

Workforce Administration Solution (Dev)

Team Members:

Giridharan S - 71772117111

Cathlyn Jeba Goldy T - 71772117108

Srikanth B - 71772117143

Sandhiya S - 71772117138

Sheela Jemi L - 71772117139

Project Description:

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.

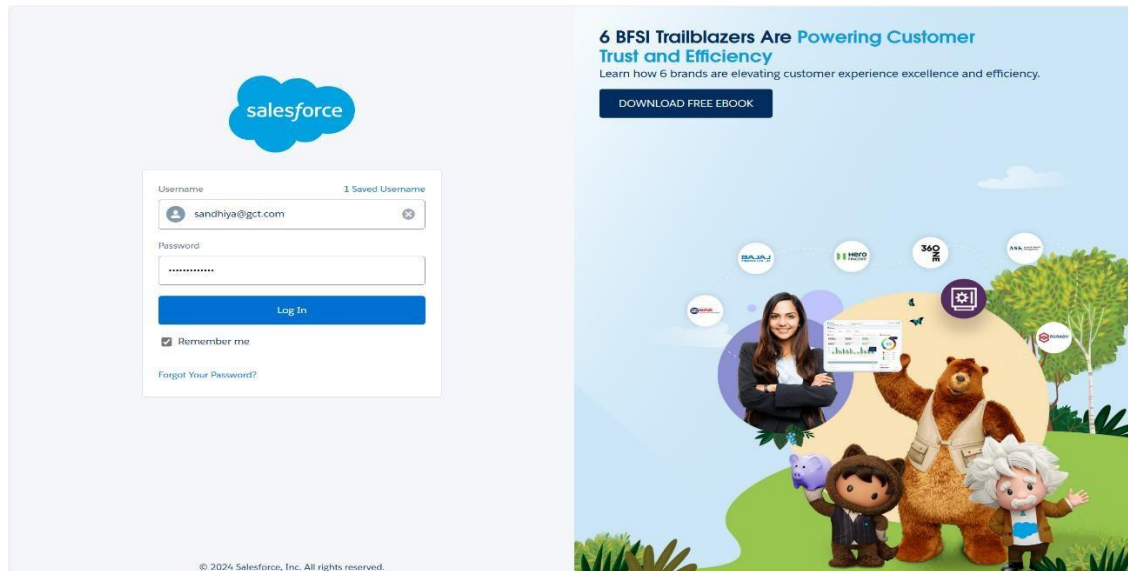
Module1: Salesforce

Activity 1: Creating Developer Account

In this activity, I created a developer account on Salesforce to access tools for building and customizing Salesforce applications. Submitted the form by clicking "Sign me up" to complete the account creation process.

Activity 2: Account Activation

An email confirmation was sent for verification, and the developer account was successfully activated.



Module2: Object

Activity 1: Create Employee Object:

Created the "Employee" custom object to record individual employee details, activities, and progress, helping track team and personal development within the organization.

Activity 2: Create Project Object

Created the "Project" custom object to store detailed information on ongoing and completed projects. This object enables efficient tracking of project timelines, objectives, and statuses. It centralizes project data, supporting progress monitoring and reporting.

Activity 3: Create 3 more objects with label names as ProjectTask, Asset, Asset Service.

ProjectTask Object:

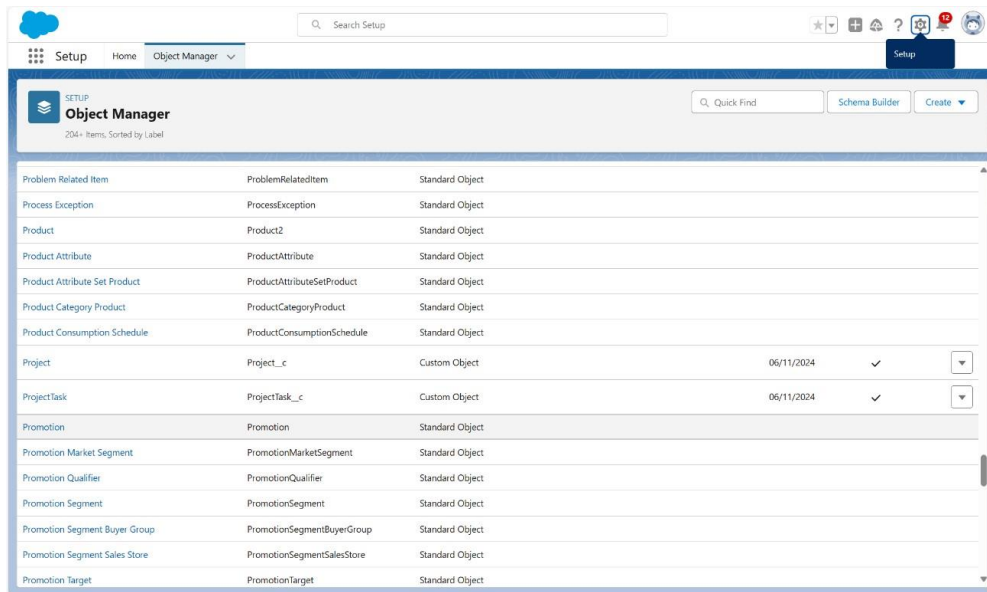
Created the "ProjectTask" object to log specific tasks within projects, allowing for detailed tracking of task progress, deadlines, and assigned team members.

Asset Object:

Developed the "Asset" object to manage resources associated with projects, such as equipment, to streamline asset allocation and tracking.

Asset Service Object:

Created the "Asset Service" object to record maintenance and service details for project assets, ensuring proper upkeep and scheduling of asset services.



The screenshot shows the Salesforce Object Manager interface. At the top, there's a search bar and navigation tabs for Setup, Home, and Object Manager. Below the header, there's a section for 'Object Manager' with a 'Quick Find' bar and 'Schema Builder' and 'Create' buttons. The main area displays a table of objects, sorted by label. The table has columns for 'Problem Related Item', 'ProblemRelatedItem', and 'Standard Object'. The objects listed include Process Exception, Product, Product Attribute, Product Attribute Set Product, Product Category Product, Product Consumption Schedule, Project, ProjectTask, Promotion, Promotion Market Segment, Promotion Qualifier, Promotion Segment, Promotion Segment Buyer Group, Promotion Segment Sales Store, and Promotion Target. The Project and ProjectTask objects are marked as Custom Objects and have a date of 06/11/2024.

Problem Related Item	ProblemRelatedItem	Standard Object
Process Exception	ProcessException	Standard Object
Product	Product2	Standard Object
Product Attribute	ProductAttribute	Standard Object
Product Attribute Set Product	ProductAttributeSetProduct	Standard Object
Product Category Product	ProductCategoryProduct	Standard Object
Product Consumption Schedule	ProductConsumptionSchedule	Standard Object
Project	Project_c	Custom Object
ProjectTask	ProjectTask_c	Custom Object
Promotion	Promotion	Standard Object
Promotion Market Segment	PromotionMarketSegment	Standard Object
Promotion Qualifier	PromotionQualifier	Standard Object
Promotion Segment	PromotionSegment	Standard Object
Promotion Segment Buyer Group	PromotionSegmentBuyerGroup	Standard Object
Promotion Segment Sales Store	PromotionSegmentSalesStore	Standard Object
Promotion Target	PromotionTarget	Standard Object

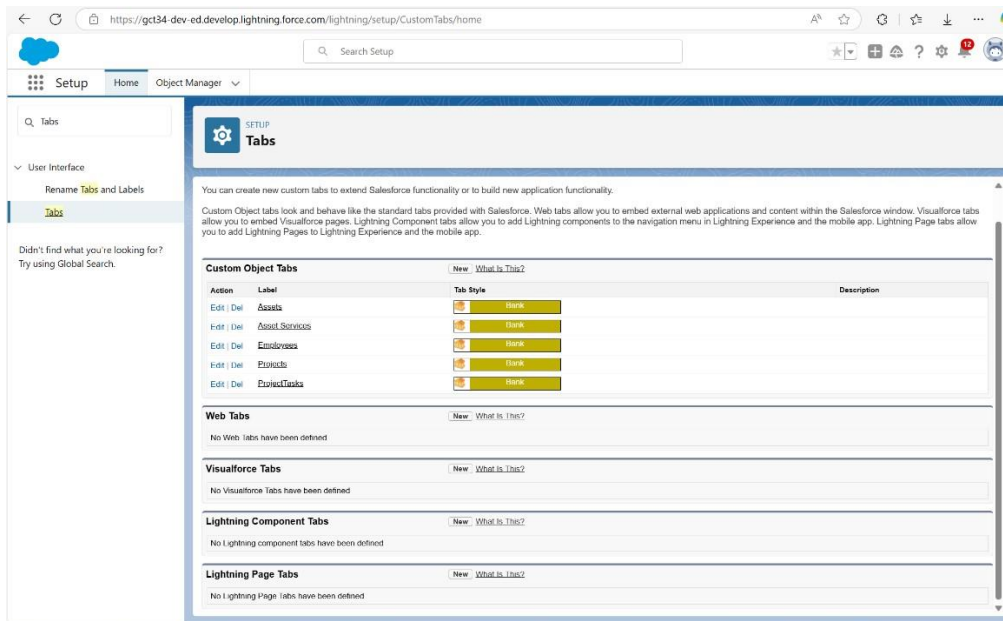
Module3: Tabs

Activity 1: Creating a Custom Tab (Employee)

Activity 2: Creating a Custom Tab (Project)

Activity 3: Creating tabs for remaining objects

Created custom tabs for the Employee, Project, ProjectTask, Asset, and Asset Service objects to provide easy access to each object's records in Salesforce. These tabs allow users to quickly navigate and manage data for each object, improving the efficiency of tracking and reporting.



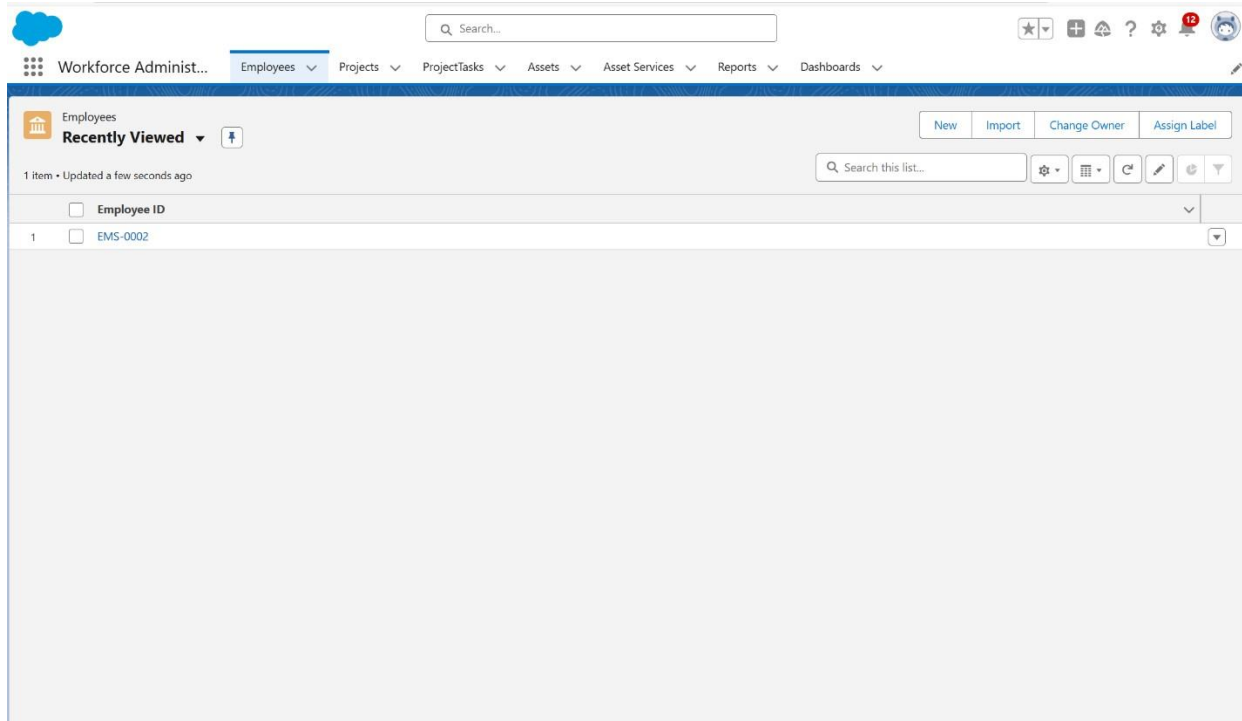
The screenshot shows the Salesforce Setup Custom Tabs page. The left sidebar has a search bar and a 'User Interface' section with 'Rename Tabs and Labels' and 'Tabs' options. The main area is titled 'Custom Object Tabs' and contains a table with columns for 'Action', 'Label', 'Tab Style', and 'Description'. The table lists several custom tabs: Asset, Asset Services, Employee, Project, ProjectTask, and ProjectTask. Each tab has a 'New' button and a 'What is This?' link. Below the table, there are sections for 'Web Tabs', 'Visualforce Tabs', 'Lightning Component Tabs', and 'Lightning Page Tabs', each with a 'New' button and a 'What is This?' link.

Action	Label	Tab Style	Description
Edt Del	Asset	Blank	
Edt Del	Asset Services	Blank	
Edt Del	Employee	Blank	
Edt Del	Project	Blank	
Edt Del	ProjectTask	Blank	

Module4: The Lightning App

Activity 1: Create a Lightning App

Created the app named "Workforce Administrator Solution" with a meaningful description.



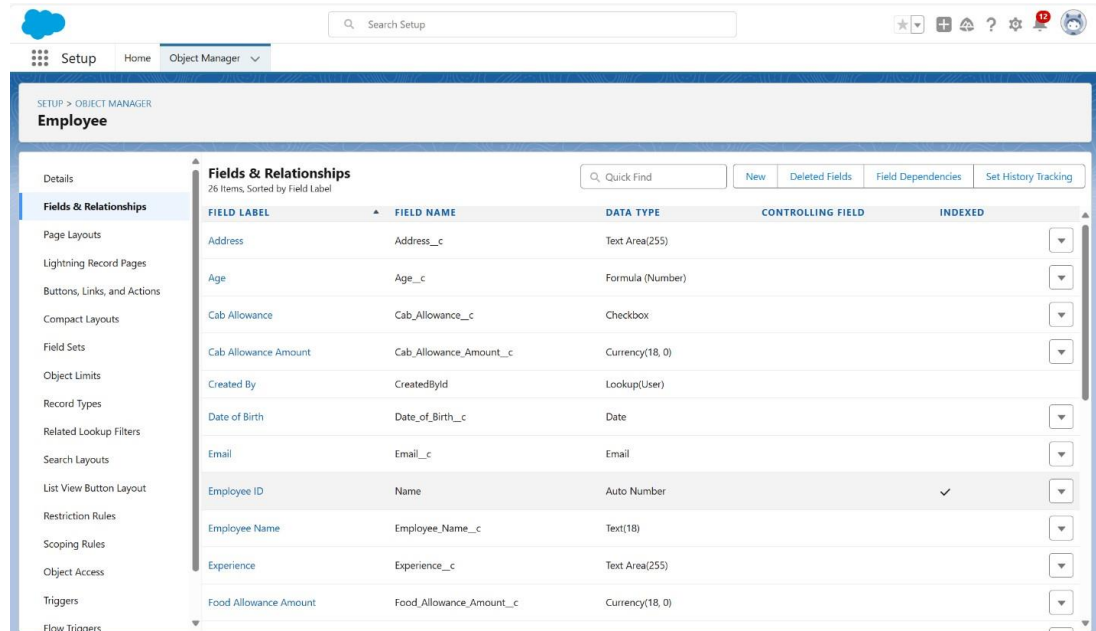
Module5: Fields & Relationships

- 1. Creating Text Field in Employee Object:**
Added a text field to the Employee object for capturing text-based data.
- 2. Creating Date of Birth Field in Employee Object:**
Added a Date of Birth field to store employees' birth dates.
- 3. Creating Formula Field in Employee Object:**
Created a formula field to calculate specific data dynamically within the Employee object.
- 4. Creating Picklist Field in Employee Object:**
Added a picklist field to provide a predefined list of values for selection.
- 5. Creating Self-Relationship Field in Employee Object:**
Established a self-relationship field in the Employee object to link employees to each other.

6. **Creating Master-Detail Relationship between Employee & Asset Objects:** Created a master-detail relationship between the Employee and Asset objects to associate employees with assets.

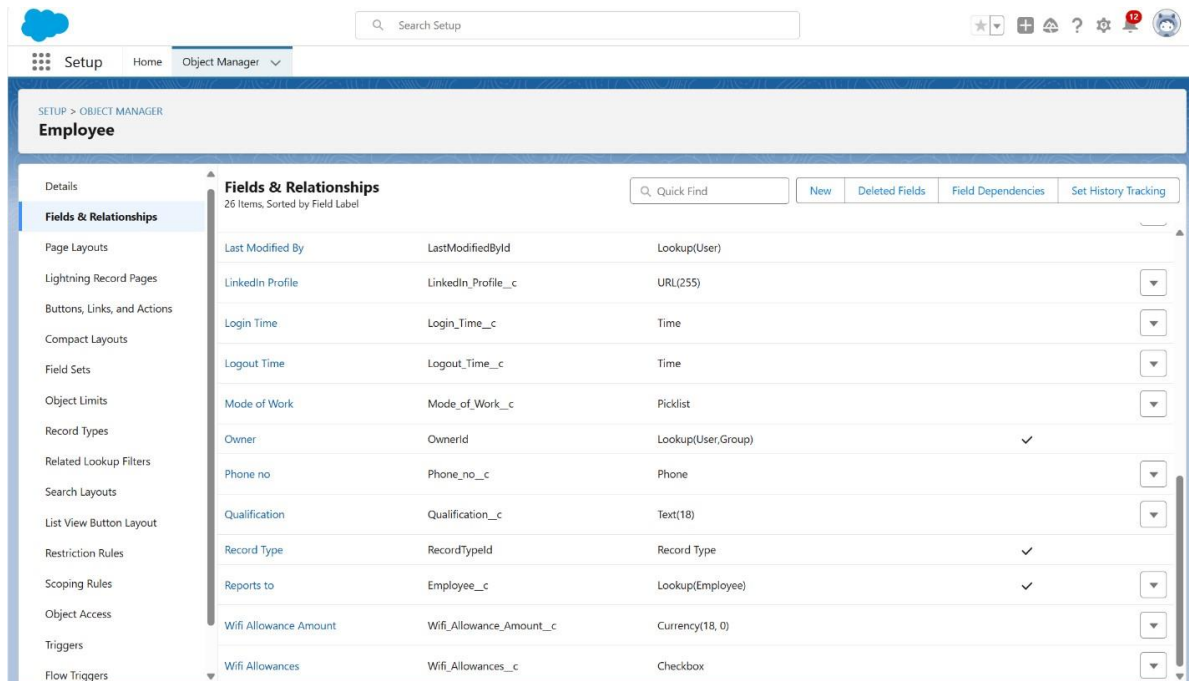
7. **Creating Remaining Fields in Employee Object:**

Added other necessary custom fields to the Employee object as per project requirements.



The screenshot shows the Salesforce Setup interface for the Employee object. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Object Access, Triggers, and Flow Triggers. The main content area is titled 'Employee' and 'Fields & Relationships'. It displays a table of 26 fields, sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Address (Text Area(255)), Age (Formula (Number)), Cab Allowance (Checkbox), Cab Allowance Amount (Currency(18, 0)), Created By (Lookup(User)), Date of Birth (Date), Email (Email), Employee ID (Auto Number, indexed), Employee Name (Text(18)), Experience (Text Area(255)), and Food Allowance Amount (Currency(18, 0)).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text Area(255)		
Age	Age__c	Formula (Number)		
Cab Allowance	Cab_Allowance__c	Checkbox		
Cab Allowance Amount	Cab_Allowance_Amount__c	Currency(18, 0)		
Created By	CreatedById	Lookup(User)		
Date of Birth	Date_of_Birth__c	Date		
Email	Email__c	Email		
Employee ID	Name	Auto Number		✓
Employee Name	Employee_Name__c	Text(18)		
Experience	Experience__c	Text Area(255)		
Food Allowance Amount	Food_Allowance_Amount__c	Currency(18, 0)		

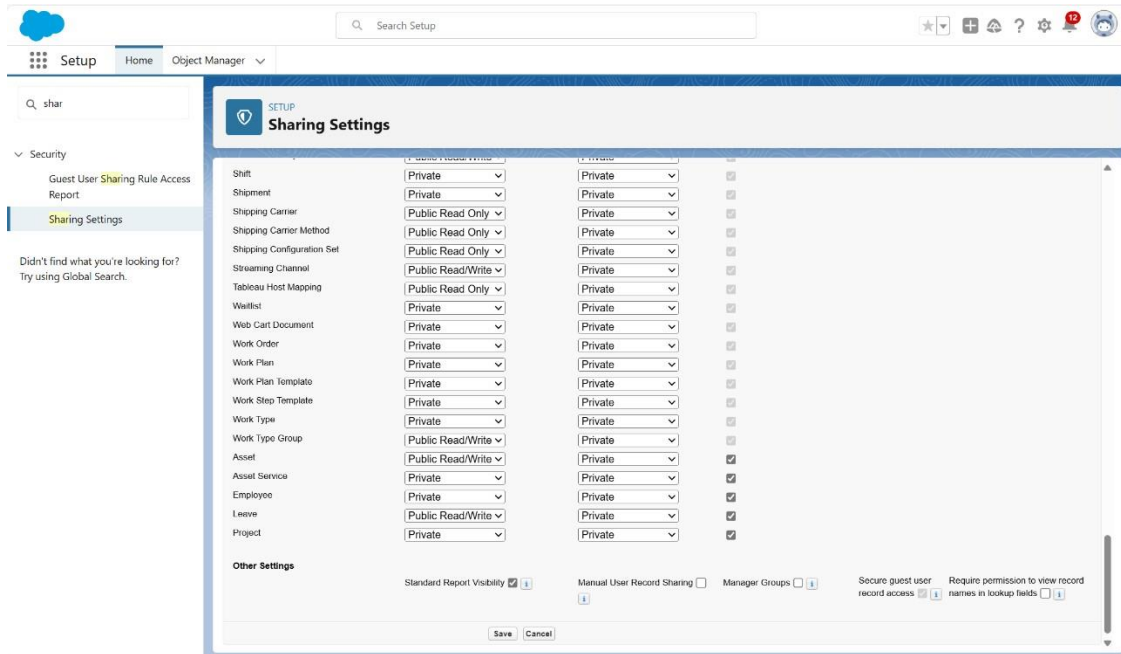


The screenshot shows the Salesforce Setup interface for the Employee object, displaying the 'Fields & Relationships' section. The left sidebar contains a navigation menu with options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, List View Button Layout, Restriction Rules, Scoping Rules, Object Access, Triggers, and Flow Triggers. The main content area is titled 'Employee' and 'Fields & Relationships'. It displays a table of 26 fields, sorted by Field Label. The fields listed are: Last Modified By (Lookup(User)), LinkedIn Profile (URL(255)), Login Time (Time), Logout Time (Time), Mode of Work (Picklist), Owner (Lookup(User,Group), indexed), Phone no (Phone), Qualification (Text(18)), Record Type (Record Type, indexed), Reports to (Lookup(Employee), indexed), Wifi Allowance Amount (Currency(18, 0)), and Wifi Allowances (Checkbox).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Last Modified By	LastModifiedById	Lookup(User)		
LinkedIn Profile	LinkedIn_Profile__c	URL(255)		
Login Time	Login_Time__c	Time		
Logout Time	Logout_Time__c	Time		
Mode of Work	Mode_of_Work__c	Picklist		
Owner	OwnerId	Lookup(User,Group)		✓
Phone no	Phone_no__c	Phone		
Qualification	Qualification__c	Text(18)		
Record Type	RecordTypeId	Record Type		✓
Reports to	Employee__c	Lookup(Employee)		✓
Wifi Allowance Amount	Wifi_Allowance_Amount__c	Currency(18, 0)		
Wifi Allowances	Wifi_Allowances__c	Checkbox		

Module6: Setting OWD

Configured the Organization-Wide Default (OWD) settings to define the access levels for records in Salesforce. The four access levels—Public Read/Write/Transfer, Public Read/Write, Public Read/Only, and Private—were set to control visibility and sharing of data. This ensures secure data access based on user roles and permissions.



Module7: User Adoption

1.Create a Record (Employee):

Created a new employee record in Salesforce to store detailed information about an employee.

2.View a Record (Employee):

Accessed and viewed the employee record to check the stored details and ensure accuracy.

3.Delete a Record (Employee):

Deleted an employee record from Salesforce to remove outdated or incorrect information.

Module8: Import Data

Before creating the application, downloaded the CSV file from the provided URL and saved it locally. Used the Data Import Wizard tool in Salesforce to import the data from the CSV file into the Employee object. This allows for seamless integration of external data into the Salesforce system for better analysis and management.

The screenshot shows the Salesforce Data Import Wizard interface. At the top, there's a navigation bar with 'Setup', 'Home', and 'Object Manager' tabs. Below this, the 'Data Import Wizard' section is active, displaying 'Recent Import Jobs'. A table lists the following job:

Status	Object	Records Created	Records Updated	Records Failed	Start Date	Processing Time (ms)
Closed	Employee	14	0	0	11-11-2024 04:48	135

Below the table is a 'Bulk Api Monitoring' button. A light blue informational box contains tips: 'Clean up your data import file', 'Make sure your field names match Salesforce field names', and 'Don't import too many records at once'. At the bottom, a progress bar shows four steps: 'Launch the Data Import Wizard', 'Select the data source', 'Map the data fields', and 'Import the data', with the first step being the current active step.

Module9: Profiles

1.HR Profile:

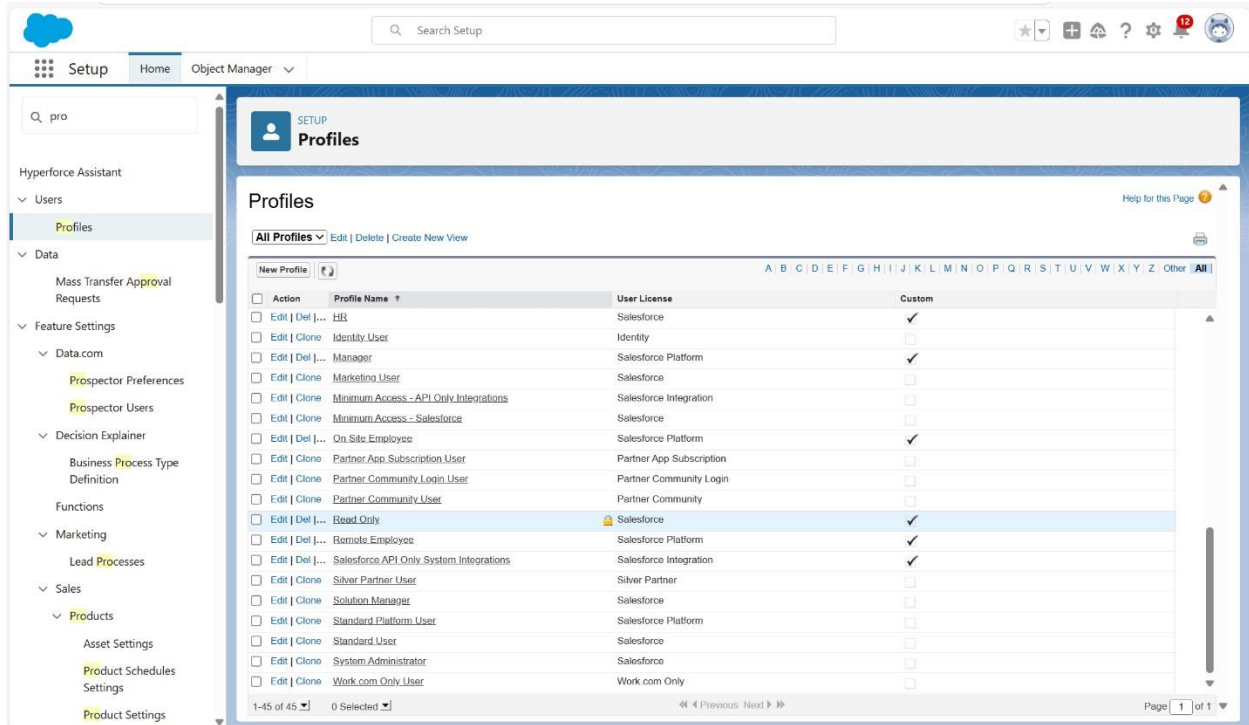
Created a custom HR profile with appropriate permissions for HR-related tasks, such as managing employee records.

2.Manager Profile:

Created a custom Manager profile to grant access to team performance data and project-related information.

3.Create Employee Profile:

Created a custom Employee profile to manage permissions for employees, allowing them to view and edit their own records.



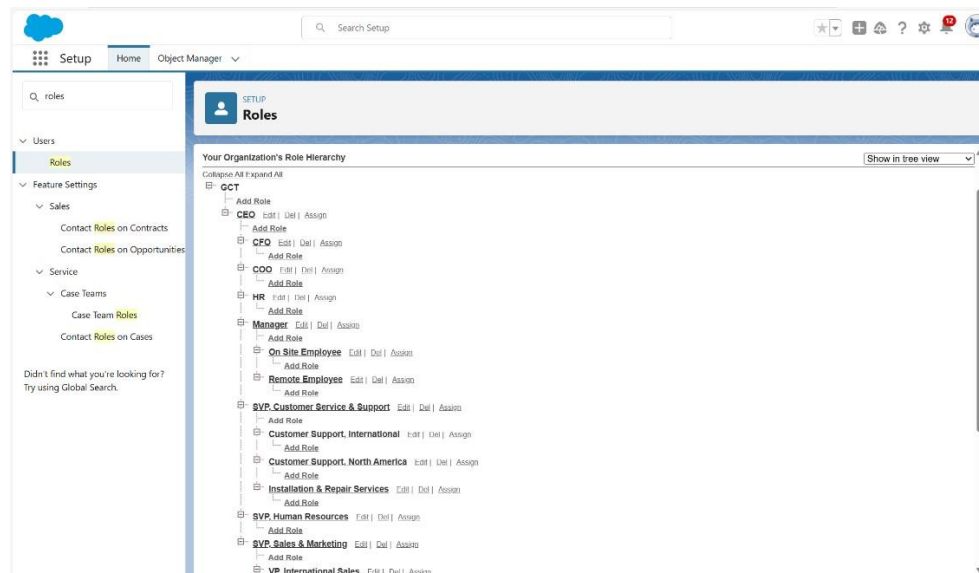
Module 10: Roles

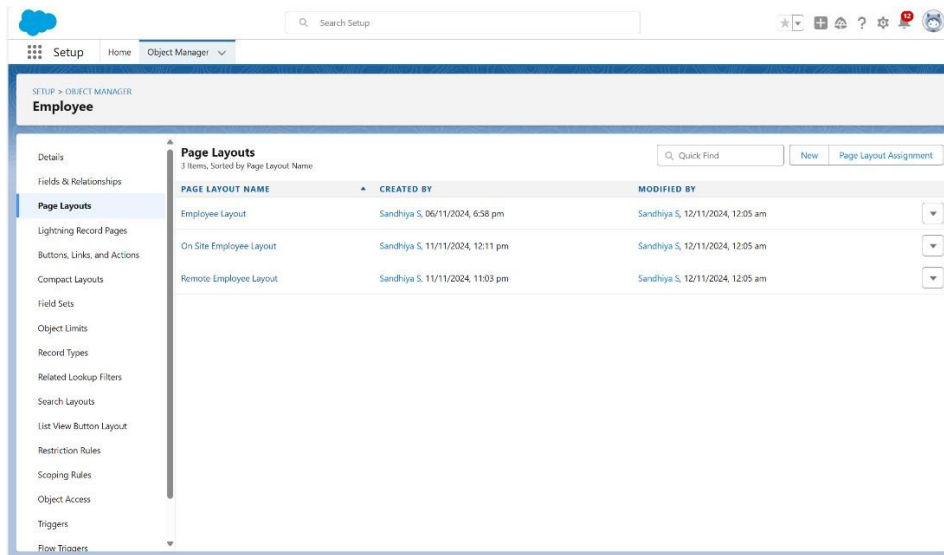
1. Creating HR Role:

Created a custom HR role to define access permissions specific to HR-related data and records.

2. Creating Additional Roles:

Created additional roles to define and manage record-level access for different users within the Salesforce organization, ensuring proper visibility control.



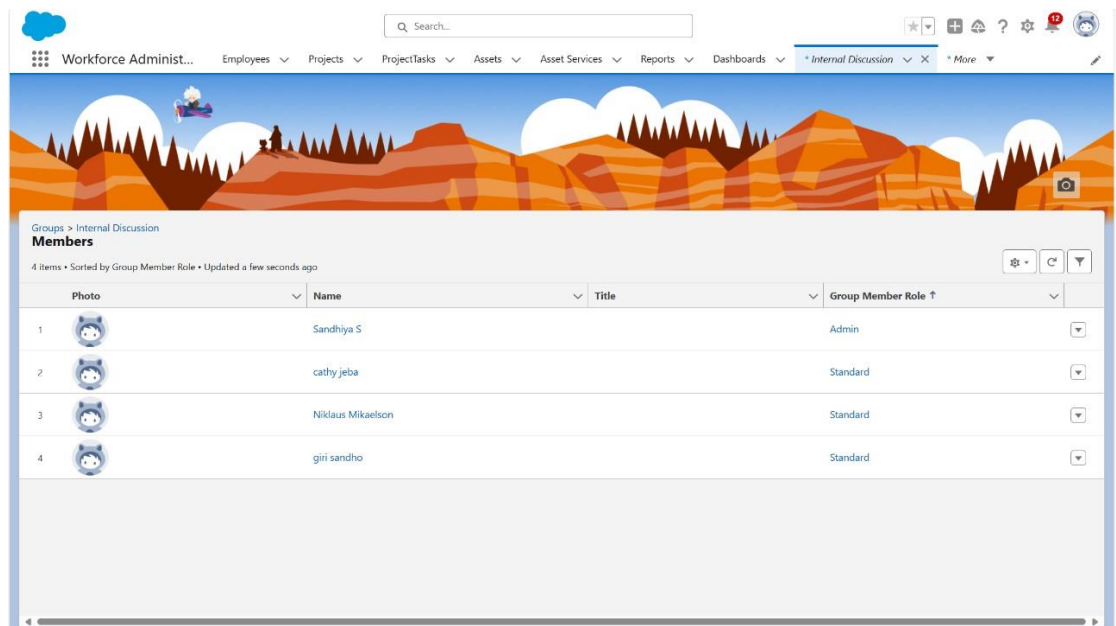


Module 13: Chatter group

1. Creating a Chatter Group for the Organization:

Created a new internal Chatter Group for the organization with the following details:

- Group Name: "Internal Discussion"
- Description: Provided a brief description outlining the purpose of the group for team discussions and information sharing.
- Access Type: Set to Private to restrict access to specific users.
- Allow Customers: Not enabled, ensuring the group is for internal communication



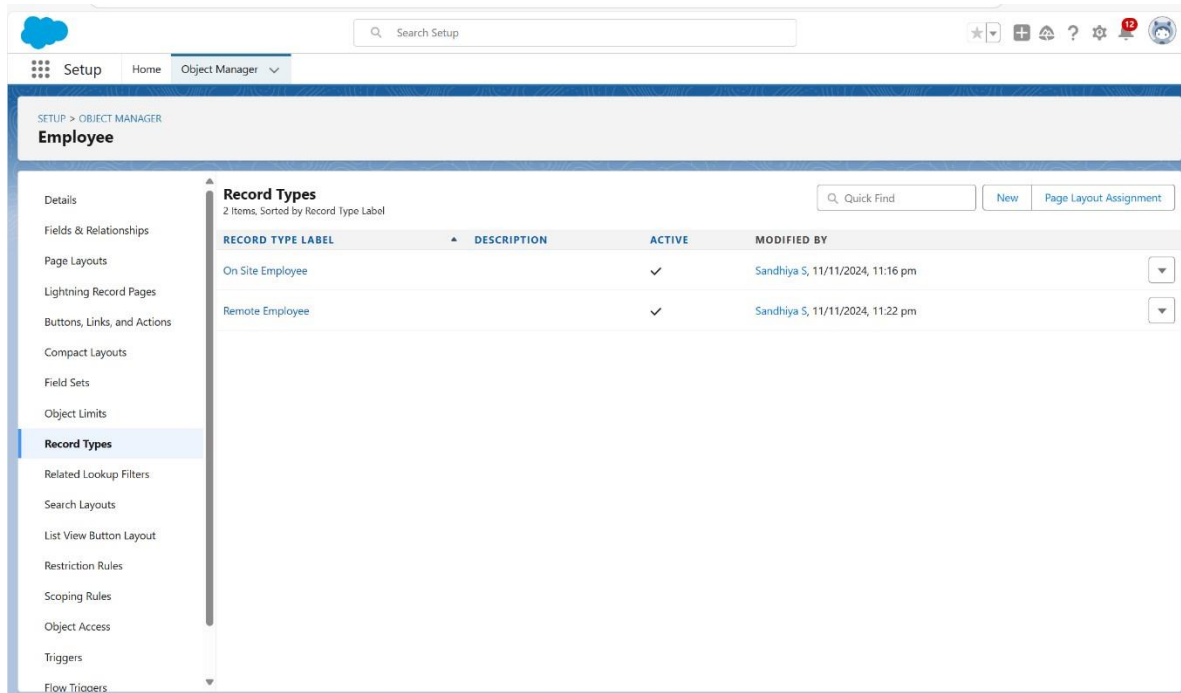
Module 14: Record types

1. Creating On Site Employee Record Type:

Created a record type named “On Site Employee” with the label “On Site Employee” and made it active. Disabled the “Make Available” option and applied a different page layout for profiles (Manager and System Administrator) by setting the layout to On Site Employee Layout.

2. Creating Remote Employee Record Type:

Created another record type named “Remote Employee”, following the same steps as the first activity, ensuring it is set up for the relevant profiles and page layouts.



Module 15: Permission sets

1. Creating a Permission Set:

Created a permission set named “Per to Emp” to extend user access to specific tools and functions without modifying their profiles, then saved the configuration.

The screenshot shows the Salesforce Setup interface for Permission Sets. The left sidebar contains navigation links for Setup, Home, and Object Manager. The main content area is titled 'Permission Sets' and includes a search bar and a list of permission sets. The 'Sales Engagement Basic User' permission set is highlighted.

Action	Permission Set Label	Description	License
<input type="checkbox"/> Clone	Order Management Store Associate	Access to limited features enabled by Order Management	Lightning Order Management User
<input type="checkbox"/> Clone	Partner Connect Partner Admin Setup	Set up Partner Connect from a partner org. Partner Connect ...	Salesforce
<input type="checkbox"/> Clone	Payments Administrator	Has all the user permissions to gate access to APIs that are ...	Salesforce Payments Internal
<input type="checkbox"/> Del Clone	Per to Eng		
<input type="checkbox"/> Clone	Publish Suggested for You Nudges: Integration User	Access the Core Adoption Service and tenant orgs, which ar...	Cloud Integration User
<input type="checkbox"/> Clone	Queue Manager	Lets users create, read, edit, and delete queued parties as w...	Queue Manager
<input type="checkbox"/> Clone	SCRT2 Integration User	Give SCRT2 Integration User necessary access	Cloud Integration User
<input type="checkbox"/> Clone	Sales Cloud User	Denotes that the user is a Sales Cloud user.	Sales User
<input type="checkbox"/> Clone	Sales Engagement Basic User	Access basic sales automation and email productivity features...	Sales Engagement Basic
<input type="checkbox"/> Clone	Salesforce Apex Guru	Gives Apex Guru access to analyze code for anti patterns.	Cloud Integration User
<input type="checkbox"/> Clone	Salesforce CMS Integration Admin	Gives the admin data access and the permissions to integrate ...	Cloud Integration User
<input type="checkbox"/> Clone	Salesforce Console User	Enable Salesforce Console User	Sales Console User
<input type="checkbox"/> Clone	Salesforce Pricing Admin	Allow org users to manage the setup pages.	Salesforce Pricing Design Time
<input type="checkbox"/> Clone	Salesforce Pricing Design Time User	Allow create, read, update, and delete access to all design time	Salesforce Pricing Design Time
<input type="checkbox"/> Clone	Salesforce Pricing Manager	Allow create, read, and edit access to all pricing objects and fo...	Salesforce Pricing Run Time
<input type="checkbox"/> Clone	Salesforce Pricing Run Time User	Allow read access for all Salesforce Pricing objects.	Salesforce Pricing Run Time
<input type="checkbox"/> Clone	Salesforce Scheduler Greeter	Let users manage drop-in customers and customers with sche...	Salesforce Scheduler Greeter
<input type="checkbox"/> Clone	SeaS Indexing.C2C User Perm	Allows the user to access entities indexed by SeaS indexing pi...	Cloud Integration User
<input type="checkbox"/> Clone	Security Center Integration User	Access Security Center for Integration	Cloud Integration User

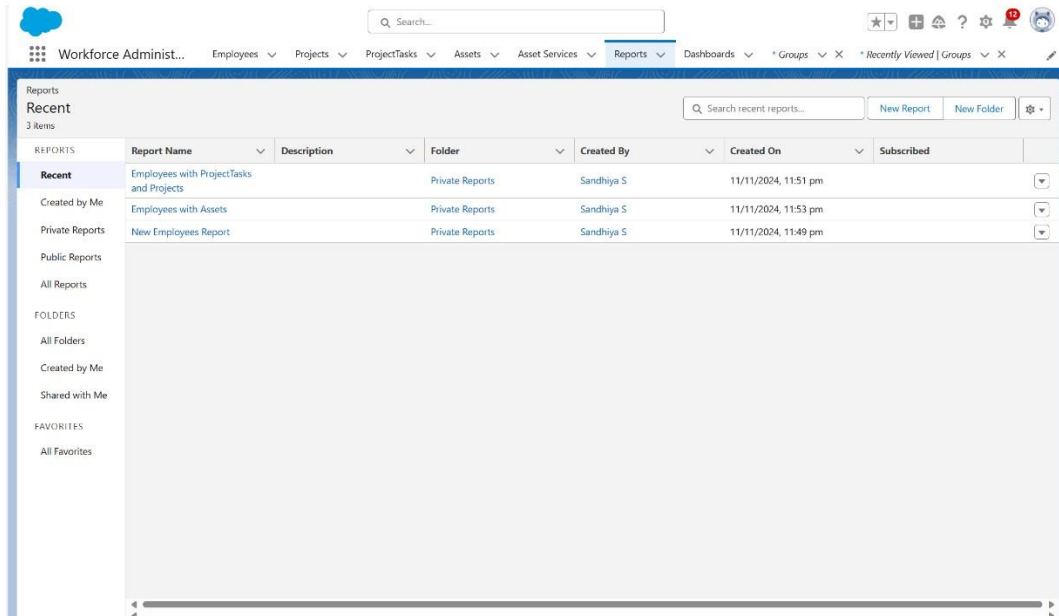
Module 16: Reports

1.Create Report:

Created an initial report to analyze data and gain insights within Salesforce.

2.Create Two More Reports:

- Created a report with the type “Employees with ProjectTasks and Projects” to track employee involvement in projects.
- Created another report with the type “Employees with Assets” to monitor asset allocation per employee.



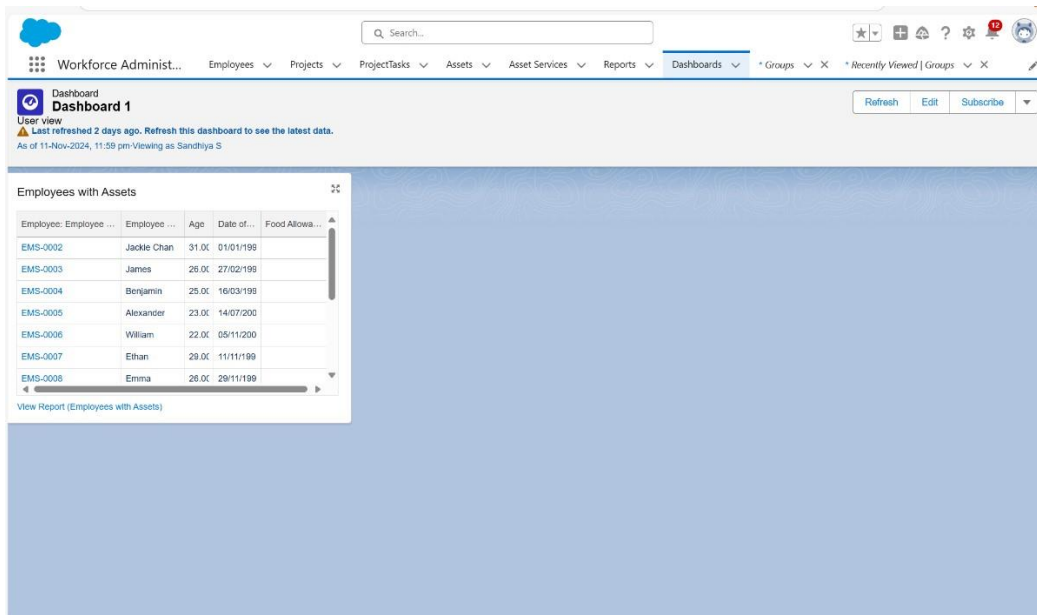
Module 17: Dashboards

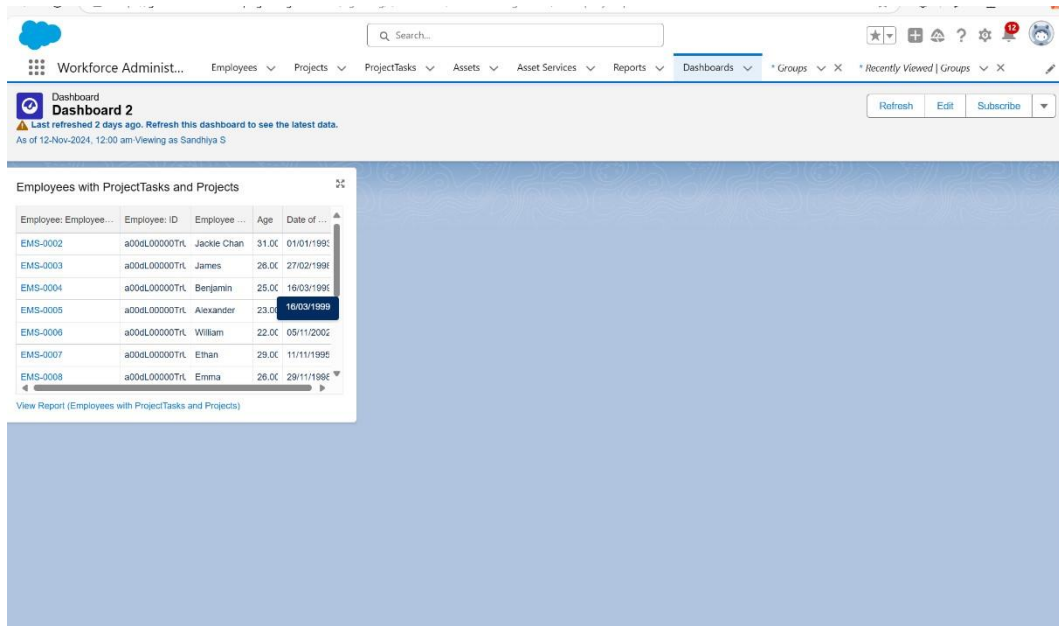
1. Create Dashboard:

Created a dashboard to visualize real-time data gathered from reports, helping users track trends and measure the impact of their activities.

2. Create Another Dashboard:

Created an additional dashboard to provide further insights and analysis, as discussed in the first activity.





Module 18: Approval Process

1.Create Leave Object and Tab:

Created the Leave object with fields such as Employee Name, No. of Days, Subject, Description, and Status (picklist with values: Submitted, Approved, Rejected). Set the Status field to readonly and created a tab for easy access.

2. Set Up Leave Approval Process:

Created an approval process for the Leave object named “Leave Approval Request” using the Jump Start Wizard. Configured the approval to automatically assign leave applications over 5 days to the Manager role for review.

3.Set Initial Approval Status:

Set the field update rule “Approval Status to Submitted” to automatically update the status to Submitted when a new leave request is submitted.

4.Define HR Role Approver:

Configured the approval process to automatically assign requests to users with the HR role if further review is required.

5.Set Final Approval Status:

Created the field update rule “Approval Status to Approved” to update the status to Approved upon final approval.

6.Set Rejection Status:

Added a rule “Approval Status to Rejected” to change the status to Rejected if the request does not meet the necessary criteria.

The screenshot shows the Salesforce Setup interface for an Approval Process. The left sidebar contains navigation links for Setup, Home, and Object Manager. The main content area is titled 'Approval Processes' and shows the configuration for a process named 'Leave: Leave Approval Request'. The process is currently active. The configuration details include the process name, unique name, description, entry criteria, record editability, and approval assignment email template. The initial submission actions are listed in a table, and the approval steps are also listed in a table.

Process Definition Detail

Field	Value
Process Name	Leave Approval Request
Unique Name	Leave_Approval_Request
Description	
Entry Criteria	
Record Editability	Administrator ONLY
Approval Assignment Email Template	
Initial Submitters	Leave Owner
Created By	Sandhya S. 12/11/2024, 12:14 am
Modified By	Sandhya S. 12/11/2024, 12:55 am

Initial Submission Actions

Action	Type	Description
Record Lock		Lock the record from being edited
Field Update	Approval Status to Rejected	
Field Update	Approval Status to Submitted	
Field Update	Approval Status to Approved	

Approval Steps

Action	Step Number	Name	Description	Criteria	Assigned Approver	Reject Behavior
Step 1	1	Step 1			User: gis.sandho	Final Rejection
Step 2	2	Approval from HR		Leave: No. of Days EQUALS 5	User: Niklaus Mikaelson	Final Rejection

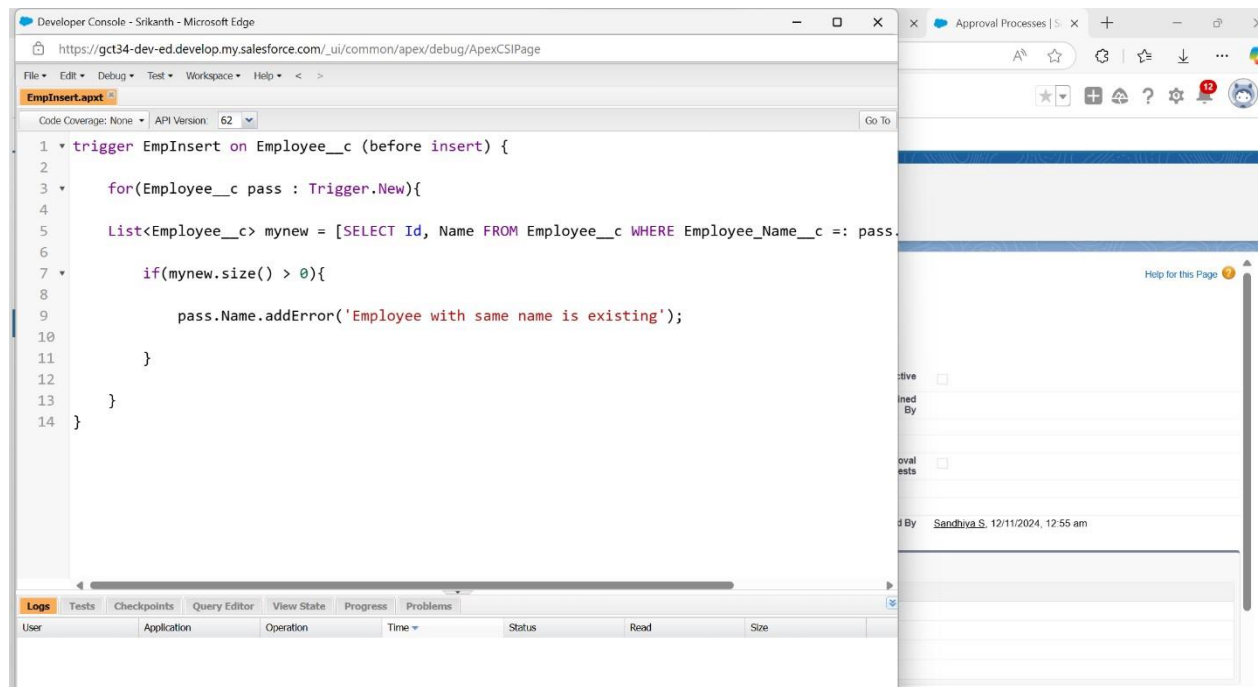
Module 19: Triggers

1.Create an Apex Trigger:

Developed an Apex Trigger named EmplInsert on the Employee object to prevent duplicate employee names. The trigger checks if an Employee record with the same Employee Name already exists and displays an error message "Employee with same name is existing" if a duplicate is found.

2.Test the Trigger:

Tested the trigger by attempting to create an Employee record with an existing name, such as “Jackie Chan”. As expected, the error "Employee with same name is existing" appeared, confirming that the trigger is functioning correctly.



Conclusion:

This project demonstrates the systematic setup and configuration of Salesforce to address organizational needs effectively. From creating custom objects, fields, and page layouts to implementing advanced features like approval processes, Apex triggers, and data import, each activity was designed to enhance functionality and ensure streamlined workflows. The implementation of reports, dashboards, and permission sets further improves data accessibility, visibility, and control. These configurations collectively enable efficient management of employee records, leave applications, and organizational processes, showcasing Salesforce as a powerful tool for business automation and decision-making.