Click Next.

7. Configure the roll-up calculation.

   o Summarized Object: Expense Items

   o Roll-Up Type: SUM

   o Field to Aggregate: Amount

   o Filter Criteria: All records should be included in the calculation

Activity-3:

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

Parameter	Value
Name	Status Images
File	StatusImages.zip
Cache Control	Private

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:

o Field Label: Status Indicator

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

Field Label field)

o Formula Return Type: Text

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", "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)))

14. Click Next, Next, Save.

09. What are Reports?

Reports in Salesforce are a list of records that meet a particular criterion which gives an answer to a particular question. These records are displayed as a table that can be filtered or grouped based on any field.

There are 4 types of report formats in Salesforce:

1. Tabular Reports:

This is the most basic report format. It just displays the row of records in a table with a grand total. While easy to set up they can't be used to create groups of data or charts and also cannot be used in Dashboards. They are mainly used to generate a simple list or a list with a grand total.

2. Summary Reports:

It is the most commonly used type of report. It allows grouping of rows of data, view subtotal, and create charts.

3. Matrix Report:

It is the most complex report format. Matrix report summarizes information in a grid format. It allows records to be grouped by both columns and rows. It can also be used to generate dashboards. Charts can be added to this type of report.

4. Joined Reports:

These types of reports let us create different views of data from multiple report types. The data is joined reports are organized in blocks. Each block acts as a subreport with its own fields, columns, sorting, and filtering. They are used to group and show data from multiple report types in different views.

Report types:

Report type determines which set of records will be available in a report. Every report is based on a particular report type. The report type is selected first when we create a report. Every report type has a primary object and one or more related objects. All these objects must be linked together either directly or indirectly.

- A report type cannot include more than 4 objects.
- Once a report is created its report type cannot be changed.

There are 2 types of report types:

1. **Standard Report Types:**

Standard Report Types are automatically included with standard objects and also with custom objects where “Allow Reports” is checked.

Standard report types cannot be customized and automatically include standard and custom fields for each object within the report type. Standard report types get created when an object is created, also when a relationship is created.

Note: Standard report types always have inner joins.

2. **Custom Report Types:**

Custom report types are reporting templates created to streamline the reporting process. Custom Reports are created by an administrator or User with “Manage Custom Report Types” permission. Custom report types are created when standard report types cannot specify which records will be available on reports.

In custom report types we can specify objects which will be available in a particular report. The primary object must have a relationship with other objects present in a report type either directly or indirectly.

There are 3 types of access levels of folders:

1. **Viewer:**

   With this access level, users can see the data in a report but cannot make any changes except cloning it into a new report.

2. **Editor:**

   With this access level, users can view and modify the reports it contains and can also move them to/from any other folders they have access level as Editor or Manager.

3. **Manager:**

   With this access level, users can do everything Viewers & Editors can do, plus they can also control other user’s access levels to this folder. Also, users with Manager Access levels can delete the report.

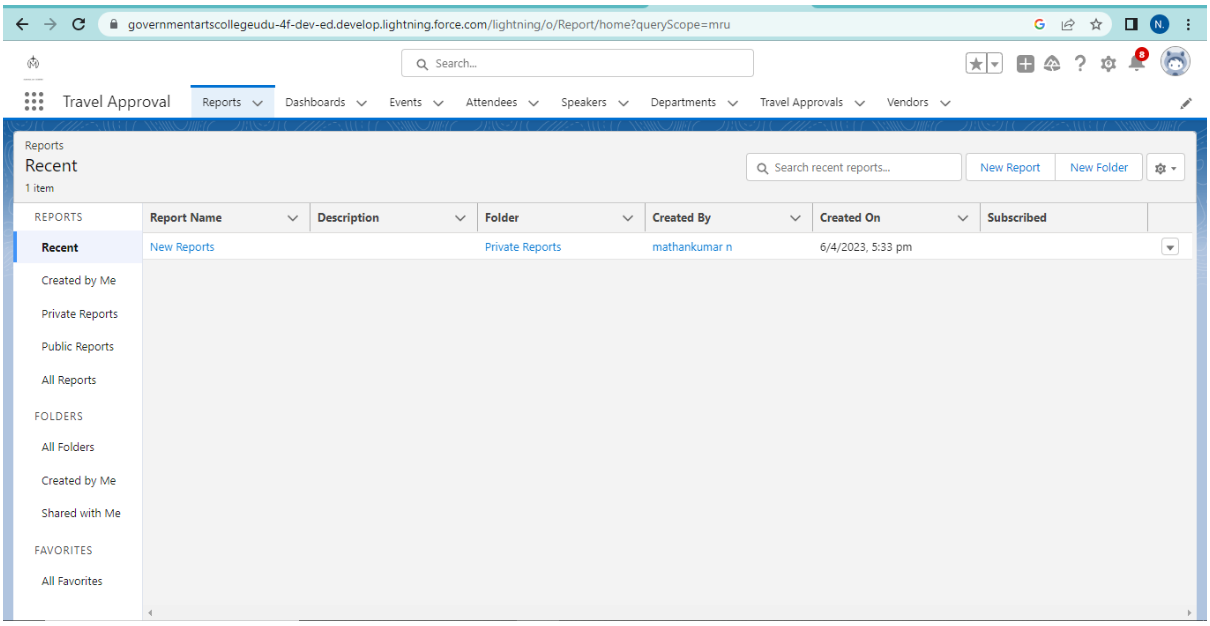
   From this milestone we are going to import the data and create the reports and dashboards for data visualization in the application.

Activity-1:

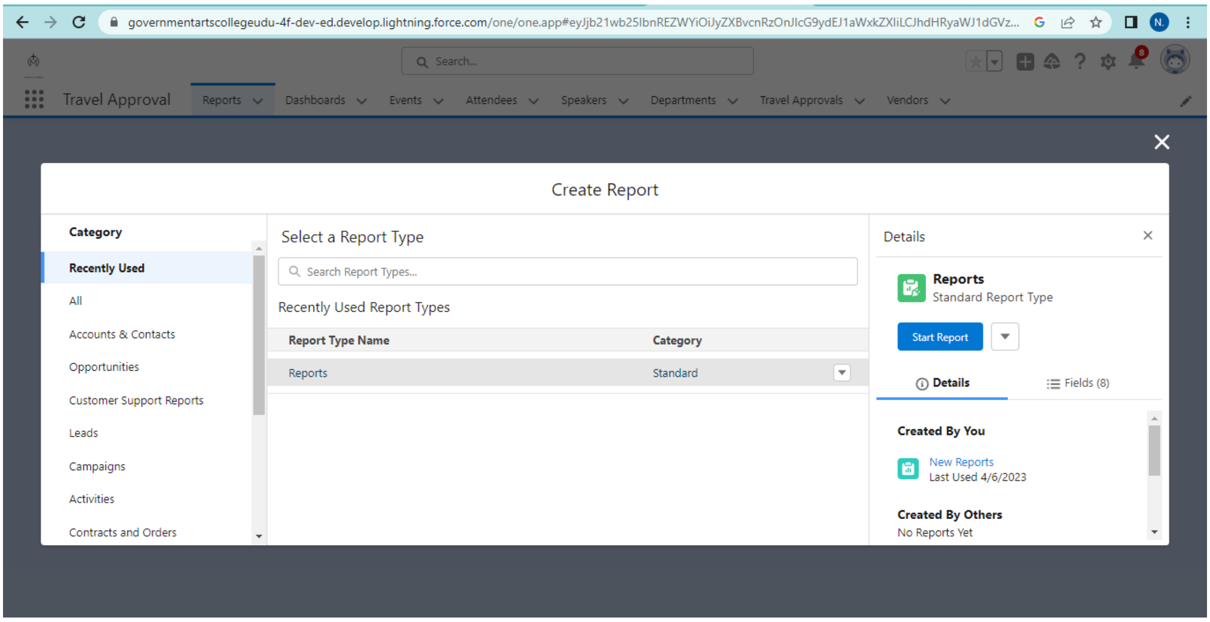
Add Report:

To create a report:

Go to the app → click on the reports tab

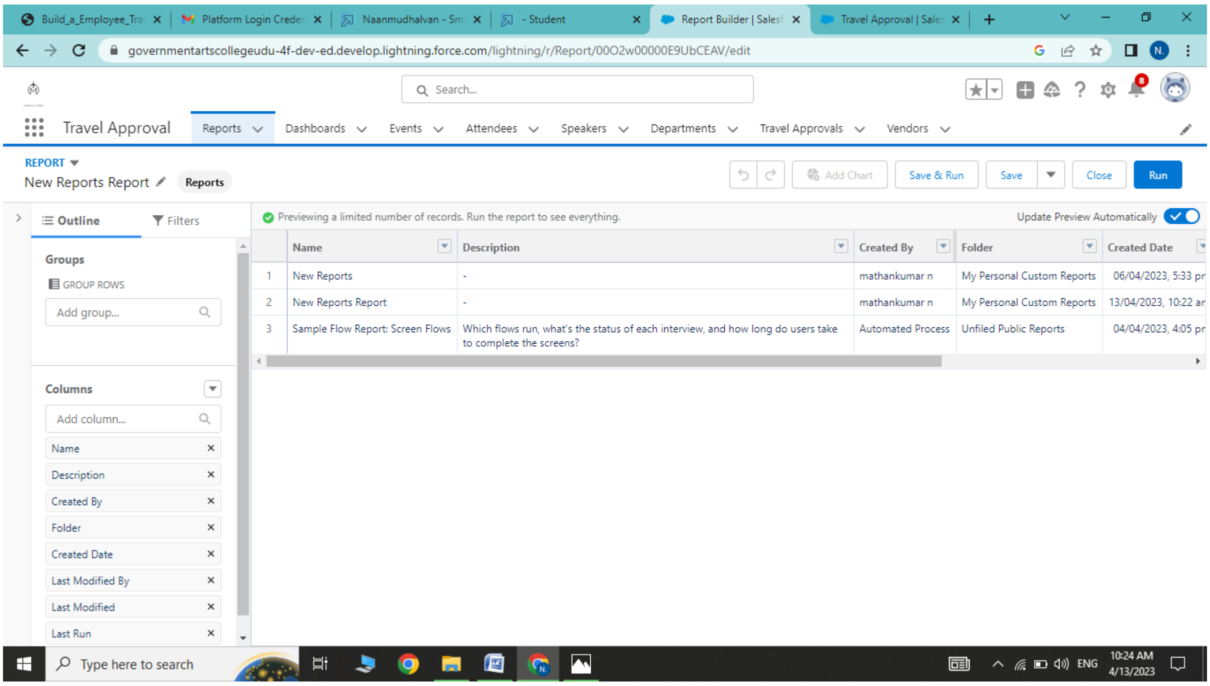


Click New Report



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.



10. Dashboards

Dashboards let you curate data from reports using charts, tables, and metrics. If your colleagues need more information, then they're able to view your dashboard's data-supplying reports. Dashboard filters make it easy for users to apply different data perspectives to a single dashboard.

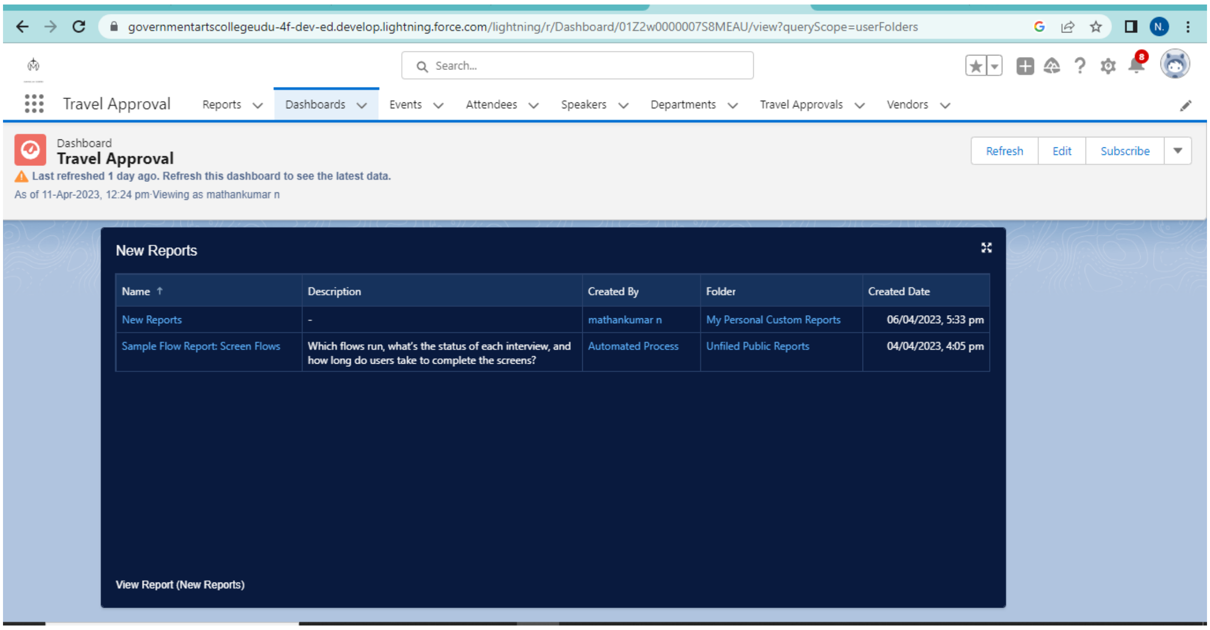
Activity-1:

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 - https://trailblazer.me/id/pkumarasan

Team Member 1 – https://trailblazer.me/id/nmathankumar

Team Member 2 – https://trailblazer.me/id/akhan2747

Team Member 3 – https://trailblazer.me/id/texpress01

Team Member 4 – https://trailblazer.me/id/mohaj7

ADVANTAGES & DISADVANTAGES:

Advantages:

Strengthening business relationships: Meeting with our clients and partners in person can help build stronger relationships, leading to increased trust and loyalty.

Exploring new business opportunities: By attending conferences and events related to our industry, I can explore new business opportunities and keep up-to-date with the latest trends.

Improving productivity: Traveling for business can help me focus on specific tasks without any distractions, leading to increased productivity and better results.

Disadvantages:

Cost: Business travel can be expensive, including costs for transportation, accommodation, meals, and other expenses.

Time away from the office: While I am away, my absence from the office may temporarily slow down some ongoing projects.

Health and safety risks: There may be risks associated with traveling, such as exposure to illnesses, accidents, or unpredictable events.

APPLICATION:

The purpose of this trip is to [briefly state the purpose of the trip, such as networking with industry experts, attending training sessions, meeting with clients or vendors]. I believe this trip is essential to [explain how this trip will benefit the company, such as expanding business opportunities, improving customer service, or gaining new insights into industry trends].

The details of my travel plan are as follows:

Travel Dates: [Insert Dates]

Destination: [Insert Destination]

Purpose of the trip: [Insert Purpose]

Mode of Travel: [Insert mode of travel, such as air or train]

Accommodation: [Insert hotel or accommodation information]

The estimated cost for this trip is [Insert estimated cost]. I have attached a detailed travel itinerary and cost breakdown for your review**.**

I assure you that I will comply with the company's travel policy and keep expenses within the allocated budget. I will provide a detailed report upon my return, outlining the outcomes of the trip and any key learning's that can benefit the company.

CONCLUSION:

Based on the information provided in the travel approval application for corporate, it appears that the proposed travel is necessary and beneficial for the company's business objectives. The requested budget and travel dates are reasonable and aligned with the company's policies.

Therefore, I recommend that the travel approval application be approved and that the necessary arrangements be made for the employee's travel. It is important to ensure that all travel-related expenses are properly documented and within the approved budget.

Additionally, it is recommended that the employee adhere to all company policies and procedures while on their trip, including those related to travel expenses, safety, and conduct.

FUTURE SCOPE:

The purpose of this trip is to attend a conference on the future scope of our industry, which will take place from [date] to [date] in [location]. As a representative of our company, I believe that attending this conference is important for staying up-to-date with the latest trends and developments in our field.

During the conference, I will have the opportunity to network with other professionals in our industry, attend educational sessions, and learn about new products and services that could benefit our company. I believe that this conference will provide valuable insights into the future of our industry, which will be beneficial for our long-term business strategy.

The estimated cost of this trip is [insert cost estimate], which includes airfare, hotel accommodations, registration fees, and other related expenses. I have attached a detailed itinerary and cost breakdown for your review.

I assure you that I will conduct myself professionally and represent our company in the best possible manner while attending the conference. I will also provide a detailed report of my learning’s and insights upon my return, which will be shared with the rest of the team.