Workforce Administration Solution(dev)

Objective:

Workforce Administration Solution is a software application or platform designed to streamline and automate various aspects of employee's working on projects and Asset Assignment processes within an organization. It serves as a centralized system for managing employee data, number of projects an employee is working on, tracking employee performance, and keeping record for the assets which they are assigned to.

Salesforce :

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

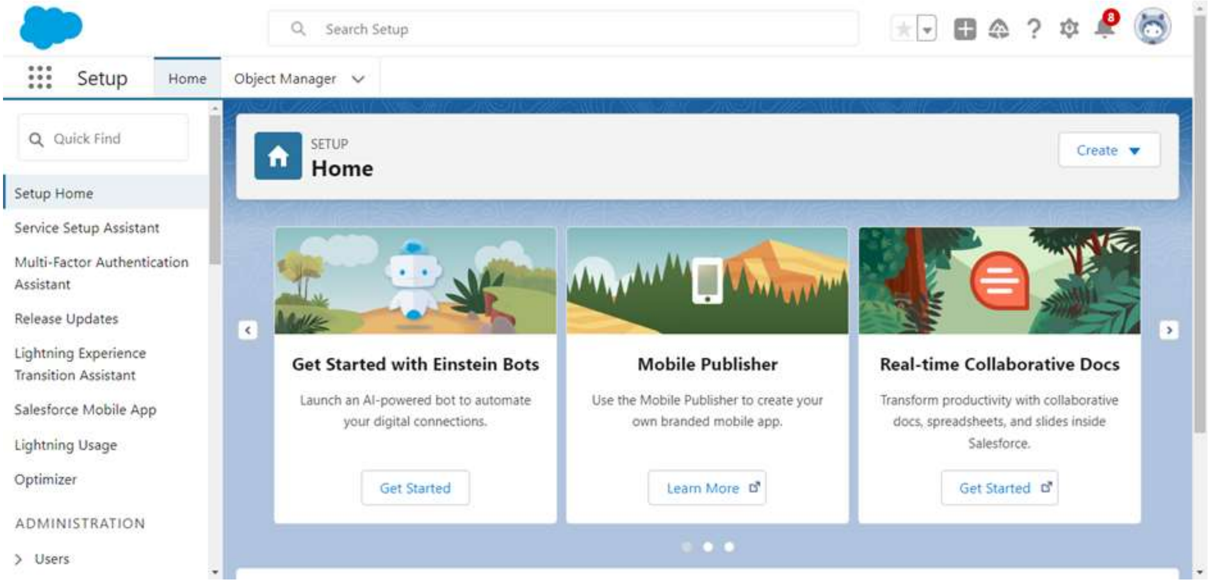
Creation of Salesforce Account:

- **Go to https://developer.salesforce.com/signup**
- **On the sign up form, enter the Valid details of yours**
- **Click on sign me up after filling the required details**

Activation of Salesforce Account:

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.
- Then you will redirect to your salesforce setup page.



Object Creation:

What is an Object?

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

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.**

Create Employee object:

The purpose of creating an Employee custom object is to keep track the employee's activities and their individual and as well as team progress.

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

1. **Enter the label name: Employee**
2. **Plural label name: Employees**
3. **Enter Record Name Label and Format**
4. **Click on Allow reports,**
5. **Allow search --> Save.**

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.

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

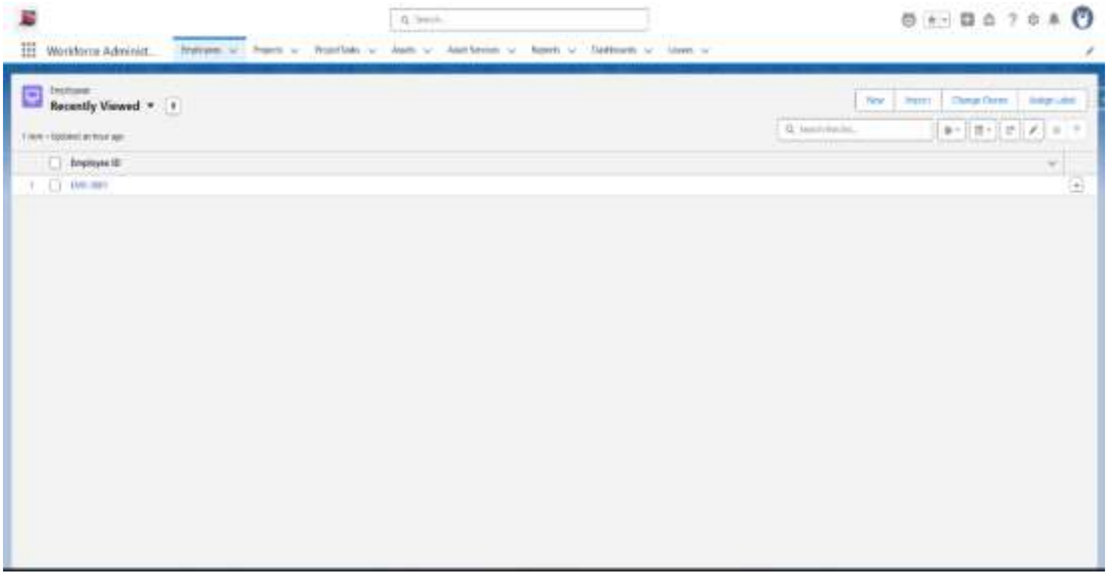
1. Enter the label name--> Project
2. Plural label name--> Projects
3. Enter Record Name Label and Format
4. Click on Allow reports
5. Allow search --> Save

Create 3 More objects in the same manner:

creating three 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".

Output:



Tabs Creation:

➤ **What is Tab :A tab is like a user interface that is used to build records for objects and to view the records in the objects.**

Types of Tabs:

1. Custom Tabs
2. Web Tabs

3. Visualforce Tabs

4. Lightning Component Tabs

5. Lightning Page Tabs

Creating a Custom Tab (Employee) :

- **Go to setup page --> type Tabs in Quick Find bar --> click on tabs --> New (under custom object tab)**

- **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) :

- **Go to setup page --> type Tabs in Quick Find bar --> click on tabs --> New (under custom object tab)**
- **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.

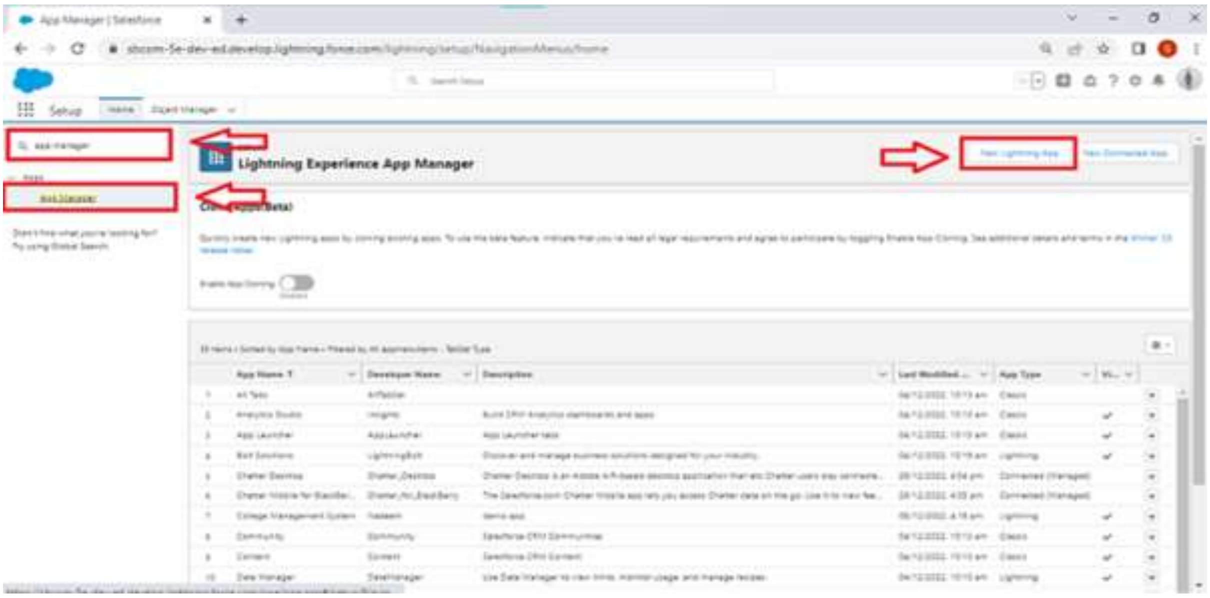
The Lightning App:

An app is a collection of items that work together to serve a particular function. In Lightning Experience, Lightning apps gives users access to sets of objects, tabs, and other items all in one convenient bundle in the navigation bar.

Lightning apps let you brand your apps with a custom color and logo. You can even include a utility bar and Lightning page tabs in your Lightning app. Members of your org can work more efficiently by easily switching between apps.

Create a Lightning App :

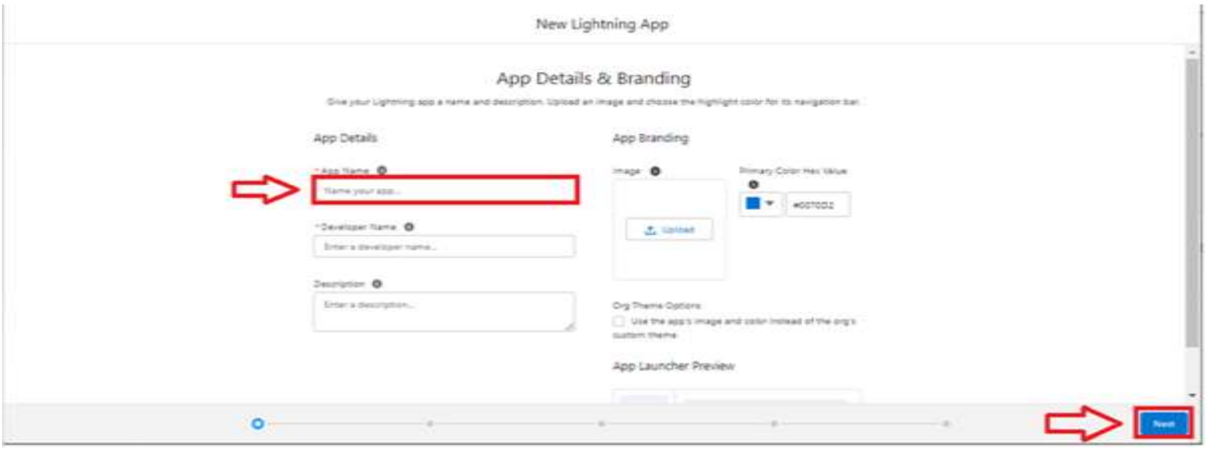
- Go to setup page --> search “app manager” in quick find --> select “app manager” --> click on New lightning App.



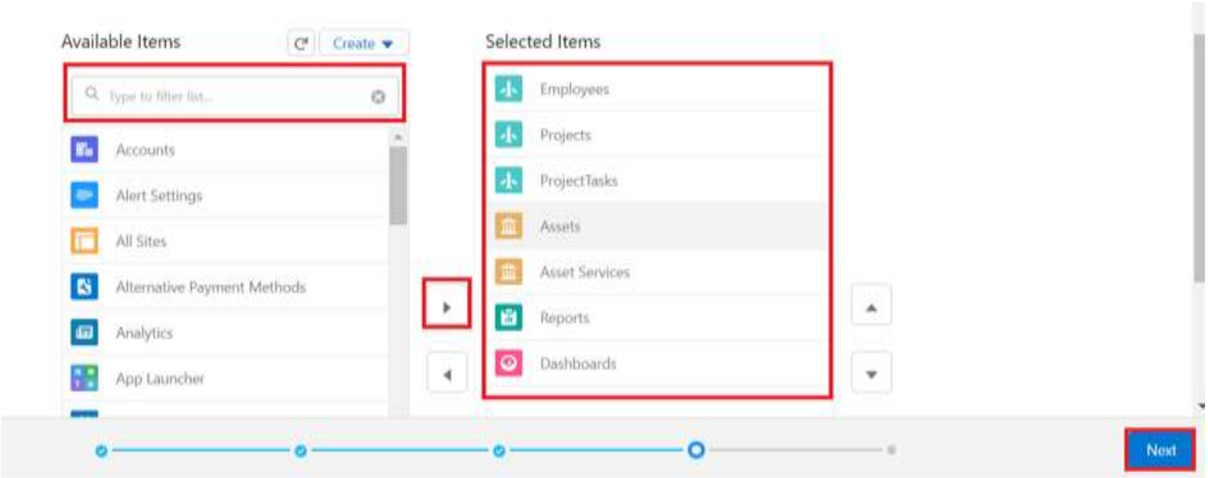
- Fill the app name in app details and branding as follow

1. App Name : Workforce Administrator Solution
2. Developer Name : this will auto populated
3. Description : Give a meaningful description
4. Image : optional (if you want to give any image you can otherwise not mandatory)
5. Primary colour hex value : keep this default

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



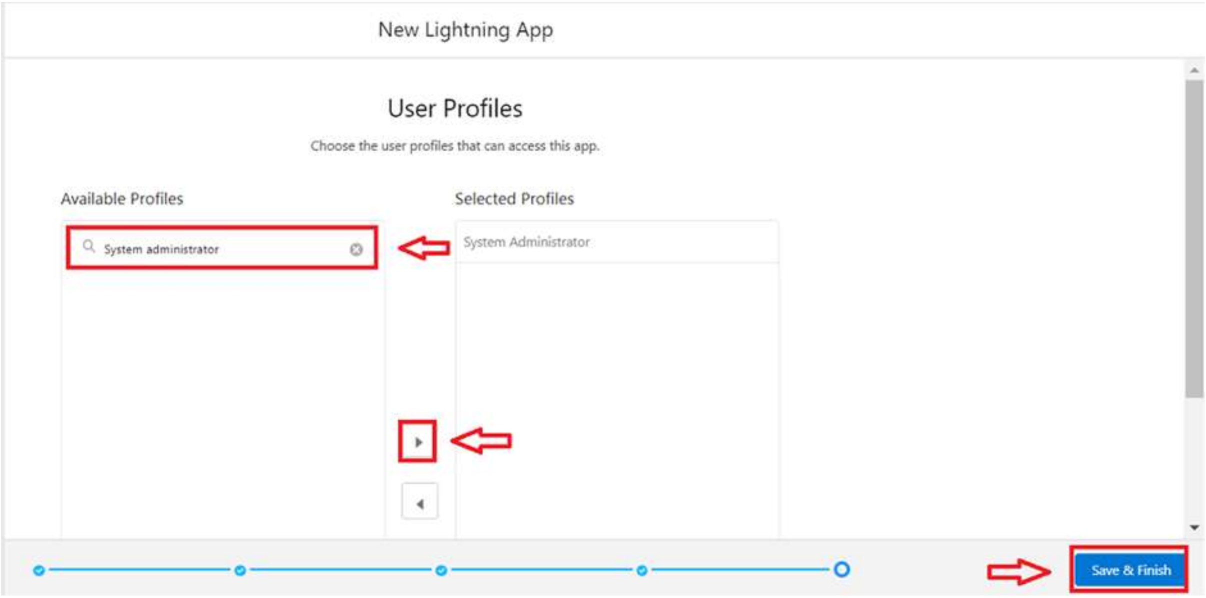
- **To Add Navigation Items:**



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

Note: select asset the custom object which we have created in the previous activity.

- **To Add User Profiles**



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

Fields & Relationships :

When we talk about Salesforce, Fields represent the data stored in the columns of a relational database. It can hold any valuable information that you require for a specific object. Hence, the overall searching, deletion, and editing of the records become simpler and quicker.

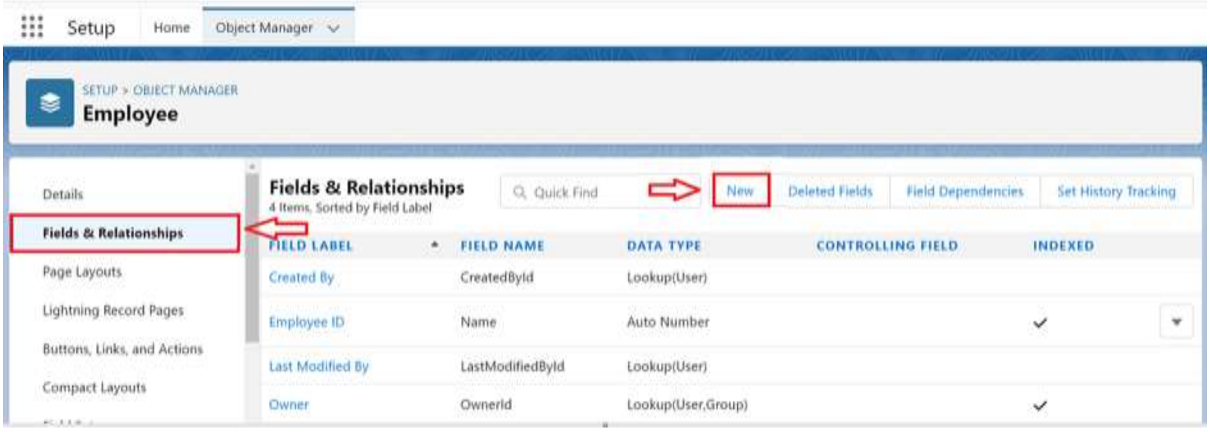
Types of Fields :

1. **Standard Fields**
2. **Custom Fields**

Creating Text Field in Employee Object :

- **Go to setup --> click on Object Manager --> type object name(Employee) in quick find bar --> click on the object.**

- **Now click on "Fields & Relationships" --> New**



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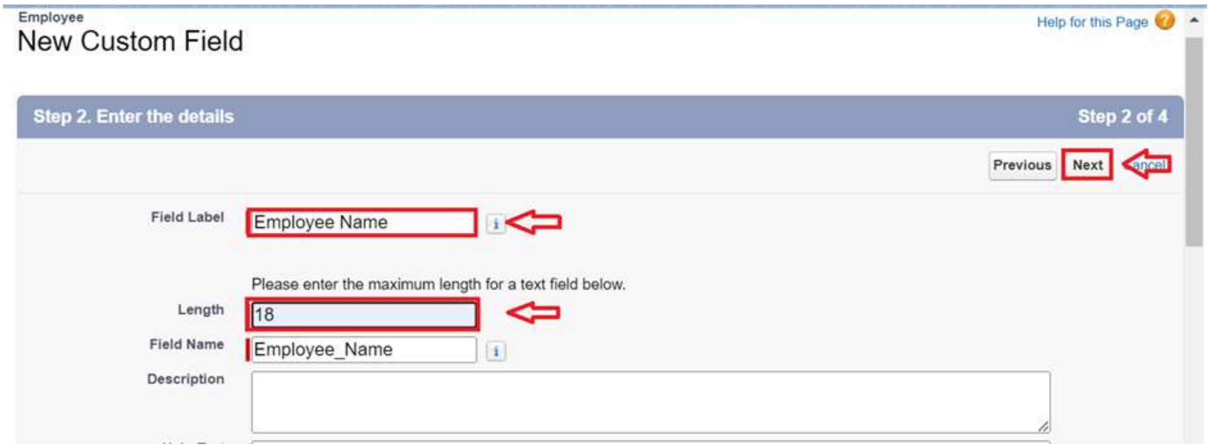
- **Select Data type as "Text".**
- **Click on Next**



- **Fill the above as following:**

  1 **Field Label: Employee Name**

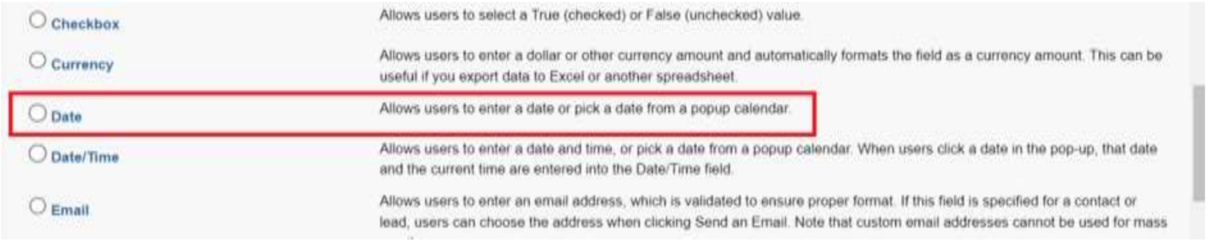
  2 **Length : 18**

3 **Field Name : gets auto generated**

4 **Click on Next --> Next --> Save and new.**

Creating Date of Birth Field in Employee Object :

1. **Repeat step 1 and 2 mentioned in activity 1**
2. **Select Data type as "Date" and click Next.**



3. Click on Next.

4. Fill the above as following:

   a. Field Label: Date of Birth.

   b. Field Name : gets auto generated.

   c. Click on Next --> Next --> Save and new.

Creating Formula Field in Employee Object:

1. Repeat step 1 and 2 mentioned in activity 1

2. Select Data type as “Formula” and click Next.

3. Give Field Label and Field Name as “Age” and select formula return type

   as “Number” and click next.

4. Under Advanced Formula write down the formula and click “Check Syntax” and Next --> Next --> Save & New.

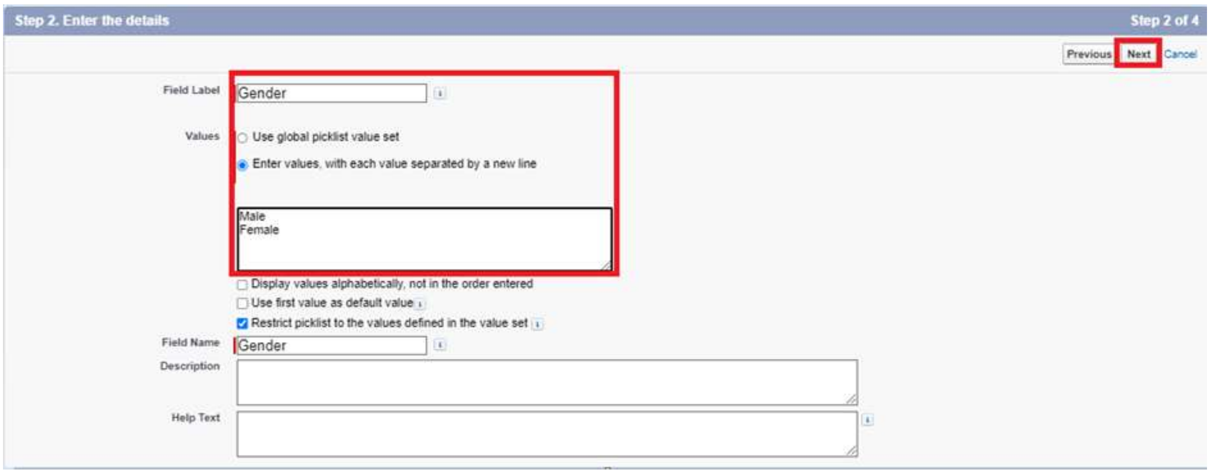
Creating Picklist Field in Employee Object :

1. Repeat step 1 and 2 mentioned in activity 1

2. Select Data type as “Picklist” and click Next.

3. Enter Field Label as “Gender”, under values select “Enter values, with each value separated by a new line" and enter values as shown below.

4. Click Next --> Next --> Next --> Save & New.



Creating Self-Relationship Field in Employee Object :

1. Repeat step 1 and 2 mentioned in activity 1
2. Select Data type as “Lookup Relationship” and click Next.
3. Select Employee from the drop down related to the field and click Next.

4. Give Field Label as “Reports to” and click Next.
5. Next --> Next --> Save & New.

Creating Master-Detail Relationship between Employee & Asset Object :

To Create a Master-Detail relationship

1. Go to the setup page --> click on object manager --> type object name(ProjectTask) in the quick find bar --> click on the object.
2. Click on fields & relationship --> click on New.
3. Select “Master-Detail relationship” as data type and click Next.
4. For field label related to: select “Employee” object and click Next.

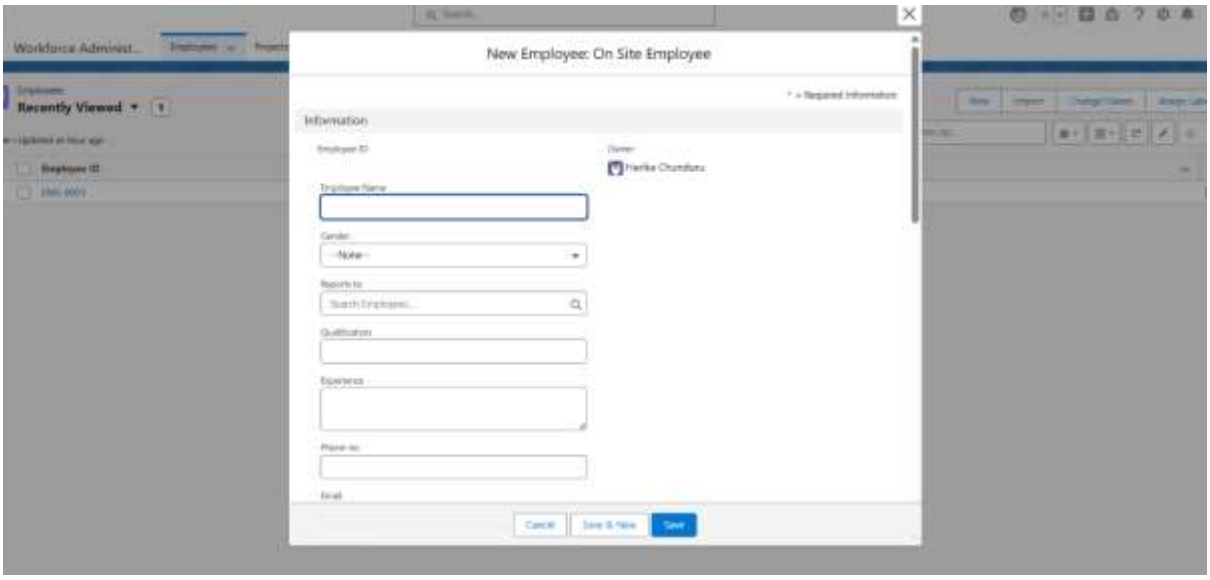
5. Give Field Label as “Employee Name” and click Next.

6. Next --> Next --> Save & New.

Creating Remaining Fields in Employee Object :

Now creating the remaining fields using the data types

Output:



Setting OWD :

Organization-Wide Defaults, or OWDs, are the pattern security rules that you can follow for your Salesforce instance. Organization Wide Defaults are utilized to confine who can access what information in your CRM. You can award access through different methods that we will discuss later (sharing principles, Role Hierarchy, Sales Teams, and Account groups, manual sharing, and so forth).

Primarily, there are four levels of access that can be set in Salesforce OWD and they are-

1 Public Read/Write/Transfer

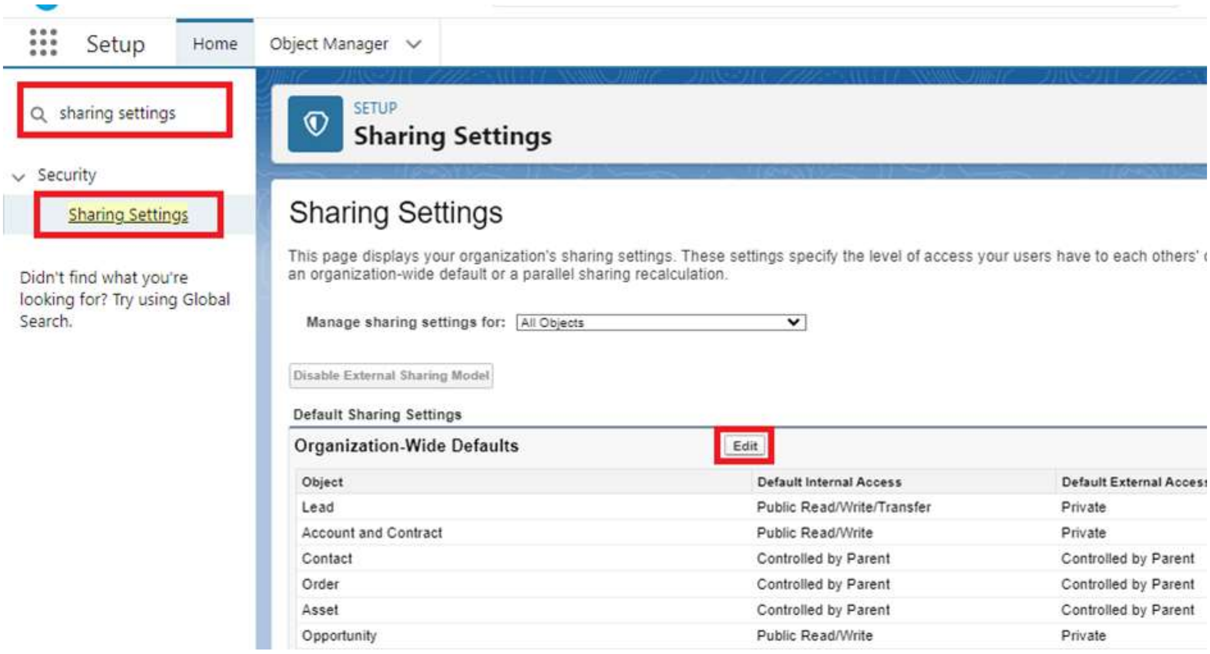
2 Public Read/Write

3 Public Read/Only

4 Private

Create OWD Setting :

1. **Go to Set Up --> in the Quick Find box type "Sharing Settings" --> click on it.**
2. **Click Edit in the Organization-Wide Defaults area.**



3. Search for the Employee object.

4. Under default internal access and default external access change the options to “Private” and under grant access using hierarchies select th check box.

5. Click on save.

6. This Setting is for all the Users Which have been Created.

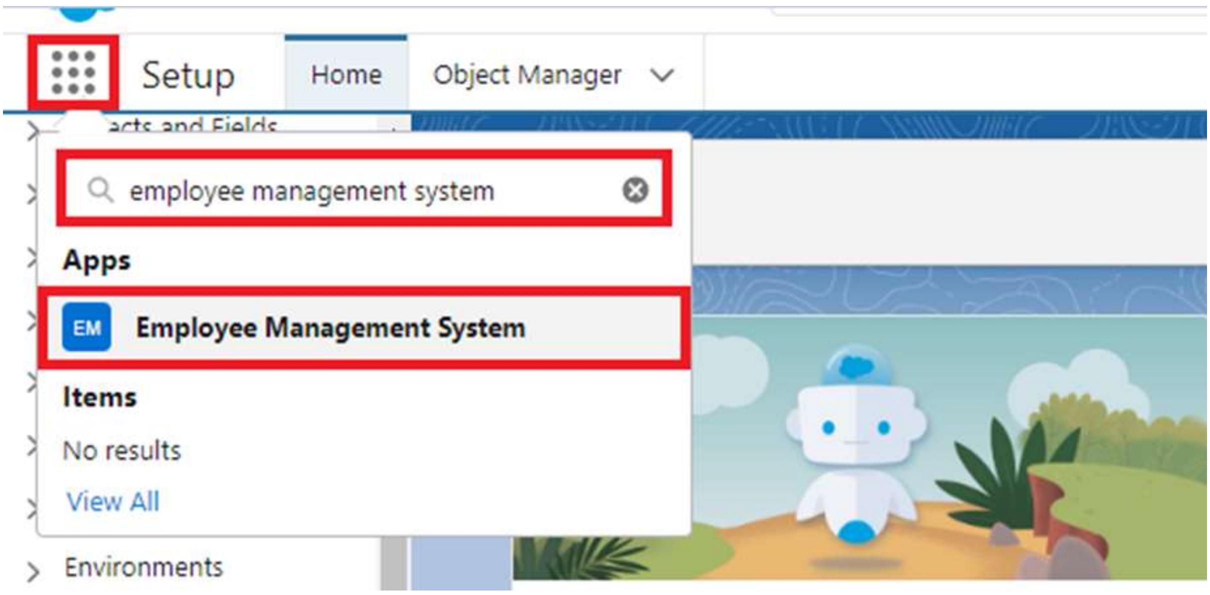
Note : Set OWD as Private for Project and Asset Service objects.

User Adoption :

As a new Administrator, you perform user management tasks like creating and editing users, resetting passwords, granting permissions, configuring data access, and much more. In this , you will learn about users and how you add users to your Salesforce org.

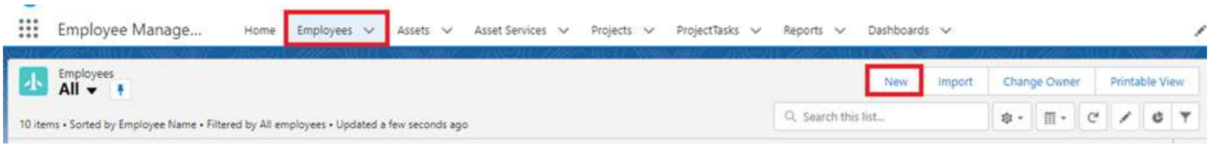
Create a Record (Employee) :

1. **Click on App Launcher on the left side of the screen.**
2. **Search Employee Management System & click on it.**



3. Click on the Employee tab.

4. Click New.



5. **Fill the Details and click on Save.**

View a Record (Employee) :

1. **Click on App Launcher on the left side of the screen.**
2. **Search Employee Management System & click on it.**
3. **Click on the Employee Tab.**
4. **Click on any record name. you can see the details of the Employee**

Delete a Record (Employee) :

1. **Click on App Launcher on the left side of the screen.**
2. **Search Employee Management System & click on it.**
3. **Click on the Employee Tab.**
4. **Click on Arrow at right hand side on that Particular record.**

5. Click delete.

Importing Data:

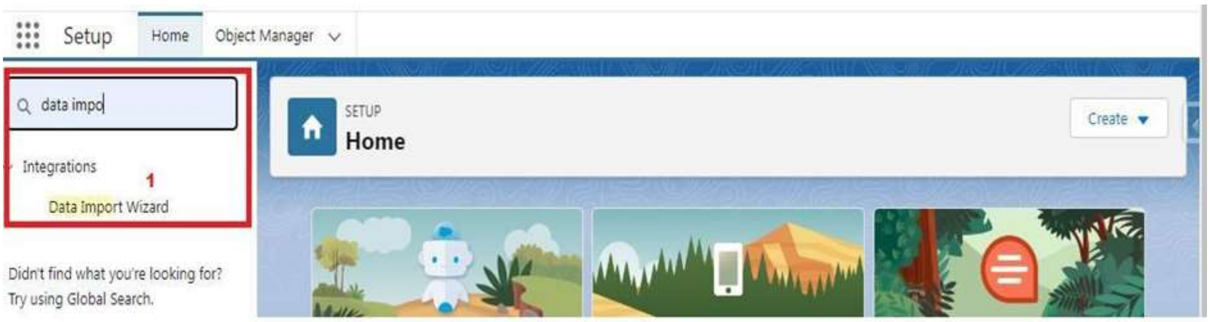
Data Import lets you upload data from external sources and combine it with data you collect via Analytics. You can then use Analytics to organize and analyze all of your data in ways that better reflect your business.

The Data Import Wizard is a Tool makes it easy to import data for many standard Salesforce objects, including accounts, contacts, leads, solutions, campaign members, and person accounts. You can also import data for custom objects.

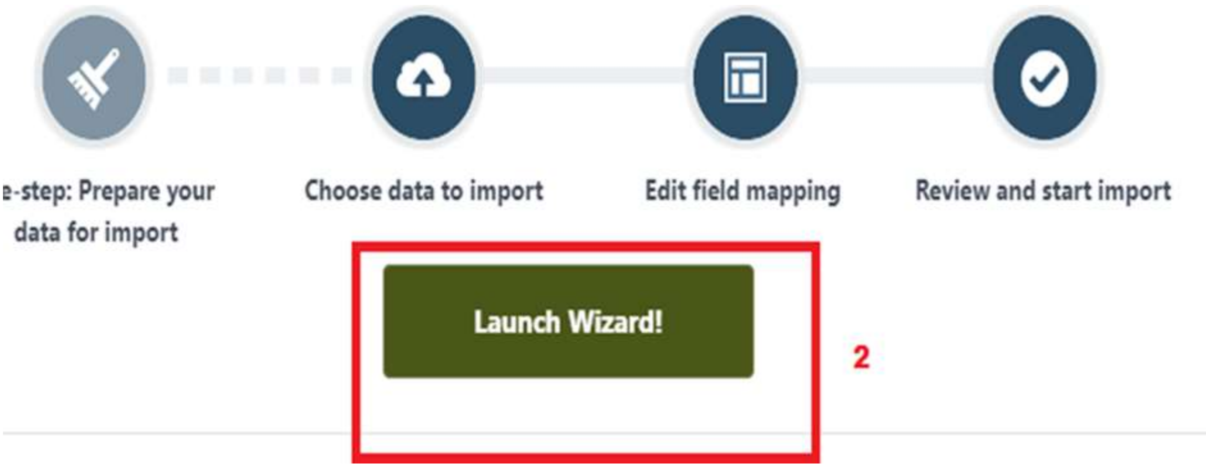
In order to complete this milestone, you need to create CSV files and give them data given in the picture below. After that from these CSV files we will import data for the Employee object.

Importing data using Data Wizard :

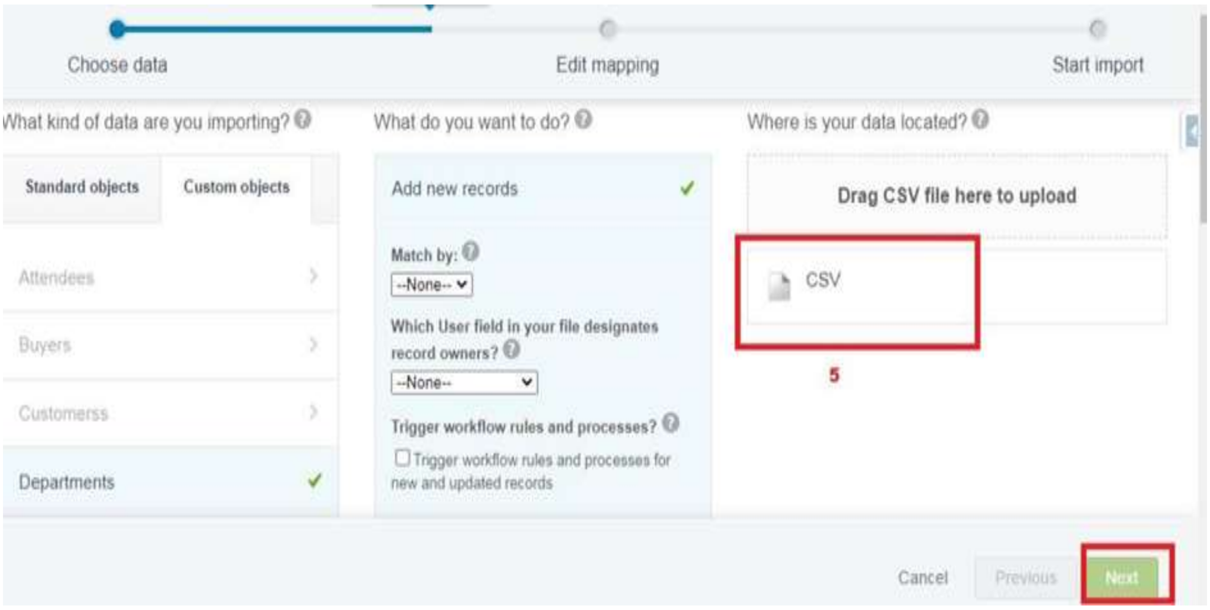
1. From Setup, click the Home tab.
2. In the Quick Find box, enter Data Import and select Data Import Wizard.



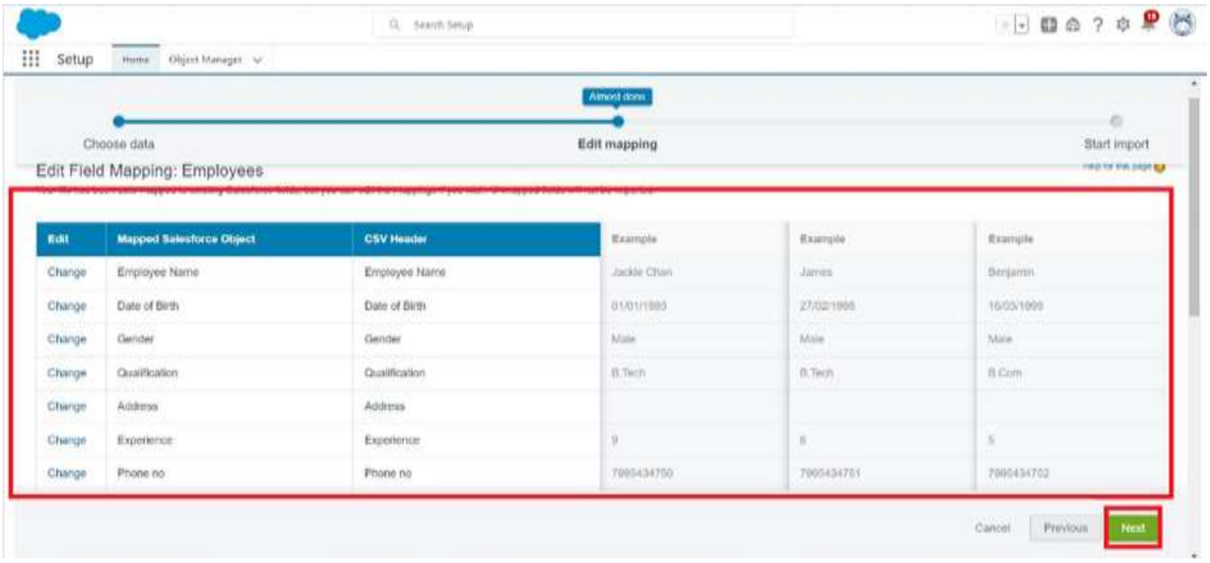
3. Click Launch Wizard!



4. Click the Custom Objects tab and select the Employee object.
5. Select Add new records.
6. Click CSV and choose file Employee_CSV which we made earlier. Click Next.

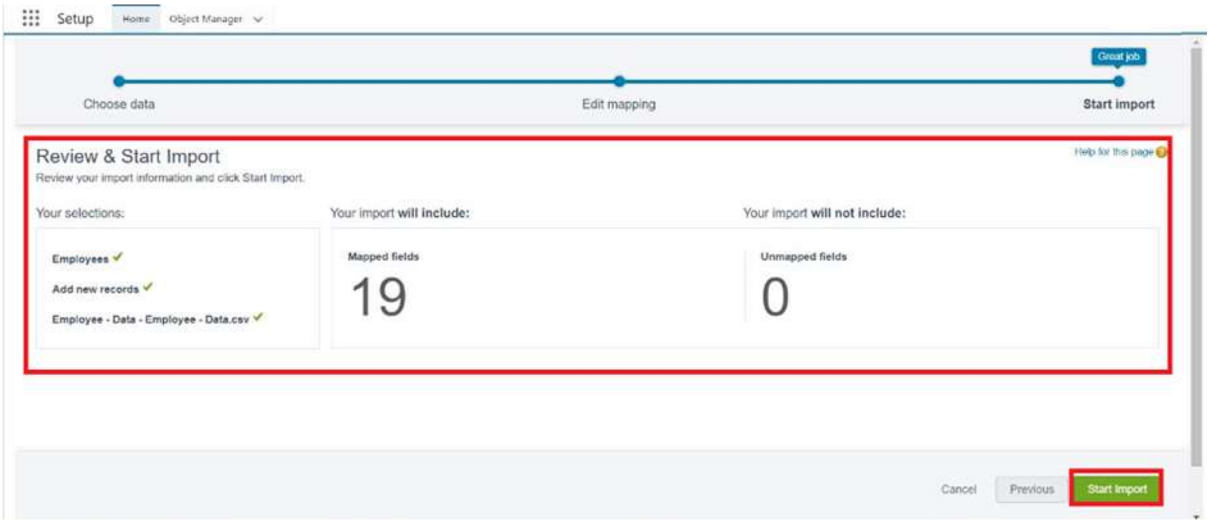


7. Since the field names in the CSV file (CSV Header) are the same as the field names in your object (Mapped Salesforce Object), the fields are automatically mapped. Click Next.



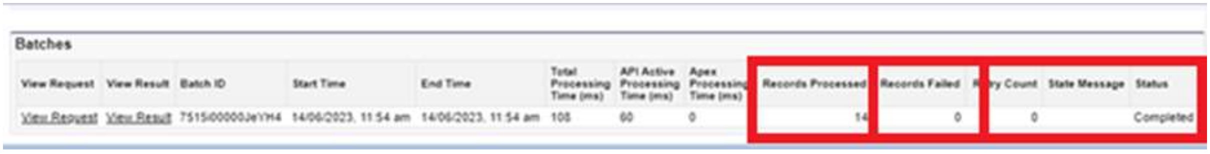
Note: no need to map “Reports to” field. The Data Import Wizard is designed to handle basic data import tasks and does not support mapping relationships between records.

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



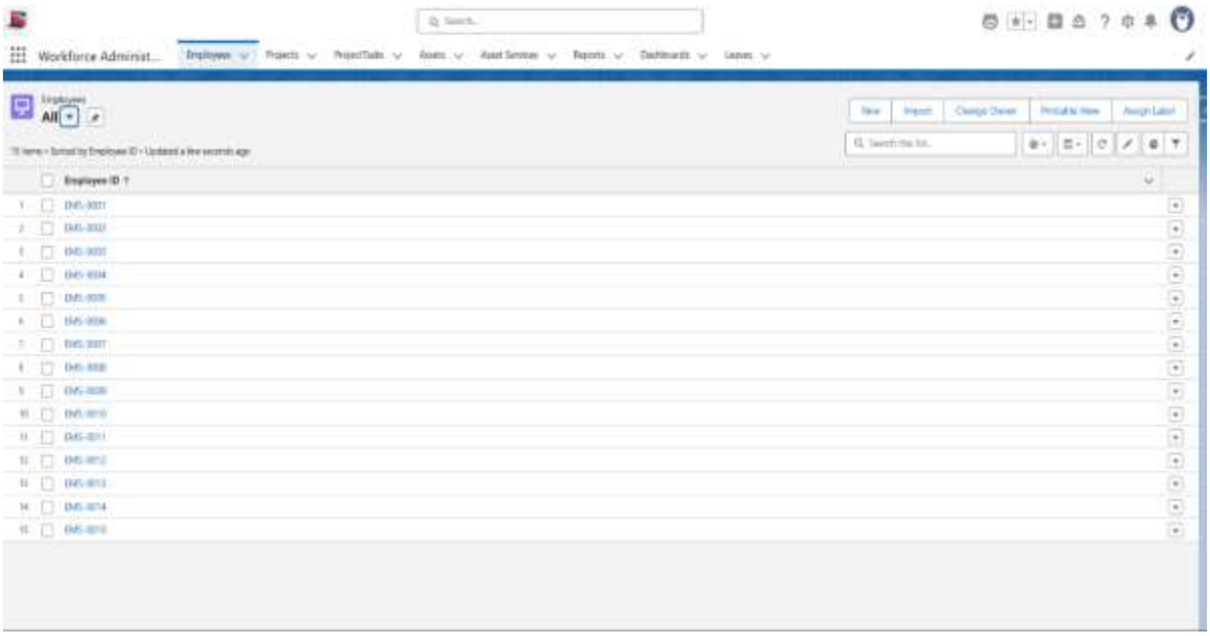
9. **Click OK on the popup**

10. **Scroll down the page and verify that your data has been imported under batches.**



11. Make sure you have 0 records under the records failed column.

Output: The imported data



Profiles :

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. Profile controls "Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges. You can define profiles by the user's job function. For example System Administrator, Developer, Sales Representative.

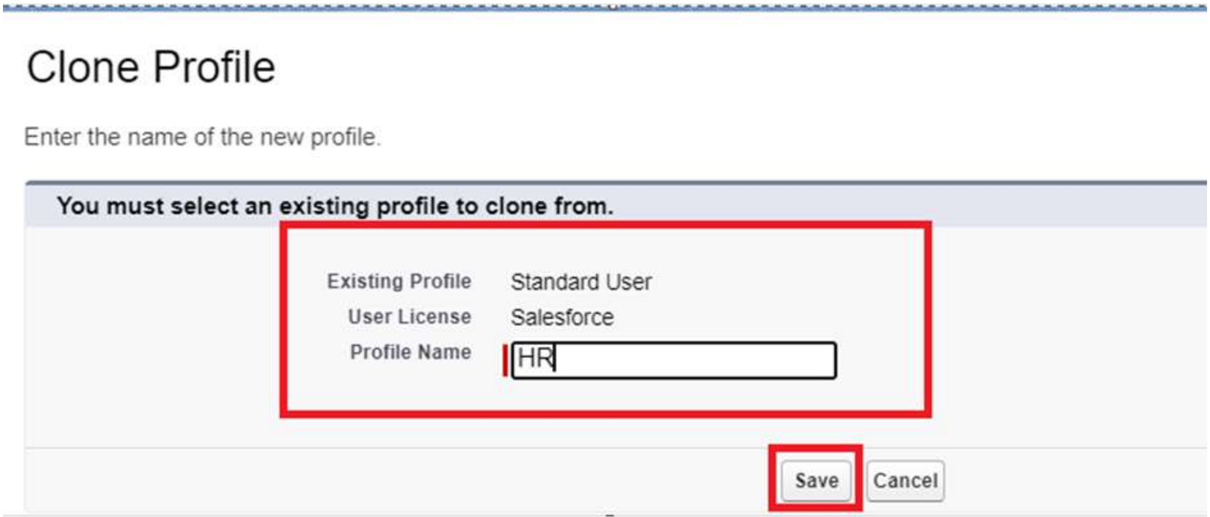
Types of profiles in salesforce :

1. **Standard profiles**
2. **Custom Profiles**

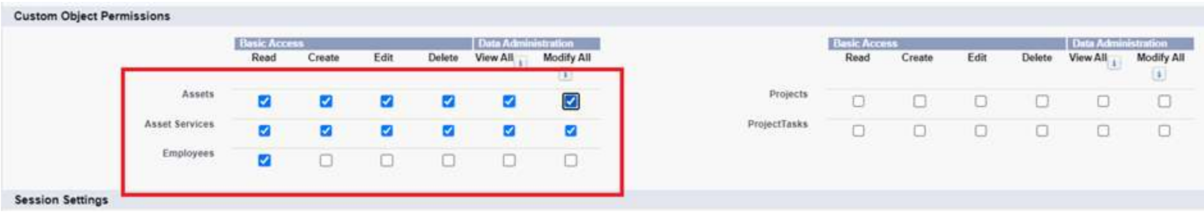
Creating of HR Profile :

To create a new profile:

1. **Go to setup --> type profiles in quick find box --> click on profiles --> clone the desired profile (Standard user) --> enter profile name (HR) --> Save.**



2. **While still on the profile page, then click Edit.**
3. **Scroll down to Custom Object Permissions and Give access permissions for Assets and Asset Services objects.**



4. **Scroll down**
5. **Click on Save.**

Creating Manager Profile :

1. Go to setup --> type profiles in quick find box --> click on profiles --> clone the desired profile (Salesforce Platform User) --> enter profile name (Manager) --> Save.

2. While still on the profile page, then click Edit.

3. Scroll down to Custom Object Permissions and Give access permissions for Employee, Project and Project Task objects.

4. Scroll down and Click on Save.

Creating Employee Profile

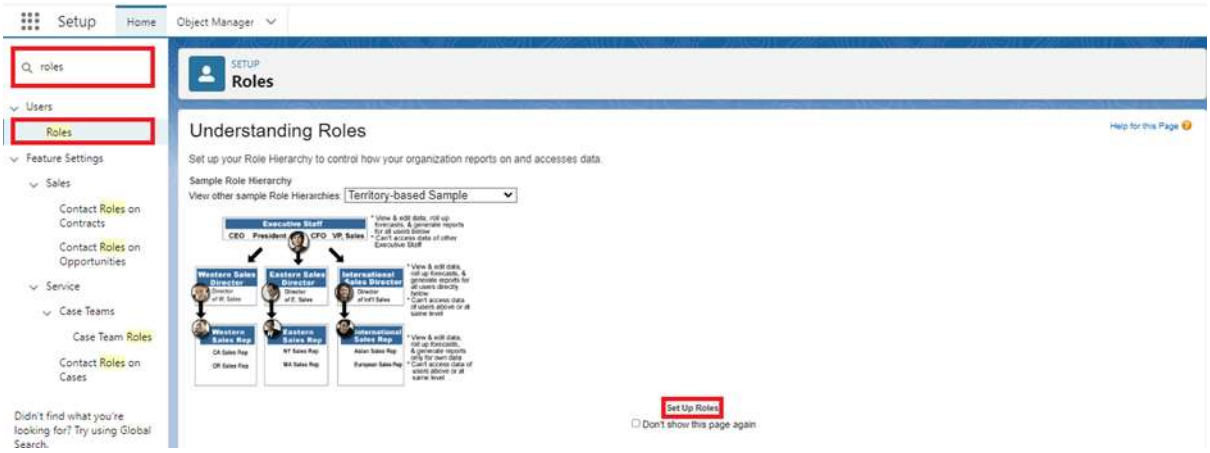
Create Employee Profiles for “On Site Employee”, ”Remote Employee” as in Activity 2, but in step 3 only allow permission access for Project and Project Task objects only.

Roles:

A role in Salesforce defines a user's visibility access at the record level. Roles may be used to specify the types of access that people in your Salesforce organization can have to data. Simply put, it describes what a user could see within the Salesforce organization.

Creating HR Role :

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



2. Click on Expand All and click on add role under whom this role works.

3. Give Label as “HR” and Role name gets auto populated. Check to whom this role (HR) reports. Then click on Save.

Creating more roles :

Create three more roles for Manager, On Site Employee, Remote Employee.

Note: On Site Employee and Remote Employee reports to Manager.

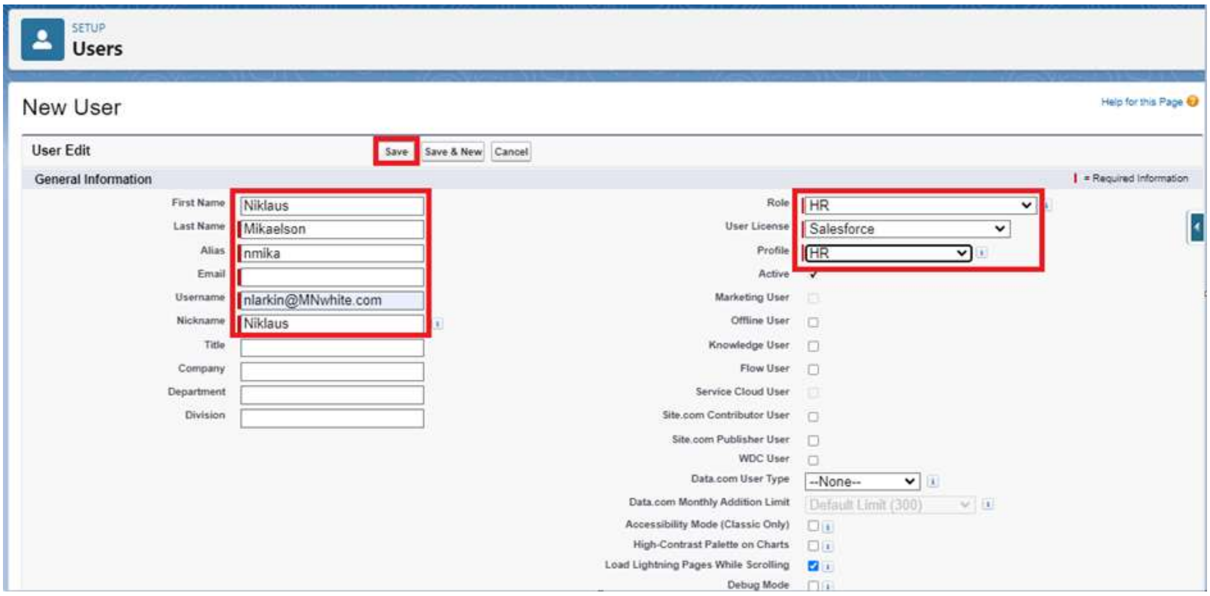
Users :

A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

Every user in Salesforce has a user account. The user account identifies the user, and the user account settings determine what features and records the user can access.

Creating a User:

1. Go to setup --> type users in quick find box --> select users --> click New user.
2. Fill in the fields as shown in the below



3. Save

Creating another user :

1. Go to setup --> type users in quick find box --> select users --> click New user.
2. Fill in the fields
   - 1 First Name : Kol
   - 2 Last Name : Mikaelson
   - 3 Alias : Give a Alias Name
   - 4 Email id : Give your Personal Email id
   - 5 Username : Username should be in this form: text@text.text
   - 6 Nick Name : Give a Nickname
   - 7 Role : Manager
   - 8 User license : Salesforce Platform
   - 9 Profiles : Manager
3. Save.

Creating more users :

Create two more users as we created in activity 2.

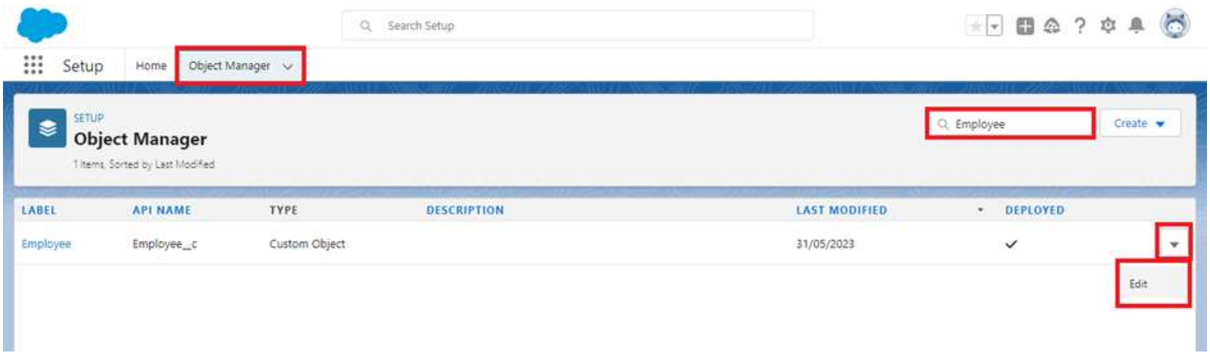
Page layouts :

Page Layout in Salesforce allows us to customize the design and organize detail and edit pages of records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom links on standard and custom objects' detail and edit pages.

Creating a page layout for Employee object :

To Create a Page layout:

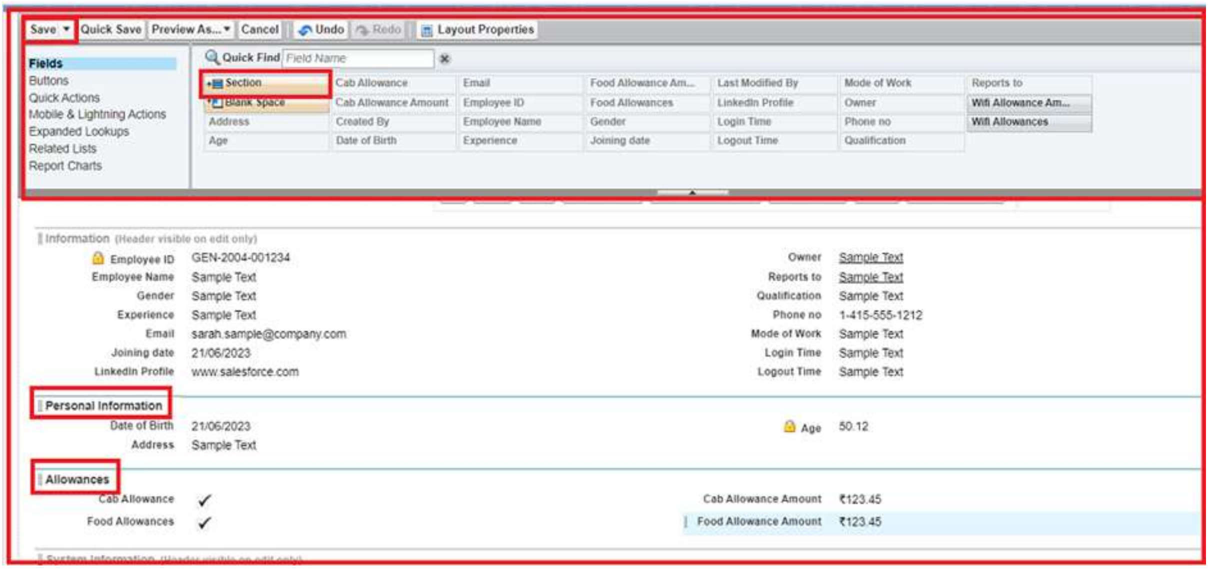
1. **Go to Setup --> Click on Object Manager --> Search for the object (Employee) --> From drop down click on Edit.**



2. Click on Page layout --> Click on New.

3. Give Page layout Name as "On Site Employee Layout" and click on Save.

4. **Drag and drop the Section from the highlight panel below the Information and name it as "Personal Information" and click Ok.**
5. **Drag Date of Birth, Address and Age fields from Employee Information to Personal Information section.**
6. **Similarly perform the above step to create "Allowances" and add allowances fields in it as shown below.**

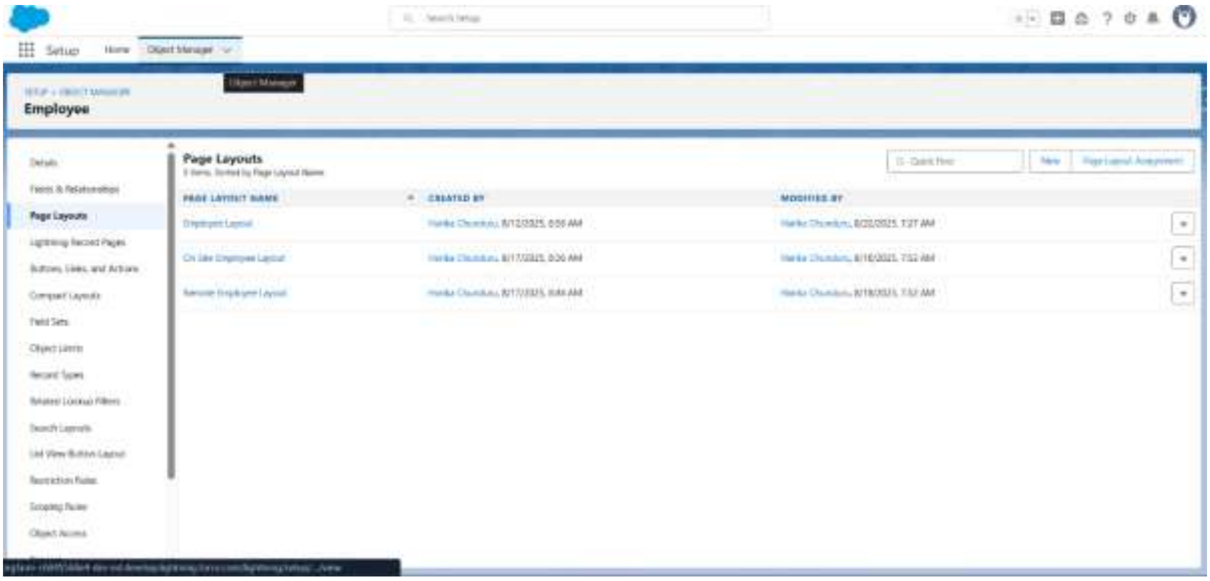


7. **Click Save.**
8. **Make sure your page layout looks like the picture above.**

Creating another page layout

Create another page layout and name it as “Remote Employee Layout”, and in the allowances section use only Wifi Allowance and Wifi Allowances Amount fields.

Output:



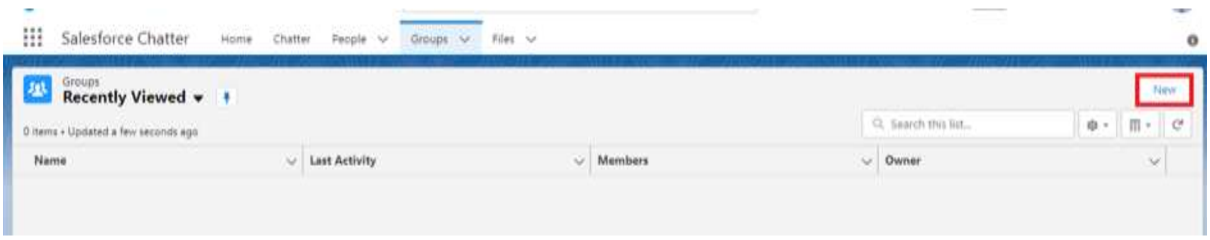
Chatter Group :

Salesforce Chatter Groups are collaborative spaces within the Salesforce platform that enable teams to communicate, share information, and collaborate on projects. They provide a centralized hub for discussions, file sharing, and updates, allowing users to stay connected, streamline workflows, and enhance productivity.

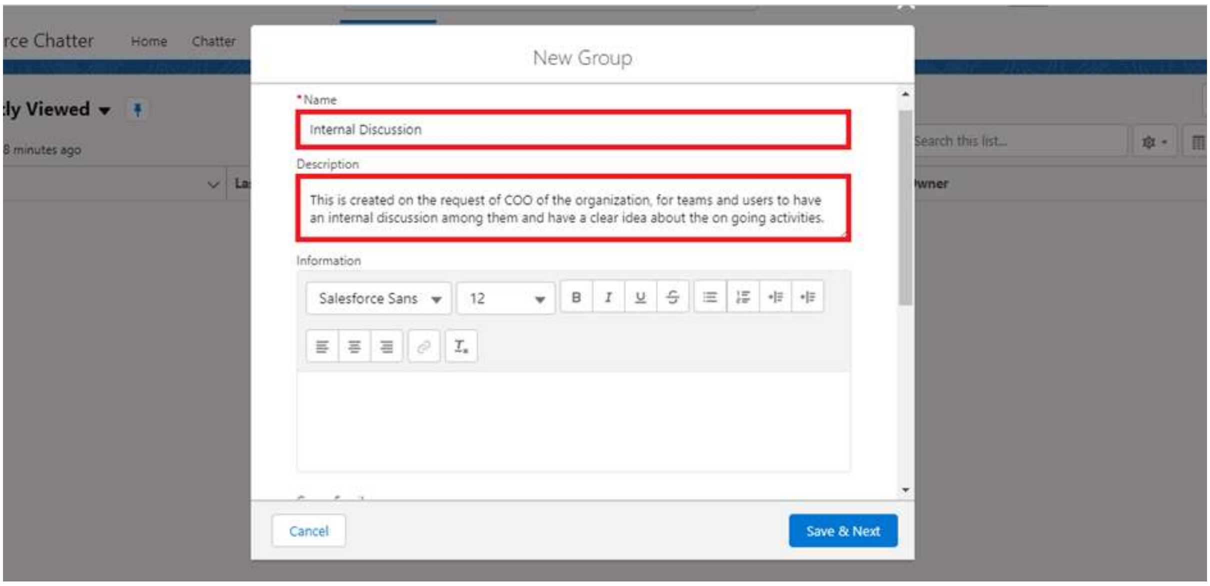
Creating a chatter group for your organization:

To Create a chatter group:

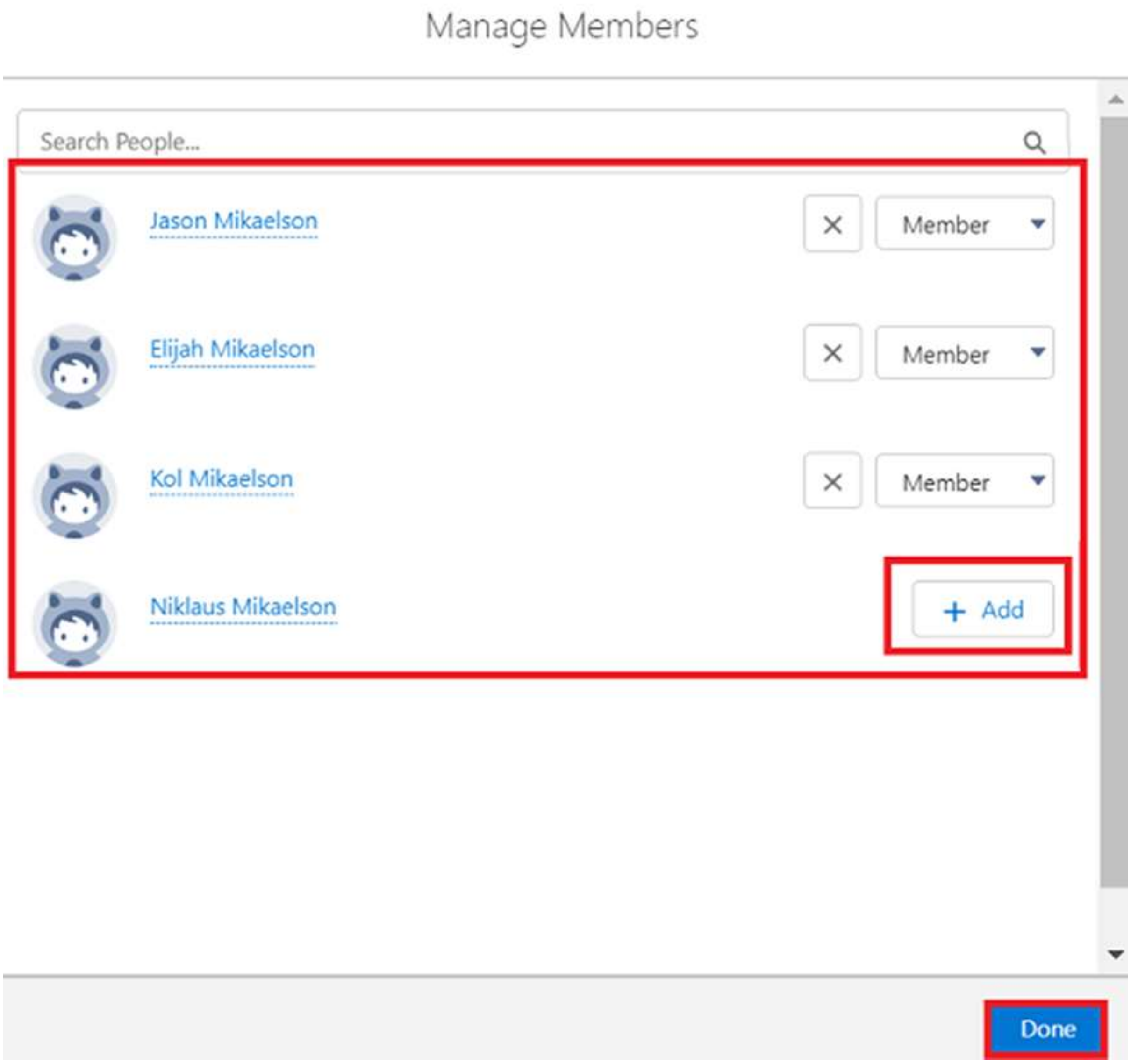
1. Click the App Launcher.
2. Enter Groups in the Search apps and items... box and select Groups.
3. Click New.



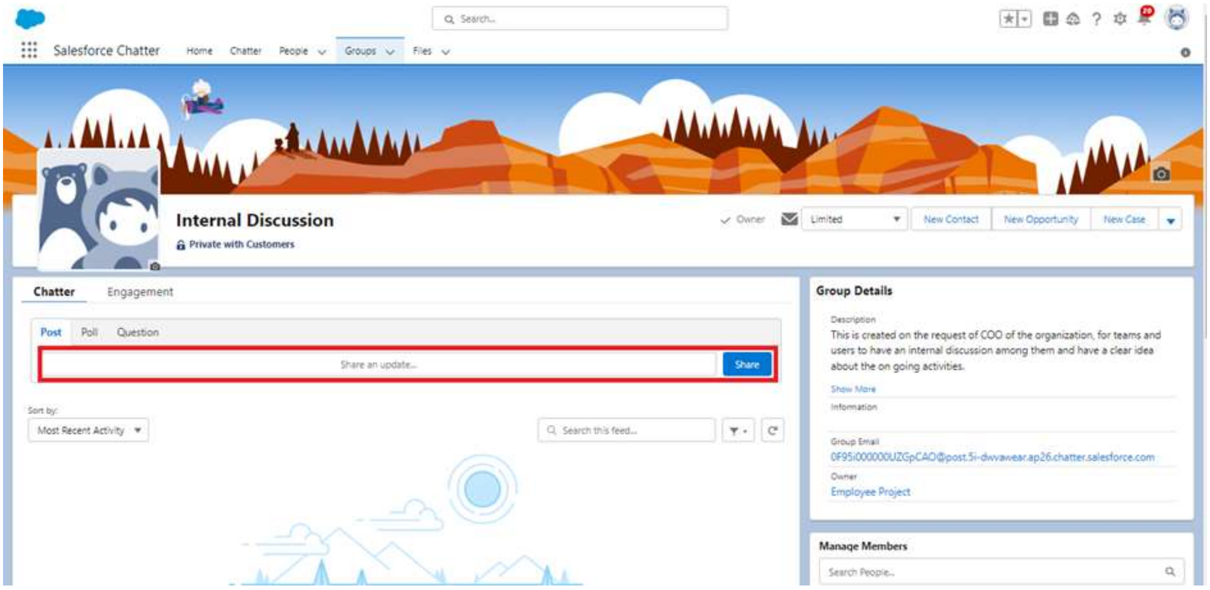
4. Fill in the new group information with details that are shown below:



5. **Click Save & Next. Skip the Upload Picture section and click Next.**
6. **On the Manage Members screen, click Add next to users you created in the previous activity.**


Manage Members
Search People...
Jason Mikaelson
Member
Elijah Mikaelson
Member
Kol Mikaelson
Member
Niklaus Mikaelson
+ Add
Done

7. Click Done.


Salesforce Chatter
Home
Chatter
People
Groups
Files
Internal Discussion
Private with Customers
Owner
Limited
New Contact
New Opportunity
New Case
Chatter
Engagement
Post
Poll
Question
Share an update...
Share
Sort by:
Most Recent Activity
Search this feed...
Group Details
Description
This is created on the request of COO of the organization, for teams and users to have an internal discussion among them and have a clear idea about the on going activities.
Show More
Information
Group Email
Owner
Employee Project
Manage Members
Search People...

8. This is how your group interface looks like.

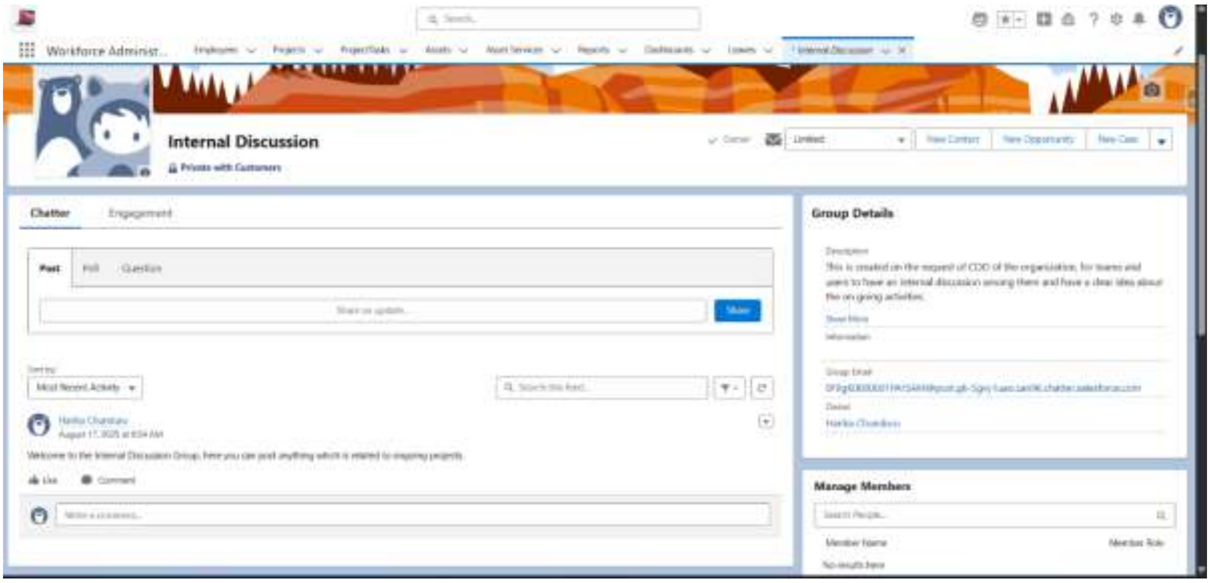
9. Where it says Share an update, post this message to the group: Welcome to the Internal Discussion Group, here you can post anything which is related to ongoing projects.

10. Click Share.

Note: You can like or comment on this post.

Note: there is a default chatter group in the org with all the active users in it, this activity is to show you how to create a chatter group and add users into it.

Output:



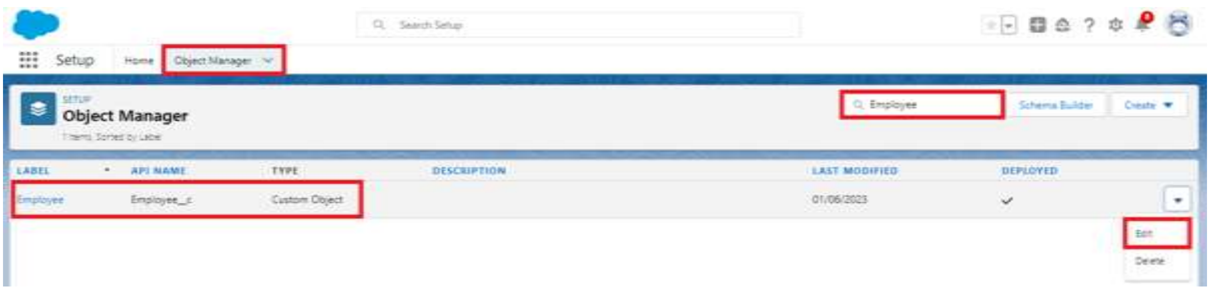
Record Types :

Record Types are a way of grouping many records of one type for that object. These can be applied to any standard or custom object, and allow you to have a different page layout, fields, required fields, and picklist values. Record types allow administrators to create a different page layout with custom picklist fields and values for the same business process and various business processes.

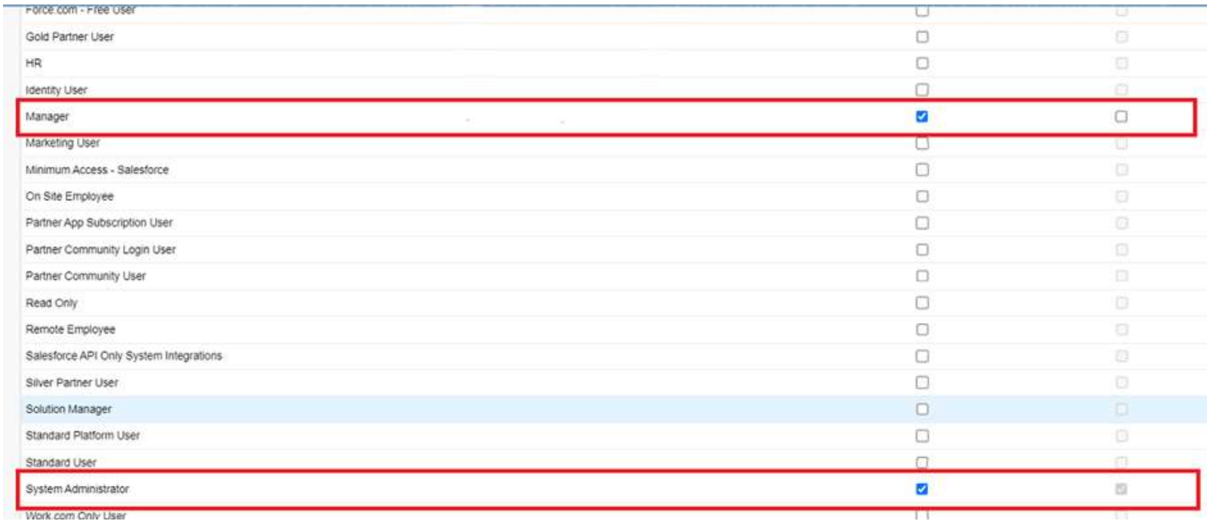
Creating On Site Employee Record Type :

To create a Record Type:

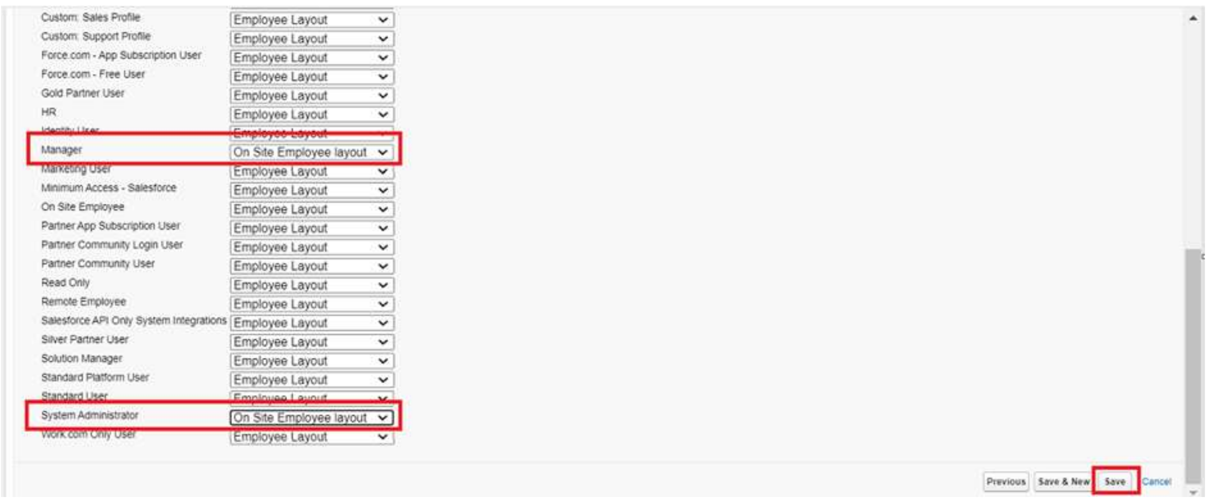
1. Go to Setup --> click on Object Manager --> Search for the object (Employee) --> from drop down click Edit.



2. From the left panel click Record Types --> New.
3. Give Record Type Label as "On Site Employee" and make it active.
4. Uncheck for "Make Available".
5. Scroll down and check for the Manager & System Administrator profile and click on Next.



6. Select "Apply a different layout for each profile", and change page layout to On Site Employee Layout for manager profile and System Administrator.



7. click Save.

Creating "Remote Employee" Record Type :

Create another Record Type with name “Remote Employee” following

the step from activity 1.

Note: use Remote Employee page layout for Remote Employee record type.

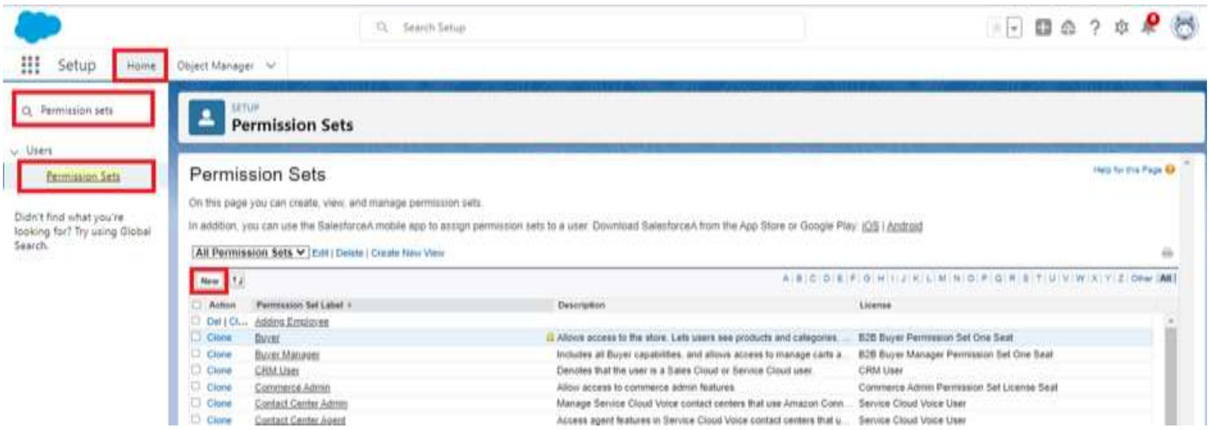
Permission sets :

A permission set is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users' functional access without changing their profiles. Users can have only one profile but, depending on the Salesforce edition, they can have multiple permission sets.

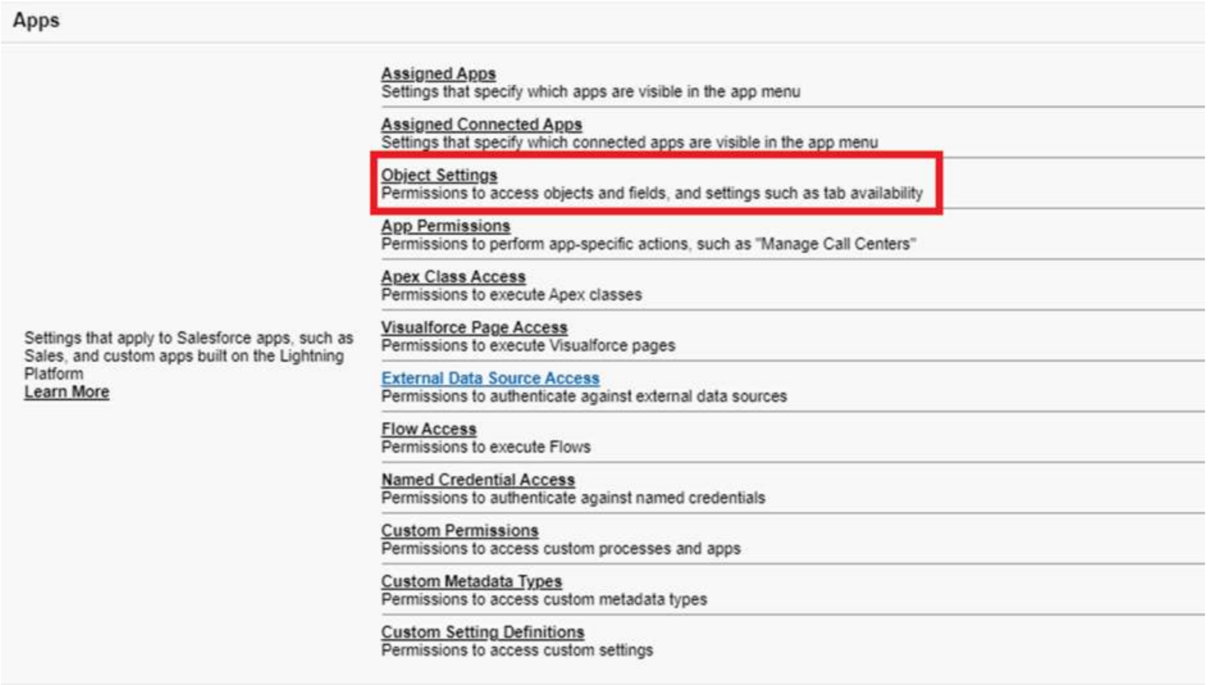
Creating a permission set :

To Create a Permission Set:

1. Go to setup --> type “permission sets” in quick search --> select permission sets --> New.



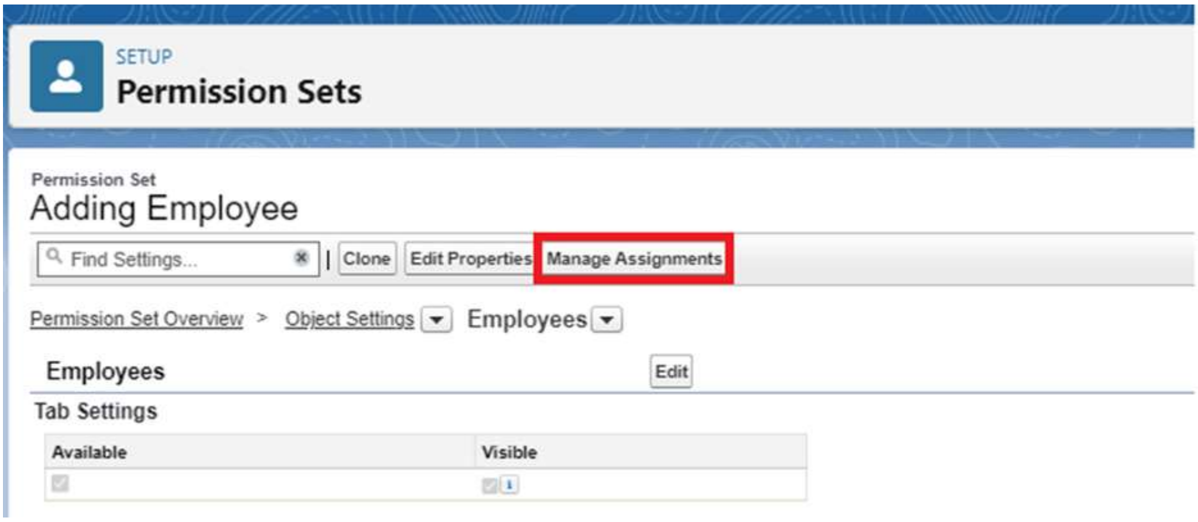
2. Enter the label name as “Per to Emp” --> Save.
3. Under Apps Select object settings.



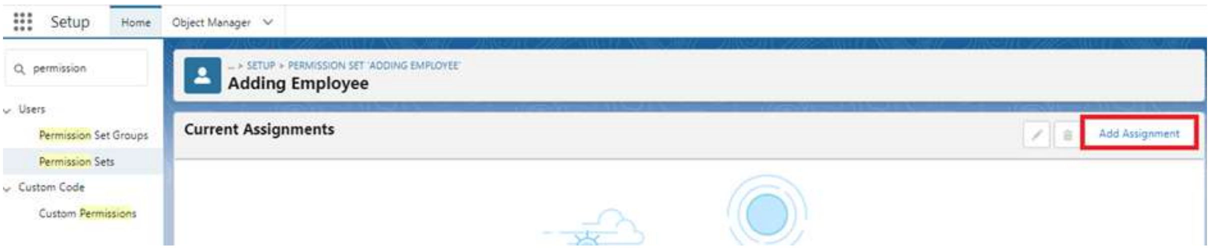
4. **Click on Employee object --> click on Edit --> under object permission check for read and create.**
5. **Click on Save.**

---

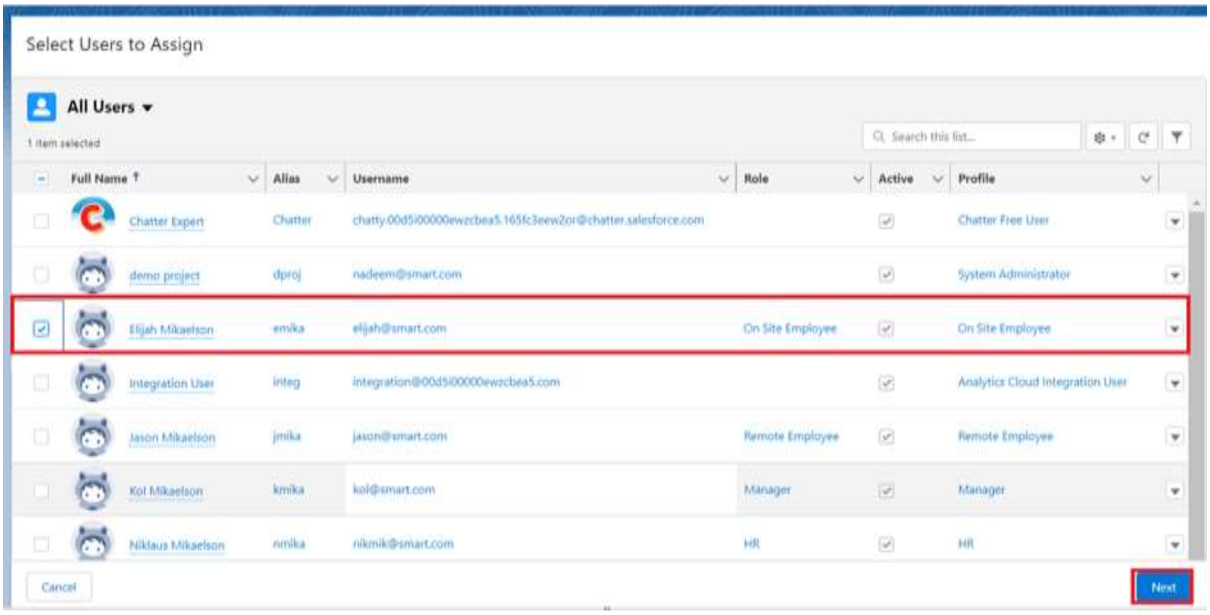
6. **After saving the permission click on the Manage assignment**



7. **Now click on the Manage Assignment.**



8. Click on Add Assignment.



9. Now select the users(any one user with the profile “On Site Employee”) and click on Next.

10. Click on Assign

11. Click on Done.

Reports :

Reports give you access to your Salesforce data. You can examine your Salesforce data in almost infinite combinations, display it in easy-to-understand formats, and share the resulting insights with others. Before building, reading, and sharing reports, review these reporting basics.

Types of Reports in Salesforce

1. Tabular

2. Summary

3. **Matrix**

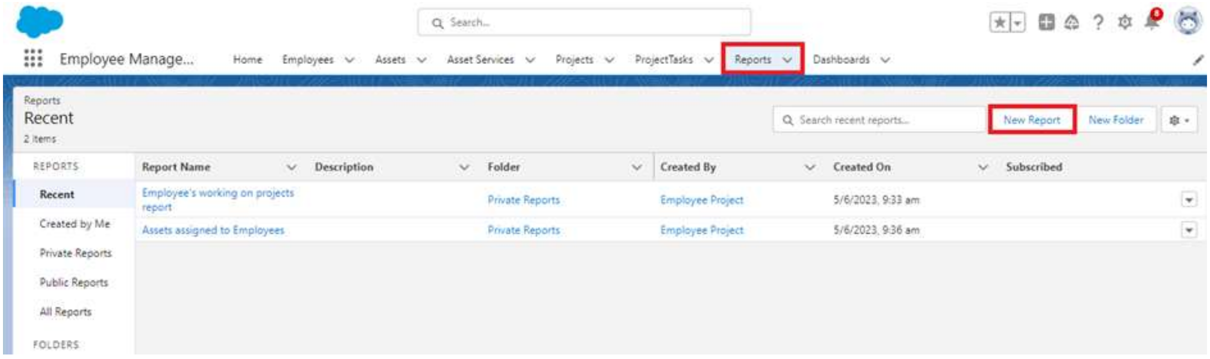
4. **Joined Reports**

Creating Report s:

To Create a Report:

1. **Go to the app --> click on the reports tab**

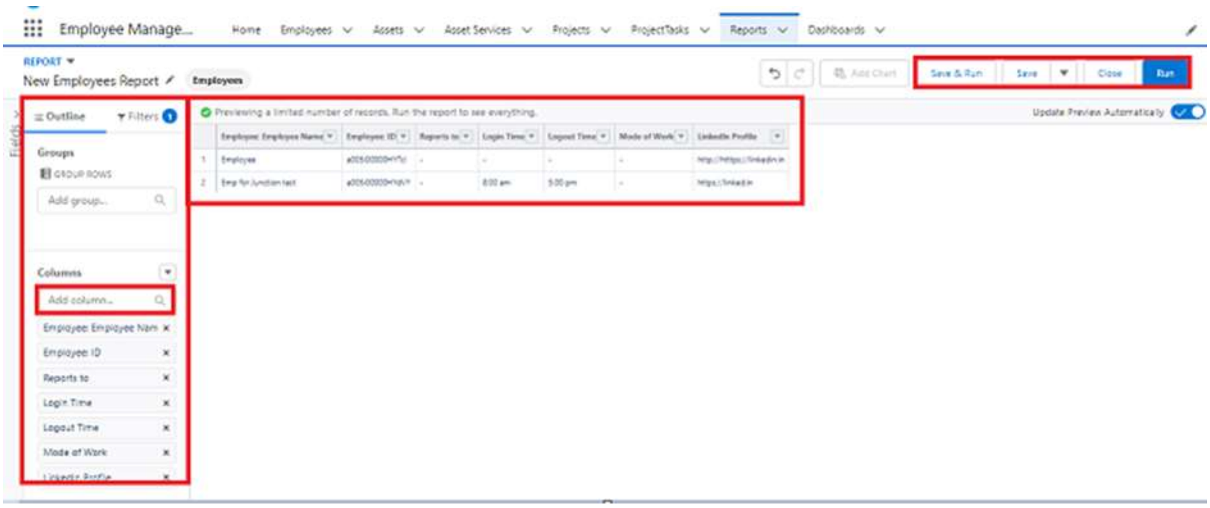
2. **Click New Report.**



3. **Select report type from category or from report type panel or from search panel --> click on start report.**

4. **Customize your report**

--> Add fields from left pane as shown below

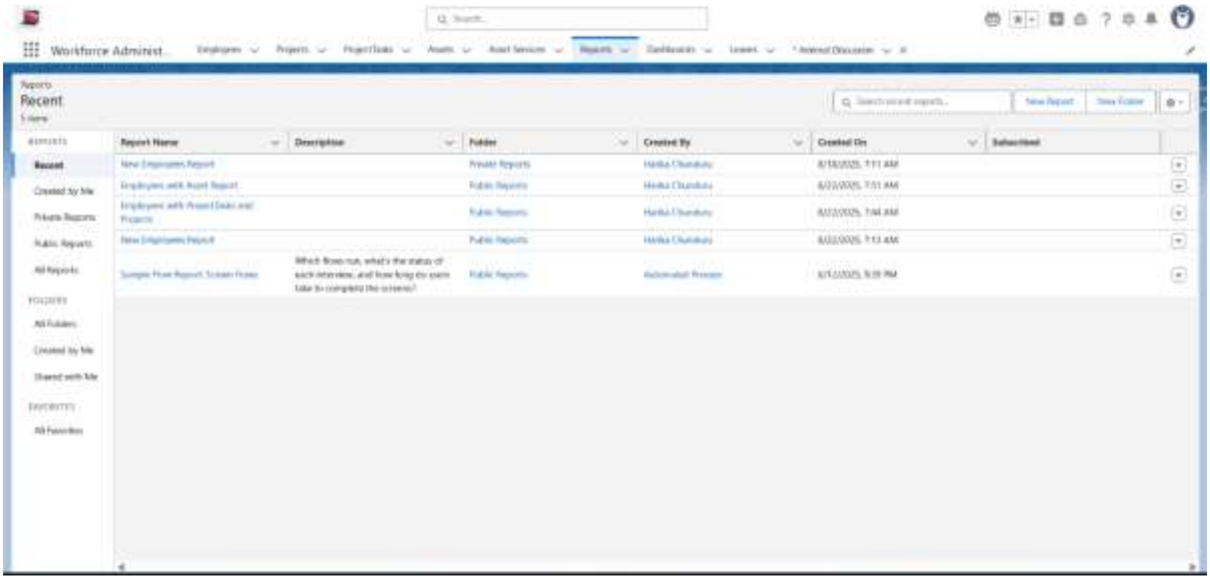


5. **Save or run it.**

Note: Reports may get varied from the above pictures as the data might be different

1. Create a report with report type: "Employees with ProjectTasks and Projects & Create a report with report type: "Employees with Assets".

Output:



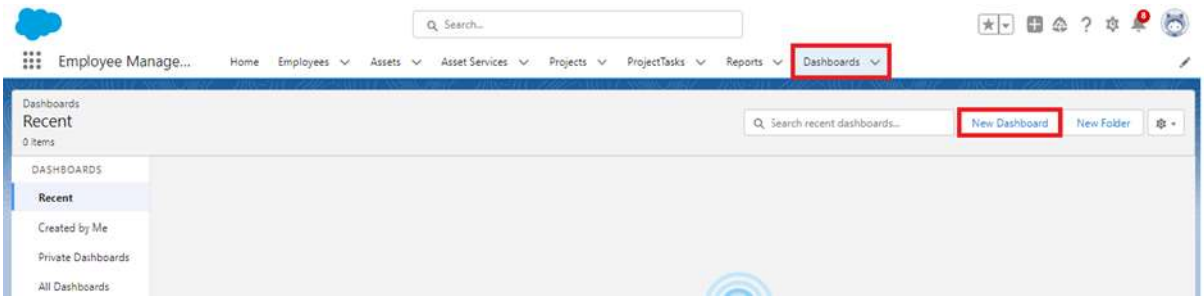
Dashboards :

Dashboards help you visually understand changing business conditions so you can make decisions based on the real-time data you've gathered with reports. Use dashboards to help users identify trends, sort out quantities, and measure the impact of their activities. Before building, reading, and sharing dashboards, review these dashboard basics.

Creating Dashboard :

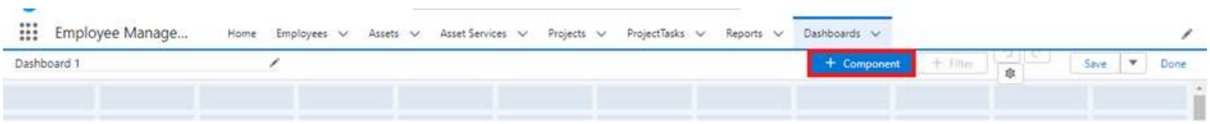
To Create a Dashboard

1. Go to the app --> click on the Dashboards tabs.

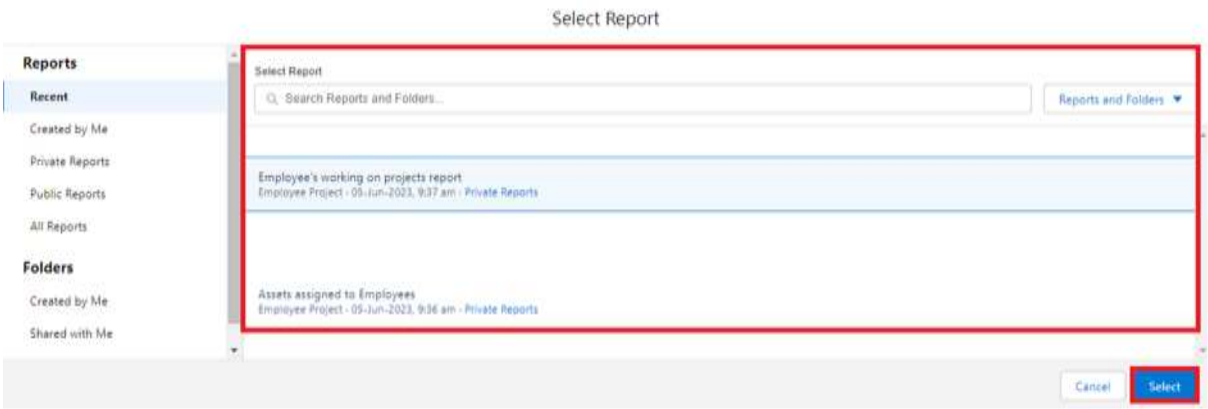


2. Give a Name and click on Create.

3. Select add component.



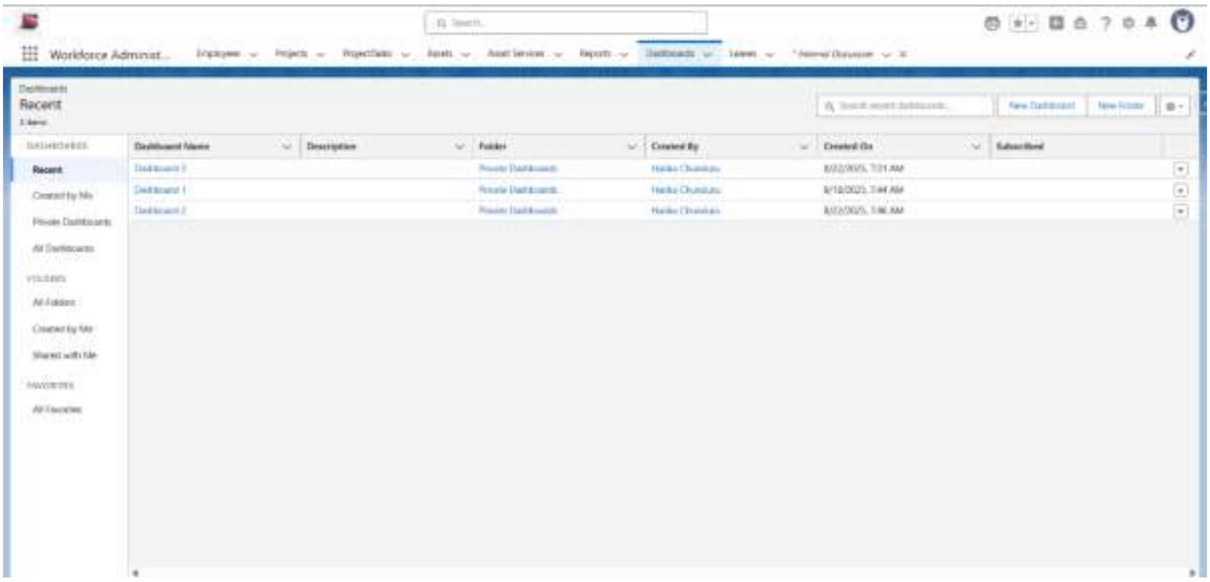
4. Select a Report and click on select



5. **Click Add then click on Save and then click on Done.**

Note : Create another Dashboard as we discussed in activity 1.

Output:



Approval Process :

The Hiring Manager (HR) at TheSmartBridge wants to track the leave applications for each and every employee of the company. His requirement is the no leave application with more than 5 days of leave should come to him but automatically get submitted to the Employee Manager. If the leave application is more than 5 days then only his approval is needed.

As an Admin to TheSmartBridge you know what to do in order to achieve this requirement.

Create the leave object with the following fields.

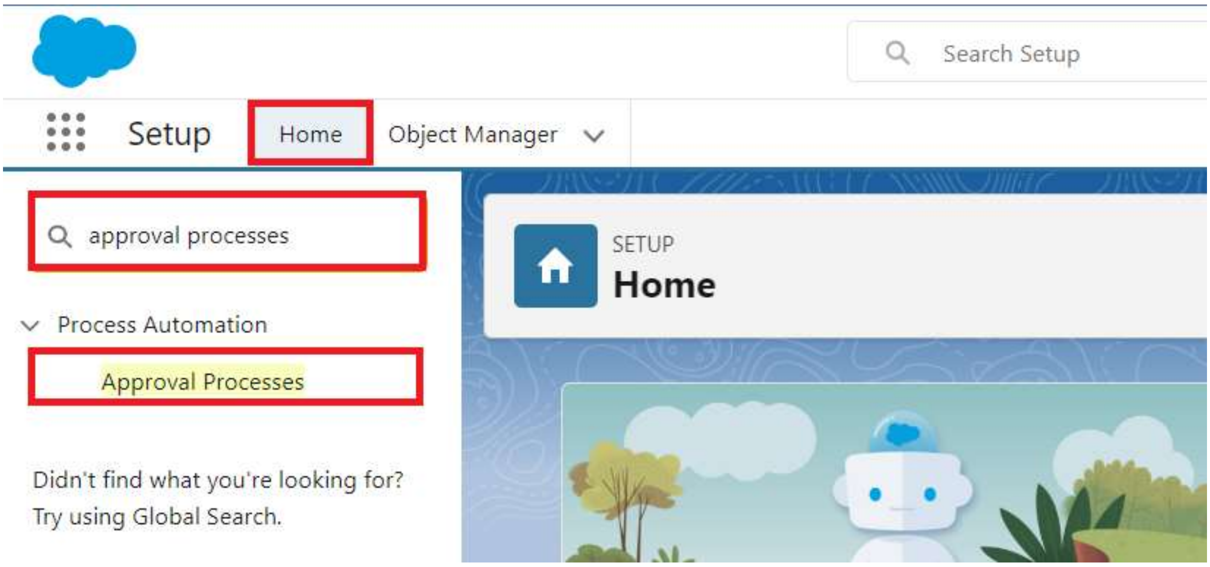
Fields		**Datatype**
Employee Name	**:**	**Lookup with Employee object**
No. of Days	**:**	**Number**
Subject	**:**	**Text**
Description	**:**	**Text Area(Rich)**
Status	**:**	**Picklist**

Note: Make sure the Status field is read only for everyone. (Give read only permission in step 3 while creating the field),

Create the tab for the leave object.

Create an Approval Process for Leave object:

1. **Go to Setup --> type Approval Processes in quick find --> click on Approval Processes.**



2. **In the Manage Approval Processes For list, select Leave.**
3. **Click Create New Approval Process and select Use Jump Start Wizard.**
4. **Enter the following parameters**

Parameter	Value
Name	**Leave Approval Request**
Unique Name	**Leave_Approval_Request(This automatically gets sent when you tab out of the Name field)**

Approval Assignment Email Template	**Leave blank**
Add the Submit for Approval button and Approval History related list to all Travel Approval page layouts	**Leave this selected/checked**
Use Approver Field of Leave Owner	**Leave unselected/unchecked.**
Select Approver	**select Automatically assign to approver(s) and for users select the name of the user with the Manager role.**

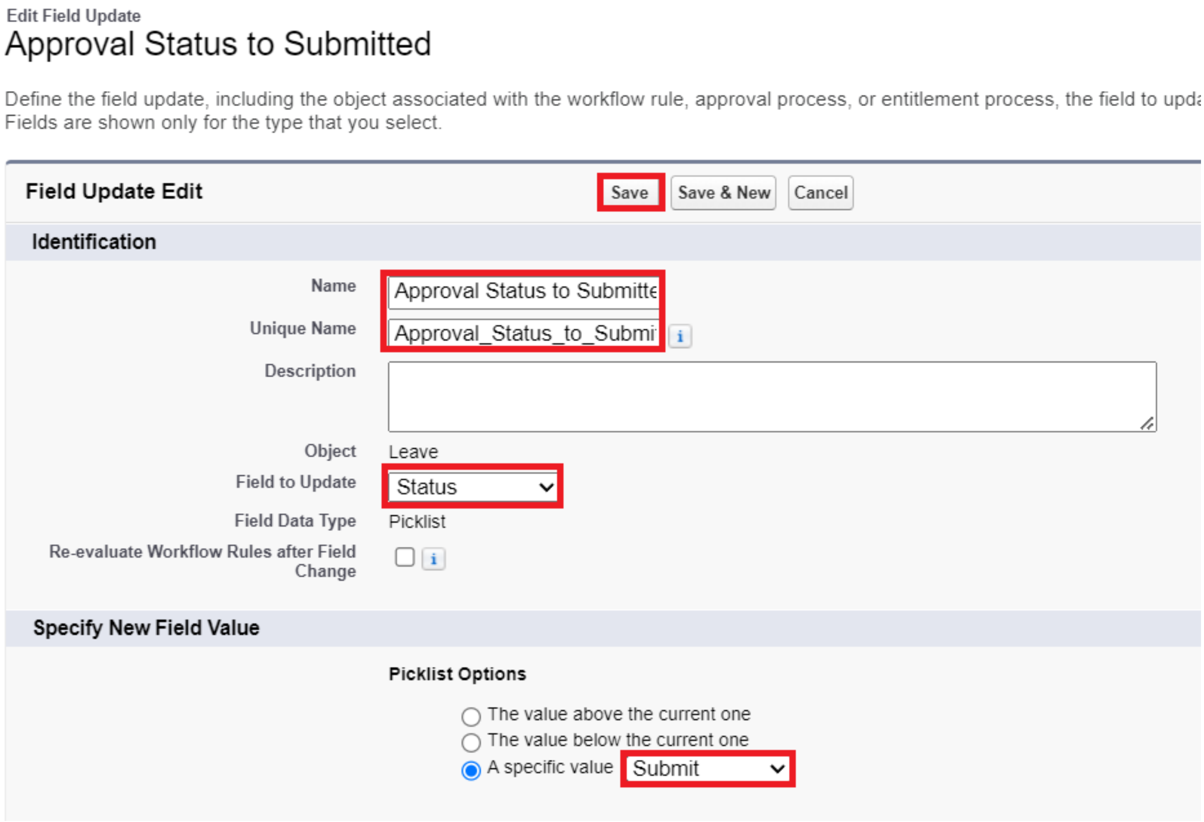
5. Click Save

6. Click View Approval Process Detail Page.

Initial Submission Action:

1. Under initial submission action click on add new and then select field update.

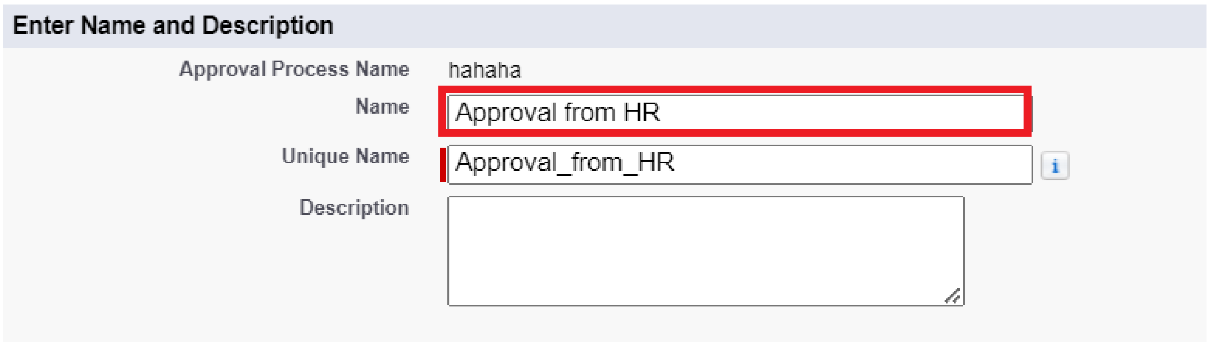
2. Give name as "Approval Status to Submitted".
3 . Select Status for the field to update.
4. Under specify new field value select "A specific value" and select submitted and click Save.



Approval Steps:

1. **While you are still on Leave Approval Request detail page, Under approval steps click the new approval step.**

2. **Give the name as "Approval from HR" and click on next.**



3. **Under specify step criteria select "Enter this step if the following (Criteria are met)",**
   Select field : "Leave: No. of Days",
   Operator : equals
   Value : 5

4. **Click next.**

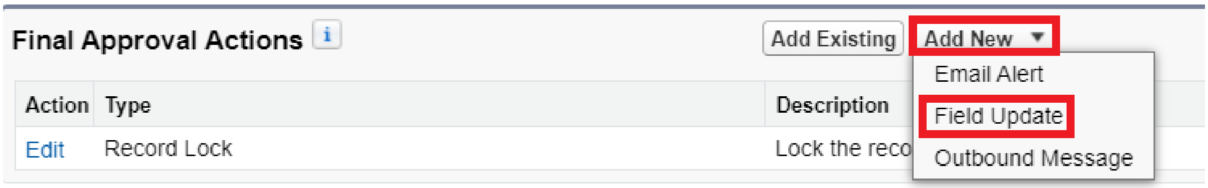
5. Under select approver : select Automatically assign to approver(s) and for users select the name of the user with the HR role.

6. Click on Save.

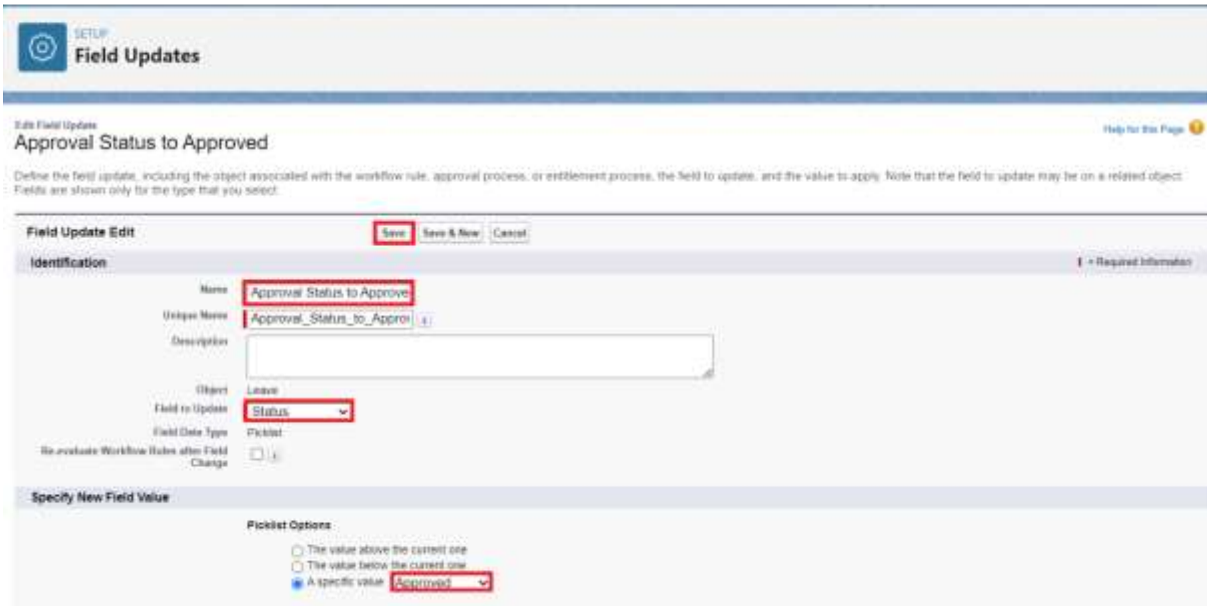
7. No, I'll do this later. Take me to the approval process detail page to review what I've just created and click Go.

Final Approval Action:

1. Under initial submission action click on add new and then select field update.

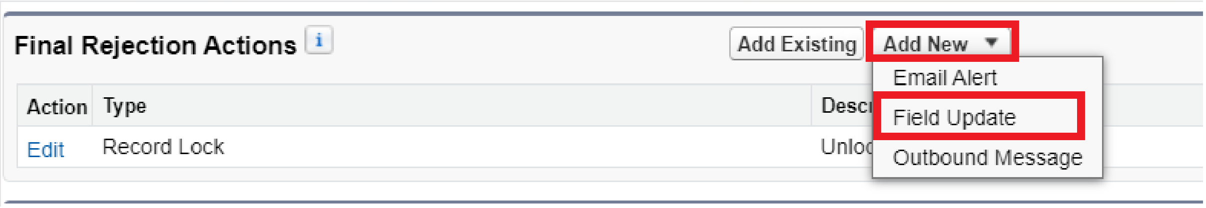


2. Give name as "Approval Status to Approved".
Select Status for the field to update.
Under specify new field value select "A specific value" and select Approved and click Save.

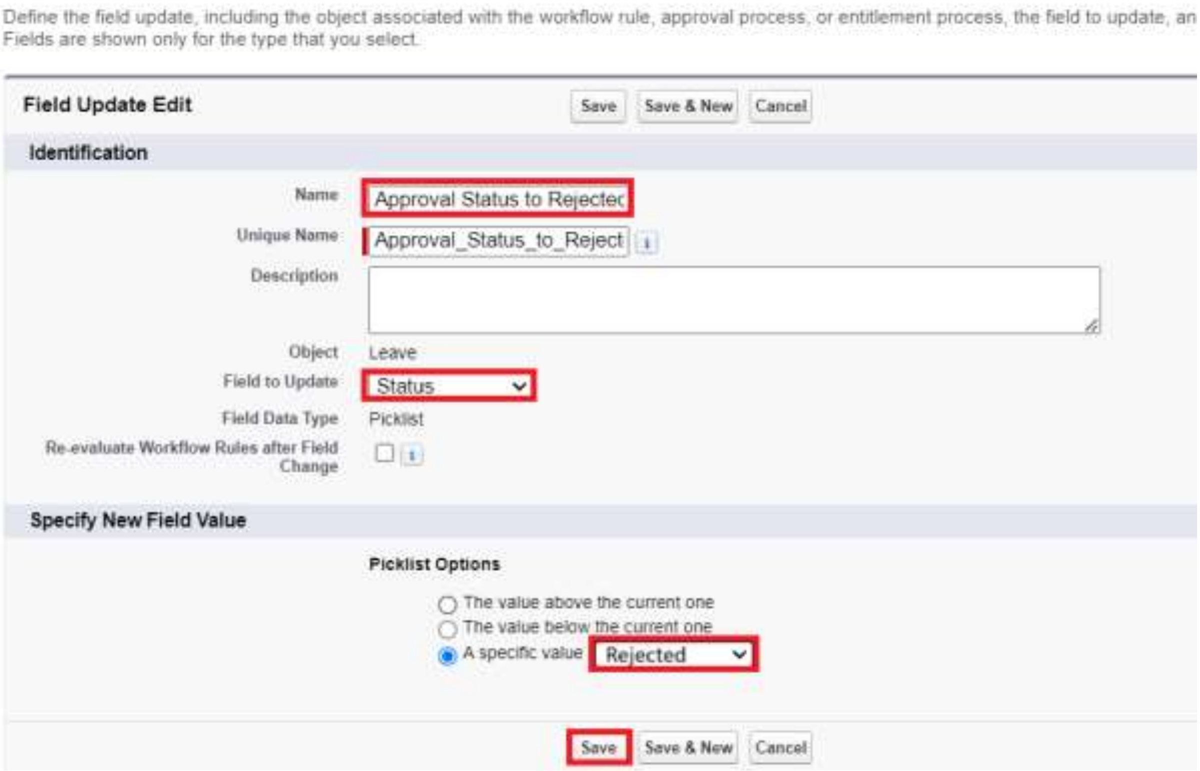


Final Rejection Action:

1. **Under initial submission action click on add new and then select field update.**



2. **Give name as “Approval Status to Rejected”.**
   Select Status for the field to update.
   Under specify new field value select “A specific value” and select Rejected and click Save.



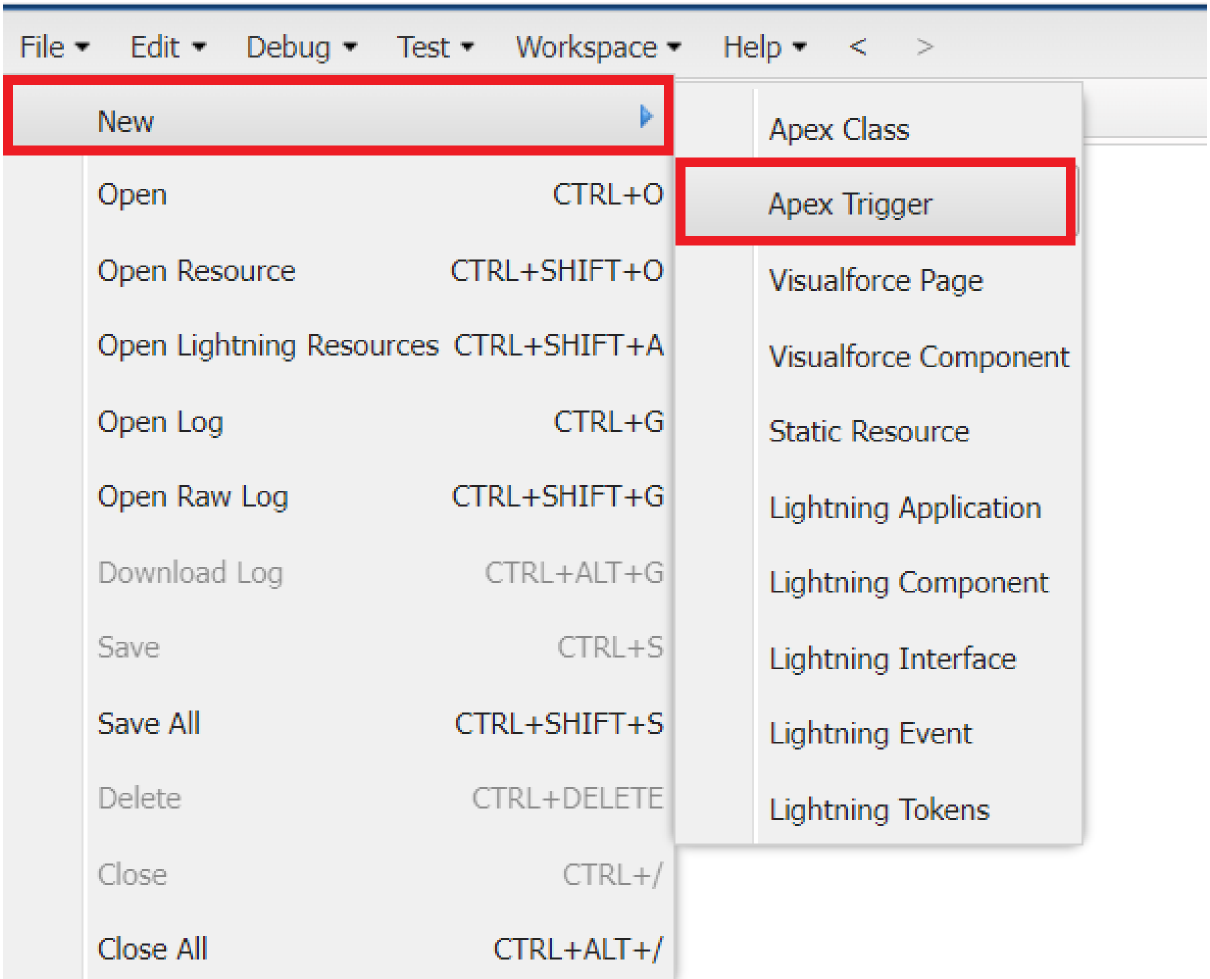
Apex Trigger :

The Manager at TheSmartBridge wants no duplicate names of employees should enter into the database. So he/she recalls you for the solution.

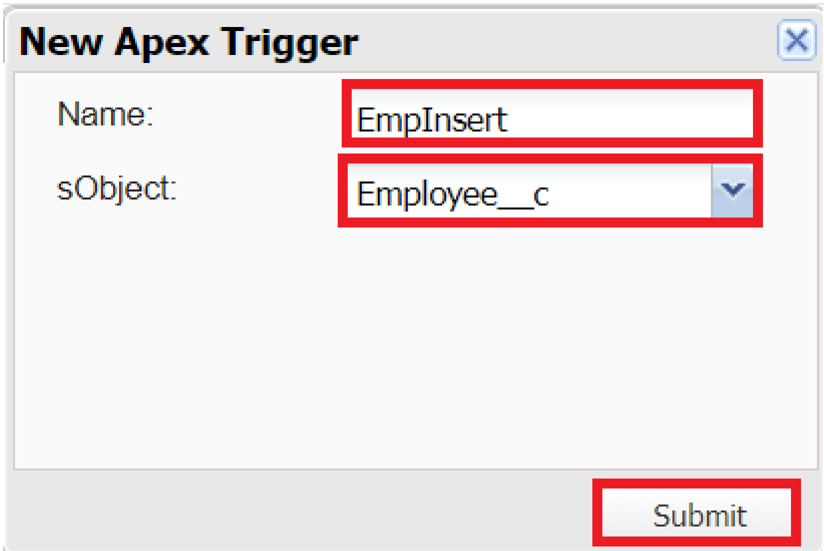
Write a code to achieve this requirement using Salesforce developer skills to fulfill the Managers requirement.

Creating an Apex Trigger :

1. To create a new Apex Class follow the below steps:
   Click on the file --> New --> Apex Class.

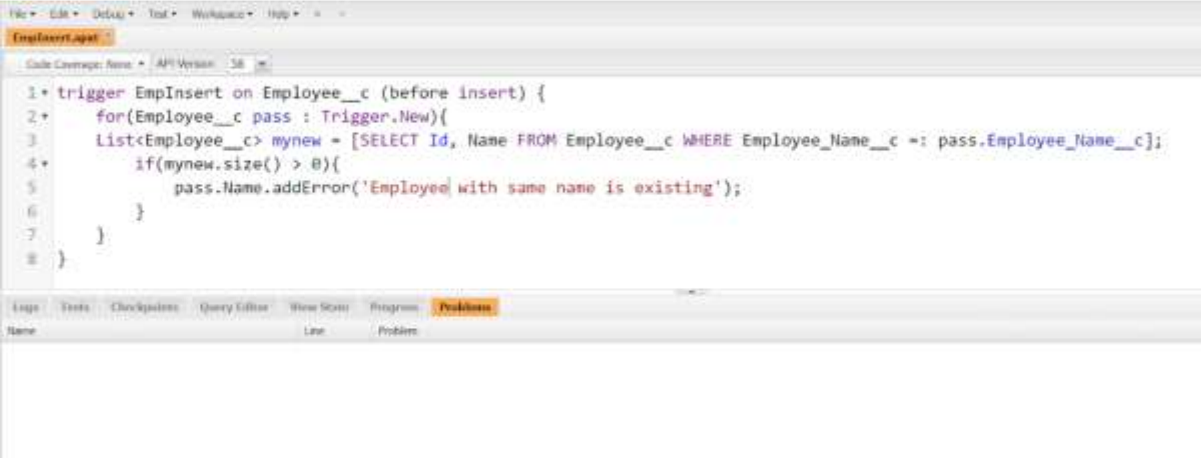


2. Give the Apex Trigger name as “EmpInsert”, and select “Employee__c” from the dropdown for sObject.



3. Click Submit.

4. Now write the code logic here

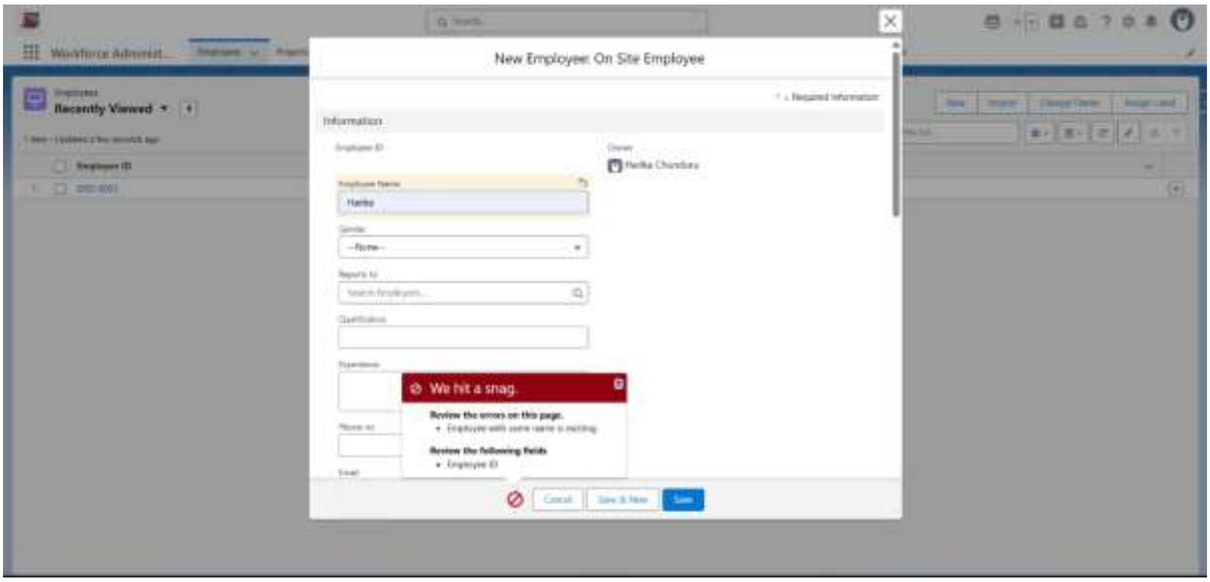


Code Snippet:

```
trigger EmpInsert on Employee__c (before insert) {
    for(Employee__c pass : Trigger.New){
    List<Employee__c> mynew = [SELECT Id, Name FROM
Employee__c WHERE Employee_Name__c =:
pass.Employee_Name__c];
if(mynew.size() > 0){
                pass.Name.addError('Employee with same
name is existing');
    }
   }
}
```

5. **Save the code.(click on file --> Save).**

Output:



Demo Video link :

https://youtube.com/shorts/5vofTX2Anag?si=lpx3GpQ087x7tkih