



# **Kallam Haranadhareddy Institute of Technology**

## **Workforce Administration Solution(Dev)**

**By**

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## **Project overview**

The "Workforce Administration Solutions" project aims to streamline and enhance workforce management within organizations using Salesforce. This project focuses on automating employee records, tracking attendance, managing leave requests, and optimizing workforce allocation. By leveraging Salesforce capabilities, the system ensures efficiency, transparency, and improved decision-making. This report details the project's objectives, methodology, implementation, outcomes, and future recommendations.

## INTRODUCTION

The "Workforce Administration Solutions" project was developed to address the challenges faced by organizations in managing their workforce efficiently. The goal was to implement a system within Salesforce that automates workforce operations such as employee records, attendance tracking, leave management, and performance monitoring. This report provides insights into the project's objectives, methodology, implementation, and impact.

### Objectives

1. **Automate Workforce Management:** Streamline HR processes such as employee onboarding, attendance tracking, and leave requests.
2. **Enhance Employee Engagement:** Provide employees with a self-service portal for easy access to information and requests.
3. **Improve Decision-Making:** Leverage data analytics to optimize workforce allocation and monitor performance.

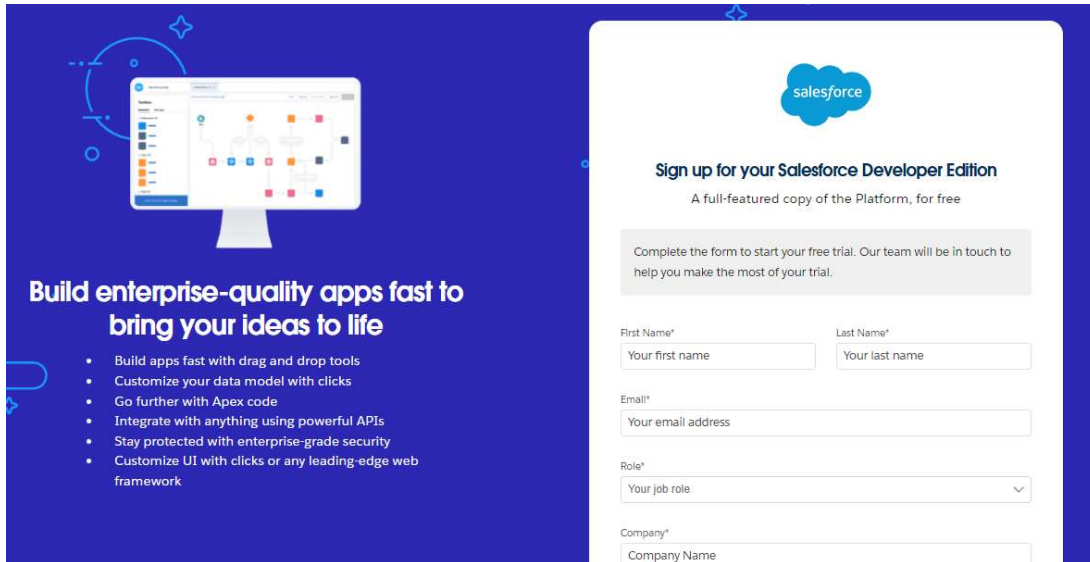
### Methodology

1. **Requirements Gathering:** Conducted interviews and surveys with HR professionals to understand their challenges and requirements.
2. **System Design:** Developed a Salesforce-based architecture to manage workforce operations efficiently.
3. **Implementation:** Configured custom objects, automation rules, and dashboards for real-time monitoring.
4. **Testing & Deployment:** Conducted extensive testing before deploying the system organization-wide.

### Detailed Steps to Solution Design

#### 1. Salesforce developer account creation and activation:

- To create developer org:
- Go to <https://developer.salesforce.com/signup>
- On the sign-up form, enter the following details:



The image shows the Salesforce Developer Edition sign-up page. On the left, there is a blue background with a white monitor icon displaying a Salesforce interface. To the right of the monitor, the text reads: "Build enterprise-quality apps fast to bring your ideas to life". Below this, there is a list of bullet points: "Build apps fast with drag and drop tools", "Customize your data model with clicks", "Go further with Apex code", "Integrate with anything using powerful APIs", "Stay protected with enterprise-grade security", and "Customize UI with clicks or any leading-edge web framework". On the right side of the page, there is a white box with the Salesforce logo at the top. Below the logo, the text reads: "Sign up for your Salesforce Developer Edition" and "A full-featured copy of the Platform, for free". Below this, there is a grey box with the text: "Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial." Below the grey box, there are several input fields: "First Name\*" (with placeholder "Your first name"), "Last Name\*" (with placeholder "Your last name"), "Email\*" (with placeholder "Your email address"), "Role\*" (with a dropdown menu showing "Your job role"), and "Company\*" (with placeholder "Company Name").

**Build enterprise-quality apps fast to bring your ideas to life**

- Build apps fast with drag and drop tools
- Customize your data model with clicks
- Go further with Apex code
- Integrate with anything using powerful APIs
- Stay protected with enterprise-grade security
- Customize UI with clicks or any leading-edge web framework

**Sign up for your Salesforce Developer Edition**  
A full-featured copy of the Platform, for free

Complete the form to start your free trial. Our team will be in touch to help you make the most of your trial.

First Name\*  
Your first name

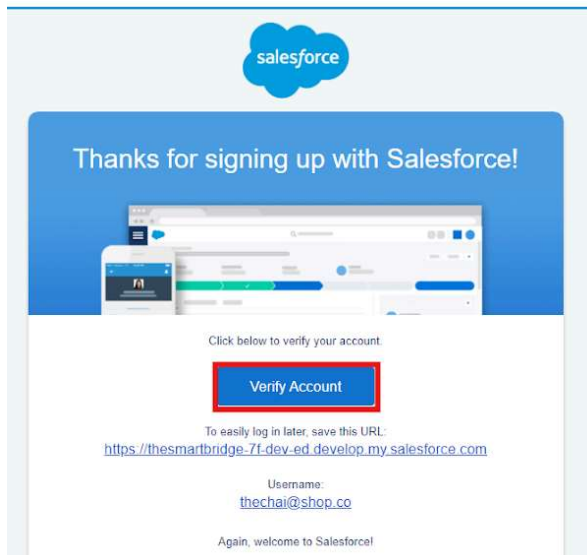
Last Name\*  
Your last name

Email\*  
Your email address

Role\*  
Your job role

Company\*  
Company Name

- For 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.
- Click on Verify Account.
- Give a password and answer a security question and click on change password



The image shows the Salesforce account verification page. At the top, there is a blue header with the Salesforce logo. Below the header, there is a blue box with the text: "Thanks for signing up with Salesforce!". Below the blue box, there is a white box with the text: "Click below to verify your account". Below the white box, there is a red button with the text: "Verify Account". Below the red button, there is a text box with the text: "To easily log in later, save this URL:" and a URL: "https://thesmartbridge-7f-dev-ed.develop.my.salesforce.com". Below the URL, there is a text box with the text: "Username:" and a username: "thechai@shop.co". Below the username, there is a text box with the text: "Again, welcome to Salesforce!".

**Thanks for signing up with Salesforce!**

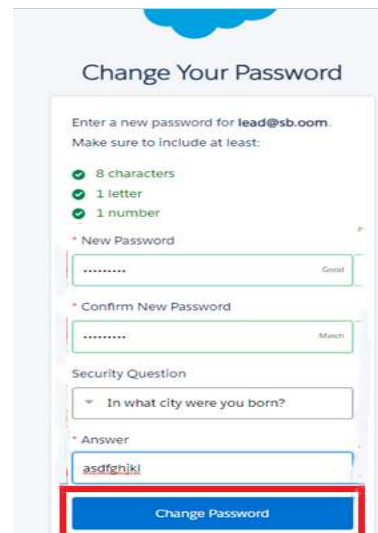
Click below to verify your account

**Verify Account**

To easily log in later, save this URL:  
<https://thesmartbridge-7f-dev-ed.develop.my.salesforce.com>

Username:  
thechai@shop.co

Again, welcome to Salesforce!



The image shows the Salesforce change password page. At the top, there is a blue header with the Salesforce logo. Below the header, there is a white box with the text: "Change Your Password". Below the white box, there is a text box with the text: "Enter a new password for lead@sb.oom." and "Make sure to include at least:". Below the text box, there are three green checkmarks with the text: "8 characters", "1 letter", and "1 number". Below the checkmarks, there are two input fields: "New Password" (with placeholder "\*\*\*\*\*") and "Confirm New Password" (with placeholder "\*\*\*\*\*"). Below the input fields, there is a text box with the text: "Security Question" and a dropdown menu with the text: "In what city were you born?". Below the dropdown menu, there is a text box with the text: "Answer" and a text input with the text: "asdfghjkl". Below the text input, there is a red button with the text: "Change Password".

**Change Your Password**

Enter a new password for lead@sb.oom.  
Make sure to include at least:

- ✓ 8 characters
- ✓ 1 letter
- ✓ 1 number

\* New Password  
\*\*\*\*\*

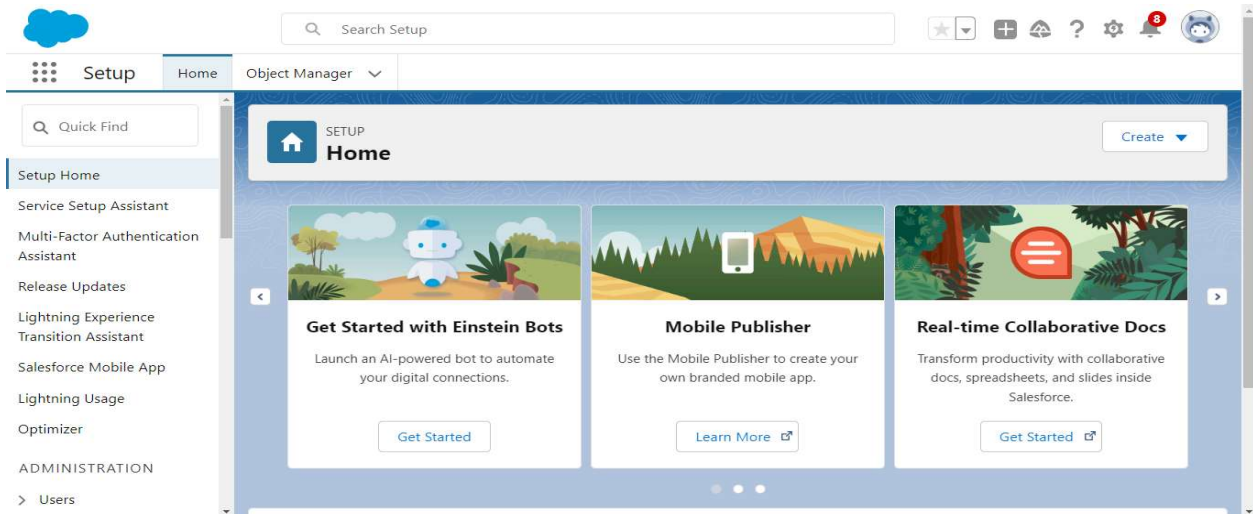
\* Confirm New Password  
\*\*\*\*\*

Security Question  
In what city were you born?

\* Answer  
asdfghjkl

**Change Password**

- Then you will redirect to your salesforce setup page.



## Object

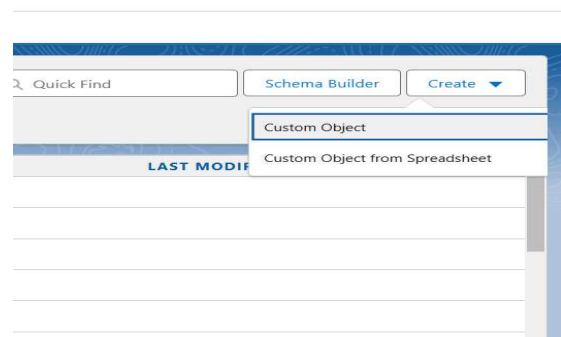
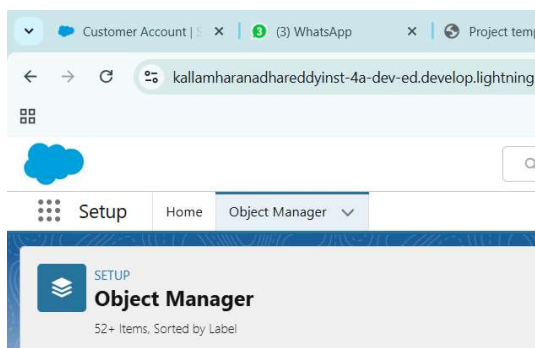
Salesforce objects are database tables that permit you to store data that is specific to an organization.

### Custom Objects:

- **Employee Records:** To store employee details and work history.

To create an object:

1. From the setup page --> Click on Object Manager --> Click on Create --> Click on Custom Object.



- Enter the label name: Employee
- Plural label name: Employees

The screenshot shows the 'New Custom Object' page in Salesforce Setup. The page has a header with 'Setup', 'Home', and 'Object Manager'. Below the header, there's a section titled 'New Custom Object' with a sub-section 'Custom Object Definition Edit'. The 'Custom Object Information' section includes fields for 'Label' (with an example 'Account'), 'Plural Label' (with an example 'Accounts'), 'Starts with vowel sound' (checkbox), 'Object Name' (with an example 'Account'), and 'Description'. There are also options for 'Context-Sensitive Help Setting' and 'Context Name'.

Enter Record Name Label and Format

- 1 Record Name: Employee ID
- 2 Data Type: Auto Number
- 3 Display Format: EMS - {0000}
- 4 Starting Number: 1

The screenshot shows the 'Object Manager' page in Salesforce Setup. The page has a header with 'Setup', 'Home', and 'Object Manager'. Below the header, there's a section titled 'Object Manager' with a sub-section 'Enter Record Name Label and Format'. The 'Record Name' field is set to 'Employee ID' (with an example 'Account Name'). The 'Data Type' is set to 'Auto Number' (with a warning about high volume of records). The 'Display Format' is set to 'EMS-0000' (with an example 'A-0000 What is this?'). The 'Starting Number' is set to '1'. There are also sections for 'Optional Features' (with checkboxes for 'Allow Reports', 'Allow Activities', 'Track Field History', 'Allow in Chatter Groups', and 'Enable Licensing') and 'Object Classification' (with checkboxes for 'Allow Sharing', 'Allow Bulk API Access', and 'Allow Streaming API Access'). The 'Deployment Status' is set to 'Deployed'.

2. Click on Allow reports,
3. Allow search --> Save.

<div> <div>SETUP</div> <div>Object Manager</div> <div>1 Items. Sorted by Label</div> </div>		<div> <div> <div>🔍</div> <div>employe</div> </div> <div>Schema Builder</div> <div>Create ▾</div> </div>			
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Employee	Employee__c	Custom Object		26/02/2025	✓

## ● Create Project Object

The purpose of creating a project object is to have detailed information about the on-going and completed projects in the organization.

To create an object:

- From the setup page, Click on Object Manager ,Click on Create
  - Enter the label name--> Project
  - Plural label name--> Projects
  - Enter Record Name Label and Format
    - Record Name: Project ID
    - Data Type: Auto Number
    - Display Format: Pro - {0000}
    - Starting Number: 1
- Click on Allow reports,
- Allow search --> Save

<div> <div>SETUP</div> <div>Object Manager</div> <div>2 Items. Sorted by Label</div> </div>		<div> <div> <div>🔍</div> <div>project</div> </div> <div>Schema Builder</div> <div>Create ▾</div> </div>			
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Project	Project__c	Custom Object		26/02/2025	✓

## ● Create 3 more objects with label names as Project Task, Asset, Asset Service.

Note: use “Text” as a data type and label Record Name as “Project Task Name”.

<div> <div>Object Manager</div> <div>1 Items. Sorted by Label</div> </div>					
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Project Task	Project_Task__c	Custom Object		26/02/2025	✓

<div> <div>SETUP</div> <div>Object Manager</div> <div>7 Items, Sorted by Label</div> </div> <div> <input type="text" value="asset"/> <input type="button" value="Schema Builder"/> <input type="button" value="Create"/> </div>					
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Asset	Asset_c	Custom Object		26/02/2025	✓

<div> <div>SETUP</div> <div>Object Manager</div> <div>1 Items, Sorted by Label</div> </div> <div> <input type="text" value="asset service"/> <input type="button" value="Schema Builder"/> <input type="button" value="Create"/> </div>					
LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
Asset Service	Asset_Service_c	Custom Object		26/02/2025	✓

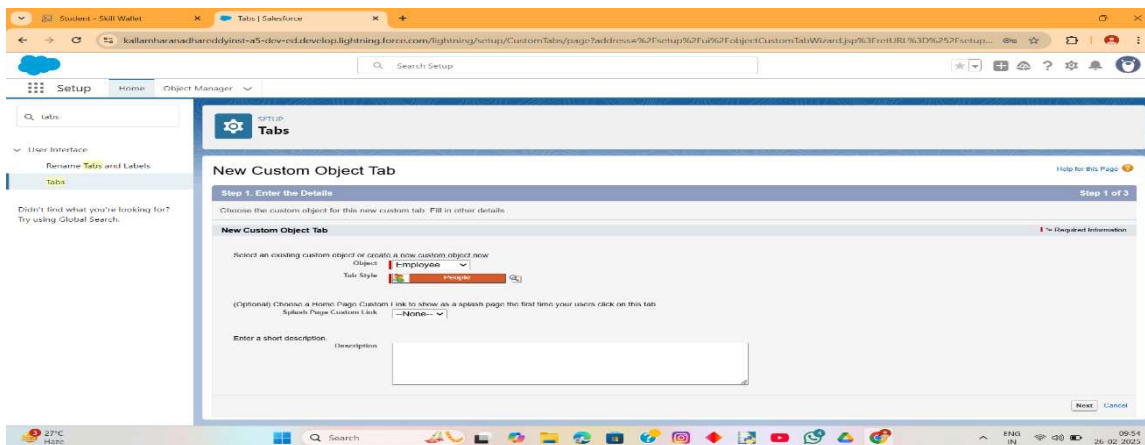
## Tabs

A tab is like a user interface that is used to build records for objects and to view the records in the objects.

## Creating a Custom Tab (Employee)

To create a Tab:(Employee)

1. Go to setup page, type Tabs in Quick Find bar, click on tabs New (under custom object tab)
2. Select Object (Employee), Select any tab style, Next (Add to profiles page) keep it as default, Next (Add to Custom App) keep it as default, Save.



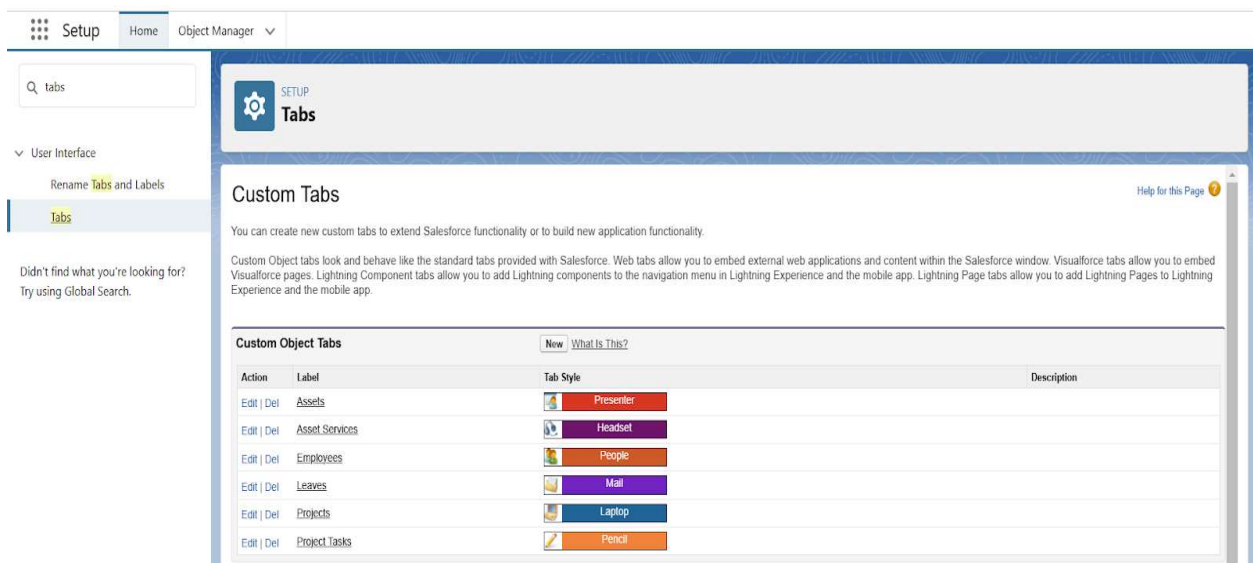


## Creating a Custom Tab (Project)

1. Go to setup page --> type Tabs in Quick Find bar --> click on tabs --> New (under custom object tab)
2. Select Object (Project) --> Select the tab style? --> Next (Add to profiles page) keep it as default --> Next (Add to Custom App) keep it as default --> Save.

## Creating tabs for remaining objects

Now create tabs for Project Task, Asset, Asset Service objects.



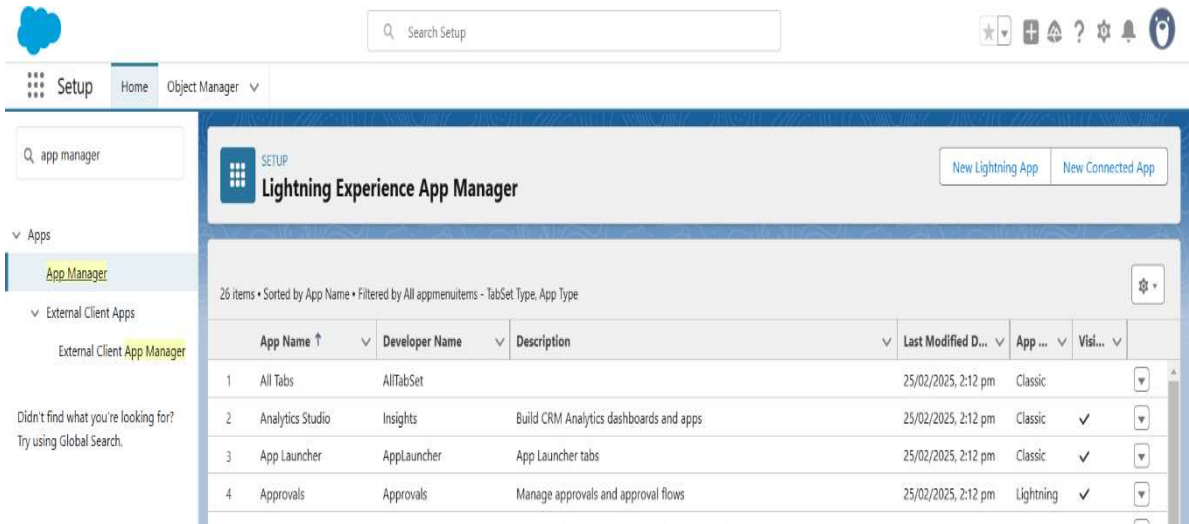
## The Lightning App:

Included the objects Employees, Projects and Assets, etc.,

## Create a Lightning App

To create a lightning app page:

1. Go to setup page --> search “app manager” in quick find --> select “app manager” --> click on new lightning App



Fill the app name in app details and branding as follow

App Name: Workforce Administrator Solution

Description: Give a meaningful description

Image: optional (if you want to give any image you can otherwise not mandatory)

Primary color hex value: keep this default

2. Then click Next --> (App option page) keep it as default --> Next --> (Utility Items) keep it as default --> Next.

New Lightning App

---

### 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 <sup>1</sup>

\* Developer Name <sup>1</sup>

Description <sup>1</sup>

#### App Branding

Image <sup>1</sup>



[Clear](#)

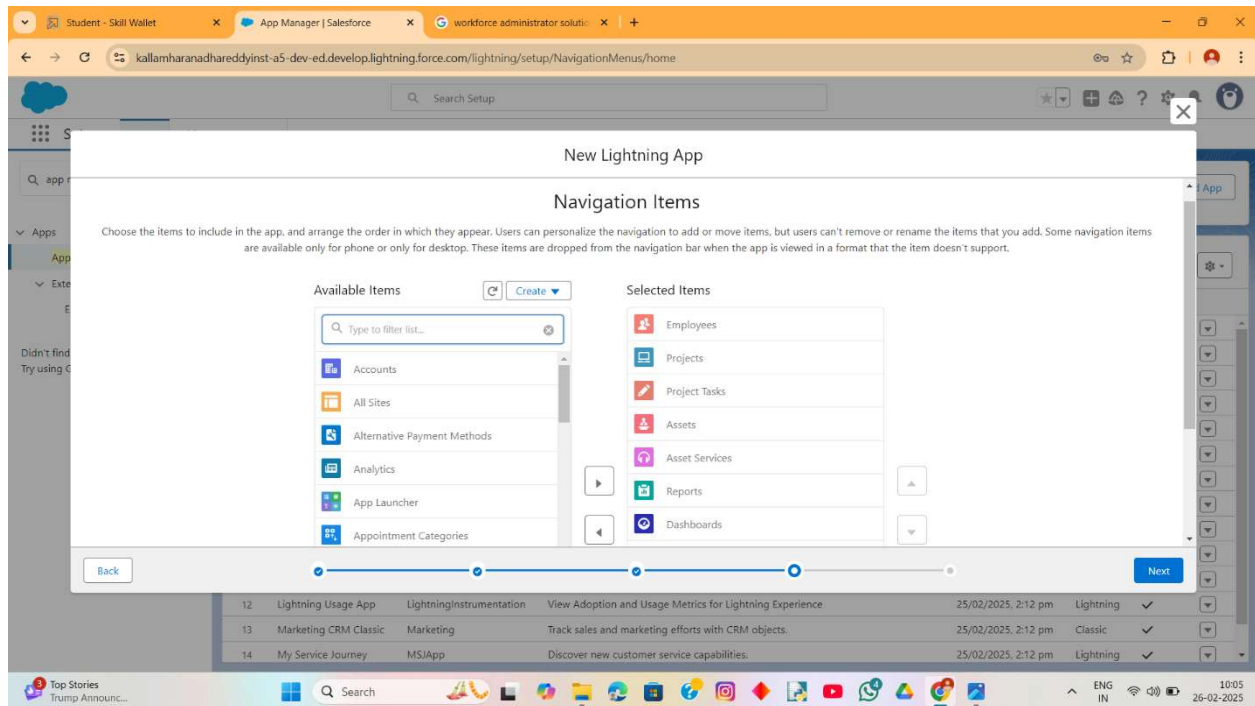
Primary Color Hex Value <sup>1</sup>

Org Theme Options

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

Next

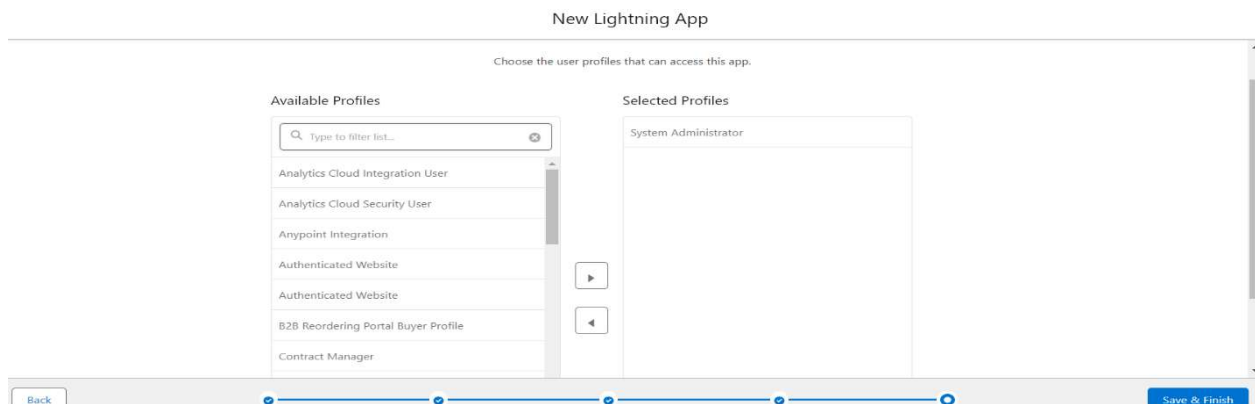
#### 4.To Add Navigation Items:



Search the items in the search bar (Employees, Projects, Project Task, Assets, Asset Services, Reports, Dashboard) from the search bar and move it using the arrow button --> Next.

#### 5.To add user profiles

Search profiles (System administrator) in the search bar --> click on the arrow button --> save & finish.



## Fields & Relationships

- Creating Text Field in Employee Object
  - 1.Go to setup, click on Object Manager, type object name(Employee) in quick find bar, click on the object.



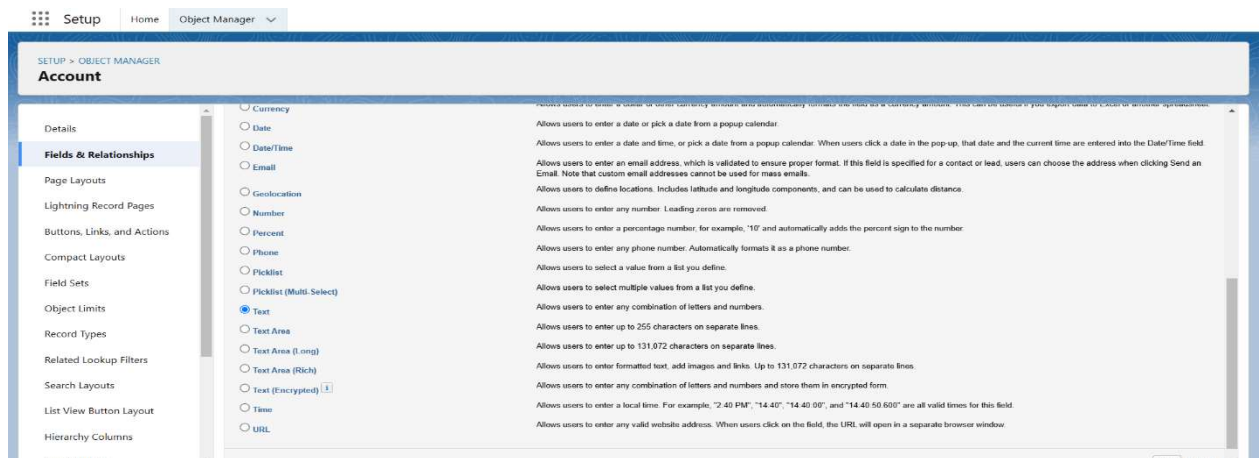
2.Now click on “Fields & Relationships”, New.



3.Select Data type as “Text” , Click On Next,

Field Label: Employee Name

Length: 18



Setup > OBJECT MANAGER  
**Employee**

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

Employee  
New Custom Field  
Step 2. Enter the details  
Step 2 of 4  
Previous Next Cancel

Field Label: Employee Name

Please enter the maximum length for a text field below  
Length: 18

Field Name: Employee\_Name

Description:

Help Text:

Required: ☐ Always require a value in this field in order to save a record  
Unique: ☐ Do not allow duplicate values  
☐ Treat "ABC" and "abc" as duplicate values (case insensitive)  
☐ Treat "ABC" and "abc" as different values (case sensitive)

External ID: ☐ Set this field as the unique record identifier from an external system  
☒ Add this field to existing custom report types that contain this entity

Click on Next, Next, Save and new.

- Creating Date of Birth Field in Employee Object
- Creating Formula Field in Employee Object
- Creating Picklist Field in Employee Object
- Creating Self-Relationship Field in Employee Object
- Creating Master-Detail Relationship between Employee & Asset Object

Field Label	Field Name	Field Type
Age	Age__c	Formula (Number)
Can Allowance	Can_Allowance__c	Checkbox
Can Allowance Amount	Can_Allowance_Amount__c	Currency (18, 0)
Created By	CreatedBy	Lookup (User)
Date of Birth	Date_of_Birth__c	Date
Email	Email__c	Email
Employee ID	Name	Auto Number
Employee Name	Employee_Name__c	Text (10)
Experience	Experience__c	Text Area (30)
Fixed Allowance Amount	Fixed_Allowance_Amount__c	Currency (18, 0)
Fixed Allowance	Fixed_Allowance__c	Checkbox
Gender	Gender__c	Picklist
Joining Date	Joining_Date__c	Date
Last Modified By	LastModifiedBy	Lookup (User)
LinkedIn Profile	LinkedIn_Profile__c	URL (255)
Login Time	Login_Time__c	Time

- Creating Remaining Fields in Employee Object Employee Project, project task, assets, etc...

## Setting OWD

- Create OWD (Organization-wide defaults) Setting

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Lead	Public Read/Write/Transfer	Private	✓
Account and Contract	Public Read/Write	Private	✓
Contact	Controlled by Parent	Controlled by Parent	✓
Order	Controlled by Parent	Controlled by Parent	✓
Asset	Controlled by Parent	Controlled by Parent	✓
Opportunity	Public Read/Write	Private	✓
Case	Public Read/Write/Transfer	Private	✓
Campaign	Public Full Access	Private	✓
Campaign Member	Controlled by Campaign	Controlled by Campaign	✓
User	Public Read Only	Private	✓
Activity	Private	Private	✓
Calendar	Hide Details and Add Events	Hide Details and Add Events	✓
Price Book	Use	Use	✓

Search for the Employee object.

1. change the options to “Private” and under grant access using hierarchies select the check box.
2. Click on save.

Object	Default Internal Access	Default External Access	Grant Access Using Hierarchies
Employee	Private	Private	✓
Leave	Public Read/Write	Private	✓
Project	Private	Private	✓
Project Task	Controlled by Parent	Controlled by Parent	

- Set OWD as Private for Project and Asset Service objects.

## User Adoption

Workforce Administrator

Employees

Recently Viewed

0 items • Updated a few seconds ago

Employee ID

New Employee: On Site Employee

Information

Employee ID

Owner: Team 9 KIBI

Employee Name

Gender: None

Reports to: Search Employees...

Qualification

Experience

Cancel Save & New Save

- Create a Record (Employee)
  1. Click on the Employee tab.
  2. Click New.
  3. Fill the Details and click on Save.
- Delete a Record (Employee)
- View a Record (Employee)

## Import Data

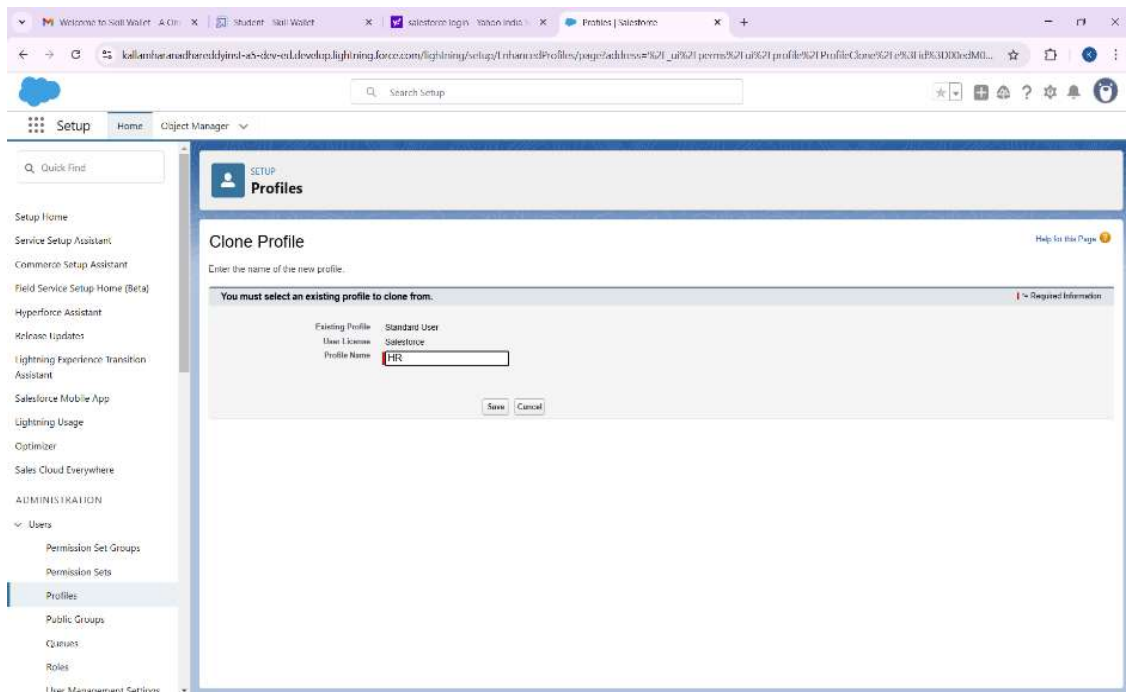
Before creating the application download this file from the URL given below and save the file in CSV.

<https://tinyurl.com/SF-Employee-Data>

- Importing data using Data Wizard

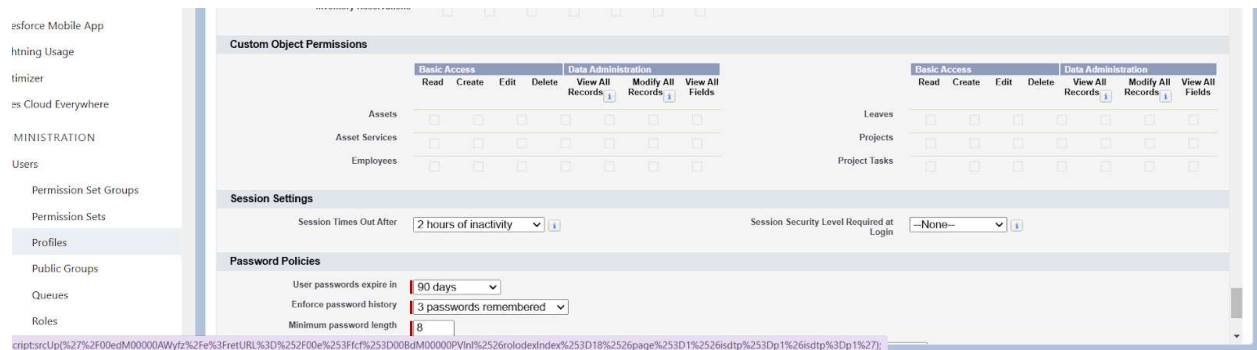
## Profiles

- **HR Profile:** creating HR profile by cloning standard user profile
- **Manager Profile:** creating Manager Profile by cloning Salesforce Platform User profile





- **Employee Profile:** Created Employee profile but just allowed permissions to access for Project and Project Task objects

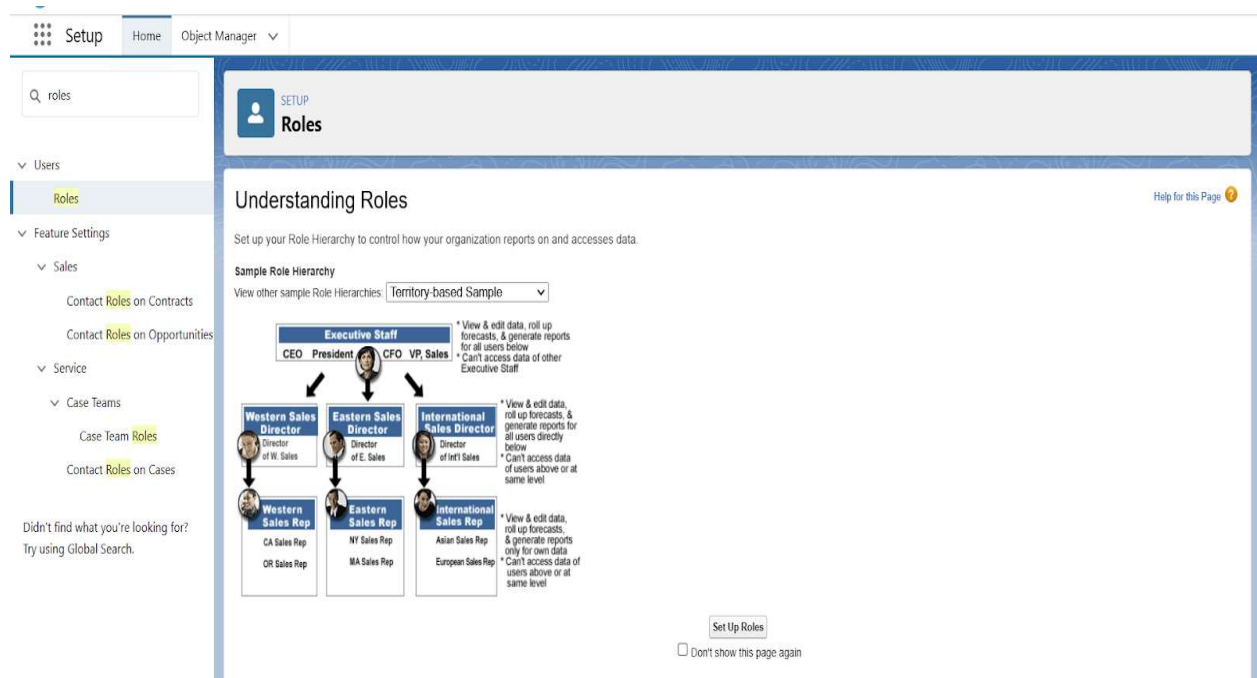


## Role

- Assigning roles is also an important Task in the process

## Creating HR Role

- Go to quick find, Search for Roles, click on set up roles.

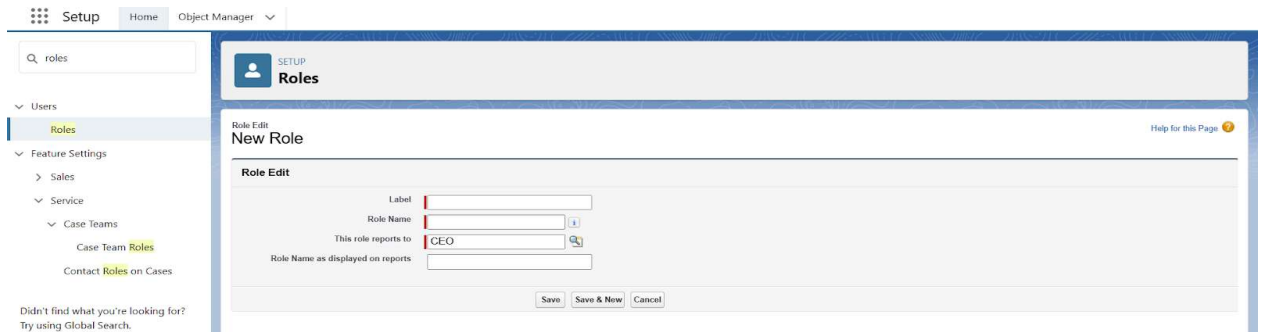




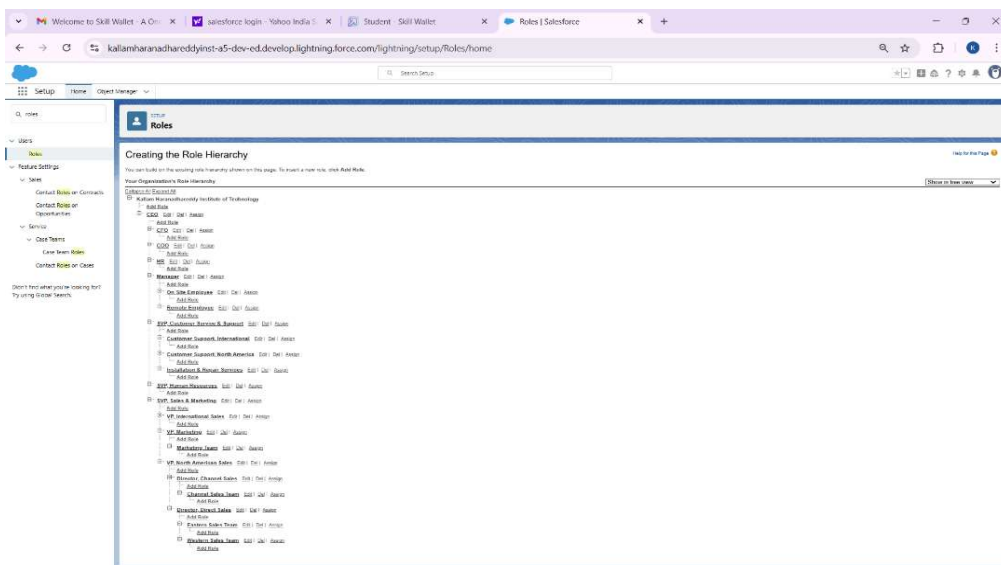
- Click on Expand All and click on add role.



- Give Label as “HR” and click on Save.



- The Roles we Created are **HR** role and **Manager Role**, etc..



## Users

- We created the profiles in the last step so we need to assign the profiles to the new users in this Step.
- We created the user HR and assigned the User to previously created profile
- In the same way the we created User for the manager profile which was also created earlier.

The screenshot shows the Salesforce 'User Edit' page for a user named Niklaus Mikaelson. The page is divided into a left sidebar with navigation links and a main content area. The sidebar includes links for Setup, Home, Object Manager, and a search bar. The main content area has a 'User Edit' header with 'Save', 'Save & New', and 'Cancel' buttons. Below the header is the 'General Information' section, which contains fields for First Name, Last Name, Alias, Email, Username, Nickname, Title, Company, Department, and Division. To the right of these fields are dropdown menus for Role (set to HR), Profile (set to Salesforce), and Active (checked). Below these are checkboxes for various user types: Marketing User, Offline User, Knowledge User, Flow User, Service Cloud User, Salesforce Contributor User, B2B.com Publisher User, WDC User, and Data.com User Type (set to None). There are also checkboxes for Data.com Monthly Addition Limit, Accessibility Mode (Classic Only), and High-Contrast Points on Charts.

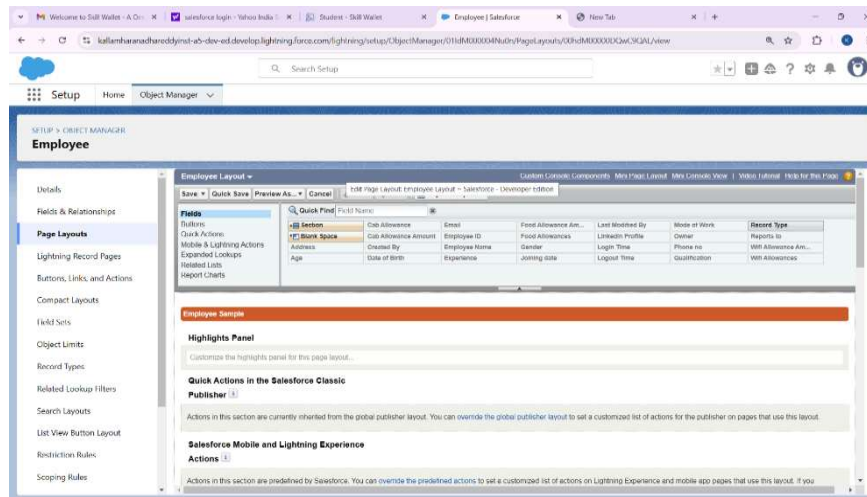
The screenshot shows the Salesforce 'User Detail' page for a user named Kai Mikaelson. The page is divided into a left sidebar with navigation links and a main content area. The sidebar includes links for Setup, Home, Object Manager, and a search bar. The main content area has a 'User Detail' header with 'Edit', 'Sharing', 'Reset Password', 'Deactivate', and 'View Summary' buttons. Below the header is a table with user details. The table has columns for Name, Alias, Email, Username, Nickname, Title, Company, Division, Address, Time Zone, Locale, Language, Delegated Approver, Manager, Role, and Profile. The user details are as follows:

Name	Alias	Email	Username	Nickname	Title	Company	Division	Address	Time Zone	Locale	Language	Delegated Approver	Manager	Role	Profile
Kai Mikaelson	kai	218x1d446@hilti.com	kai@hilti.com	kai		Hilti			(GMT+05:30) India Standard Time (Asia/Kolkata)	English (India)	English			Marketing User	Marketing User

Below the table are checkboxes for various user types: Offline User, Knowledge User, Flow User, Service Cloud User, Salesforce Contributor User, B2B.com Publisher User, WDC User, and Data.com User Type (set to None). There are also checkboxes for Data.com Monthly Addition Limit, Accessibility Mode (Classic Only), and High-Contrast Points on Charts.

## Page layouts

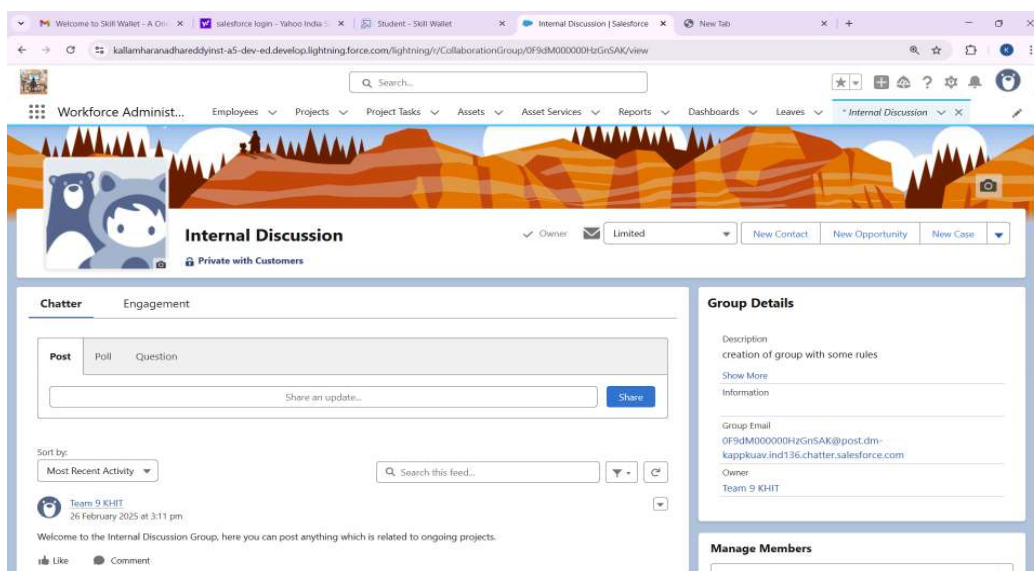
- As the Name suggests Page layout is the way of designing the certain page



- So, we reorganized the Page layout for the employee Object
- Reorganized the “Remote Employee Layout”, and in the allowances section used only WIFI Allowance and WIFI Allowances Amount fields.

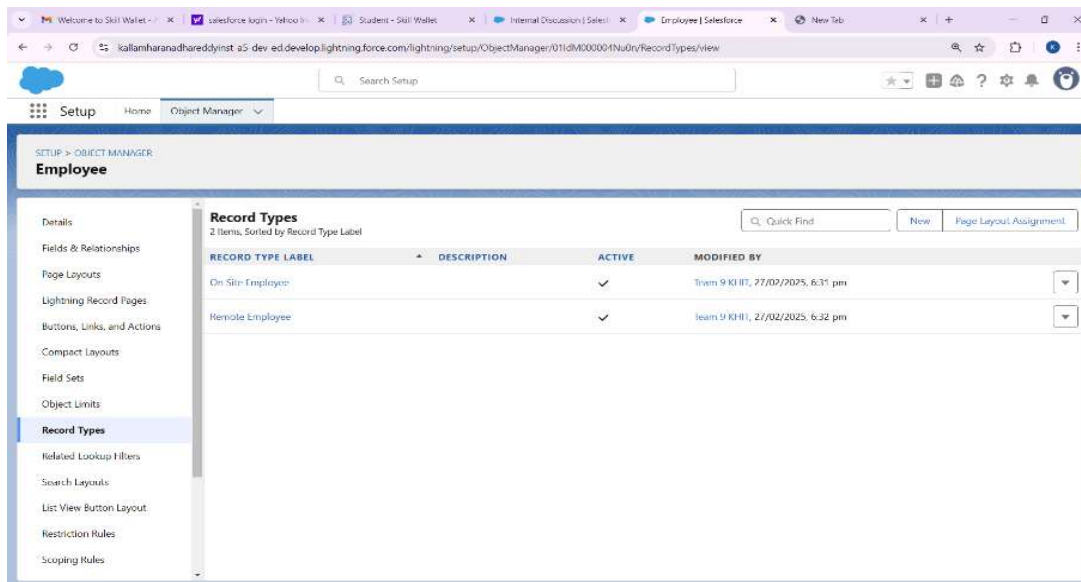
## Chatter Group

- This Step Involves Creating chatter group for the Organization for Internal Communication and also Communication with Customers
- We created the group called Internal discussion and added the members of the organization to the group



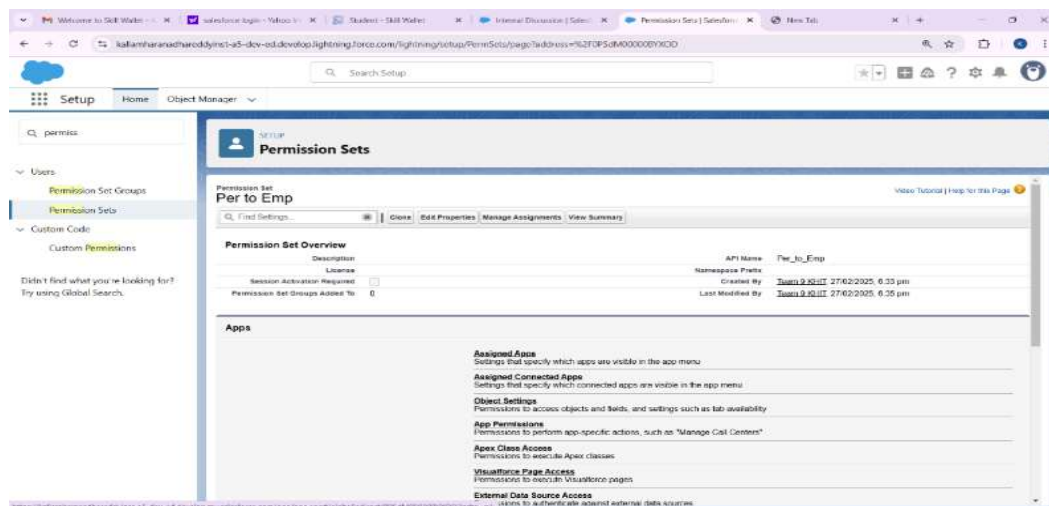
## Record Types

- In this step we need to Create different forms of Employee Records Based on the mode of their work
- We Created two types of Employee Records **On-Site Employee Records** and **Remote Employee Records**.



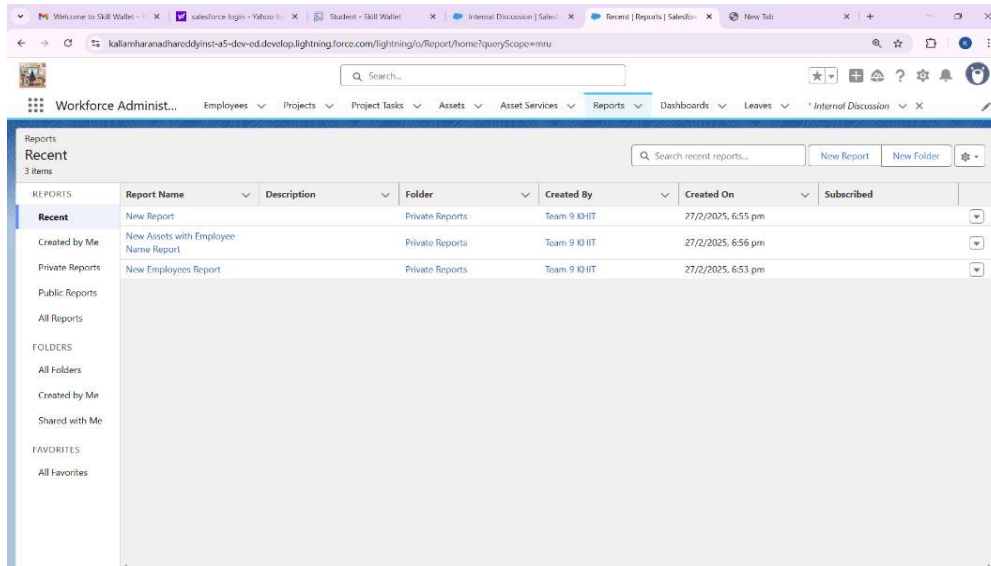
## Permission sets

- Creating permission sets is one of the most Important tasks in Regulating the access of the People in Organization and Prioritizing Security.
- We created the Per to Emp Permission set for regulating Permissions to certain Users.



## Reports and Dashboards

- We Created Reports on The **Projects assigned to the Employees** and the **assets assigned to the employees**.



- And also, The Dashboards on the Data of the Employees

**Dashboard1**  
As of 04-Mar-2025, 3:30 pm-Viewing as Team 9 KHIT

**New Employees Report**

Employee Nam...	Employee: ID	Repor...	Login ...	Logout T...
Alexander	a00dM00000hqzO	-	9:00 am	5:00 pm
Alexander	a00dM00000hSxK	-	9:00 am	5:00 pm
Amelia	a00dM00000hqzO	-	9:00 am	5:00 pm
Amelia	a00dM00000hSxK	-	9:00 am	5:00 pm
Benjamin	a00dM00000hqzO	-	-	-
Benjamin	a00dM00000hSxK	-	-	-
Chloe	a00dM00000hqzO	-	9:00 am	5:00 pm

[View Report \(New Employees Report\)](#)

**Dashboard2**  
⚠ Last refreshed 4 days ago. Refresh this dashboard to see the latest data.  
As of 27-Feb-2025, 7:01 pm-Viewing as Team 9 KHIT

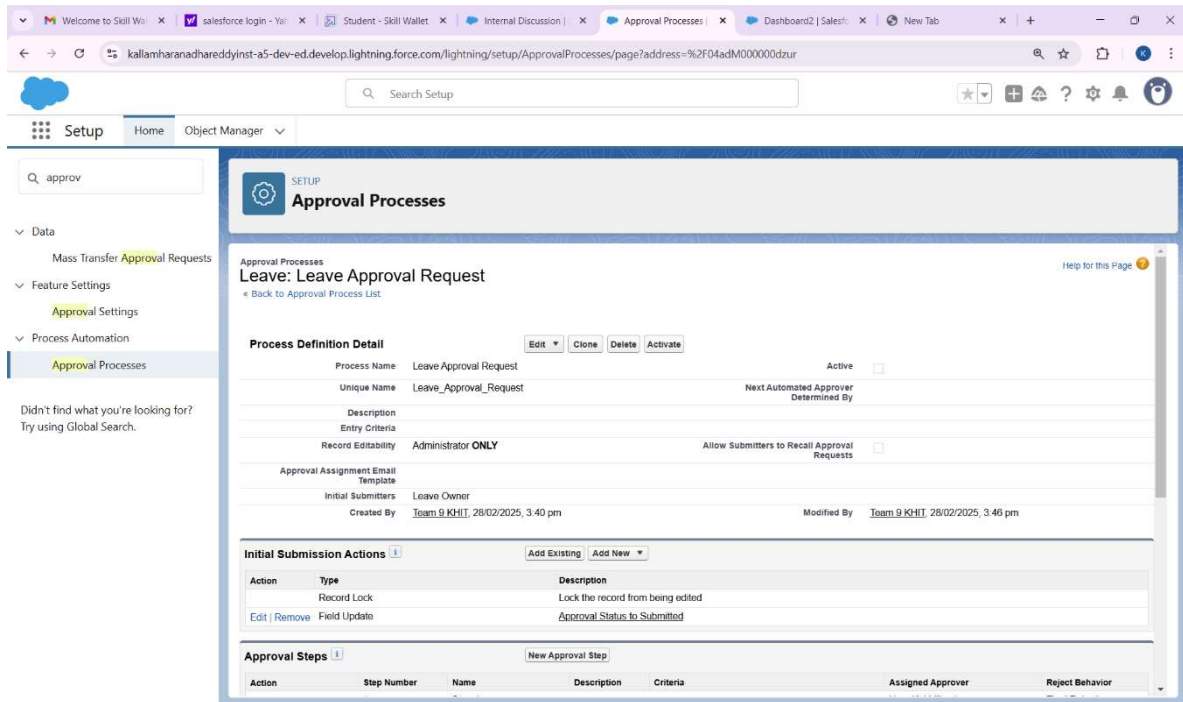
**New Employees Report**

Employee Nam...	Employee: ID	Repor...	Login ...	Logout T...
Alexander	a00dM00000hqzO	-	9:00 am	5:00 pm
Alexander	a00dM00000hSxK	-	9:00 am	5:00 pm
Amelia	a00dM00000hqzO	-	9:00 am	5:00 pm
Amelia	a00dM00000hSxK	-	9:00 am	5:00 pm
Benjamin	a00dM00000hqzO	-	-	-
Benjamin	a00dM00000hSxK	-	-	-
Chloe	a00dM00000hqzO	-	9:00 am	5:00 pm

[View Report \(New Employees Report\)](#)

## Approval Process

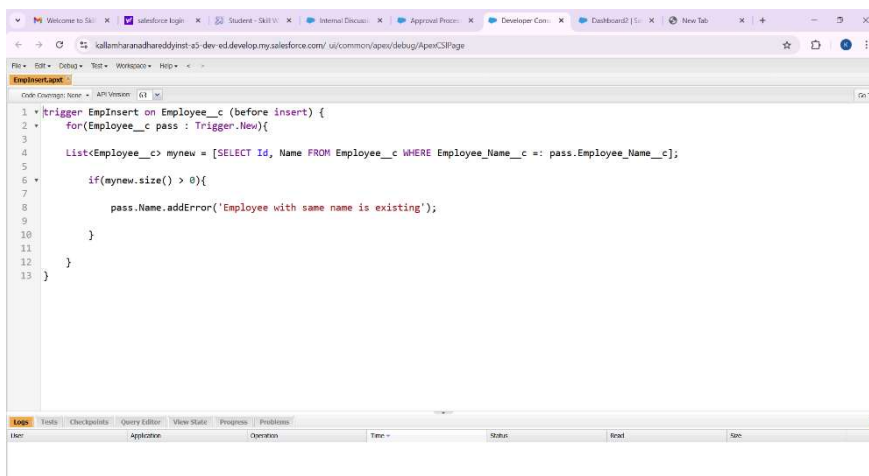
Now the step is creating the approval Processes



- Creating Leave object and Tab for it.
- Creating Approval Process for the Leave object
- Updating Approval Status and after all the process the final rejection action

## Apex Trigger

- Now we are on to the last step Creating the apex trigger
- We created the apex trigger called **EmpInsert**.
- The trigger is to alert the users to not create a profile with already existing name by giving “**Employee with same name is existing**”.





## Outcomes

1. **Enhanced Efficiency:** Reduced manual HR tasks, improving overall operational efficiency.
2. **Real-Time Data Access:** Provided instant access to workforce-related data for better decision-making.
3. **Improved Employee Experience:** Enabled self-service options, reducing dependency on HR for routine queries.
4. **Optimized Workforce Utilization:** Leveraged analytics to ensure optimal resource allocation.

## Future Recommendations

1. **Expand Integrations:** Connect with third-party HR solutions for enhanced capabilities.
2. **Mobile Application:** Develop a mobile-friendly interface for employee self-service on the go.
3. **Gamification for Employee Engagement:** Introduce reward-based systems to boost employee participation and productivity.

## Conclusion

The "Workforce Administration Solutions" project successfully leveraged Salesforce technology to enhance HR operations. By automating key workforce management tasks, the project has improved efficiency, data accessibility, and employee satisfaction. Future enhancements, such as AI integration and mobile access, will further strengthen the system's impact and usability.