Workforce Administration Solution (Admin)

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Project Abstract

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, the number of projects an employee is working on, tracking employee performance, and keeping record for the assets which they are assigned to.

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INTRODUCTION:

The Smart Bridge organization is moving to the cloud-based Salesforce platform in order to enhance performance, simplify system administration, and secure data. The business uses Salesforce to store confidential information securely using encryption and backups, and automated data replication improves disaster recovery. Performance is optimized for quick and dependable data access thanks to the scalable cloud resources. By doing this, administrative complexity is decreased, and system administrators are free to concentrate on higher-value work, which increases output and improves overall operational efficiency.

Objective

A workforce administration solution aims to achieve the following goals:

Centralized Employee Data Management: Establish a single, integrated system for handling employee data.

Project tracking: Keep tabs on how many projects each worker is engaged in. Employee performance is monitored and assessed through performance monitoring.

Asset Assignment Management: Keep track of and keep an eye on the resources allocated to your staff.

Process Automation: Simplify and automate procedures related to asset and personnel management.

Increased Efficiency: Cut down on manual labor to increase operational efficiency.

Data Accessibility: To improve decision-making, make sure that personnel and project-related data is easily accessible.

Methodology:

These techniques can be applied to Salesforce in order to deploy a Workforce Administration Solution:

Custom Objects: To store and manage data, create custom objects for workers, projects, and assets.

Object Relationships: For simple tracking, use relationships to connect staff members to projects and assets.

Automation: To automate processes like asset assignment and project updates, use technologies like Workflow Rules, Process Builder, and Flows.

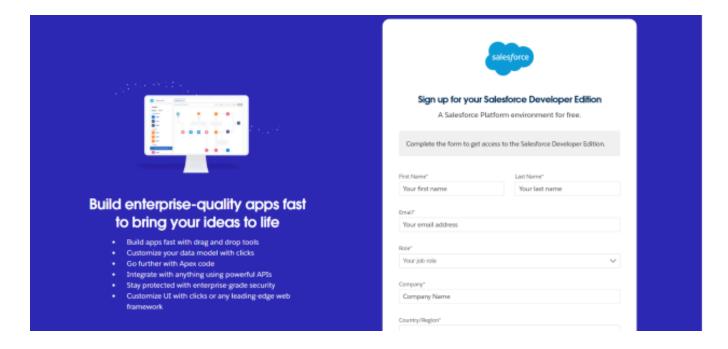
Dashboards and Reports: Create reports to keep an eye on project advancement and staff performance.

Implementation Details:

The first step to create this project is "Creation of a Salesforce Developer Account"

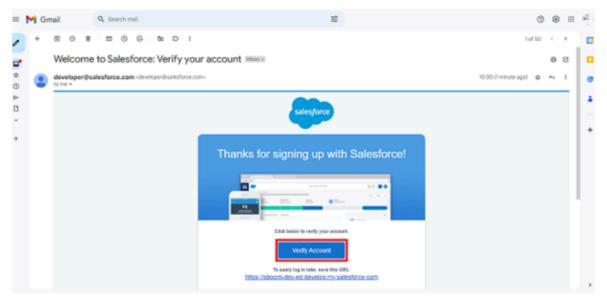
Activity 1: Creating Developer Account

- 1. Visit the signup page at https://developer.salesforce.com
- 2. Fill out the following information on the sign-up form:



Activity 2: Account Activation

1. Access the inbox using the email address you used to register. To activate your account, click the "Verify Account" button. It could take five to ten minutes to send the email.



- 2. Select "Verify Account."
- 3. Enter your password, respond to the security question, and then select "Change Password."
- 4. Then you will redirect to your salesforce setup page.

TASK 1:

Object

What Constitutes an Object?

Database tables known as Salesforce objects let you store information unique to a company.

Which kinds of items are there in Salesforce?

There are two kinds of Salesforce objects:

- 1. Standard Objects: Salesforce.com provides users, contracts, reports, dashboards, and other types of objects as standard objects.
- 2. Custom Objects: Objects generated by users are known as custom objects. They provide information that is special to them and vital to their business. They serve as the center of every application and offer a framework for data sharing.

Activity 1: Create Employee Object

To create an object:

- 1. From the setup page --> Click on Object Manager --> Click on Create --> Click on Custom Object.
- 2. Click on Allow reports,
- 3. Allow search --> Save.

Activity 2: Create Project Object

Having comprehensive data on the organization's ongoing and finished projects is the goal of developing a project object.

To create an object:

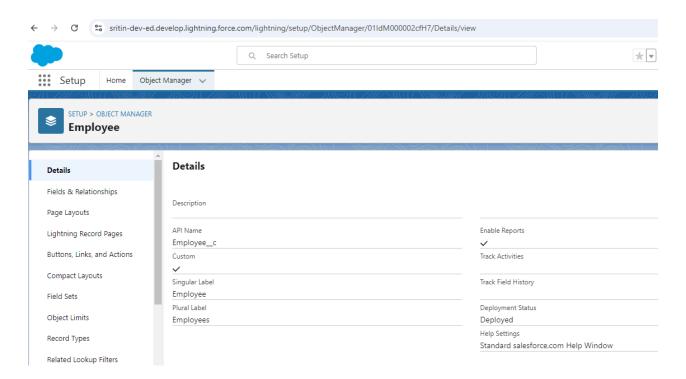
- 1. From the setup page --> Click on Object Manager --> Click on Create --> Click on
- 2. Click on Allow reports,
- 3. Allow search --> Save

Activity 3:

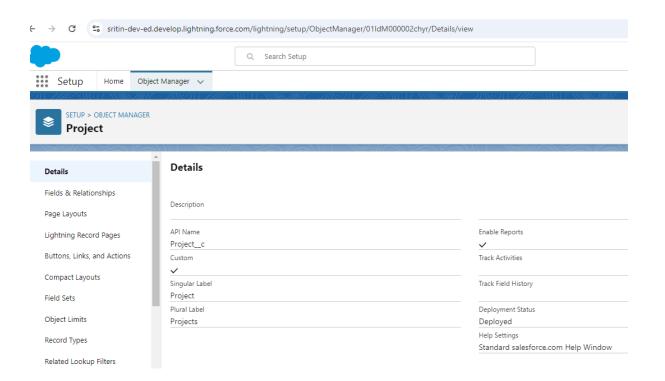
Create 3 more objects with label names as ProjectTask, Asset, Asset Service. By following activity-2 steps, created 3 more objects.

Output of Task 1:

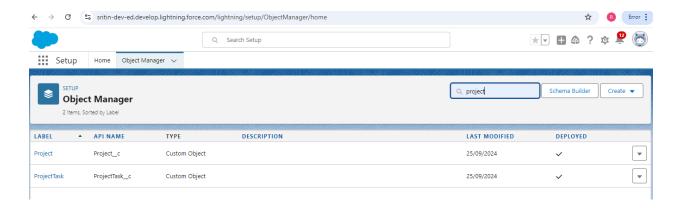
Employee Object output:



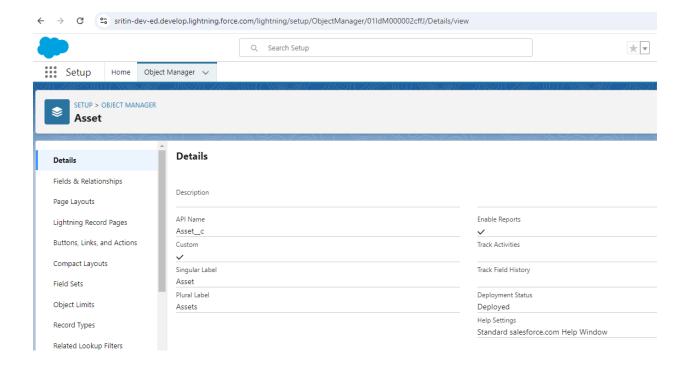
Project Object output:



Project and ProjectTask Objects:



Asset object:



Task 2:

Tabs:

A tab functions similarly to a user interface and is utilized for creating records for objects as well as viewing the records within those objects.

Tab Types:

- 1. Individual Tabs Salesforce.com's custom object tabs serve as the user interface for custom apps that you create. They have the same appearance and functionality as common salesforce.com tabs like contacts, opportunities, and accounts.
- 2. Online Tabs Custom tabs known as "Web Tabs" are used to show web apps or material embedded within the Salesforce.com window. With web tabs, users can rapidly access applications and content they regularly use without ever leaving the salesforce.com application.

Activity 1: Creating a Custom Tab (Employee)

To create a Tab:(Employee)

- 1. Go to setup page --> type Tabs in the 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.

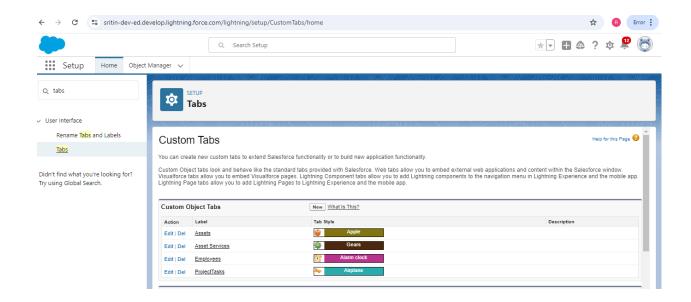
Activity 2: Creating a Custom Tab (Project)

- 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. Output:

Activity 3: Creating tabs for remaining objects

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

Project Task: Output: Asset: Output: Asset service:



The Lightning App:

Activity 1: Create a Lightning App

To create a lightning app page:

Go to setup page $-\rightarrow$ search "app manager" in quick find $-\rightarrow$ select "app manager" $-\rightarrow$ 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 populated

Description : Give a meaningful description

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

Primarycolor hex value: keep this default

Then click Next \rightarrow (App option page) keep it as default \rightarrow Next \rightarrow (Utility Items) keep it as default \rightarrow Next.

To Add Navigation Items:

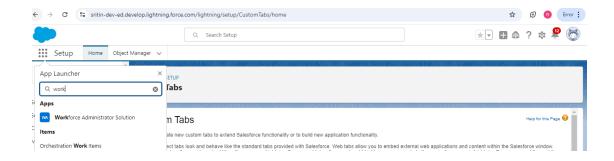
Search the items in the search bar(Employees, Projects, ProjectTask, Assets, Asset Services, Reports, Dashboard) from the search bar and move it using the arrowbutton - → Next.

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 $- \rightarrow$ click on the arrow button- \rightarrow save & finish.

Output:

Workforce Administrator Solution App created



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

- Standard Fields
- 2. Custom Fields

Use Case

Now it's time for you to think out of the box for your organization. You have successfully created the database objects for the organization but now all eyes turn on you as you have to define what sort of information the objects store which you have created. As a life saver of your organization you come up with the idea of creating fields to store different types of data.

Activity 1 : Creating Text Field in Employee Object

To create fields in an object:

- 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".
- 4. Click on Next
- 5. Fill the above as following:
 - a. Field Label: Employee Name
 - b. Length: 18
 - c. Field Name: gets auto generated
 - d. Click on Next → Next → Save and new.

Activity 2 : 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.
- 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.

Activity 3: 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 FieldName as "Age" and select formula return type as "Number" and click next.
- Under Advanced Formula write down the formula and click "Check Syntax" and Next - → Next- → Save & New.

Activity 4 : 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.

Activity 5: Creating Self-Relationship

Field in Employee Object

- a. Repeat step 1 and 2 mentioned in activity 1
- b. Select Data type as "Lookup Relationship" and click Next.
- c. Select Employeefrom the drop down related to the field and clickNext.
- d. Give Field Label as "Reports to" and click Next.
- e. Next → Next → Save & New.

Activity 6 :Creating Master-Detail Relationship between Employee & Asset Object

To Create a Master-Detail relationship

- Go to the setup page → click on object manager → type object name(ProjectTask) in the quick find bar - → clickon 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.

Next -→ Next -→ Save & New.

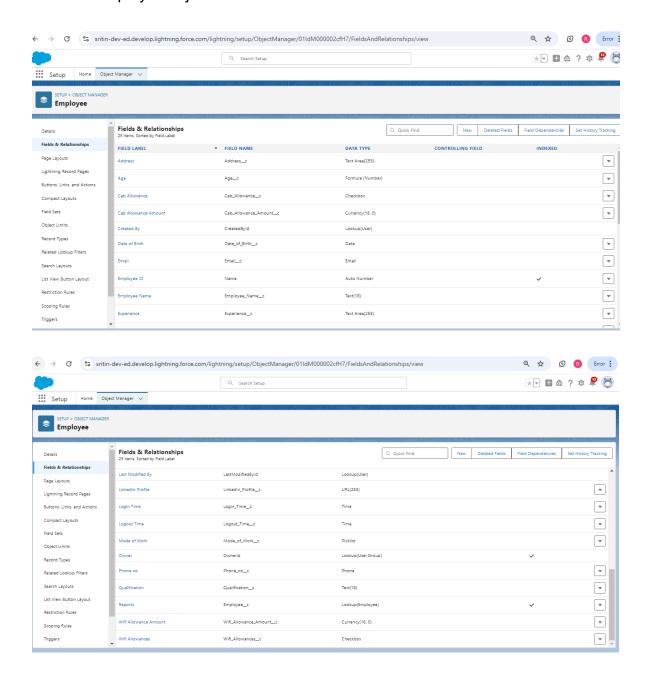
Activity 7: Creating Remaining Fields in Employee

Object

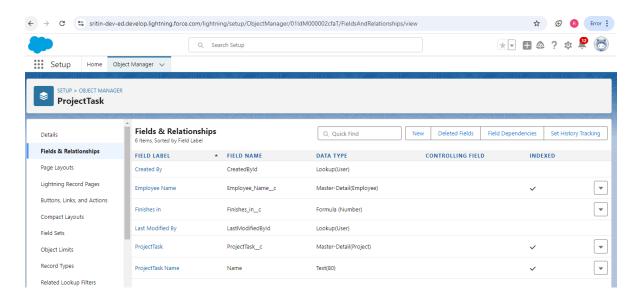
Now create the remaining fields using the data types mentioned Employee, Project, Project Task, Asset Service, Asset.

Outputs:

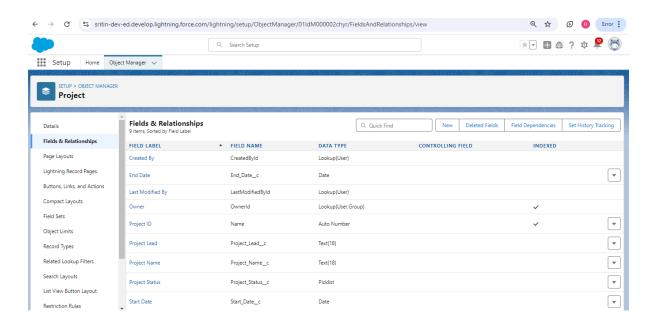
Fields in Employee object:



Fields in Project Task object:

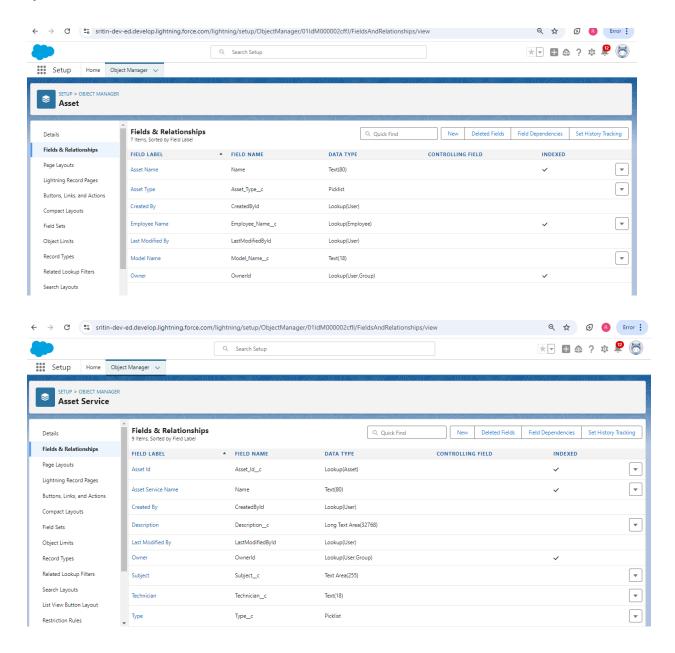


Fields in Project Object:



Fields in Asset and Asset service

objects:



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).

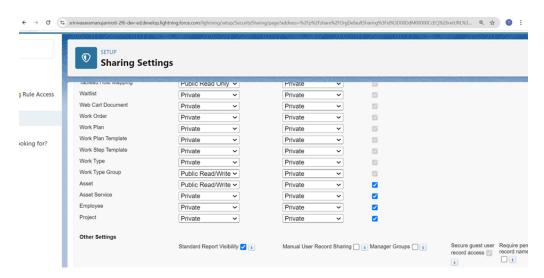
Activity 1: Create OWD Setting

- 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.
- Under default internal access and default external access changethe options to "Private" and under grant access using hierarchies select the check box.
- 5. Click on save.

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

Activity 2:

Set OWD as Private for Project and Asset Service objects.



User Adoption:

Activity 1: 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.

Activity 2: 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

Activity 3: 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.

Import Data

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

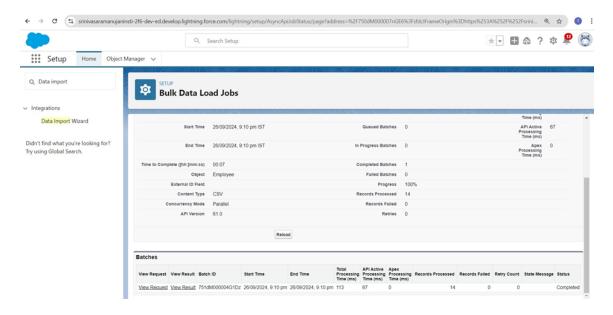
https://tinyurl.com/SF-Employee-Data

Activity-1: 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. 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.
- 7. The next screen gives you a summary of your data import. Click Start Import
- 8. Click OK on the popup.
- 9. Scroll down the page and verify that your data has been imported under batches.

Output:



Profiles

A profile is a group/collection of settings and permissions that define what a user can do in salesforce.

Types of profiles in salesforce

- Standard profiles:
 By default salesforce provides below standard profiles.
 - a. Contract Manager

- b. Read Only
- c. Marketing User
- d. Solutions Manager
- e. Standard User
- f. System Administrator.
- 2. Custom Profiles: Custom ones defined by us. Theycan be deleted if there are no users assigned with that particular one.

Activity 1: HR Profile

To create a new profile:

- 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 and Click on Save.

Activity 2: Manager Profile

- 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.
- 4. Scroll down and Click on save.

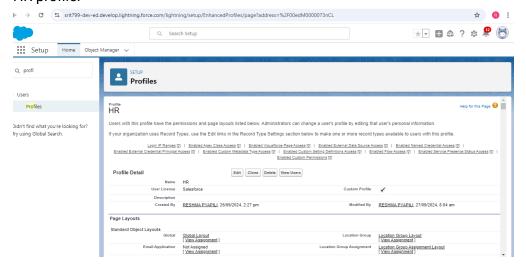
Activity 3: Create Employee Profile

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

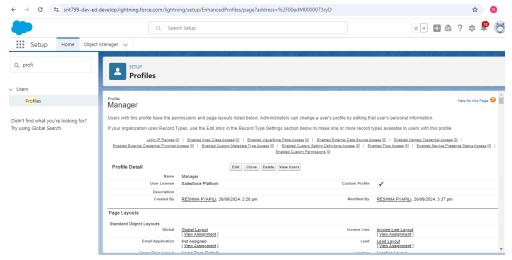
Task objects only.

Output of Profiles:

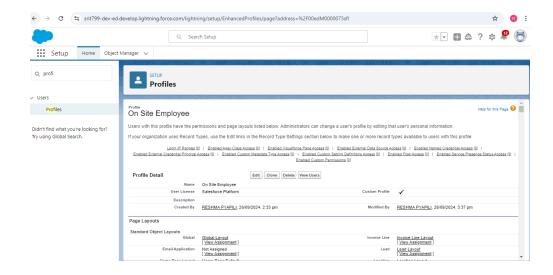
HR profile:



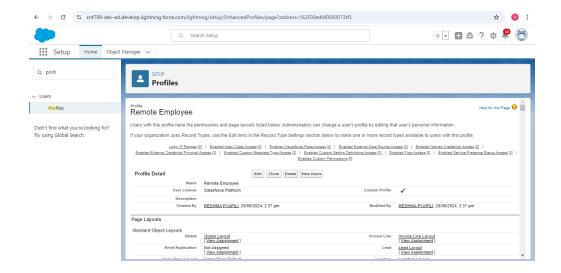
Manager Profile:



Onsite Employee:



Remote Employee:

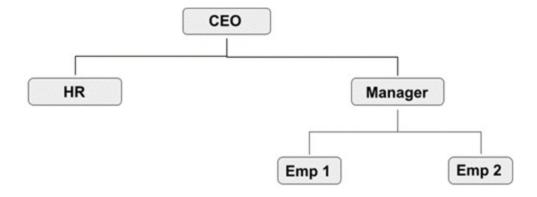


Roles

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.

Activity 1: 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.
- 4. Refer the below diagram to understand which role reports to which role.



Role Hierarchy: The above diagram represents which role reports to which one.

Activity 2: Creating more roles

Create three more roles for Manager, On Site Employee,

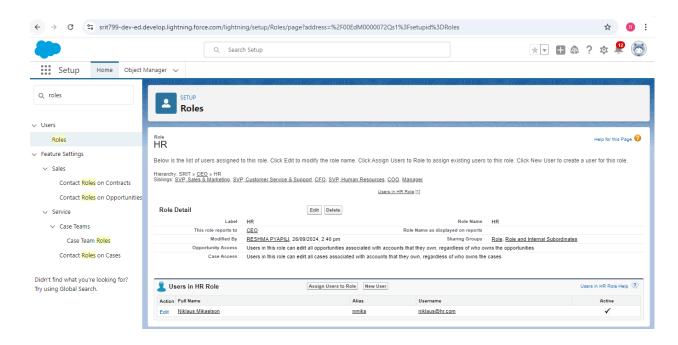
Remote Employee

Note: On Site Employee and Remote Employee reports to

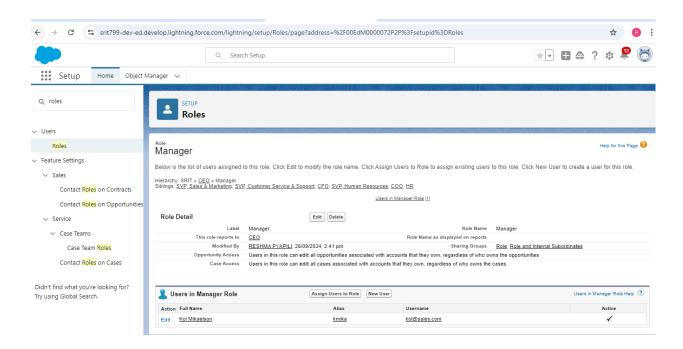
Manager.

Outputs:

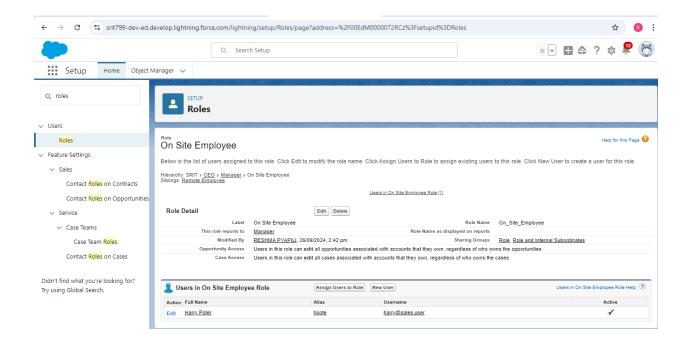
Creating HR role:



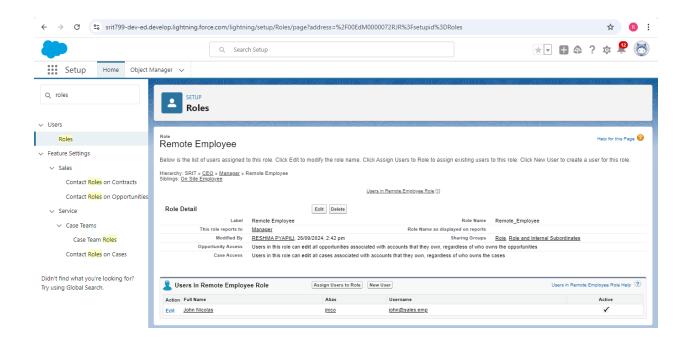
Creating Manager role



Creating On Site Employee role:



Creating Remote Employee role



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.

Activity 1: Create User

- 1. Go to setup \rightarrow type users in quickfind box \rightarrow select users \rightarrow click New user.
- 2. Fill in the fields Save.

Activity 2: Creating another user

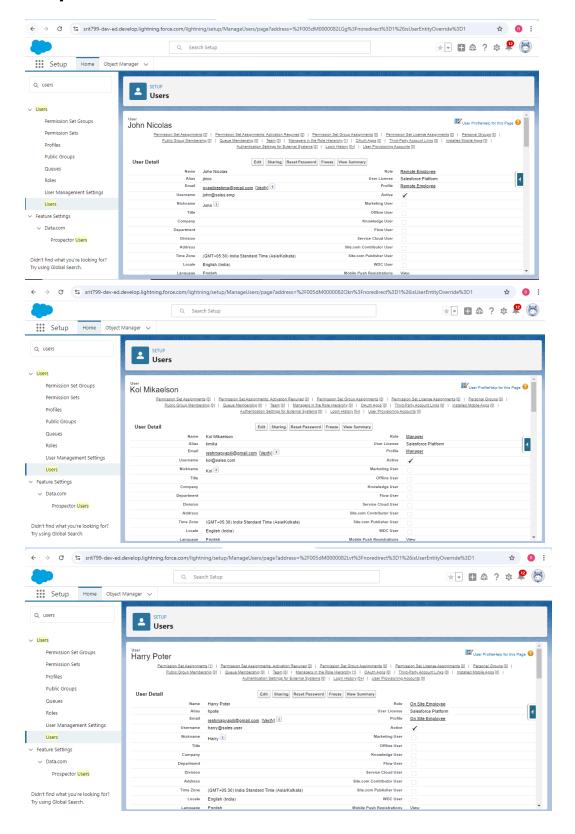
- 1. Go to setup -→ type users in quickfind box -→ select users-→ click New user.
- 2. Fill in the fields
- 3. Save.

Activity 3: Creating more users

Create two more users as we

created in activity 2.

Output users:



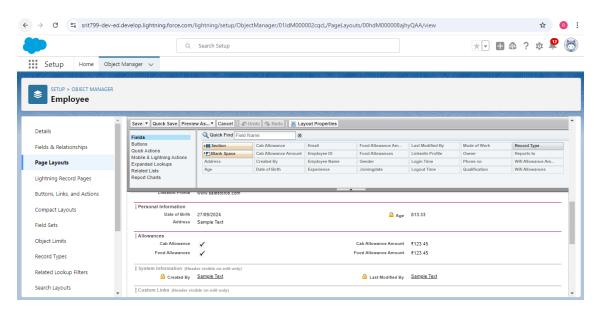
Page layouts

Page Layoutin Salesforce allowsus to customize the designand organize detailand edit pagesof records in Salesforce. Page layouts can be used to control the appearance of fields, related lists, and custom linkson standard and custom objects'detail and edit pages.

Activity 1 : creatinga page layout for Employeeobject

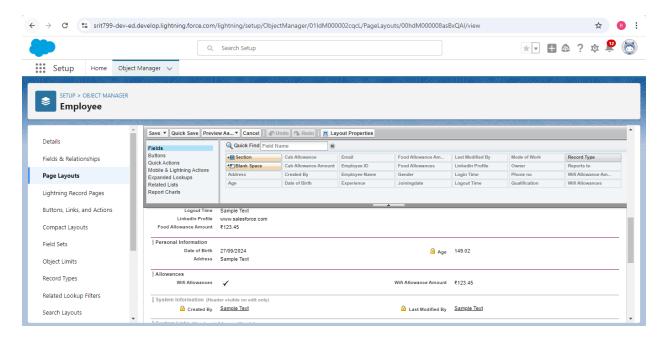
To Create a Page layout:

- Go to Setup → Click on Object Manager → Search for the object (Employee) - → From drop down click on Edit.
- 2. Click on Pagelayout → Click on New.
- 3. Give Page layout Name as "On Site Employee Layout" and clickon Save.
- 4. Drag and drop the Sectionfrom the highlightpanel below the Information and name it as "Personal Information" and click Ok.
- 5. Drag Date of Birth, Addressand Age fields from EmployeeInformation to PersonalInformation section.
- 6. Similarlyperform the above step to create "Allowances" and add allowances fields in it as shown below.
- 7. Click Save.
- 8. Make sure your page layoutlooks like the picture above.



Activity 2: Creatinganother page layout

Create anotherpage layout and name it as "RemoteEmployee Layout", and in the allowances sectionuse only Wifi Allowance and Wifi Allowances Amount fields.



Chatter Group

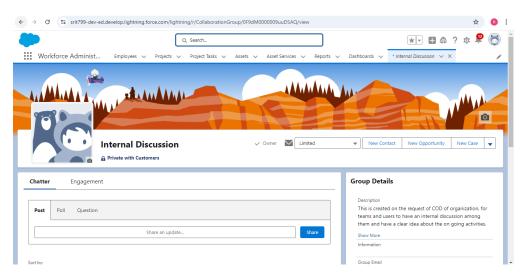
Salesforce Chatter Groups are collaborative spaces within the Salesforce platform that enable teams to communicate, share information, and collaborate on projects. They provide a centralized hub for discussions, file sharing, and updates, allowing users to stay connected, streamline workflows, and enhanceproductivity.

Activity 1: Creating achatter group for your organization.

To Create a chattergroup:

- 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 these details:
- 5. Click Save & Next.Skip the UploadPicture section and click Next.
- 6. On the Manage Members screen, click Add next to users you created in the previous activity.
- Click Done.
- 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 InternalDiscussion Group, here you can post anything which is related to ongoing projects.

Click Save.



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 picklistfields and values for the same business processand various business processes.

Activity 1: Creating On Site EmployeeRecord Type

To create a Record Type:

- Go to Setup → click on Object Manager → Search for the object (Employee) - → from drop down click Edit.
- 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 checkfor the Manager& System Administrator profile and click on Next.
- 6. Select "Apply a different layoutfor each profile", and change page layout to On Site Employee Layoutfor manager profileand System Administrator.

click Save.

Activity 2: Creating "Remote Employee" Record

Type

Create another Record Type with name "RemoteEmployee" following the step from activity 1.

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

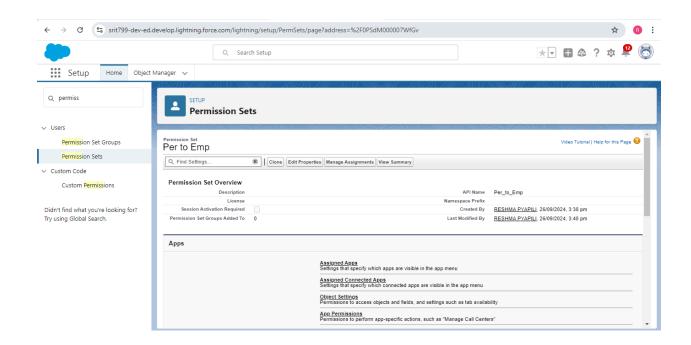
Permission sets

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 profilebut, depending on the Salesforce edition, they can have multiplepermission sets.

Activity 1: Creatinga permission set

To Create a Permission Set:

- Go to setup → type "permission sets" in quick search → select permissionsets → New.
- 2. Enterthe label name as "Per to Emp" → Save.
- 3. Under Apps Select object settings.
- 4. Click on Employeeobject -→ click on Edit -→ under object permission check for read and create.
- 5. Click on Save.
- 6. After savingthe permission clickon the Manage assignment
- 7. Now click on the Manage Assignment.
- 8. Click on Add Assignment.
- Now selectthe users(any one user with the profile"On Site Employee") and click on Next.
- 10. Click on Assign and 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

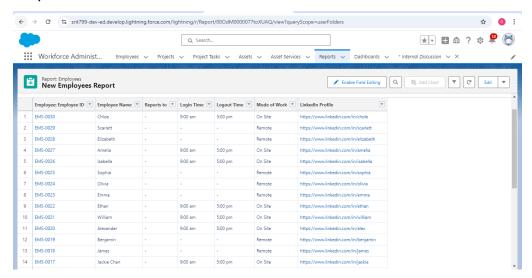
- 1. Tabular
- 2. Summary
- 3. Matrix
- 4. Joined Reports

Activity 1: Create Report

To Create a Report:

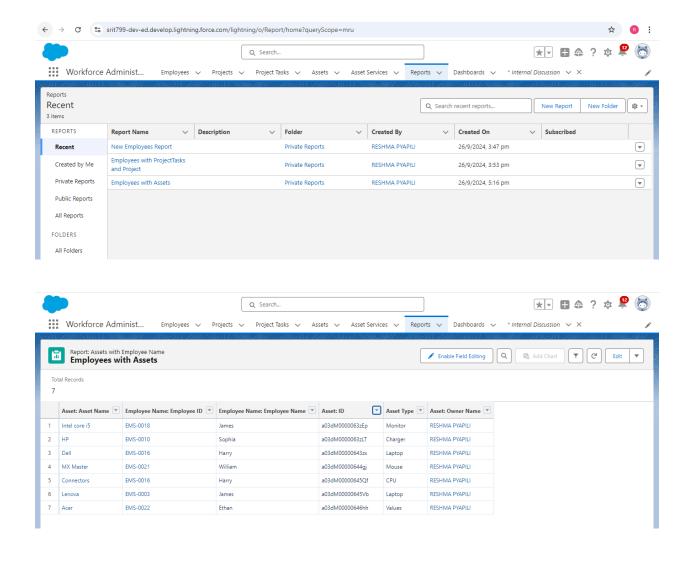
- 1. Go to the app → click on the report stab
- 2. Click New Report.
- 3. Select report type from category or from report type panel or from search panel → click on start report.
- 4. Customize your report
 - -→ Add fields from left pane as shown below

Save or run it.



Activity 2: Create 2 more Reports

- 1. Create a report with report type: "Employees with Project Tasks and Projects".
- Create a report with report type: "Employees with Assets". Created report "Employees with Project Tasks and Projects"



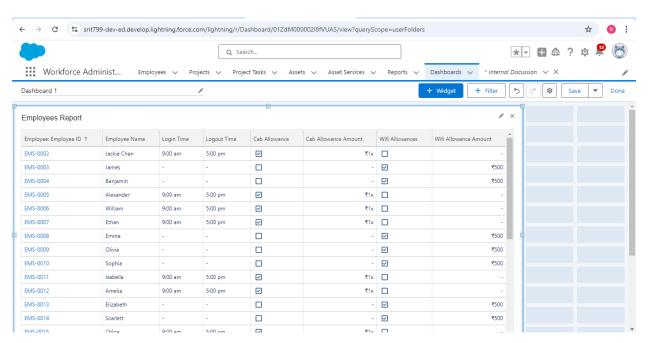
Dashboards

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.

Activity 1: Create Dashboard

To Create a Dashboard

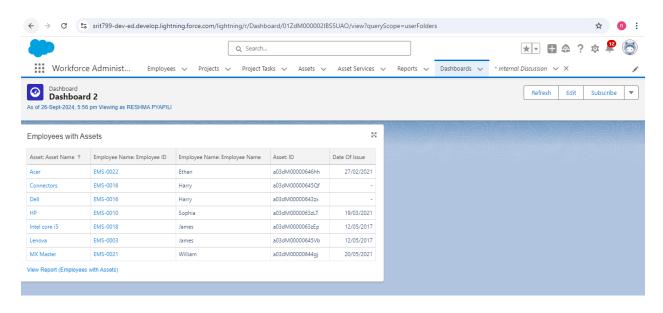
- 1. Go to the app \rightarrow click on the Dashboards tabs.
- 2. Give a Name and click on Create.
- 3. Select add component.
- 4. Select a Report and click on select.
- 5. Click Add then click on Save and then click on Done.



Activity 2:

Create another Dashboard as we

discussed in activity 1.



Challenges & Solutions

Data Integration Challenges

- Challenge: Integrating existing employee data from various sources can lead to inconsistencies and errors.
- Solution: Implement a robust data mapping and validation process. Use ETL (Extract, Transform, Load) tools to ensure data accuracy and consistency before importing it into the Salesforce platform.

User Adoption

- Challenge: Employees may resist using a new system, leading to low adoption rates.
- Solution: Provide comprehensive training sessions and user-friendly documentation. Engage key stakeholders early in the project to promote ownership and encourage adoption through pilot programs.

Customization Complexity

- Challenge: Customizing the user interface to meet diverse user needs can become complicated.
- Solution: Gather requirements through user interviews and feedback sessions. Prioritize features based on user needs and gradually roll out customizations in phases.

Performance Tracking Difficulties

- Challenge: Tracking employee performance across multiple projects can be complex.
- Solution: Develop clear metrics and KPIs for performance assessment.
 Utilize Salesforce's reporting tools to create dashboards that visualize performance data in real time.

Security and Data Privacy

- Challenge: Protecting sensitive employee information while ensuring appropriate access levels.
- Solution: Implement role-based access controls and conduct regular security audits. Utilize Salesforce's built-in security features to manage data visibility and compliance.

Future Recommendations

Continuous Improvement

Regularly collect user feedback to refine and enhance the application.
 Implement agile methodologies to adapt to changing user needs and organizational goals.

Integration with Other Tools

Explore integrating the Workforce Administration Solution with other HR and project management tools to create a more seamless workflow and enhance functionality.

Mobile Access

 Consider developing a mobile-friendly version of the application to provide employees with greater flexibility and access while on the go.

Advanced Analytics

 Leverage AI and machine learning capabilities within Salesforce to provide predictive analytics for workforce planning and performance forecasting.

Community Building

 Create a user community or forum where employees can share best practices, tips, and provide support to each other, fostering a culture of collaboration and continuous learning.

Conclusion

The Workforce Administration Solution aims to transform how organizations manage employee data, project assignments, and asset tracking. By addressing key challenges through strategic solutions and fostering user adoption, the platform can significantly enhance operational efficiency. Future recommendations, such as continuous improvement, integration with other tools, and leveraging advanced analytics, will ensure the solution remains relevant and effective. Ultimately, the successful implementation of this application will lead to a more engaged workforce, improved performance tracking, and a streamlined asset management process, positioning the organization for future growth and success.