

BUILD AN EMPLOYEE TRAVEL APPROVAL APPLICATION FOR CORPORATES



1. INTRODUCTION

1.1 OVERVIEW :

The 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.



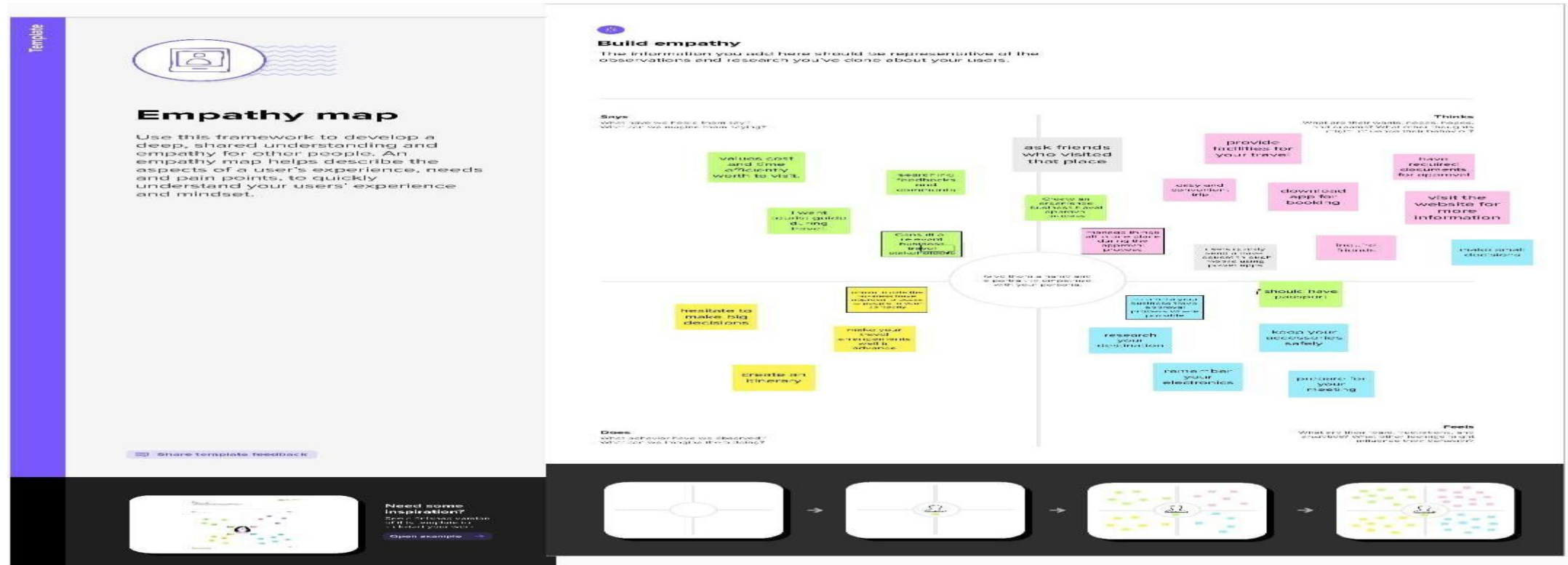
1.2 PURPOSE :

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.

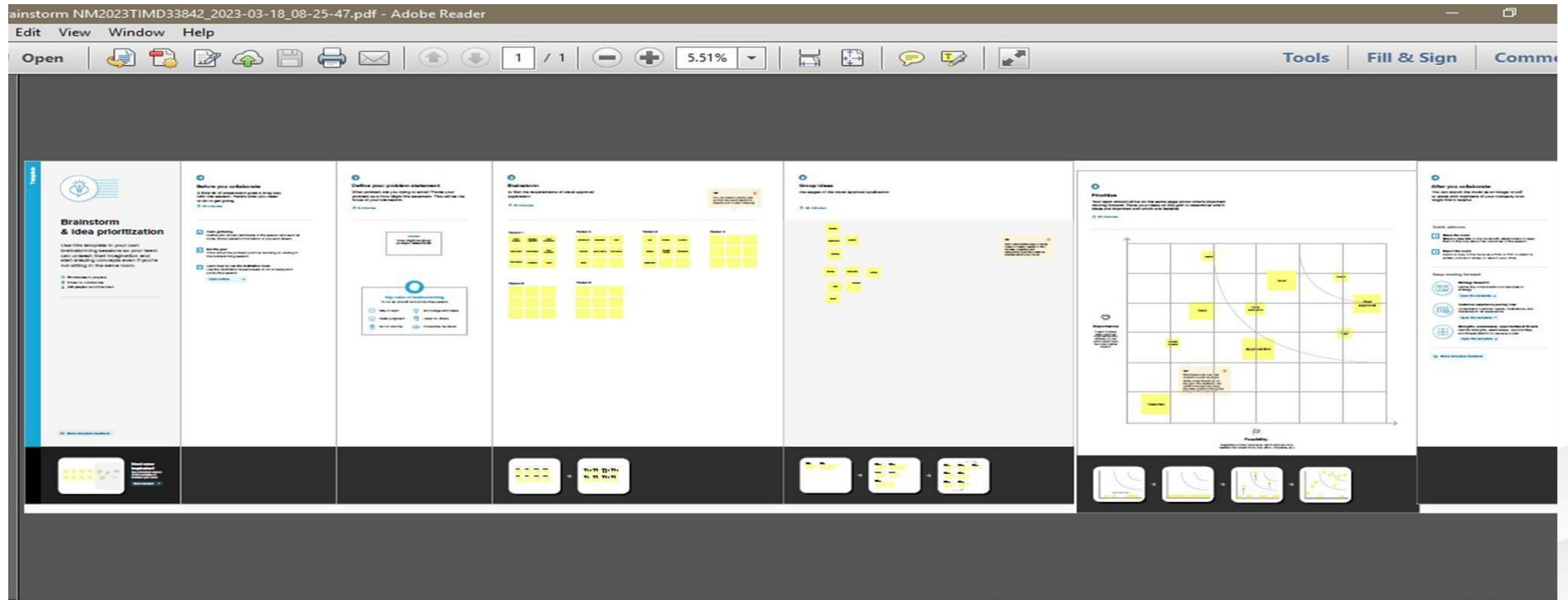


2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 EMPATHY MAP :



2.2 IDEATION AND BRAINSTORMING MAP



3. RESULT

3.1 DATA MODEL :

Object Name	Filed in the object
Department	Field label Data Type
	Department code Text (10)
	Department Name Text (80)



Travel Approval

Field label

Data Type

Department

Lookup (Department)

Destination State

Text (2)

Out-of-State

Checkbox

Purpose of trip

Text Area (255)

Status

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



	Field label	Data Type
Expenses Item	Amount	Currency (16,2)
	Expense Item	Number Auto Number
	Travel Approval	Master-Detail (Travel Approval)



3.2 ACTIVITY AND SCREENSHORT

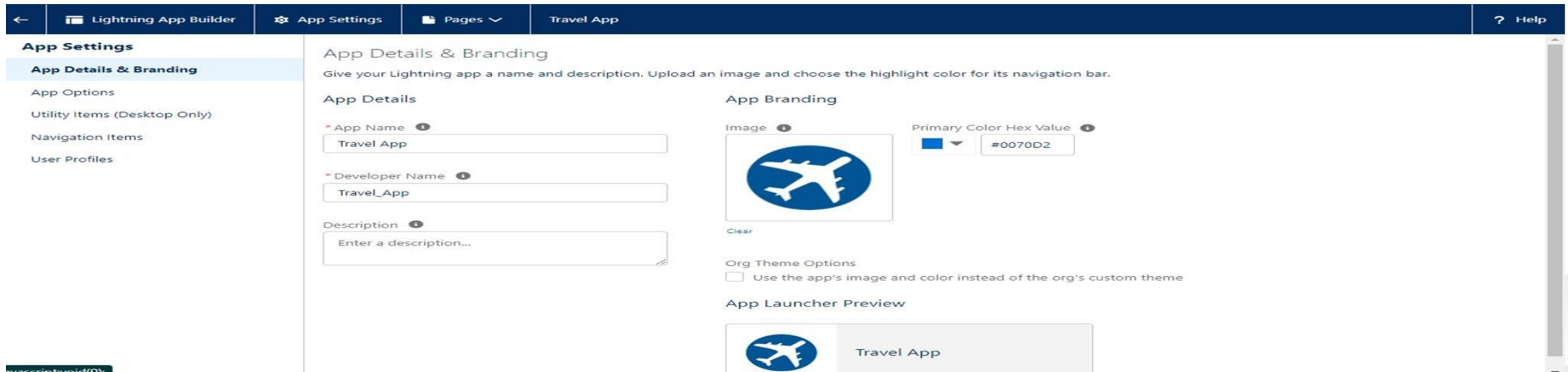
Milestone 1 - Create Salesforce Org :

We have created the developer account and login for Salesforce account.



Milestone 2 - Creating the Application :

We have created the Travel Application. For that we have used the lightning experience app manager.



The screenshot displays the Lightning App Builder interface. The top navigation bar includes a back arrow, 'Lightning App Builder', 'App Settings' (selected), 'Pages', and 'Travel App'. A 'Help' icon is in the top right. The left sidebar, titled 'App Settings', lists 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is titled 'App Details & Branding' and includes the instruction: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' The 'App Details' section contains three fields: 'App Name' (filled with 'Travel App'), 'Developer Name' (filled with 'Travel_App'), and 'Description' (placeholder 'Enter a description...'). The 'App Branding' section features an 'Image' field with a blue circular icon containing a white airplane, a 'Clear' link, and a 'Primary Color Hex Value' field with a blue color swatch and the value '#0070D2'. Below this is the 'Org Theme Options' section with a checkbox labeled 'Use the app's image and color instead of the org's custom theme'. At the bottom is the 'App Launcher Preview' section, which shows a preview of the app icon and the text 'Travel App'.

App Settings

App Details & Branding

App Options

Utility Items (Desktop Only)

Navigation Items

User Profiles

App Details & Branding

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

App Details

* App Name ⓘ

Travel App

* Developer Name ⓘ

Travel_App

Description ⓘ

Enter a description...

App Branding

Image ⓘ

Primary Color Hex Value ⓘ

Clear

Org Theme Options

☐ Use the app's image and color instead of the org's custom theme

App Launcher Preview

Travel App

Milestone 3 - Object :

In this Travel Approval application we need to create three objects :

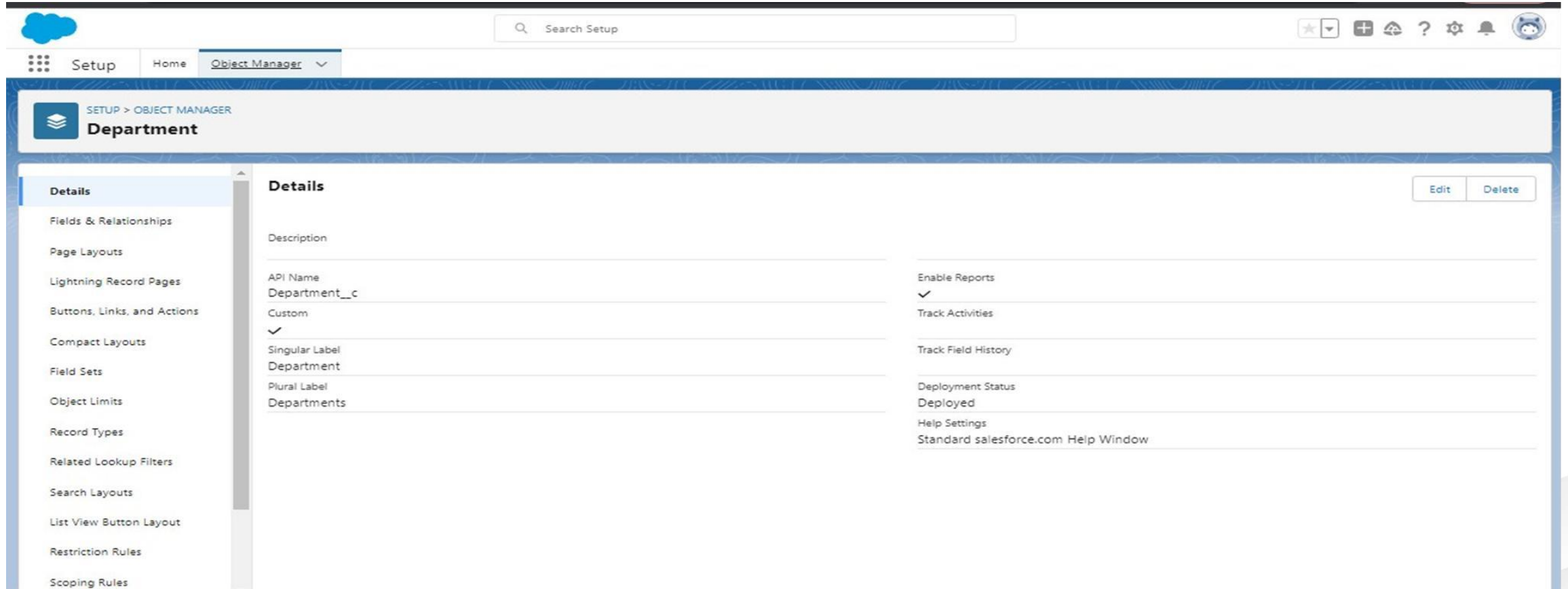
Department

Travel Approval

Expenses Item



Department



The image shows the Salesforce Setup interface for the 'Department' object. The top navigation bar includes the Salesforce logo, a search bar labeled 'Search Setup', and several utility icons. Below the navigation bar, the 'Setup' menu is open, showing 'Home' and 'Object Manager'. The 'Object Manager' page for 'Department' is displayed, with a left sidebar containing a list of configuration options. The main content area is titled 'Details' and contains a table of configuration settings. The table has two columns: the first column lists the configuration item, and the second column shows the current value or status. The 'Details' section includes buttons for 'Edit' and 'Delete' in the top right corner.

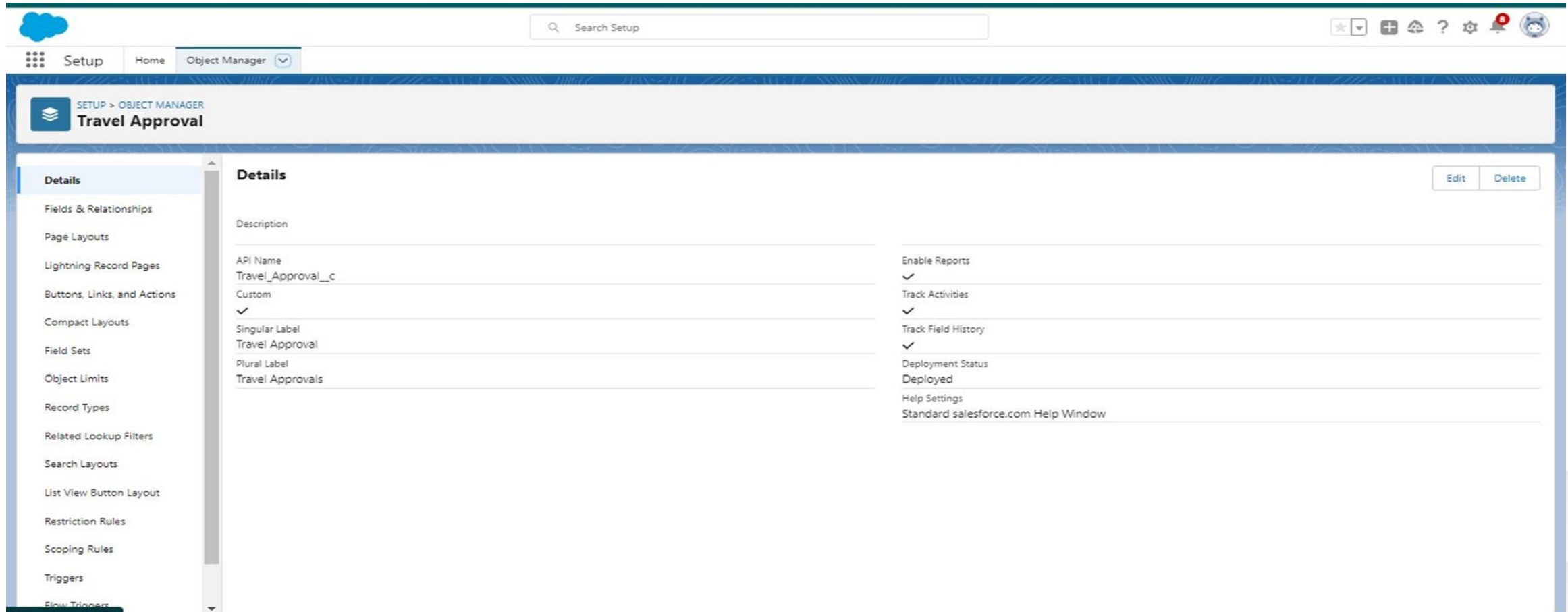
Setup > OBJECT MANAGER
Department

Details

Description	
API Name	Department__c
Custom	✓
Singular Label	Department
Plural Label	Departments
Enable Reports	✓
Track Activities	
Track Field History	
Deployment Status	Deployed
Help Settings	Standard salesforce.com Help Window

Edit Delete

Travel Approval



The screenshot shows the Salesforce Setup interface for the 'Travel Approval' object. The top navigation bar includes the Salesforce logo, a search bar labeled 'Search Setup', and various utility icons. The main navigation menu on the left lists various setup areas, with 'Object Manager' selected. The 'Travel Approval' object is highlighted in the breadcrumb trail. The left sidebar contains a list of configuration options for the object, with 'Details' selected. The main content area displays the 'Details' for the 'Travel Approval' object, including its API name, custom status, singular and plural labels, and various system settings like 'Enable Reports' and 'Track Activities'.

Setup > Object Manager
Travel Approval

Details

- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules
- Scoping Rules
- Triggers
- Flow Triggers

Details [Edit](#) [Delete](#)

Description

API Name
Travel_Approval__c

Custom
✓

Singular Label
Travel Approval

Plural Label
Travel Approvals

Enable Reports
✓

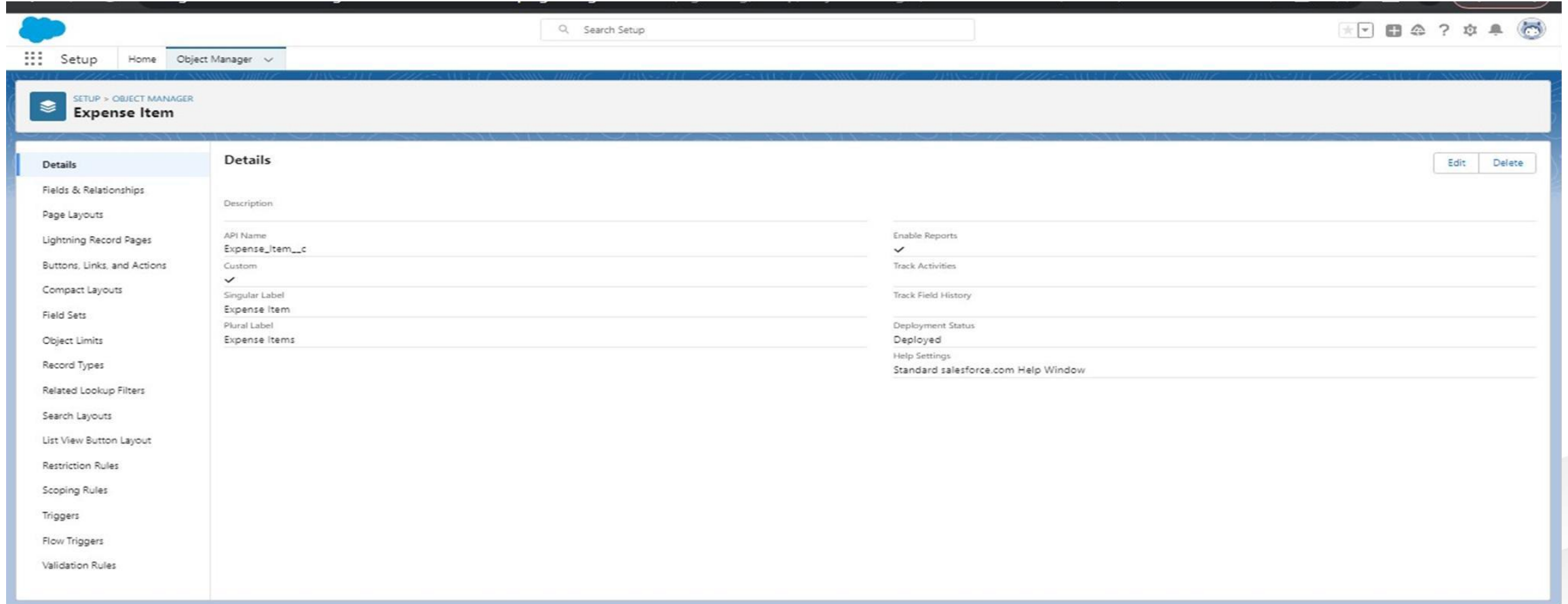
Track Activities
✓

Track Field History
✓

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Expenses Item



The screenshot shows the Salesforce Setup interface for the 'Expense Item' object. The top navigation bar includes the Salesforce logo, a search bar labeled 'Search Setup', and several utility icons. Below this, the 'Setup' menu is open, showing 'Home' and 'Object Manager' as options. The 'Object Manager' page for 'Expense Item' is displayed, with a left-hand navigation pane listing various configuration options. The main content area is titled 'Details' and contains several sections: 'Description', 'API Name' (Expense_Item__c), 'Custom' (checked), 'Singular Label' (Expense Item), 'Plural Label' (Expense Items), 'Enable Reports' (checked), 'Track Activities', 'Track Field History', 'Deployment Status' (Deployed), 'Help Settings', and 'Standard salesforce.com Help Window'. 'Edit' and 'Delete' buttons are located in the top right corner of the main content area.

Setup > OBJECT MANAGER
Expense Item

Details Edit Delete

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Triggers

Flow Triggers

Validation Rules

Details

Description

API Name
Expense_Item__c

Custom
✓

Singular Label
Expense Item

Plural Label
Expense Items

Enable Reports
✓

Track Activities

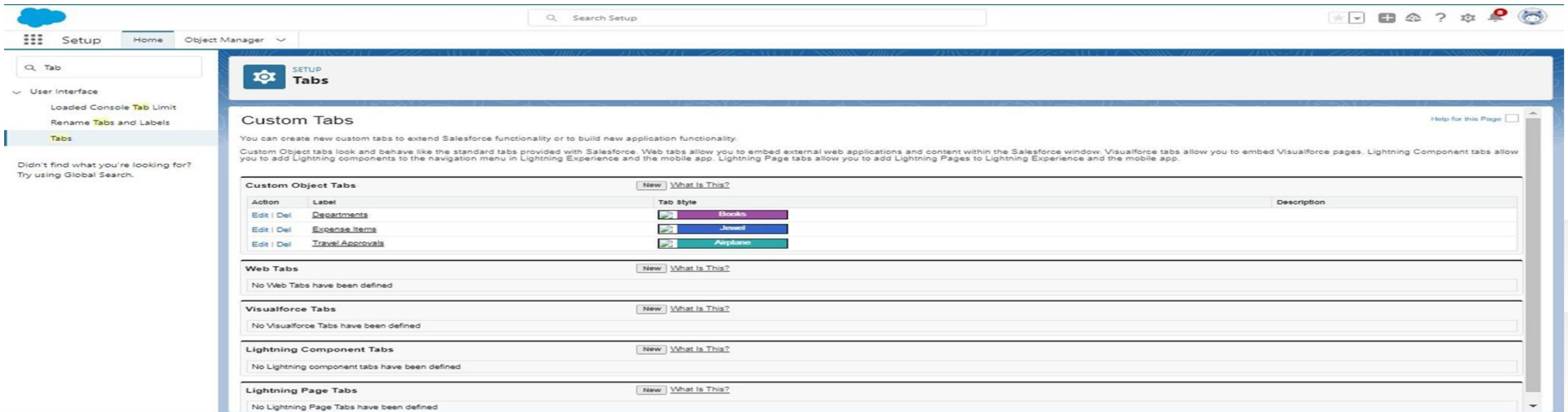
Track Field History

Deployment Status
Deployed

Help Settings
Standard salesforce.com Help Window

Milestone 4 - Tab :

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



The screenshot shows the Salesforce Setup interface for the 'Tabs' section. The left sidebar contains navigation links: 'Setup', 'Home', 'Object Manager', and a search bar. Below these are links for 'User Interface', 'Loaded Console Tab Limit', 'Rename Tabs and Labels', and 'Tabs'. The main content area is titled 'Custom Tabs' and includes a 'New' button and a 'What Is This?' link. It contains a table of 'Custom Object Tabs' with columns for 'Action', 'Label', 'Tab Style', and 'Description'. The table lists three tabs: 'Departments', 'Expense Items', and 'Travel Approvals'. Below the table are sections for 'Web Tabs', 'Visualforce Tabs', 'Lightning Component Tabs', and 'Lightning Page Tabs', each with a 'New' button and a 'What Is This?' link. The bottom of the page shows a blurred image of a group of people holding hands.

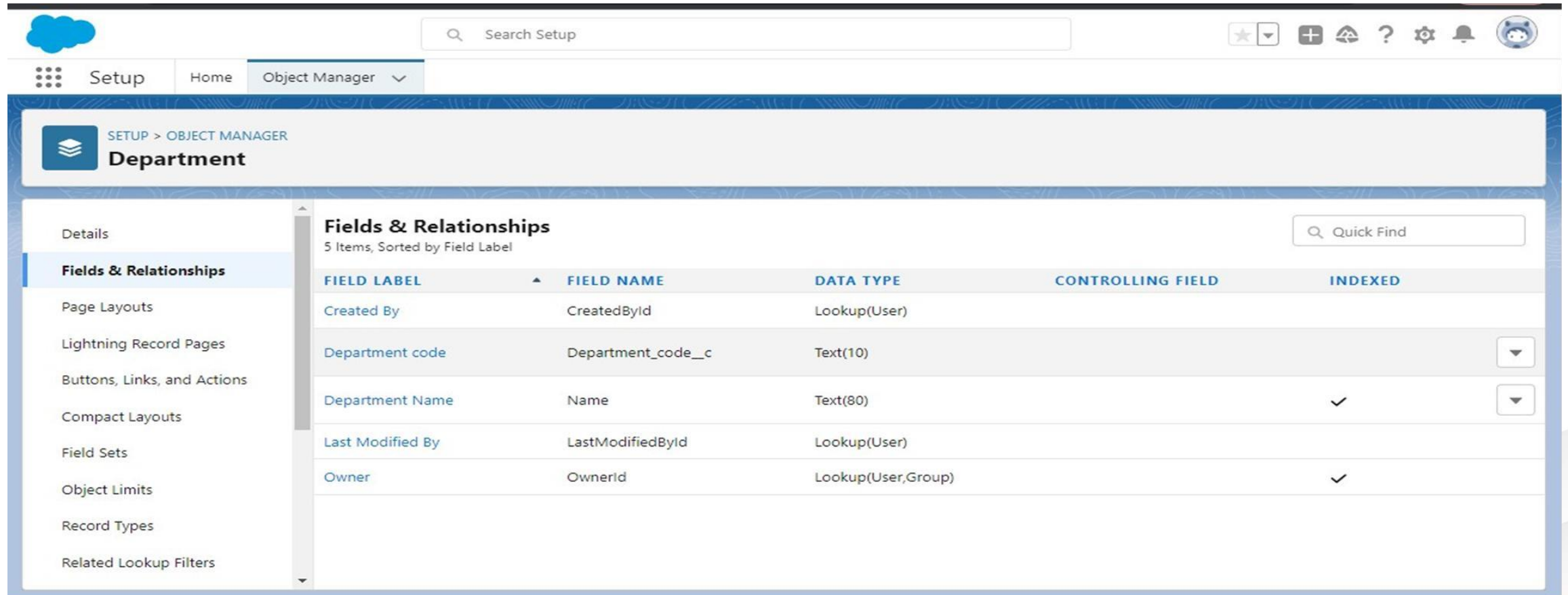
Action	Label	Tab Style	Description
Edit Del	Departments	Books	
Edit Del	Expense Items	Jewels	
Edit Del	Travel Approvals	Airplane	

Milestone 5 - Create-Fields and Relationships :

Fields in Salesforce represents about the columns in relational databases mean. It can store data values which are required for a particular object in a record.




Department



The screenshot shows the Salesforce Setup interface for the 'Department' object. The top navigation bar includes the Salesforce logo, a 'Search Setup' field, and various utility icons. The left sidebar contains navigation links: Setup, Home, and Object Manager (selected). The main content area is titled 'SETUP > OBJECT MANAGER Department'. On the left of this area is a sub-menu with options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, and Related Lookup Filters. The 'Fields & Relationships' section displays a table of 5 items, sorted by Field Label. A 'Quick Find' search box is located in the top right of this section. The table has five columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The rows represent standard fields for the Department object.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Department code	Department_code__c	Text(10)		
Department Name	Name	Text(80)		✓
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓

Travel Approval

 Search Setup

Setup Home Object Manager

SETUP > OBJECT MANAGER
Travel Approval

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Triggers

Flow Triggers

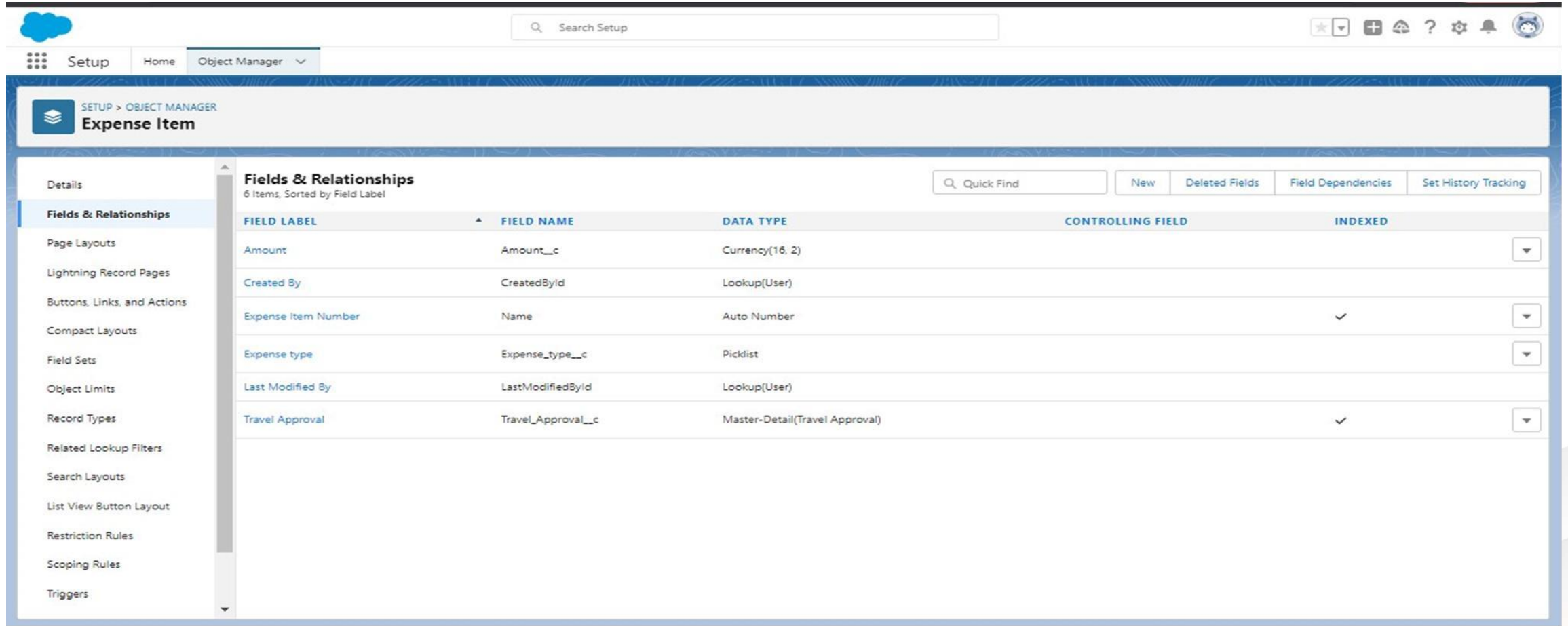
Validation Rules

13 Items, Sorted by Field Label

Quick Find New Deleted Fields Field Dependencies Set History Tracking

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)		
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	Auto Number		✓
Trip End Date	Trip_End_Date__c	Date		
Trip Start Date	Trip_Start_Date__c	Date		

Expenses Item



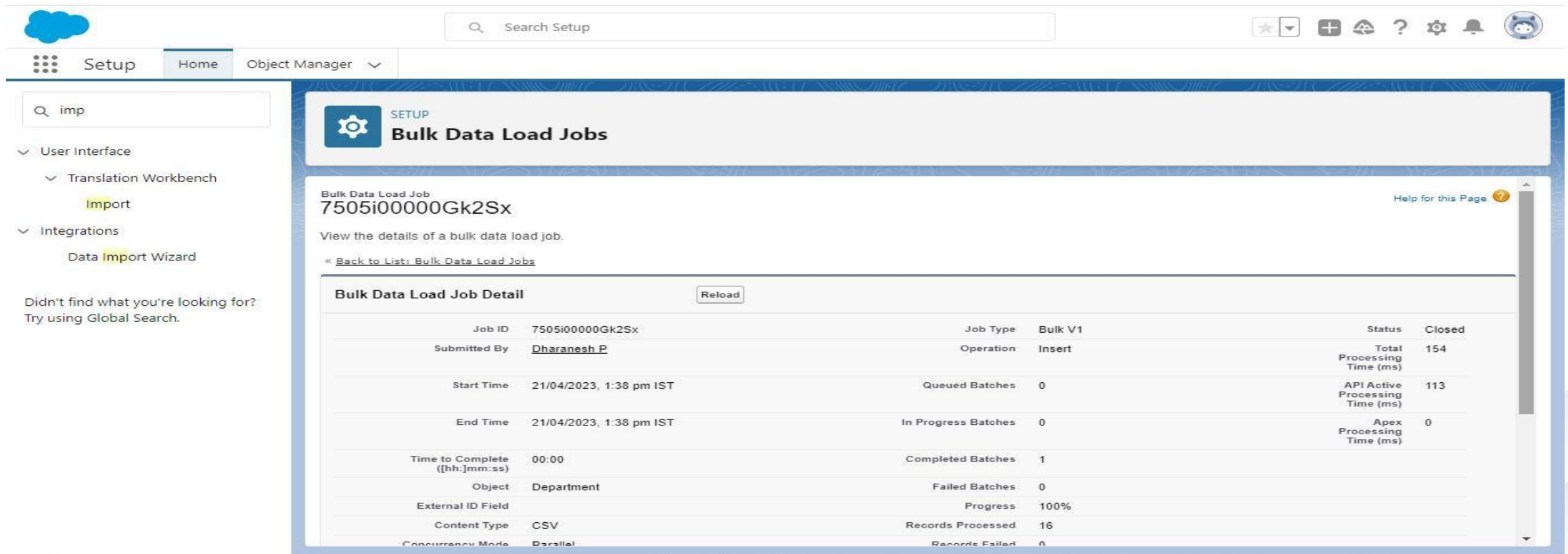
The screenshot shows the Salesforce Setup interface for the 'Expense Item' object. The top navigation bar includes the Salesforce logo, a search bar labeled 'Search Setup', and several utility icons. Below the navigation bar, the 'Setup' menu is open, showing 'Home' and 'Object Manager'. The 'Object Manager' section is selected, displaying a breadcrumb trail 'SETUP > OBJECT MANAGER' and the object name 'Expense Item'.

On the left, a sidebar lists various setup 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, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, and Triggers.

The main content area is titled 'Fields & Relationships' and indicates '6 Items, Sorted by Field Label'. It includes a 'Quick Find' search bar and four tabs: 'New', 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'. The 'New' tab is active, displaying a table of fields.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Amount	Amount__c	Currency(16, 2)		
Created By	CreatedById	Lookup(User)		
Expense Item Number	Name	Auto Number		✓
Expense type	Expense_type__c	Picklist		
Last Modified By	LastModifiedById	Lookup(User)		
Travel Approval	Travel_Approval__c	Master-Detail(Travel Approval)		✓

Milestone 6 - Import Department :



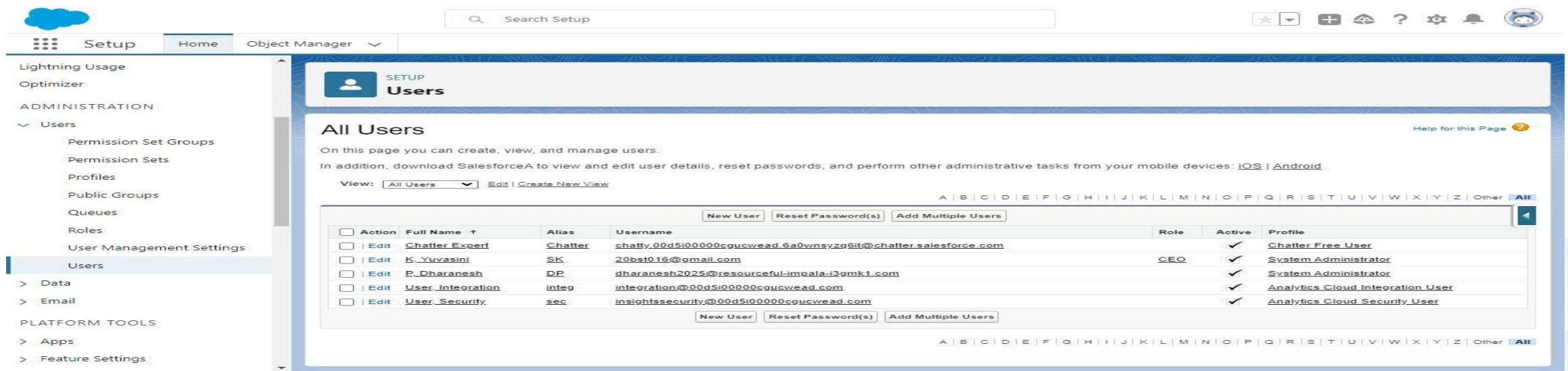
The screenshot displays the Salesforce Setup interface. The left sidebar shows the navigation menu with 'Setup' selected. The main content area is titled 'Bulk Data Load Jobs' and shows details for a specific job: '7505i00000Gk2Sx'. The job is in a 'Closed' status. The details table shows that the job was submitted by 'Dharanesh P' on 21/04/2023 at 1:38 pm IST. The job type is 'Bulk V1' and the operation is 'Insert'. The job has completed 16 records successfully, with 0 failed records. The progress is 100%.

Bulk Data Load Job Detail

Job ID	7505i00000Gk2Sx	Job Type	Bulk V1	Status	Closed
Submitted By	Dharanesh P	Operation	Insert	Total Processing Time (ms)	154
Start Time	21/04/2023, 1:38 pm IST	Queued Batches	0	API Active Processing Time (ms)	113
End Time	21/04/2023, 1:38 pm IST	In Progress Batches	0	Apex Processing Time (ms)	0
Time to Complete (hh:mm:ss)	00:00	Completed Batches	1		
Object	Department	Failed Batches	0		
External ID Field		Progress	100%		
Content Type	CSV	Records Processed	16		
Concurrency Mode	Parallel	Records Failed	0		

Milestone 7 - Customize User Interspace :

In this Milestone we have setup the users, customizing the page layout.

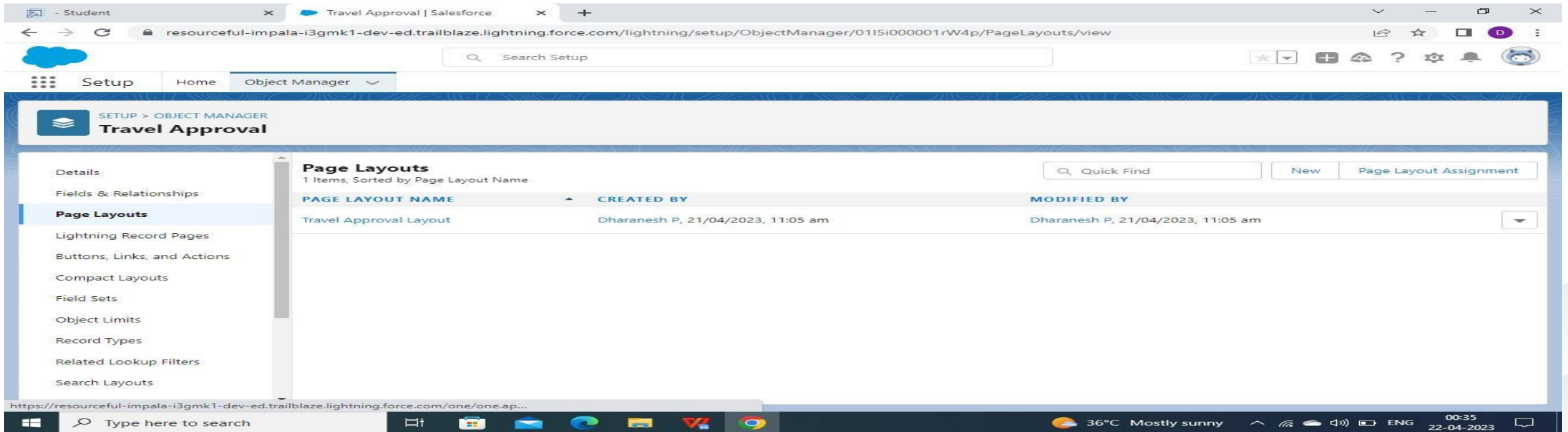


The screenshot displays the Salesforce Setup interface, specifically the 'Users' page. The left sidebar shows the navigation menu with 'Setup' selected. The main content area is titled 'SETUP Users' and includes a search bar at the top. Below the title, there is a section for 'All Users' with a description and links to download SalesforceA. A table lists the current users, and buttons for 'New User', 'Reset Password(s)', and 'Add Multiple Users' are visible. The table has columns for Action, Full Name, Alias, Username, Role, Active, and Profile.

Action	Full Name	Alias	Username	Role	Active	Profile
<input type="checkbox"/> Edit	Chatter Expert	Chatter	chatty.00d5i00000cgucwead.6a0wnsvzg6it@chatter.salesforce.com		✓	Chatter Free User
<input type="checkbox"/> Edit	K_Yuvasini	SK	20bst016@gmail.com	CEO	✓	System Administrator
<input type="checkbox"/> Edit	P_Dharanesh	DP	dharanesh2025@resourceful-impala-j3gmkt.com		✓	System Administrator
<input type="checkbox"/> Edit	User_Integration	integ	integration@00d5i00000cgucwead.com		✓	Analytics Cloud Integration User
<input type="checkbox"/> Edit	User_Security	sec	insightssecurity@00d5i00000cgucwead.com		✓	Analytics Cloud Security User

Milestone 8 - Use Customization :

In this Milestone we have to customized Travel Approval Object Page Layout.



The screenshot displays the Salesforce Setup interface for the 'Travel Approval' object. The left sidebar shows the navigation menu with 'Page Layouts' selected. The main content area shows a table of page layouts for 'Travel Approval'. The table has columns for 'PAGE LAYOUT NAME', 'CREATED BY', and 'MODIFIED BY'. There is one item listed: 'Travel Approval Layout', created by 'Dharanesh P.' on '21/04/2023, 11:05 am' and modified by the same user at the same time. The interface includes a search bar at the top, a 'Quick Find' button, and a 'Page Layout Assignment' button. The bottom of the screen shows the Windows taskbar with various application icons and the system clock.

PAGE LAYOUT NAME	CREATED BY	MODIFIED BY
Travel Approval Layout	Dharanesh P, 21/04/2023, 11:05 am	Dharanesh P, 21/04/2023, 11:05 am



Search Setup



Setup

Home

Object Manager



SETUP > OBJECT MANAGER

Travel Approval

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

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

Fields

Buttons
Quick Actions
Mobile & Lightning Actions
Expanded Lookups
Related Lists
Report Charts

Quick Find Field Name

Section	Destination State	Purpose of Trip	Travel Approval
Blank Space	Last Modified By	Status	Trip End Date
Created By	Out-of-State	Status Indicator	Trip Start Date
Department	Owner	Total Expenses	

Information (Header visible on edit only)

Travel Approval	GEN-2004-001234	Owner	Sample Text
Status	Sample Text		
Total Expenses	₹123.45		
Status Indicator	Sample Text		

Trip info

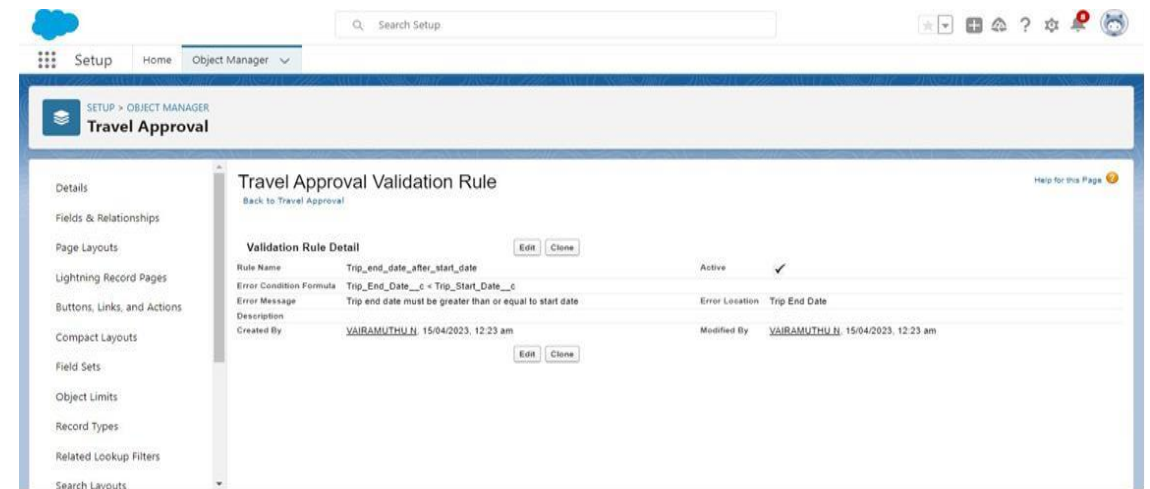
Purpose of Trip	Sample Text	Department	Sample Text
Trip Start Date	15/04/2023	Trip End Date	15/04/2023
Out-of-State	✓	Destination State	Sample Text

System Information (Header visible on edit only)



Milestone 9 - ADD BUSINESS LOGIC TO TRAVEL APP :

In this Milestone we have created validation rules, rollup summary fields, formula fields, workflows and approval process.



Setup

Home

Object Manager

Setup

Object Manager

Details

Fields & Relationships

Page Layouts

Lightning Record Pages

Buttons, Links, and Actions

Compact Layouts

Field Sets

Object Limits

Record Types

Related Lookup Filters

Search Layouts

List View Button Layout

Restriction Rules

Scoping Rules

Travel Approval Custom Field

Total Expenses

Back to Travel Approval

Custom Field Definition Detail

Edit

Set Field-Level Security

View Field Accessibility

Where is this used?

Field Information

Field Label

Total Expenses

Field Name

Total_Expenses

API Name

Total_Expenses__c

Description

Help Text

Data Owner

Field Usage

Data Selectivity Level

Compliance Categorization

Created By

VAIRAMUTHU N

15/04/2023, 12:28 am

Modified By

VAIRAMUTHU N

15/04/2023, 12:28 am

Roll-Up Summary Options

Data Type

Roll-Up Summary

Summarized Object

ExpenseItem

Field to Aggregate

ExpenseItem.Amount

Filter Criteria

Summary Type

SUM

Setup

Home

Object Manager

Setup

Static Resources

static

Custom Code

Static Resources

Static Resource

StatusImages

Help for this Page

Static Resource Detail

Edit

Delete

Where is this used?

Name

StatusImages

Namespace Prefix

Description

MIME Type

application/x-zip-compressed

Cache Control

Public

Size

39,130 bytes

View file

Created By

VAIRAMUTHU N

15/04/2023, 12:28 am

Last Modified By

VAIRAMUTHU N

15/04/2023, 12:28 am

Edit

Delete

Where is this used?



Milestone 10- Reports :

Travel App Chatter Reports Dashboards Departments Travel Approvals Expense Items

Search...

Report: Travel Approvals
Travel Requests by Department

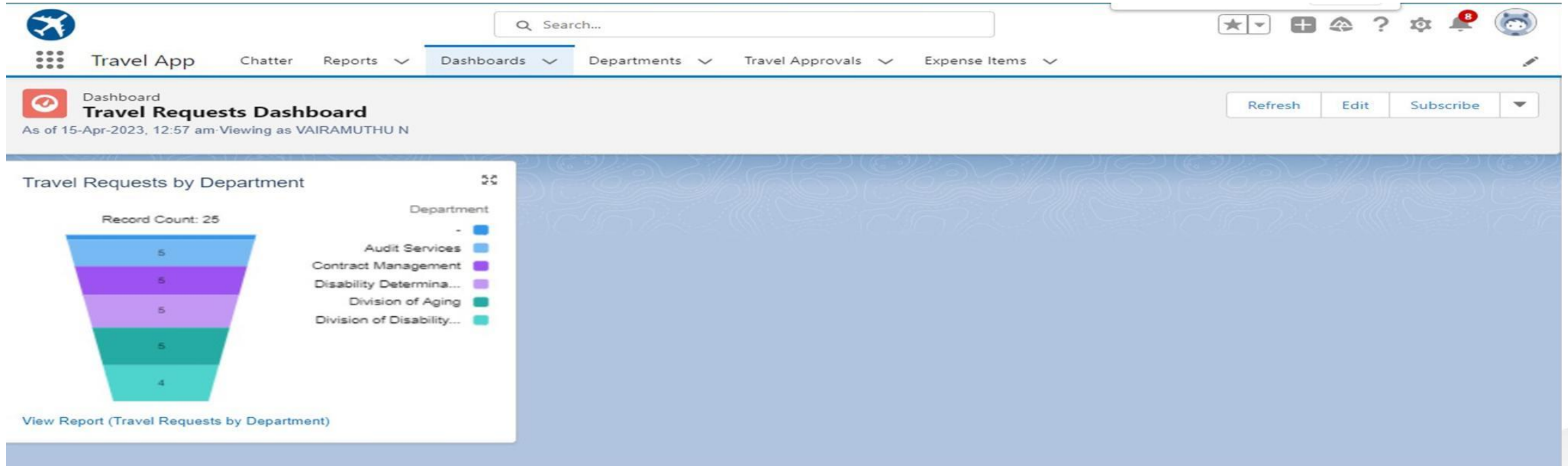
Enable Field Editing Add Chart Filter Edit

Total Records: 72 Total Out-of-State: 1

Department	Travel Approval	Status	Out-of-State	Destination State	Trip Start Date	Trip End Date
- (1)	TA-00001	New	<input checked="" type="checkbox"/>	-	15/04/2023	15/04/2023
Subtotal			1			
Audit Services (5)	TA-00024	Approved	<input type="checkbox"/>	OK	09/03/2019	09/03/2019
	TA-00032	Approved	<input type="checkbox"/>	OK	07/08/2019	07/09/2019
	TA-00040	Approved	<input type="checkbox"/>	FL	08/07/2019	08/07/2019
	TA-00044	Approved	<input type="checkbox"/>	OK	11/04/2019	11/07/2019
	TA-00049	Approved	<input type="checkbox"/>	OK	07/08/2019	07/08/2019
Subtotal			0			
Contract Management (5)	TA-00009	Approved	<input type="checkbox"/>	OK	05/11/2019	05/11/2019
	TA-00034	Approved	<input type="checkbox"/>	GA	02/09/2019	02/09/2019
	TA-00066	Approved	<input type="checkbox"/>	TX	07/04/2019	07/04/2019
	TA-00067	Approved	<input type="checkbox"/>	CA	07/05/2019	07/08/2019
	TA-00070	Approved	<input type="checkbox"/>	TX	04/04/2019	04/04/2019
Subtotal			0			
Disability Determination Bureau (5)	TA-00002	Approved	<input type="checkbox"/>	OK	10/01/2019	10/01/2019
	TA-00008	Rejected	<input type="checkbox"/>	OK	03/06/2019	03/07/2019

Row Counts Detail Rows Subtotals Grand Total

Milestone 11- Dashboard :



4. Trailhead Profile Public URL :

Team Leader: PRASANTH D

<https://trailblazer.me/id/prasanth047>

Team Member 1: MOHANA
SHANTHINI S

<https://trailblazer.me/id/smohanashanthini>

Team Member 2 : JEEVA
BHARATHI M

<https://trailblazer.me/id/mjeevabharathi>



Team Member 3: PAGULAN A S

<https://trailblazer.me/id/pagas7>



4. Advantages & Disadvantages :

Advantages :

- 1) New experience.
- 2) Gain my knowledge.
- 3) Quick service.

Disadvantages :

- 1) It will be time consuming.
- 2) Team coordination will it cause in convenient.



5. APPLICATIONS :

The Travel Support System is a small sample application for Natural ONE. As a sample application, its focus is to show Natural ONE functionality rather than being a full-fledged travel support application.

The Travel Support System (TSS) allows us to request and approve business trips. Flights, hotels and even more external information such as cell phone expenses or car rentals can be entered with the trip request. For the destination, weather information can be queried. A manager can do both, request own trips as well as approve trips that have been requested by employees. After the manager has approved single or multiple requests, the manager can print an itinerary or receive the itinerary as a PDF file.



6. CONCLUSION :

Travel Management simplifies the management process in traveling. Fast processing and immediate results with high security. Minimizing women effort and cost efficient databases. Navigation through the site is easy. It becomes increasingly popular destinations in their own right.



8. FUTURE SCOPE :

It is clear that the online travel business is a booming industry and will continue to be so. Rising to the occasion, even small travel agency owners are also looking to go online. For them, an online travel portal can be an ideal fit.

