Workforce Administration Solution (Dev)

Team Members

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Project Overview

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.

Objectives

Streamline Workforce Management: Implement a comprehensive solution to optimize workforce scheduling, tracking, and performance monitoring, ensuring efficiency and reducing administrative burdens.

Enhance Data Accuracy and Compliance: Improve the accuracy of employee data and ensure adherence to labor laws, policies, and company regulations through automated compliance checks and reporting.

Increase Employee Engagement: Foster a transparent communication platform for employees, allowing them to access schedules, requests, and feedback, improving overall engagement and satisfaction.

- **Boost Productivity**: Leverage real-time data insights to identify operational bottlenecks and implement strategies that enhance employee productivity and task allocation.
- **Cost Optimization**: Reduce operational costs associated with manual processes, overtime, and inefficient resource allocation by automating key workforce management functions.
 - calable Integration: Ensure the solution is scalable and integrates

seamlessly with existing enterprise systems (HR, payroll, etc.) to support growth and future needs.

Specific Outcomes:

- **Improved Efficiency**: Automation of scheduling, tracking, and reporting processes will significantly reduce manual tasks and enhance operational efficiency.
- Enhanced Compliance and Accuracy: The solution ensures consistent adherence to labour laws and company policies while providing accurate employee data management.
- **Better Decision-Making**: Real-time insights and data analytics will enable managers to make informed decisions, optimizing resource allocation and improving overall workforce performance

Salesforce Key Features and Concepts Utilized

salesforce's Workforce Management features like Employee
 Management and Scheduling streamline workforce operations
 with automated workflows and real-time data insights. Additionally,
 Salesforce Service Cloud and Salesforce Analytics enable
 seamless communication, compliance tracking, and data-driven
 decision making.

Detailed Steps

Task 1: Activity 1: Creating Developer Account

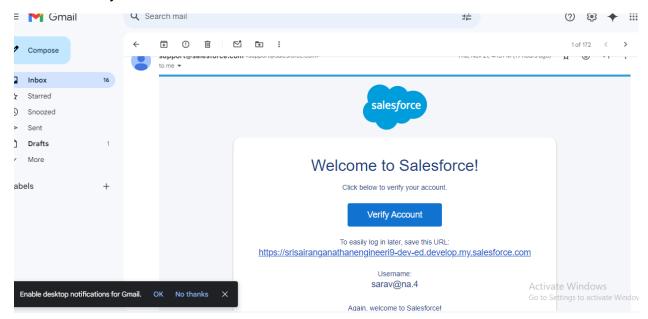
• Go to https://developer.salesforce.com/signup.

On the sign up form, enter the required details

Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account

Activity 2: Account Activation

1. Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account.



Task 2: Object

Activity 1: Create an Employee object



To create an object:

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

Enter the label name: Employee
 Plural label name: Employees

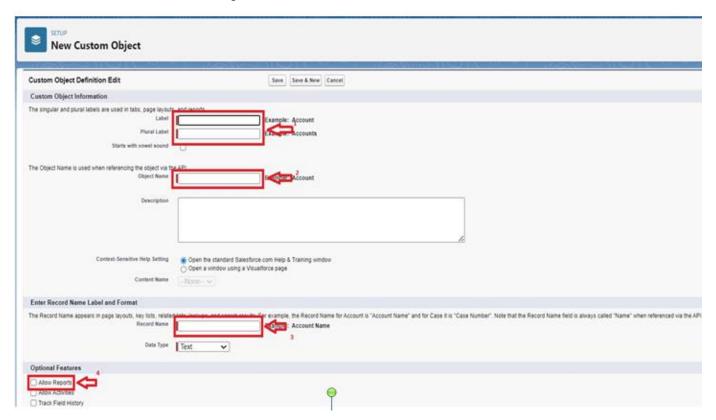
Enter Record Name Label and Format

1 Record Name : Employee ID

2 Data Type : Auto Number

3 Display Format : EMS-{0000}

4 Starting Number: 1



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

Task 2 a: Create project Object

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1. Enter the label name >> project Plural label name >> projects

Enter Record Name Label and Format

1 Record Name : Project ID

2 Data Type : Auto Number

3 Display Format : Proj-{0000}

4 Starting Number: 1

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

Task 2 b : **ProjectTask**

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - Enter the label name >> ProjectTask
 - 2. Plural label name>> ProjectTasks
 - 3. Enter Record Name, Label, and Format
 - Record Name >> ProjectTask
 - Data Type >> Text
- 2. Click on Allow reports and Track Field History, Allow Activities
- 3. Allow search >> Save.

Task 2 c : Create Asset Object

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1. Enter the label name >> Asset
 - 2. Plural label name>> Assets
 - 3. Enter Record Name, Label, and Format
 - Record Name >> Asset
 - Data Type >> Text
- 2. Click on Allow reports and Track Field History, Allow Activities
- 3. Allow search >> Save.

Task 2 d : Create AssetService Object

To create an object:

- From the setup page >> Click on Object Manager >> Click on Create >> Click on Custom Object.
 - 1. Enter the label name >> Asset Service
 - 2. Plural label name>> Asset Service
 - 3. Enter Record Name, Label, and Format
 - Record Name >> Asset Service
 - Data Type >> Text
- 2. Click on Allow reports and Track Field History, Allow Activities
- 3. Allow search >> Save.

Task 3: Tabs

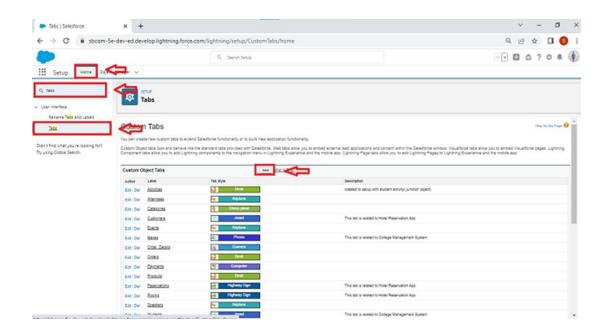
What is Tab:

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

Creating a Custom Tab

To create a Tab: (Employee)

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



- Select Object(Employee) >> Select the tab style >> Next (Add to profiles page) keep it as default >> Next (Add to Custom App) uncheck the include tab.
- 2. Make sure that the Append tab to users' existing personal customizations is checked.
- 3. Click save

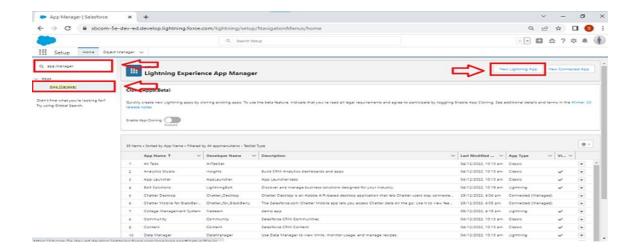
Creating Remaining Tabs

- 1. Now create the Tabs for the remaining Objects; they are "Project, Project Task, Asset, Asset Service".
- 2. Follow the same steps as mentioned above in creating a custom tab.

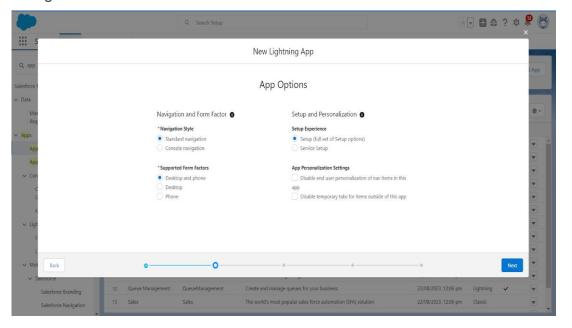
Task 4: The Lightning App

To create a lightning app page:

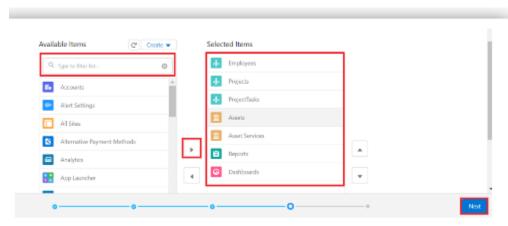
 Go to the setup page >> search "app manager" in quick find >> select "app manager" >> click on New lightning App.



- Fill the app name in app details and branding as follow App Name : Workforce Administrator Solution, Developer Name : This will auto be populated
- , Image : optional (if you want to give any image, you can otherwise not mandatory), Primary color hex value : keep this default.
- 3. Then click Next >> (App option page)Set Navigation Style as Standard Navigation >> Next.



- 4.(Utility Items) keep it as default >> Next.
- 5. 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:

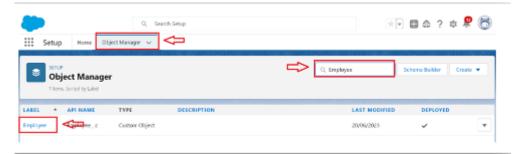


Search profiles (System administrator) in the search bar --> click on the arrow button -->save & finish

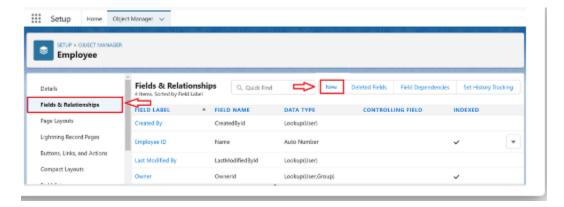
Task 5: Fields

Task 5 a: Creating Text Field In Employee Object

 Go to setup >> click on Object Manager >> type object name(Employee) in the search bar >> click on the object.



2. Now click on "Fields & Relationships" --> New



3. Select Data type as "Text".



4. Click on Next



- 5. 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.

Task 5 b: 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.



- Click on Next.
- 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.

Task 5 c: 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.



Task 5 d: Creating Picklist Field In Employee Object

- 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 --> Save & New

Task 5 E: 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.

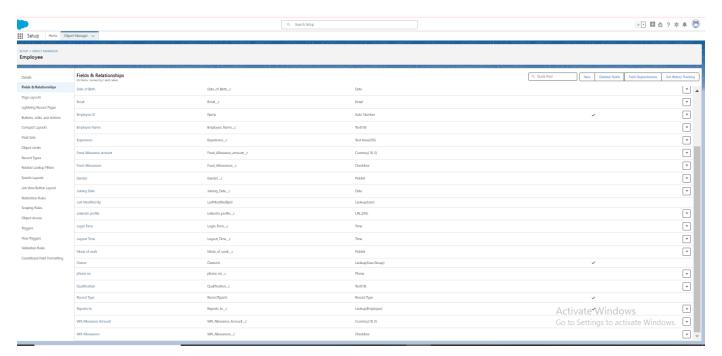
Task 5 F: Creating Master-Detail Relationship Between Employee & Asset Object

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.

Task 5 G: Creating Remaining Fields In Employee Object

Now create the remaining fields using the data types mentioned in the table.



All fields are added .

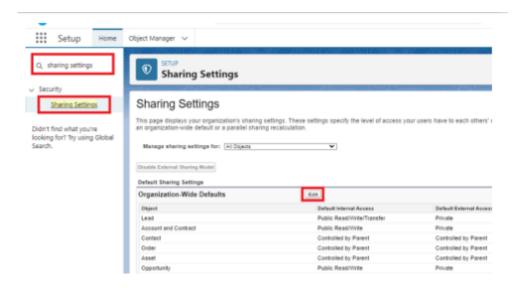
Setting OWD

Data is the most precious thing of any organization and keeping it safe is the first most priority of any Admin in the organization. As an Admin, to ensure data privacy and

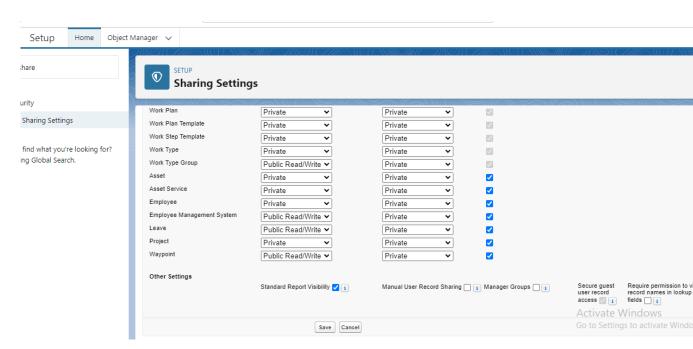
compliance with regulations, you need to restrict access to sensitive customer information using OWD.

Task 6 a : Create OWD Setting

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

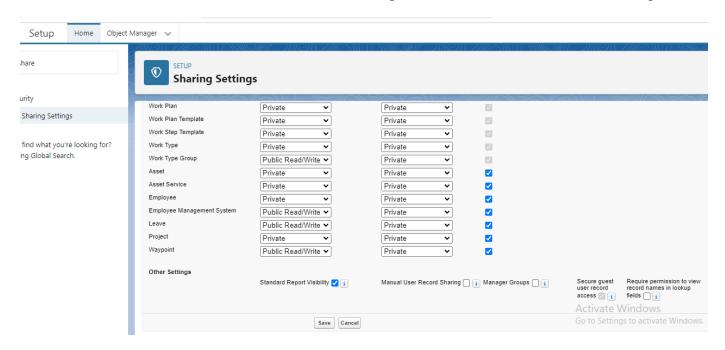


- 1. Search for the Employee object.
- 2. Under default internal access and default external access change the options to "Private" and under grant access using hierarchies select the check box.
- 3. Click on save.



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

Task 6 b: Set OWD as Private for Project and Asset Service objects.

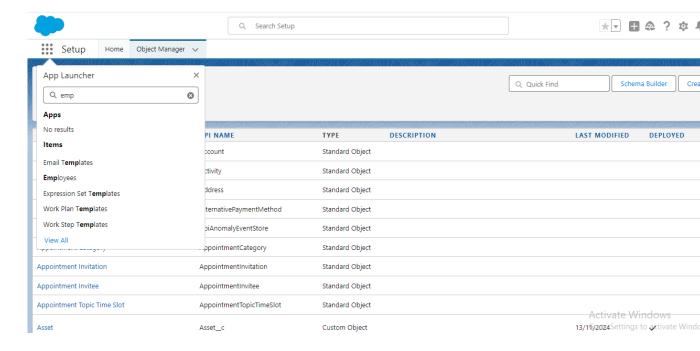


This Setting is for all the Users Which have been Created.

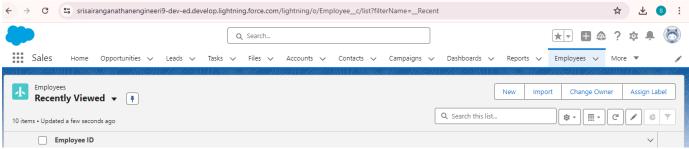
User Adoption

Task 7 a: Create A Record (Employee)

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



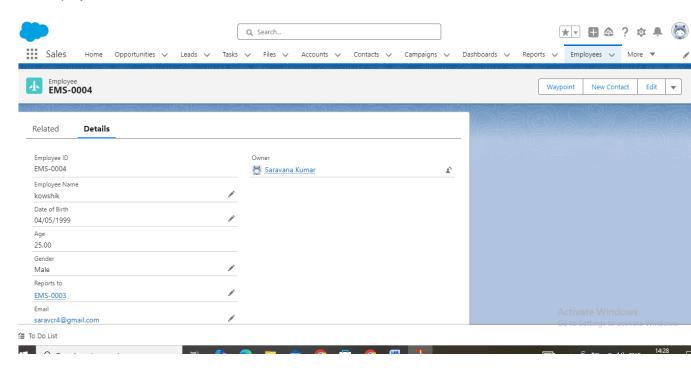
- 1. Click on the Employee tab.
- 2. Click New.



Fill the Details and click on Save

Task 7 b: View A Record (Employee)

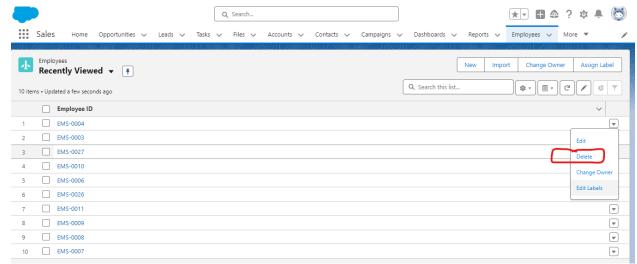
- 1. Click on App Launcher on the left side of the screen.
- 2. Search Employee Management System & click on it.
- 3. Click on the Employee Tab.



4. Click on any record name. you can see the details of the Employee

Task 7 c: Delete A Record (Employee)

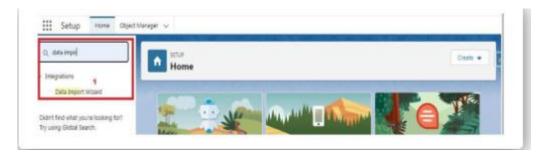
- 1. Click on App Launcher on the left side of the screen.
- 2. Search Employee Management System & click on it.
- 3. Click on the Employee Tab.



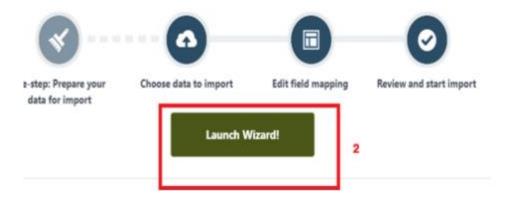
- 4. Click on Arrow at right hand side on that Particular record.
- Click delete.

Task 8:Importing Data Using Data Wizard

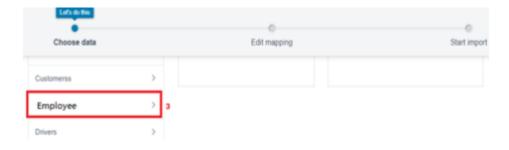
- 1. From Setup, click the Home tab.
- 2. In the Quick Find box, enter Data Import and select Data Import Wizard.



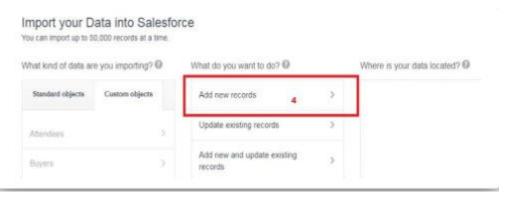
Click Launch Wizard!



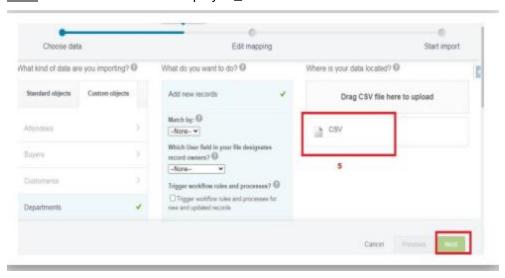
Click the Custom Objects tab and select the Employee object.



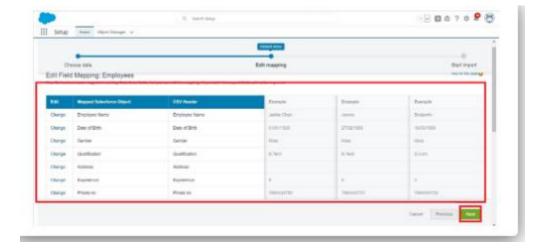
5. Select Add new records.



6. Click CSV and choose file Employee_CSV which we made earlier. Click Next.

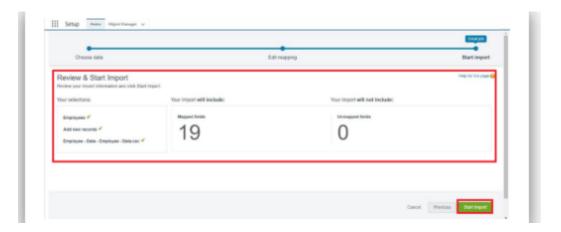


7. Since the field names in the CSV file (CSV Header) are the same as the field names in your object (Mapped Salesforce Object), the fields are automatically mapped. Click Next.

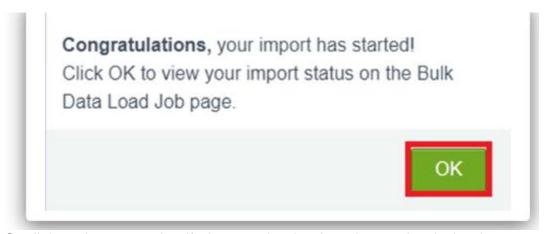


Note: no need to map "Reports to" field. The Data Import Wizard is designed to handle basic data import tasks and does not support mapping relationships between records.

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



Click OK on the popup.



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



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

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:

By default salesforce provides below standard profiles.

- 1 Contract Manager
- 2 Read Only
- 3 Marketing User
- 4 Solutions Manager
- 5 Standard User
- 6 System Administrator.

We cannot deleted standard ones

Each of these standard ones includes a default set of permissions for all of the standard objects available on the platform.

Custom Profiles:

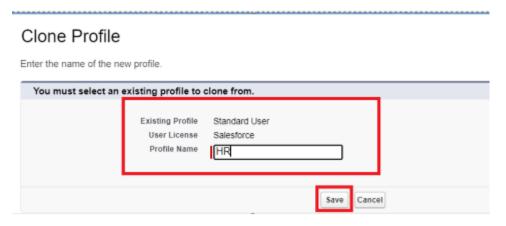
Custom ones defined by us.

They can be deleted if there are no users assigned with that particular one.

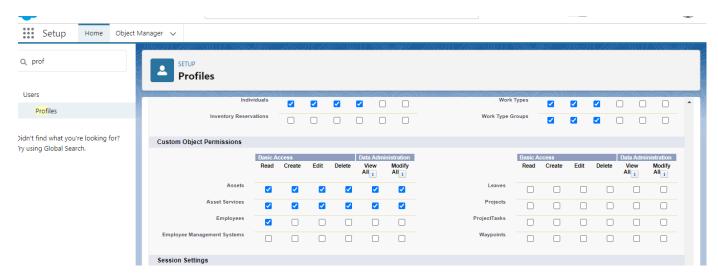
Task 9a: HR Profile

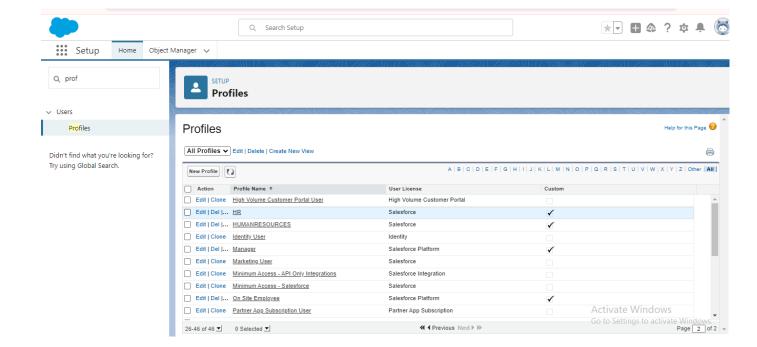
To create a new profile:

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 object

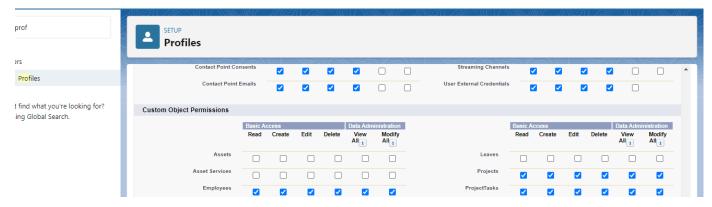




Scroll down and Click on Save.

Task 9 b: Manager Profile

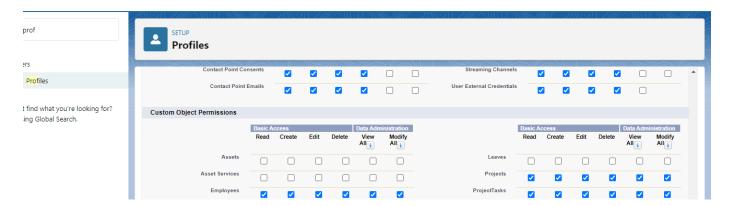
- 1. Go to setup --> type profiles in quick find box --> click on profiles --> clone the desired profile (Salesforce Platform User) --> enter profile name (Manager) --> Save.
- While still on the profile page, then click Edit.
- 3. Scroll down to Custom Object Permissions and Give access permissions for Employee, Project and Project Task objects.



3. Scroll down and Click on Save.

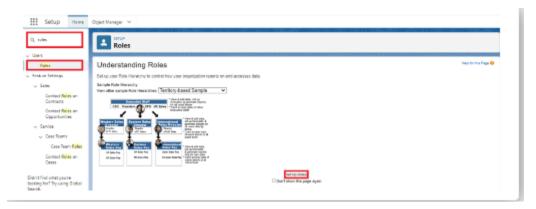
Task 9 C: Create Employee Profile

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.



Task 10 a: Creating HR Role

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



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



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

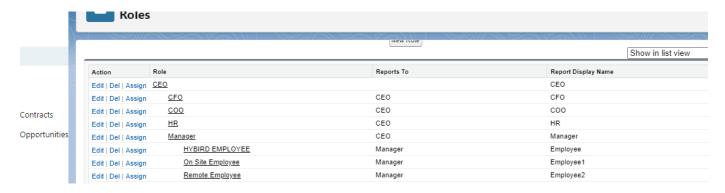


5. Refer the below diagram to understand which role reports to which role.

Task 10 b: Creating More Roles

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

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



Done.

Task 11 a. Users

Create User

1. Go to setup --> type users in quick find box --> select users --> click New user.

2. Fill in the fields

1. First Name: Niklaus

2. Last Name: Mikaelson

3. Alias : Give a Alias Name

4. Email id : Give your Personal Email id

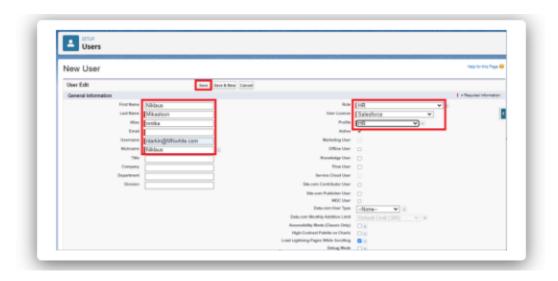
5. Username: Username should be in this form: text@text.text

6. Nick Name: Give a Nickname

7. Role: HR

8. User license: Salesforce

9. Profiles : HR



Save.

Task 11 b: 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

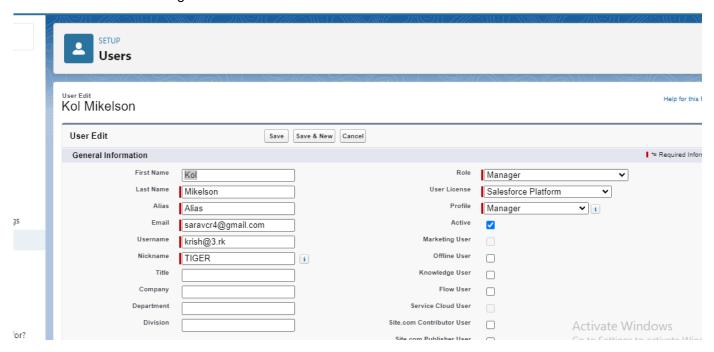
5 Username: Username should be in this form: text@text.text

6 Nick Name: Give a Nickname

7 Role : Manager

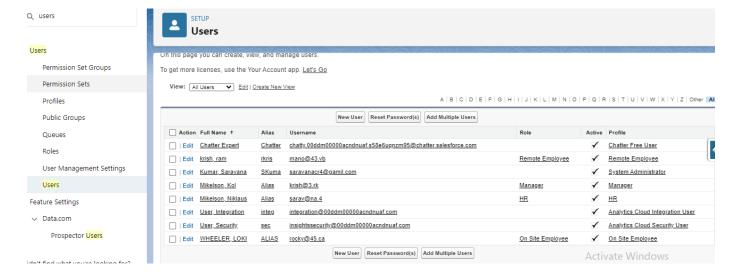
8 User license: Salesforce Platform

9 Profiles : Manager



3. Save.

Task 11 b: Creating More Users



Done.

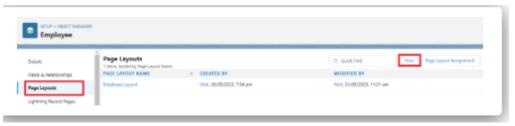
Task 12 a: Creating A Page Layout For Employee Object

To Create a Page layout:

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

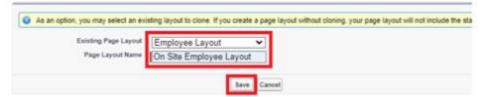


Click on Page layout --> Click on New

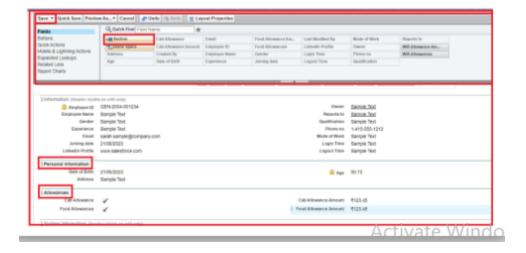


Give Page layout Name as "On Site Employee Layout" and click on Save.

Create New Page Layout

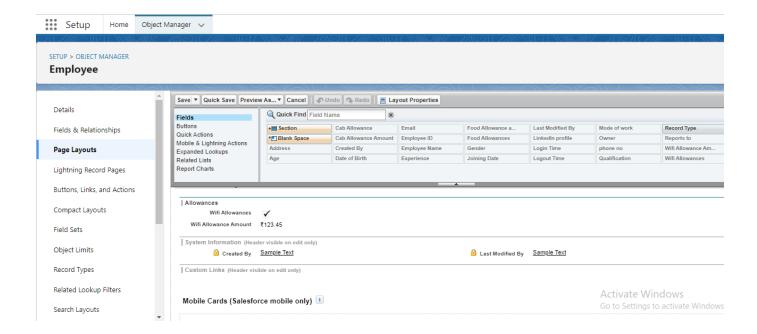


- 4. Drag and drop the Section from the highlight panel below the Information and name it as "Personal Information" and click Ok.
- 5. Drag Date of Birth, Address and Age fields from Employee Information to Personal Information section.
- 6. Similarly perform the above step to create "Allowances" and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



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

Task 12 b: Creating Another Page Layout

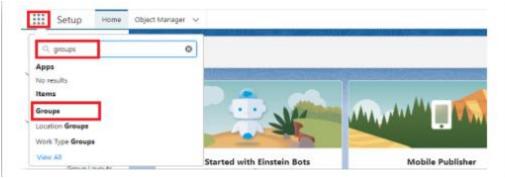


Done.

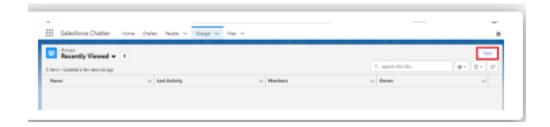
Task 13 a:Creating A Chatter Group For Your Organization.

To Create a chatter group:

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

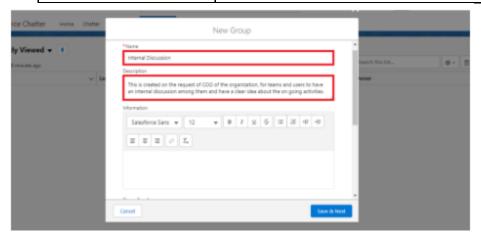


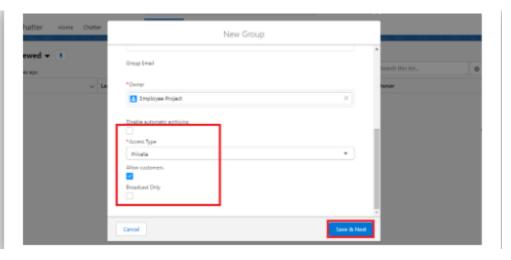
Click New



1. Fill in the new group information with these details:

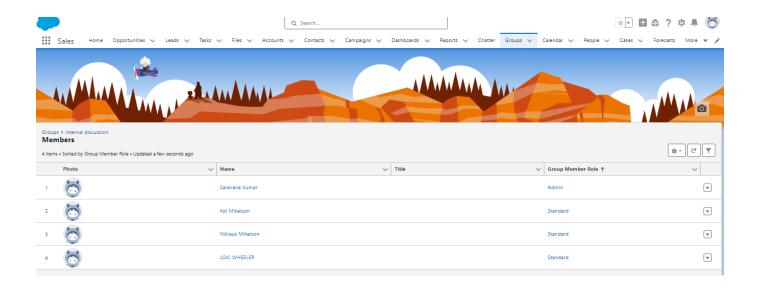
	Field	Value
1	Group Name	Internal Discussion
2	Description	Give a understanding Description on your own
3	Access Type	Private
4	Allow Customers	Checked





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.



- 7. This is how your group interface looks like.
- 8. 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.
- 9. Click Share.

Note: You can like or comment on this post.

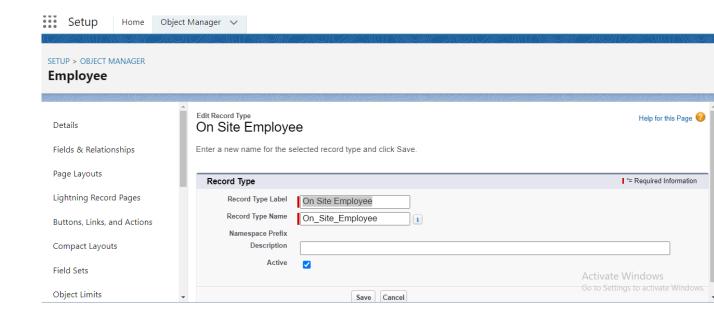
Note: there is a default chatter group in the org with all the active users in it, this activity is to show you how to create a chatter group and add users into it.

Record Types

Task 14 a: Creating On Site Employee Record Type

To create a Record Type:

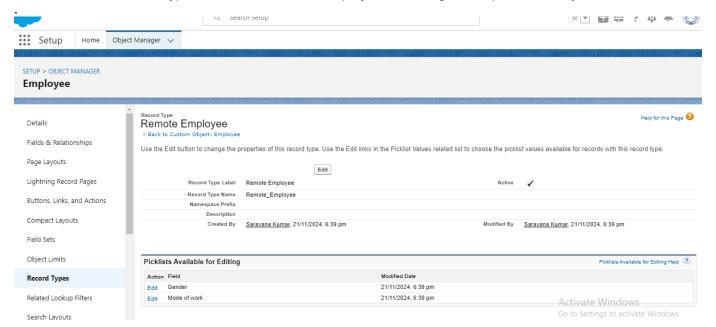
- Go to Setup --> click on Object Manager --> Search for the object (Employee) --> from drop down click Edit.
- 2. From the left panel click Record Types --> New.
- 3. Give Record Type Label as "On Site Employee" and make it active
- 4. Uncheck for "Make Available
- 5. Scroll down and check for the Manager & 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.
- click Save.



click Save.

Task 14 b: Creating "Remote Employee" Record Type

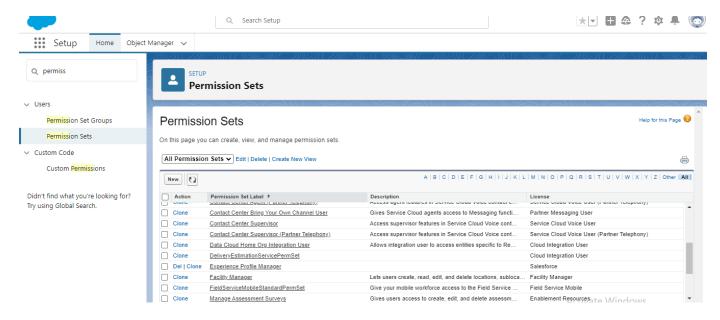
Create another Record Type with name "Remote Employee" following the step from activity 1



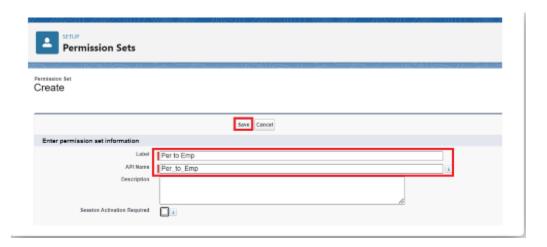
Task 15 a: Creating A Permission Set

To Create a Permission Set:

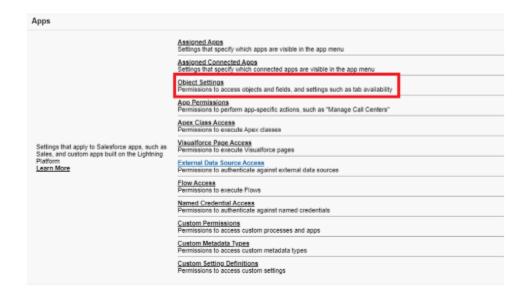
1. Go to setup --> type "permission sets" in quick search --> select permission sets --> New.



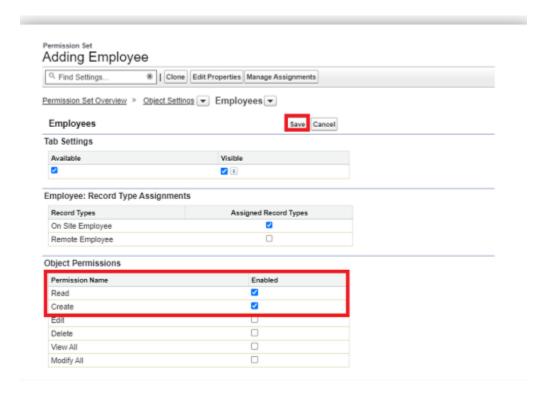
2.Enter the label name as "Per to Emp" --> Save.



3. Under Apps Select object settings.



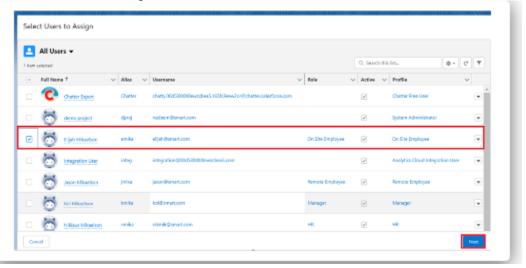
4. Click on Employee object --> click on Edit --> under object permission check for read and create.



- 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.



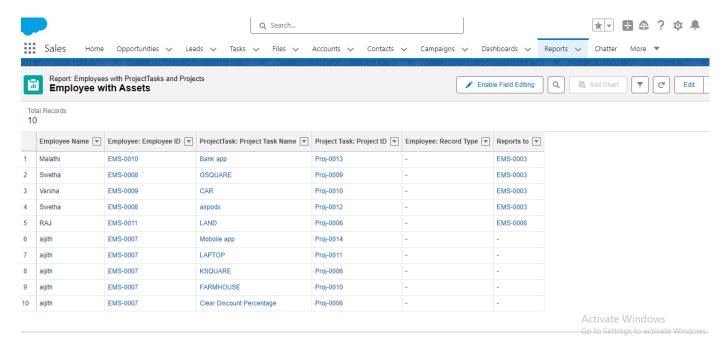
- 9. Now select the users(any one user with the profile "On Site Employee") and click on Next.
- 10. Click on Assign
- 11. Click on Done.

Reports

Task 17: Create Report

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

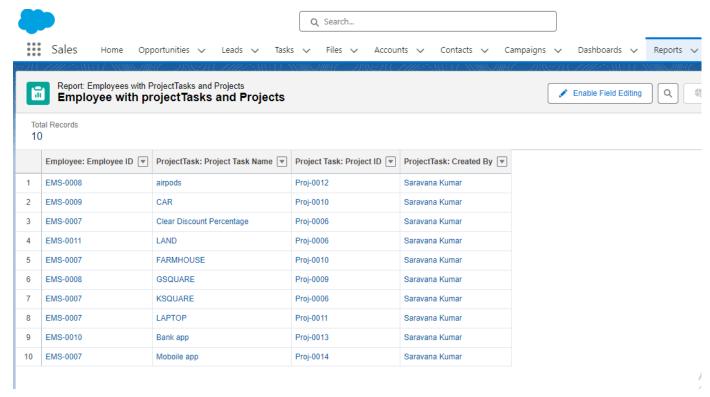


5. Save or run it.

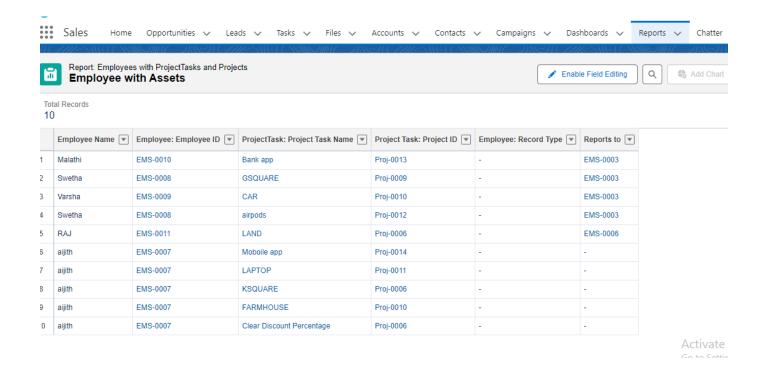
Note: Reports may get varied from the above pictures as the data might be different.

Activity 2: Create 2 More Report

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

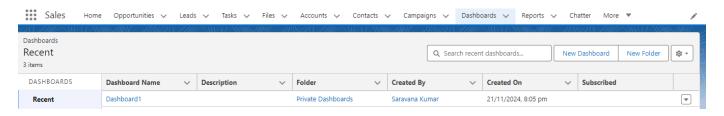


2. Create a report with report type: "Employees with Assets".



Dashboards

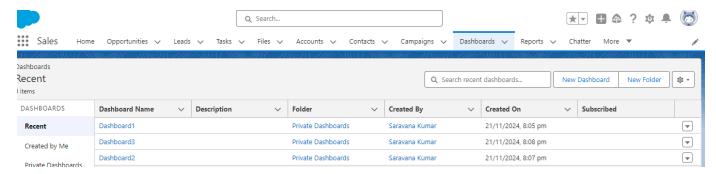
Activity 1: Create Dashboard



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

Activity 2:

Create another Dashboard as we discussed in activity 1.



Done.

Approval Process

Activity - 1

Prerequisites:

Create the leave object with the following fields.

Leave

Leaves

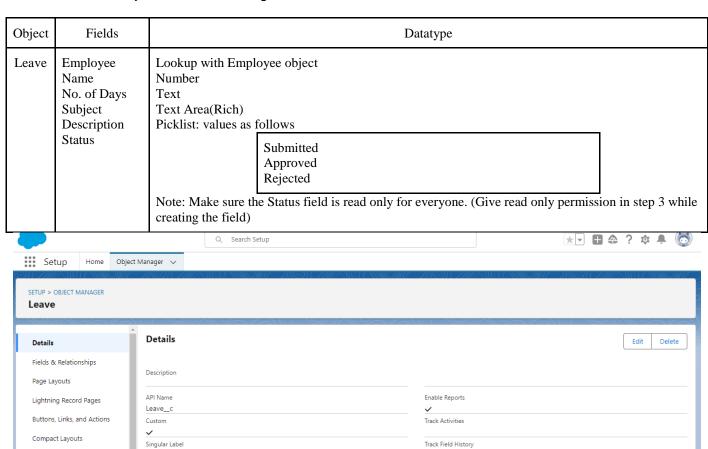
Plural Label

Field Sets

Object Limits

Record Types

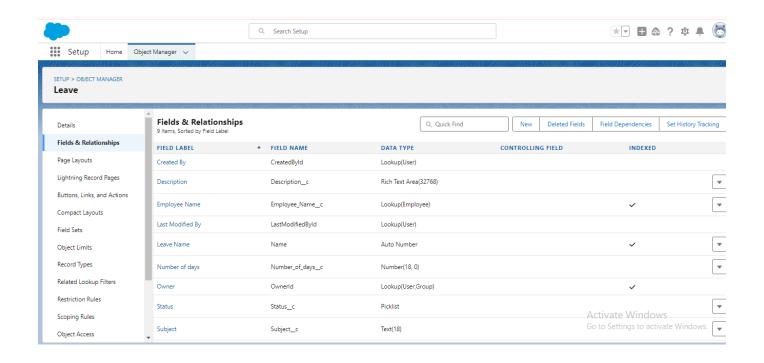
Related Lookup Filters



Deployment Status

Standard salesforce.com Help Window

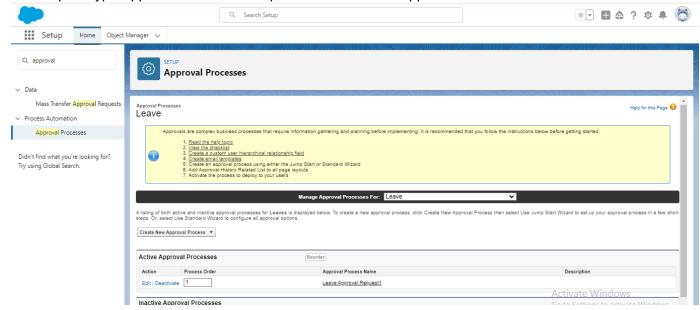
Deployed Help Settings



Activity - 2

Create an Approval Process for Leave object.

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

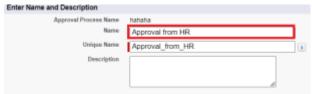


Done.

Activity - 3

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".

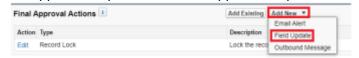
Select Status for the field to update.

Under specify new field value select "A specific value" and select submitted and click Save.

Activity - 4

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

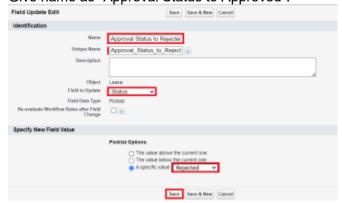
Activity - 5

Final Approval Action:

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



Give name as "Approval Status to Approved".



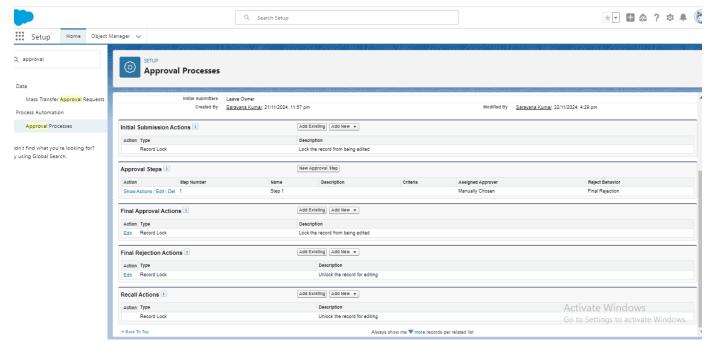
4. Select Status for the field to update.

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.
- 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.



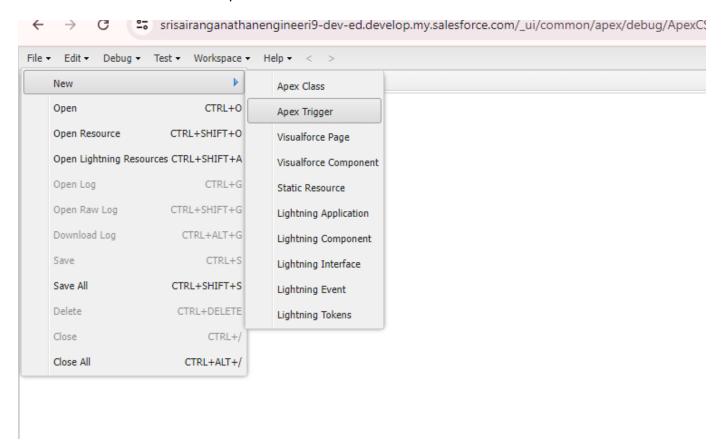


Apporval process activites done.

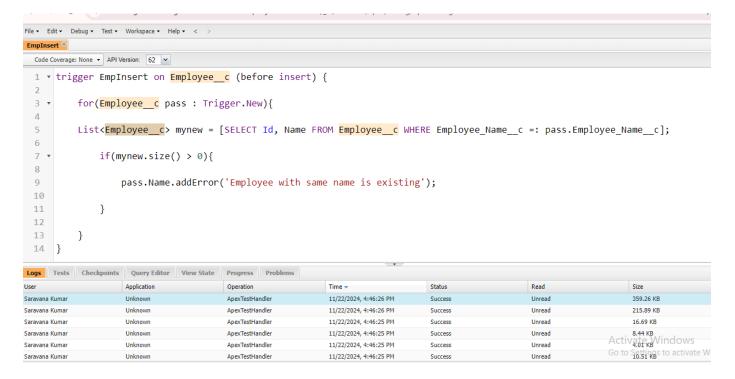
Activity 1: Create An Apex Trigger

Create an Apex Trigger

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



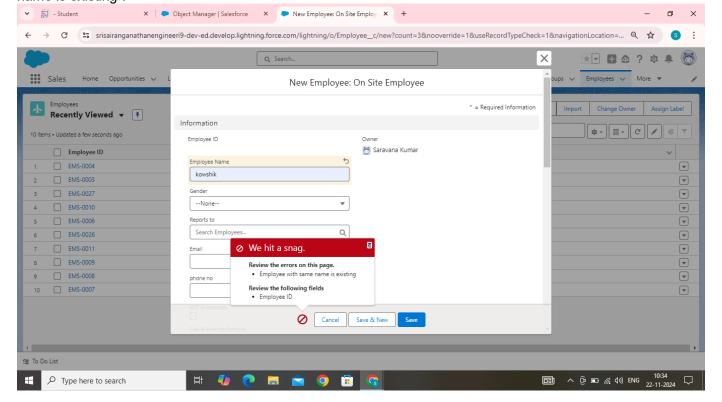
1. Give the Apex Trigger name as "Emplosert", and select "Employee _ c" from the dropdown for sObject.



RUNNING SUCCESFULLY

Activity 2 : Testing The Trigger

Follow the steps which are mentioned in Milestone 7, Activity 1 and try to create a record with the existing Employee Name say "Jackie Chan" you'll face the error while saving the record saying "Employee with same name is existing".



Conclusion

In conclusion, the Workforce Administration Solution project successfully integrates Salesforce's powerful tools to automate and optimize workforce management processes. By improving scheduling, data accuracy, and compliance, the solution enhances operational efficiency and employee engagement. Real-time insights and seamless integration with existing systems enable better decision-making and cost optimization. Ultimately, the project contributes to a more productive, compliant, and scalable workforce management system.

Thank You