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Batch:2

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WORKFORCE ADMINISTRATION SOLUTION (DEV)

1. 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.

2. Objectives

Business Goals

Improve Workforce Efficiency

Streamline and automate workforce management processes to reduce manual tasks and improve operational efficiency.

Enhance Data Accuracy

Achieve a 95% accuracy rate in employee data, ensuring that all records, including employment details, benefits, and time-off tracking, are error-free.

Improve Compliance Management

Ensure that the system complies with all local, state, and federal regulations by integrating a compliance management tool, reducing the risk of non-compliance by 25%.

Specific Outcomes

Centralized Employee Records

Consolidate all employee data into a single, centralized system for easy access and real-time updates, eliminating information across multiple systems.

Time-Off and Leave Management

Introduce an automated leave management system within Salesforce, allowing employees to request time off, track accruals, and manage approvals directly, resulting in a 20% reduction in HR workload for leave-related inquiries.

Enhanced Reporting and Analytics

Deliver custom dashboards and reports to track workforce performance, turnover, and compliance, with the ability to generate real-time reports at the click of a button, improving decision-making speed

3. Salesforce Key Features and Concepts Utilized

- Object
- Tabs
- The Lightning App:
- Fields & Relationships
- Setting OWD
- User Adoption
- Import Data
- Profiles
- Role
- Users
- Page layouts
- Chatter Group
- Record Types
- Permission sets
- Reports
- Dashboards
- Approval Process
- Apex Trigger

4. Detailed Steps to Solution Design

Object

What Is an Object?

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

Salesforce objects are of two types:

1. Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.
2. Custom Objects: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

To create an object:

1. From the setup page --> Click on Object Manager --> Click on Create --> Click on Custom Object.
2. Enter the label name: Employee
3. Plural label name: Employees
4. Enter Record Name Label and Format

Record Name : Employee ID

Data Type : Auto Number

Display Format : EMS-{0000}

Starting Number : 1

5. Click on Allow reports, Allow search --> Save.

The screenshot shows the Salesforce Object Manager interface. The top navigation bar has tabs for 'Welcome to Salesforce: Verify', 'Object Manager | Salesforce', 'Employee | Salesforce', 'Object Manager | Salesforce', and 'Student - Skill Wallet'. The main title is 'SETUP > OBJECT MANAGER' followed by 'Employee'. On the left, a sidebar lists various configuration options: 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, and Object Access. The main panel is titled 'Details' and contains fields for 'Description', 'API Name' (Employee__c), 'Custom' (✓), 'Singular Label' (Employee), 'Plural Label' (Employees), and 'Enable Reports' (✓). It also includes sections for 'Track Activities', 'Track Field History', 'Deployment Status' (Deployed), and 'Help Settings' (Standard salesforce.com Help Window). At the bottom right, there is a message: 'Activate Windows' and 'Go to Settings to activate Windows.' The status bar at the bottom right shows the date (03-03-2025) and time (11:43).

In the similar way Create the objects with the Project, ProjectTask, Asset, Asset Services.

Create Project Object

The screenshot shows the Salesforce Object Manager interface, similar to the previous one but for the 'Project' object. The top navigation bar and sidebar are identical. The main title is 'SETUP > OBJECT MANAGER' followed by 'Project'. The main panel is titled 'Details' and contains fields for 'Description', 'API Name' (Project__c), 'Custom' (✓), 'Singular Label' (Project), 'Plural Label' (Projects), and 'Enable Reports' (✓). It also includes sections for 'Track Activities', 'Track Field History', 'Deployment Status' (Deployed), and 'Help Settings' (Standard salesforce.com Help Window). At the bottom right, there is a message: 'Activate Windows' and 'Go to Settings to activate Windows.' The status bar at the bottom right shows the date (03-03-2025) and time (11:46).

Create ProjectTask Object

The screenshot shows the Salesforce Setup interface with the following details:

Object Manager - ProjectTask

Details (API Name: ProjectTask__c, Singular Label: ProjectTask, Plural Label: ProjectTasks)

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

Details (Description, API Name: ProjectTask__c, Singular Label: ProjectTask, Plural Label: ProjectTasks, Enable Reports checked, Track Activities, Track Field History, Deployment Status: Deployed, Help Settings: Standard salesforce.com Help Window)

Buttons: Edit, Delete

Message: Activate Windows
Go to Settings to activate Windows.

Create Asset Object

The screenshot shows the Salesforce Setup interface with the following details:

Object Manager - Asset

Details (API Name: Asset__c, Singular Label: Asset, Plural Label: Assets)

Fields & Relationships

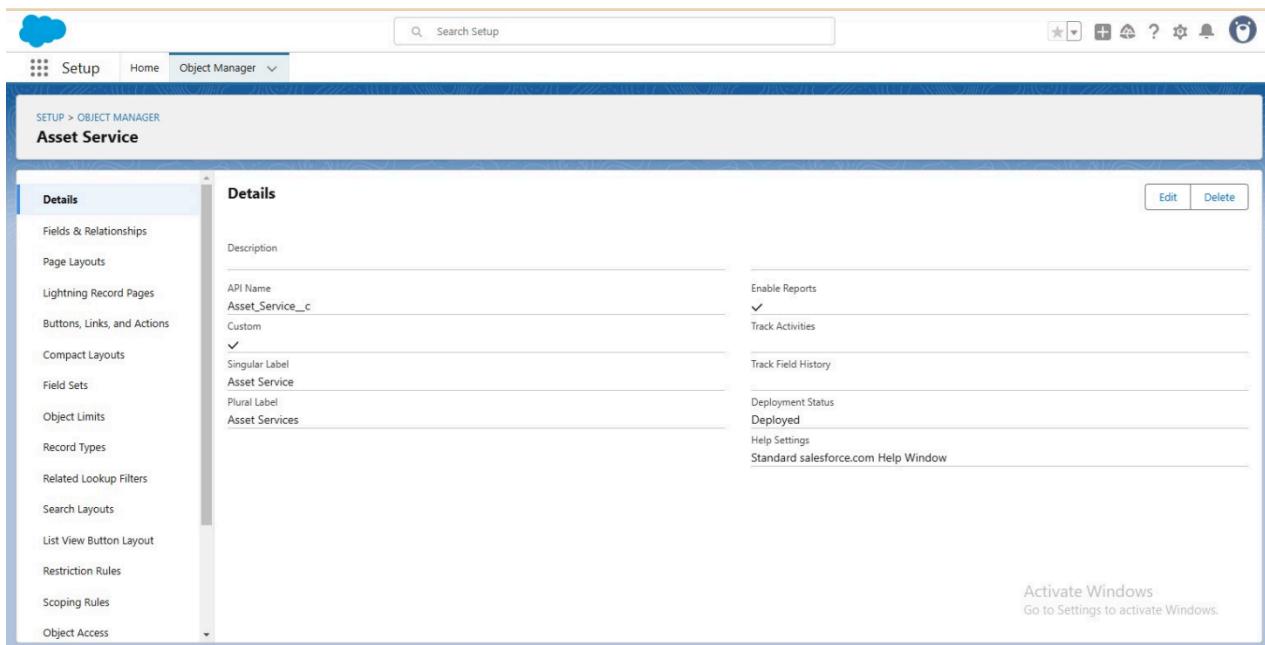
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- List View Button Layout
- Restriction Rules
- Scoping Rules

Details (Description, API Name: Asset__c, Singular Label: Asset, Plural Label: Assets, Enable Reports checked, Track Activities, Track Field History, Deployment Status: Deployed, Help Settings: Standard salesforce.com Help Window)

Buttons: Edit, Delete

Message: Activate Windows
Go to Settings to activate Windows.

Create Asset Service Object



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 Object

To create a Tab

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

Creating a Custom Tab (Employee)

The screenshot shows the Salesforce Setup interface. The left sidebar is titled 'User Interface' and has 'Rename Tabs and Labels' and 'Tabs' selected. The main content area is titled 'Custom Object Tab Employees'. It displays the 'Custom Tab Definition Detail' for the 'Employees' tab. The tab label is 'Employees', the object is 'Employee', and the tab style is 'Star'. The tab was created by 'Batch2_IT' on 03/03/2025, 12:07 pm, and modified by 'Batch2_IT' on the same date and time. A note at the bottom says 'Below is the information for the custom tab. Click Edit to change the custom tab.'

Creating a Custom Tab (Project)

The screenshot shows the Salesforce Setup interface. The left sidebar is titled 'User Interface' and has 'Rename Tabs and Labels' and 'Tabs' selected. The main content area is titled 'Custom Object Tab Projects'. It displays the 'Custom Tab Definition Detail' for the 'Projects' tab. The tab label is 'Projects', the object is 'Project', and the tab style is 'Umbrella'. The tab was created by 'Batch2_IT' on 03/03/2025, 12:09 pm, and modified by 'Batch2_IT' on the same date and time. A note at the bottom says 'Below is the information for the custom tab. Click Edit to change the custom tab.'

Creating a Custom Tab (ProjectTasks)

The screenshot shows the Salesforce Setup interface. The top navigation bar includes a cloud icon, the word "Setup", and tabs for "Home" and "Object Manager". A search bar says "Search Setup" and there are various icons on the right.

The main content area has a sidebar with "User Interface" and "Rename Tabs and Labels" sections, and a "Tabs" section which is currently selected. A message at the bottom of the sidebar says "Didn't find what you're looking for? Try using Global Search."

The main panel title is "Custom Object Tab ProjectTasks". It contains a "Help for this Page" link. Below it is a message: "Below is the information for the custom tab. Click Edit to change the custom tab."

A "Custom Tab Definition Detail" table is shown:

Tab Label	ProjectTasks	Tab Style	Bank
Object	ProjectTask	Splash Page Custom Link	
Description			
Created By	Batch2_IT 03/03/2025, 12:12 pm	Modified By	Batch2_IT 03/03/2025, 12:12 pm

At the bottom of the main panel, there is a yellow status bar with the text "javascript:srcUp(%27%2F01rWU0000MeKw%3Fsetupid%3DCustomTabs%26isdtp%3Dp1%27);".

Creating a Custom Tab (Assets)

The screenshot shows the Salesforce Setup interface, identical to the previous one but with a different custom tab definition.

The main panel title is "Custom Object Tab Assets". It contains a "Help for this Page" link. Below it is a message: "Below is the information for the custom tab. Click Edit to change the custom tab."

A "Custom Tab Definition Detail" table is shown:

Tab Label	Assets	Tab Style	Airplane
Object	Asset	Splash Page Custom Link	
Description			
Created By	Batch2_IT 03/03/2025, 12:11 pm	Modified By	Batch2_IT 03/03/2025, 12:11 pm

Creating a Custom Tab (Asset Services)

The screenshot shows the Salesforce Setup interface. In the top navigation bar, 'Setup' is selected. Below it, the 'Tabs' page is displayed under the 'User Interface' section. A sub-section titled 'Rename Tabs and Labels' has 'Tabs' selected. The main content area shows a 'Custom Object Tab' for 'Asset Services'. The tab definition details are as follows:

Tab Label	Asset Services	Tab Style	
Object	Asset Service	Splash Page Custom Link	
Description			
Created By	Batch2_IT, 03/03/2025, 12:12 pm	Modified By	Batch2_IT, 03/03/2025, 12:12 pm

Buttons for 'Edit' and 'Delete' are visible above the table. The 'Books' tab style is highlighted.

The Lightning App

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

To create a lightning app page

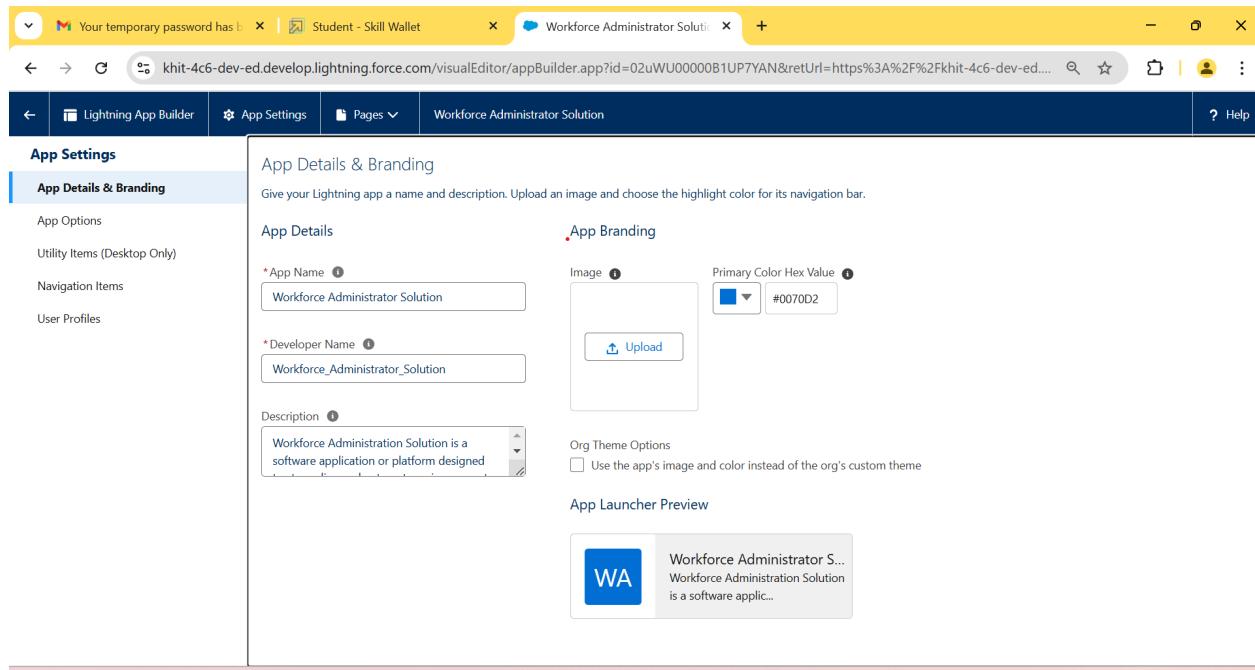
1. Go to setup page --> search “app manager” in quick find --> select “app manager” --> click on New lightning App.
2. Fill the app name in app details and branding as follow
App Name : Workforce Administrator Solution
Developer Name : this will auto populated
Description : Give a meaningful description
Image : optional (if you want to give any image you can otherwise not mandatory)
Primary color hex value : keep this default
3. Then click Next --> (App option page) keep it as default --> Next --> (Utility Items) keep it as default --> Next.

4. 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.

5. To Add User Profiles:

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



Fields & Relationships

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

Types of Fields 1. Standard Fields 2. Custom Fields

Activity 1: Creating Text Field in Employee Object

1. Go to setup --> click on Object Manager --> type object name (Employee) in quick find bar --> click on the object.
2. Now click on “Fields & Relationships” --> New
3. Select Data type as “Text”.

4. Click on Next
 5. Fill the above as following:
- Field Label: Employee Name
Length: 18
- Field Name: gets auto generated
- Click on Next --> Next --> Save and new.

Employee Custom Field
Employee Name

[Back to Employee](#)

[Validation Rules \(0\)](#)

[Edit](#) [Set Field-Level Security](#) [View Field Accessibility](#) [Where is this used?](#)

Field Information

Field Label	Employee Name	Object Name	Employee
Field Name	Employee_Name	Data Type	Text
API Name	Employee_Name__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Batch2_IT 03/03/2025, 12:33 pm	Modified By	Batch2_IT 03/03/2025, 12:33 pm

General Options

Required	<input type="checkbox"/>
Unique	<input type="checkbox"/>

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.
3. Click on Next.
4. Fill the above as following:
Field Label: Date of Birth. Field Name: gets auto generated.
5. Click on Next --> Next --> Save and new.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes a cloud icon, 'Setup', 'Home', and 'Object Manager'. A search bar says 'Search Setup' with a magnifying glass icon. To the right are various icons for configuration and help.

The main area displays 'SETUP > OBJECT MANAGER' under 'Employee'. On the left, a sidebar lists options like 'Details', 'Fields & Relationships' (which is selected), and various layout types. The main content area shows the 'Employee Custom Field Date of Birth' configuration. It includes a 'Field Information' section with details such as:

Field Label	Date of Birth	Object Name	Employee
Field Name	Date_of_Birth	Data Type	Date
API Name	Date_of_Birth_c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Batch2_IT 03/03/2025, 12:37 pm	Modified By	Batch2_IT 03/03/2025, 12:37 pm

Below this is a 'General Options' section with 'Required' checked and 'Default Value' empty. Buttons at the bottom include 'Edit', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. A 'Help for this Page' link is also present.

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 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.

The screenshot shows the Salesforce Object Manager interface. The URL is <https://khit-4c6-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01WWU000003I63d/FieldsAndRelationships/00NWU00000GJspv/view>. The page title is "Employee Custom Field Age". The left sidebar under "Fields & Relationships" has "Age" selected. The main content area shows the "Custom Field Definition Detail" for the "Age" field. The "Field Information" section includes fields like Field Label (Age), Field Name (Age), API Name (Age__c), Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, and Compliance Categorization. It also shows the "Object Name" as Employee, "Created By" as Batch2 IT, and "Modified By" as Batch2 IT. The "Formula Options" section shows the Data Type as Formula and the formula as `YEAR(TODAY()) - YEAR(Date_of_Birth__c)`. The "Decimal Places" is set to 2.

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.

The screenshot shows the Salesforce Setup interface with the following details:

- Header:** Search bar with "Search Setup".
- Top Navigation:** Setup, Home, Object Manager.
- Breadcrumb:** SETUP > OBJECT MANAGER.
- Section:** Employee.
- Left Sidebar (Fields & Relationships):**
 - Details
 - Fields & Relationships** (selected)
 - 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
- Custom Field Definition Detail:**
 - Employee Custom Field Gender**
 - [Back to Employee](#)
 - [Validation Rules \(0\)](#)
 - [Help for this Page](#)
- Field Information:**

Field Label	Gender	Object Name	Employee
Field Name	Gender	Data Type	Picklist
API Name	Gender__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Batch2_IT, 03/03/2025, 12:45 pm	Modified By	Batch2_IT, 03/03/2025, 12:45 pm
- General Options:**
 - Required
 - Default Value

Activity 5: 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.

SETUP > OBJECT MANAGER

Employee

Reports to

Details Back to Employee Validation Rules [0]

Custom Field Definition Detail Edit Set Field-Level Security View Field Accessibility Where is this used?

Field Information		Object Name	Data Type
Field Label	Reports to	Employee	Lookup
Field Name	Reports_to		
API Name	Reports_to_c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Batch2 IT 03/03/2025, 12:49 pm	Modified By	Batch2 IT 03/03/2025, 12:49 pm

Activity 6: 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. Give Field Label as “Employee Name” and click Next.
7. Next --> Next --> Save & New.

SETUP > OBJECT MANAGER

ProjectTask

Employee Name

Back to ProjectTask Validation Rules [0]

Custom Field Definition Detail Edit Set Field-Level Security View Field Accessibility Where is this used?

Field Information		Object Name	Data Type
Field Label	Employee Name	ProjectTask	Master-Detail
Field Name	Employee_Name		
API Name	Employee_Name_c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			
Created By	Batch2 IT 03/03/2025, 12:52 pm	Modified By	Batch2 IT 03/03/2025, 12:52 pm

Activity 7: Creating Remaining Fields in Employee Object

Now create the remaining fields using the data types mentioned below.

1. Qualification (Text)
2. Address (Text Area)
3. Experience (Text Area)
4. Phone no (Phone)
5. Email (Email)
6. Joining date (Date)
7. Mode of Work Picklist (Values: Onsite, Remote)
8. Cab Allowances (Check box)
9. Food Allowances (Check box)
10. Wifi Allowances (Check box)
11. Cab Allowance Amount (Currency)
12. Food Allowance Amount (Currency)
13. Wifi Allowance Amount (Currency)
14. Login Time (Time)
15. Logout Time (Time)
16. LinkedIn Profile (url)

The screenshot shows the Salesforce Object Manager interface for the Employee object. The top navigation bar includes 'Setup', 'Home', 'Object Manager', and various quick access icons. The main area displays the 'Fields & Relationships' section, which lists 26 items sorted by Field Label. The table has columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The listed fields are:

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	CreatedBy	Lookup(User)		
Date of Birth	Date_of_Birth_c	Date		
Email	Email_c	Email		
Employee ID	Name	Auto Number		✓

The screenshot shows the Salesforce Setup interface for the Employee object. The left sidebar lists various configuration options: Details, Fields & Relationships (selected), 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, and Restriction Rules. The main content area is titled "Fields & Relationships" and displays 26 items sorted by Field Label. The fields listed are:

Field Label	API Name	Type
Experience	Experience_c	Text Area(255)
Food Allowance Amount	Food_Allowance_Amount_c	Currency(18, 0)
Food Allowances	Food_Allowances_c	Checkbox
Gender	Gender_c	Picklist
Joining date	Joining_date_c	Date
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

The screenshot shows the Salesforce Setup interface for the Employee object. The left sidebar lists various configuration options: Details, Fields & Relationships (selected), 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, and Restriction Rules. The main content area is titled "Fields & Relationships" and displays 26 items sorted by Field Label. The fields listed are:

Field Label	API Name	Type
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	Reports_to_c	Lookup(Employee)
Wifi Allowance Amount	Wifi_Allowance_Amount_c	Currency(18, 0)
Wifi Allowances	Wifi_Allowances_c	Checkbox

Now create the remaining fields in Project using the data types mentioned below.

1. Project Name (Text)
2. Project Lead (Text)
3. Start Date (Date)
4. End Date (Date)
5. Project Status (Picklist: Value - Completed, On Going, Not Yet Started)

The screenshot shows the Salesforce Object Manager interface for the 'Project' object. The left sidebar lists various setup 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, and Restriction Rules. The 'Fields & Relationships' section is selected, displaying a table with 9 items sorted by Field Label. The table columns are FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
End Date	End_Date__c	Date		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		✓
Project ID	Name	Auto Number		✓
Project Lead	Project_Lead__c	Text(30)		
Project Name	Project_Name__c	Text(20)		
Project Status	ProjectStatus__c	Picklist		
Start Date	Start_Date__c	Date		

Now create the remaining fields in ProjectTask using the data types mentioned below.

1. Project Task (MDR)
2. Finishes in (Formula return type: Number)
3. Working Hours (Numbers)
4. Employee Name (MDR with Employee Object)

ProjectTask

Fields & Relationships

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		✓
Employee Name	Employee_Name__c	Master-Detail(Employee)		✓
Finishes in	Finishes_in__c	Formula (Number)		✓
Last Modified By	LastModifiedById	Lookup(User)		✓
Project	Project__c	Master-Detail(Project)		✓
Project Task Name	Name	Text(80)		✓
Working Hours	Working_Hours__c	Number(18, 0)		✓

Now create the remaining fields in Asset Service using the data types mentioned below.

1. Asset Id (Lookup relationship with Asset object)
2. Type (Picklist: Values - Technical Issue, Non-Technical Issue)
3. Technician (Text)
4. Subject (Text Area)
5. Description (Text Long)

Asset Service

Fields & Relationships

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Asset Id	Asset_Id__c	Lookup(Asset)		✓
Created By	CreatedById	Lookup(User)		✓
Description	Description__c	Long Text Area(32768)		✓
Last Modified By	LastModifiedById	Lookup(User)		✓
Owner	OwnerId	Lookup(User,Group)		✓
Project Task Name	Name	Text(80)		✓
Subject	Subject__c	Text Area(255)		✓
Technician	Technician__c	Text(18)		✓
Type	Type__c	Picklist		✓

Now create the remaining fields in Asset using the data types mentioned below.

1. Asset Type (Picklist: Values – Laptop, Charger, Mouse, Monitor, CPU)
2. Model Name (Text)
3. Employee Name (Lookup relationship with Employee Object)
4. Date Of Issue (Formula (Joining date), Formula Return type: date)

The screenshot shows the Salesforce Object Manager interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER Asset'. On the left, a sidebar lists various setup options like 'Details', 'Fields & Relationships' (which is selected and highlighted in blue), and other layout-related items. The main content area is titled 'Fields & Relationships' and shows a table of fields for the Asset object. The table has columns for 'FIELD LABEL', 'FIELD NAME', 'DATA TYPE', 'CONTROLLING FIELD', and 'INDEXED'. There are 8 items listed:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Asset Type	Asset_Type__c	Picklist		
Created By	CreatedById	Lookup(User)		
Date Of Issue	Date_Of_Issue__c	Formula (Date)		
Employee Name	Employee_Name__c	Lookup(Employee)		
Last Modified By	LastModifiedById	Lookup(User)		
Model Name	Model_Name__c	Text(18)		
Owner	OwnerId	Lookup(User,Group)		
Project Task Name	Name	Text(80)		

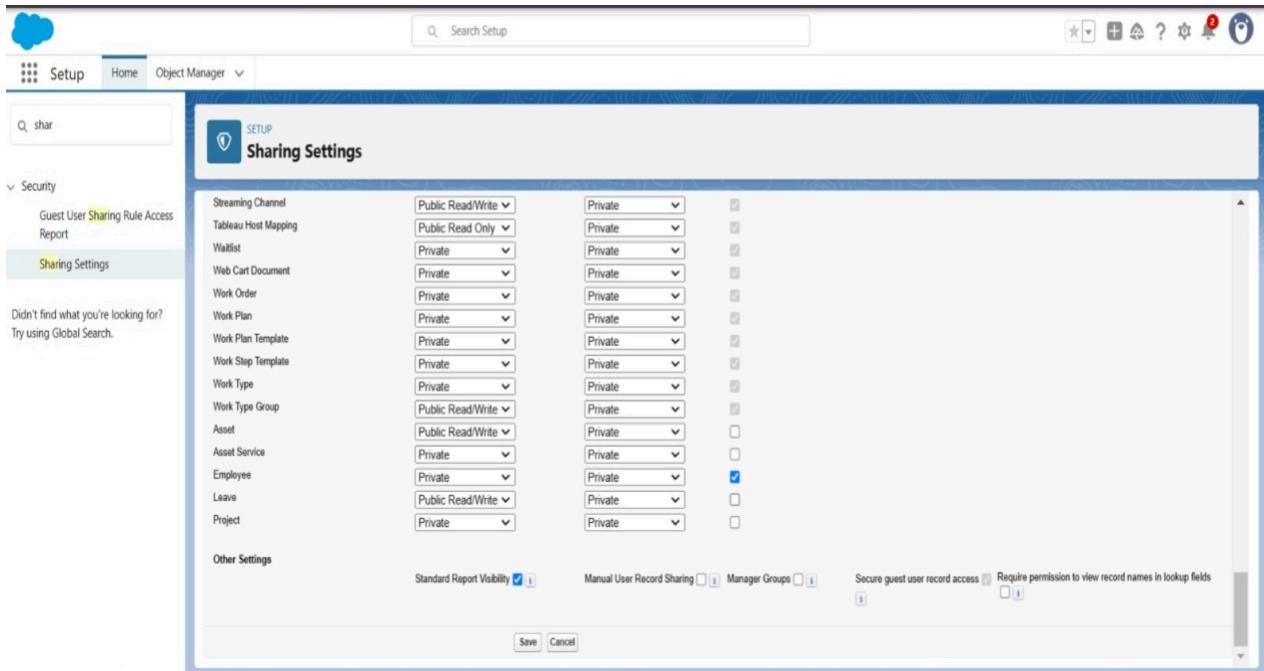
Setting OWD

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.

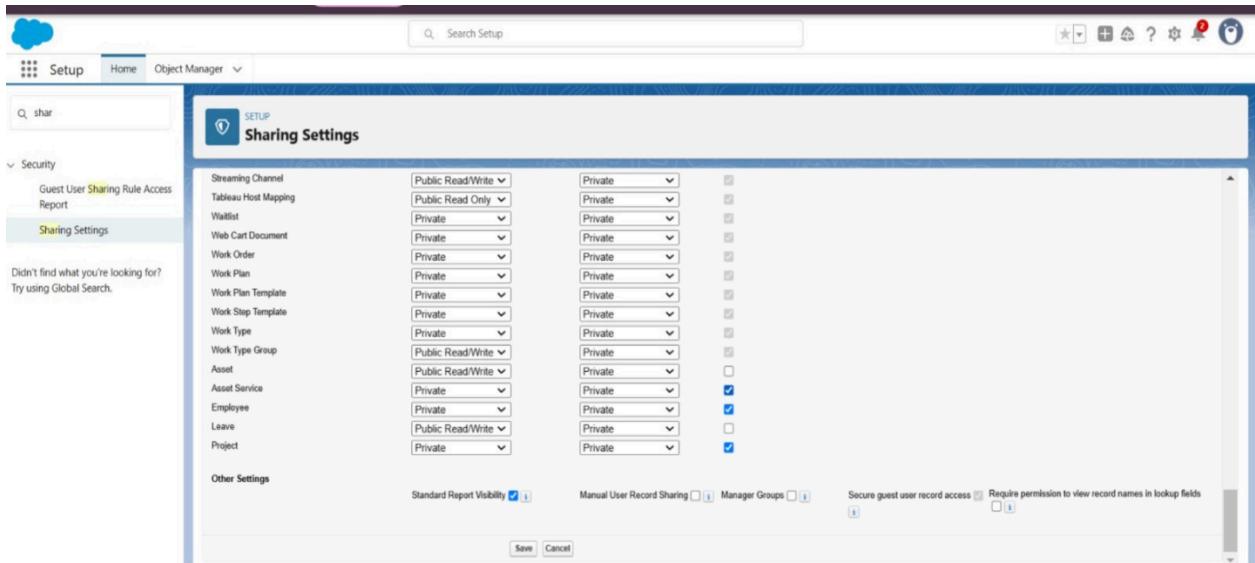
Create OWD Setting

1. Go to Set Up --> in the Quick Find box type "Sharing Settings" --> click on it.
2. Click Edit in the Organization-Wide Defaults area.
3. Search for the Employee object.
4. Under default internal access and default external access change the options to “Private” and under grant access using hierarchies select the check box.
5. Click on save.

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



Set OWD as Private for Project and Asset Service objects.



User Adoption

Create a Record (Employee)

1. Click on App Launcher on the left side of the screen.
2. Search Workforce Administration Solution & click on it.

3. Click on the Employee tab.
4. Click New.
5. Fill the Details and click on Save.

The screenshot shows the Salesforce Workforce Administration Solution interface. The top navigation bar includes links for Employees, Projects, ProjectTasks, Assets, Asset Services, Reports, Dashboards, and Leaves. A search bar and various icons are also present. The main content area displays a list titled 'Recently Viewed' under the 'Employees' tab. The list contains 6 items, all labeled 'Employee ID' and followed by 'EMS-0019', 'EMS-0002', 'EMS-0018', 'EMS-0017', 'EMS-0016', and 'EMS-0004'. There are edit and delete icons next to each item.

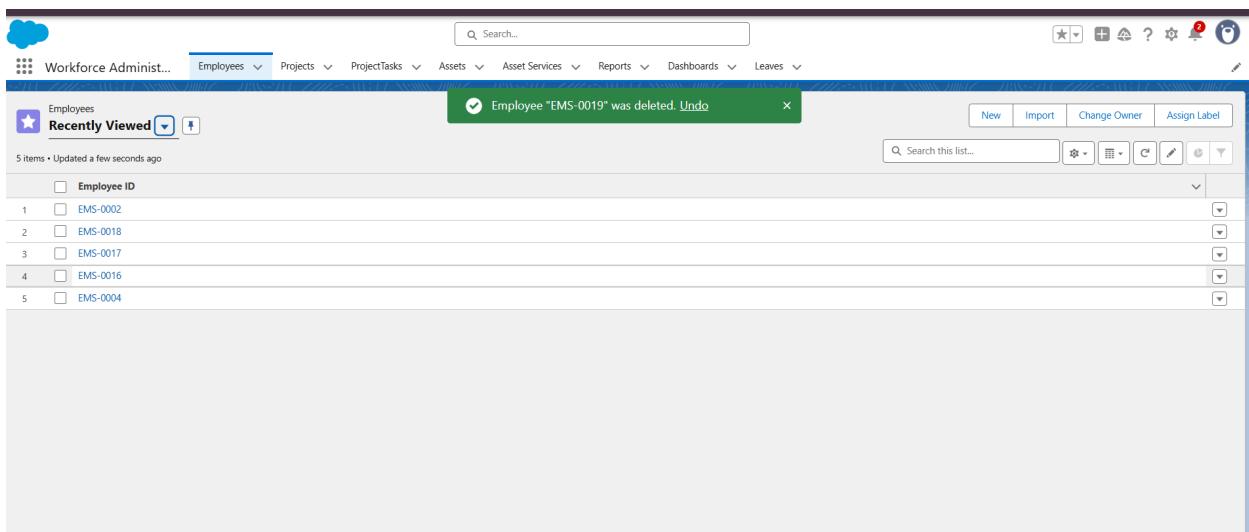
View a Record (Employee)

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

The screenshot shows the detailed view of an employee record. The top navigation bar and search bar are visible. The main content area shows the 'Details' tab selected for an employee named 'Malleswari' with Employee ID 'EMS-0019'. The record includes fields for Owner (Batch2 IT), Employee Name, Date of Birth (16/12/2003), Age (22.00), Gender, Reports to, Qualification, Address, and Experience. Each field has an edit icon to its right.

Delete a Record (Employee)

1. Click on App Launcher on the left side of the screen.
2. Search Workforce Administration Solution & 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

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

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

Importing data using Data Wizard

1. From Setup, click the Home tab.
2. In the Quick Find box, enter Data Import and select Data Import Wizard.
3. Click Launch Wizard!
4. Click the Custom Objects tab and select the Employee object.
5. Select Add new records.
6. Click CSV and choose file Employee_CSV which we made earlier. Click Next.

7. Since the field names in the CSV file (CSV Header) are the same as the field names in your object (Mapped Salesforce Object), the fields are automatically mapped. Click Next.
8. The next screen gives you a summary of your data import. Click Start Import.
9. Click OK on the popup.
10. Scroll down the page and verify that your data has been imported under batches.
11. Make sure you have 0 records under the records failed column.

Profiles

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

HR Profile

To create a new profile:

1. Go to setup --> type profiles in quick find box --> click on profiles --> clone the desired profile (Standard user) --> enter profile name (HR) --> Save.
2. While still on the profile page, then click Edit.
3. Scroll down to Custom Object Permissions and Give access permissions for Assets and Asset Services objects.
4. Scroll down and Click on Save.

Label	Role Name	This role reports to	Modified By	Opportunity Access	Case Access	Role Name as displayed on reports	Sharing Groups	Role: Role and Internal Subordinates
HR	HR	CEO	Batch2 IT, 04/03/2025, 10:38 am	Users in this role can edit all opportunities associated with accounts that they own, regardless of who owns the opportunities	Users in this role can edit all cases associated with accounts that they own, regardless of who owns the cases			

Manager Profile

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. The main content area displays the 'Manager' profile. The profile details include:

- Name:** Manager
- User License:** Salesforce Platform
- Description:** (empty)
- Created By:** Batch2 IT 04/03/2025, 10:27 am
- Modified By:** Batch2 IT 04/03/2025, 1:15 pm

Page Layouts

Standard Object Layouts	Global	Fulfillment Order Product
Email Application	Global Layout [View Assignment]	Group Layout [View Assignment]
Home Page Layout	Not Assigned [View Assignment]	Idea Varies by Record Type [View Assignment]
Account	Home Page Default [View Assignment]	Individual Layout [View Assignment]
Alternative Payment Method	Account Layout [View Assignment]	Invoice Invoice Layout ..
	Alternative Payment Method Layout	

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.

The screenshot shows the Salesforce Setup interface with the 'Profiles' tab selected. The main content area displays the 'On Site Employee' profile. The profile details include:

- Name:** On Site Employee
- User License:** Salesforce Platform
- Description:** (empty)
- Created By:** Batch2 IT 04/03/2025, 10:33 am
- Modified By:** Batch2 IT 04/03/2025, 1:15 pm

Page Layouts

Standard Object Layouts	Global	Fulfillment Order Product
Email Application	Global Layout [View Assignment]	Group Layout [View Assignment]
Home Page Layout	Not Assigned [View Assignment]	Idea Varies by Record Type [View Assignment]
Account	Home Page Default [View Assignment]	Individual Layout [View Assignment]
Alternative Payment Method	Account Layout [View Assignment]	Invoice Invoice Layout ..
	Alternative Payment Method Layout	

The screenshot shows the Salesforce Setup interface under the 'Profiles' section. A profile named 'Remote Employee' is selected. The 'Profile Detail' section shows the name, user license (Salesforce Platform), and creation details (Batch2 IT on 04/03/2025, 10:34 am). The 'Page Layouts' section lists standard object layouts for Global, Email Application, Home Page Layout, Account, and Alternative Payment Method. The 'Custom Profile' checkbox is checked. The 'Help for this Page' link is visible in the top right.

Role

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.

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

The screenshot shows the Salesforce Setup interface under the 'Roles' section. It displays a 'Creating the Role Hierarchy' tree. The hierarchy includes 'Contact Roles on Contracts', 'Contact Roles on Opportunities', 'Case Team Roles', 'Service', 'Sales', and 'HR'. Under 'HR', there are roles for 'CEO', 'CFO', 'COO', 'HR', 'Manager', 'On Site Employee', 'Remote Employee', 'SVP Customer Service & Support', and 'Customer Support International'. Each role has edit, delete, and assign options. The 'Show in tree view' link is visible in the top right.

Users

A user is anyone who logs in to Salesforce. Users are employees at your company.

Create User

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

First Name : Niklaus

Last Name : Mikaelson

Alias : Give a Alias Name

Email id : Give your Personal Email id

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

Nick Name : Give a Nickname

Role : HR

User license : Salesforce

Profile : HR

3. Save.

The screenshot shows the Salesforce Setup interface with the 'User' object selected. The main panel displays the 'User Detail' for a user named 'Niklaus Mikaelson'. The 'Role' is set to 'HR' and 'User License' is 'Salesforce'. Other details include 'Email' (218x1a1214@shigunur.ac.in), 'Username' (tanuja@yarram.com), and 'Nickname' (Nik). The 'Active' checkbox is checked. The 'User Detail' section also lists various user-related settings like 'Title', 'Company', 'Department', 'Division', 'Address', 'Time Zone', 'Locale', 'Language', 'Delegated Approver', 'Manager', and 'Receive Approval Request Emails'. The 'Sharing' tab is selected in the top navigation bar.

Creating another user

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

2. Fill in the fields

First Name : Kol

Last Name : Mikaelson

Alias : Give a Alias Name

Email id : Give your Personal Email id

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

Nick Name : Give a Nickname

Role : Manager

User license : Salesforce Platform

Profiles : Manager

3. Save

The screenshot shows the Salesforce Setup interface with the 'Users' tab selected. On the left, a sidebar navigation menu includes 'User Management Settings' under 'Users'. The main content area displays the 'User Detail' for 'Kol Mikaelson'. The 'User Detail' section contains the following information:

Field	Value
Name	Kol Mikaelson
Alias	kmka
Email	218x1a1214@khitguntur.ac.in [Verify]
Username	srikarth@kallam.com
Nickname	kallam
Title	
Company	
Department	
Division	
Address	
Time Zone	(GMT+05:30) India Standard Time (Asia/Kolkata)
Locale	English (India)
Language	English
Delegated Approver	Manager
Receive Approval Request Emails	Only if I am an approver

On the right side of the 'User Detail' section, there are two columns of checkboxes for selecting user roles and profiles:

Role	Profile
Active	Manager
Marketing User	Salesforce Platform
Offline User	Manager
Flow User	
Service Cloud User	
Site.com Contributor User	
Site.com Publisher User	
WDC User	
Mobile Push Registrations	View
Data.com User Type	
Accessibility Mode (Classic Only)	
Debug Mode	

At the bottom of the page, there is a footer bar with the text "mailto:218x1a1214@khitguntur.ac.in".

Create two more users as we created in activity 2.

The screenshot shows the Salesforce Setup interface with the 'Users' tab selected. On the left, a sidebar navigation menu includes 'Setup', 'Home', 'Object Manager', and sections for 'Users', 'Feature Settings', 'Service', 'Embedded Service', and 'User Interface'. The main content area is titled 'User Detail' for 'Malleswari Kamatham'. It shows the following details:

Field	Value	Role
Name	Malleswari Kamatham	Remote Employee
Alias	mkama	User Profile
Email	210x1a1214@klipunur.ac.in [Verify]	Marketing User
Username	kanth@reddy.com	Offline User
Nickname	kanth	Knowledge User
Title		Flow User
Company		Service Cloud User
Department		Site.com Contributor User
Division		Site.com Publisher User
Address		WDC User
Time Zone	(GMT+05:30) India Standard Time (Asia/Kolkata)	Mobile Push Registrations
Locale	English (India)	Data.com User Type
Language	English	Accessibility Mode (Classic Only)
Delegated Approver		Debug Mode
Manager	Only if I am an approver	Link Contracts Delete on Close

Page layouts

Creating a Page Layout for Employee object

To Create a Page layout:

1. Go to Setup --> Click on Object Manager --> Search for the object (Employee) --> From drop down click on Edit.
2. Click on Page layout --> Click on New. Give Page layout Name as “On Site Employee Layout” and click on Save.
3. Drag and drop the Section from the highlight panel below the Information and name it as “Personal Information” and click Ok.
4. Drag Date of Birth, Address and Age fields from Employee Information to Personal Information section.
5. Similarly perform the above step to create “Allowances” and add allowances fields in it as shown below.
6. Click Save.
7. Make sure your page layout looks like the picture above.

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

Chatter Group

Creating a Chatter group for your Organization

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:

Group Name (Group Name)

Description (understanding Description on your own)

Access Type (Private)

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. 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 Internal Discussion Group, here you can post anything which is related to ongoing projects.

10. Click Share

The screenshot shows the Salesforce Chatter interface for the 'Internal Discussion' group. At the top, there's a navigation bar with links for Workforce Administ..., Employees, Projects, ProjectTasks, Assets, Asset Services, Reports, Dashboards, Leaves, and the current group, Internal Discussion. Below the navigation is a header with the group name 'Internal Discussion' and a note that it's 'Private with Customers'. The main area is divided into sections: 'Chatter' (with tabs for Post, Poll, and Question) and 'Engagement'. In the Chatter section, there's a text input field for posting updates, a search bar, and a sort dropdown set to 'Most Recent Activity'. A recent post from 'Batch2 IT' is shown, dated 'Yesterday at 11:26 am'. The engagement section includes 'Like' and 'Comment' buttons. To the right, there are two panels: 'Group Details' (containing the group's description, owner information, and email address) and 'Manage Members' (with a search bar and columns for Member Name and Member Role). A sidebar on the left shows various Salesforce modules: Employees, Projects, ProjectTasks, Assets, Asset Services, Reports, Dashboards, Leaves, and Internal Discussion.

Record Types

Record Types are a way of grouping many records of one type for that object.

Creating On Site Employee and Remote Employee Record Type

The screenshot shows the Salesforce Object Manager interface for the Employee object. The left sidebar has 'Record Types' selected. The main area displays a table titled 'Record Types' with two items: 'On Site Employee' and 'Remote Employee'. The table includes columns for 'Record Type Label', 'Description', 'Active', and 'Modified By'. A 'New' button is visible at the top right of the table area.

RECORD TYPE LABEL	DESCRIPTION	ACTIVE	MODIFIED BY
On Site Employee		✓	Batch2 IT, 04/03/2025, 11:31 am
Remote Employee		✓	Batch2 IT, 04/03/2025, 11:43 am

Permission sets

A permission set is a collection of settings and permissions that give users access to various tools and functions

Creating 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.

The screenshot shows the Salesforce Setup interface. The left sidebar has a tree view with categories like 'Users', 'Feature Settings', 'Sales', and 'Reports'. The main content area is titled 'Permission Sets' and shows a specific permission set named 'Per to Emp'. It includes fields for 'API Name' (Per_to_Emp), 'Namespace Prefix' (None), 'Created By' (Batch2), and 'Last Modified By' (Batch2). Below this, there's a section for 'Apps' which lists various configuration options: Assigned Apps, Assigned Connected Apps, Object Settings, App Permissions, Apex Class Access, and Visualforce Page Access.

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

Create 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.

Create a report with report type: “Employees with ProjectTasks and Projects”.

Create a report with report type: “Employees with Assets”.

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.

Create Dashboard

1. Go to the app --> click on the Dashboards tabs.
2. Give a Name and click on Create.
3. Select add component.
4. Select a Report and click on select.

Employee Name	Employee ID	Reports to	Login Time	Logout Time
Alexander	a00VU000000dudxB	-	9:00 am	5:00 pm
Amelia	a00VU000000dudxF	-	9:00 am	5:00 pm
Benjamin	a00VU000000dudx7	-	-	-
Chloe	a00VU000000dudxI	-	9:00 am	5:00 pm
Elizabeth	a00VU000000dudxG	-	-	-
Emma	a00VU000000dudxB	-	-	-
Ethan	a00VU000000dudxA	-	9:00 am	5:00 pm

Approval Process

Create the leave object and Tab

Create an Approval Process for Leave object.

1. Go to Setup --> type Approval Processes in quick find --> click on Approval Processes.
2. In the Manage Approval Processes For list, select Leave.
3. Click Create New Approval Process and select Use Jump Start Wizard.
4. Enter the following parameters
 - Name (Leave Approval Request)
 - Approval Assignment Email Template (Leave blank)
5. Click Save.
6. Click View Approval Process Detail Page.

Initial Submission Action

Final Approval Action

Final Rejection Action

The screenshot shows the Salesforce Setup interface with the following details:

- Left Sidebar:** Shows sections like Data, Feature Settings, Process Automation, and Approval Processes (which is selected).
- Top Bar:** Includes links for Setup, Home, Object Manager, and a search bar labeled "Search Setup".
- Central Content Area:**
 - Section Header:** Approval Processes
 - Page Title:** Leave: Leave Approval Request
 - Buttons:** Edit, Clone, Delete, Activate
 - Process Definition Detail:** Shows the process name "Leave Approval Request", unique name "Leave_Approval_Request", and record editability "Administrator ONLY". It also shows the approval assignment email template and initial submitter information.
 - Actions:** Initial Submission Actions table with rows for Record Lock, Field Update, and Approval Status changes.

5. Testing and Validation

Apex Trigger

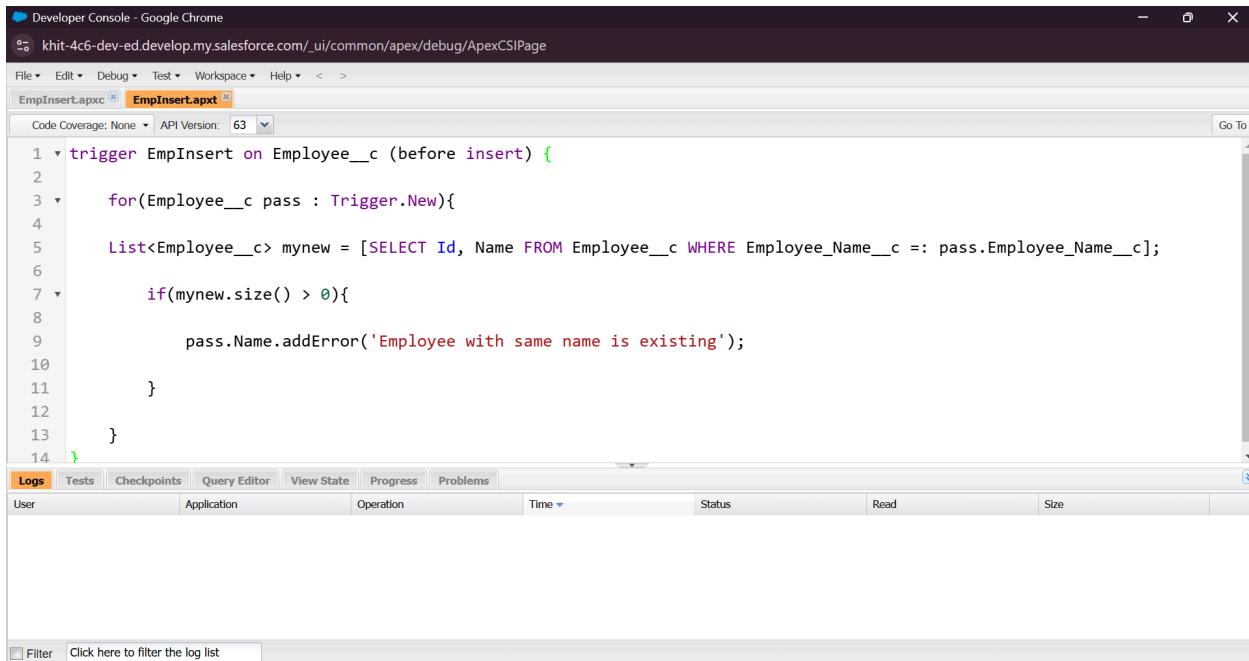
Create an Apex Trigger

1. To create a new Apex Class follow the below steps: Click on the file --> New --> Apex Class.
2. Give the Apex Trigger name as “EmpInsert”, and select “Employee__c” from the dropdown for sObject.
3. Click Submit.
4. Now write the code logic here

Code Snippet:

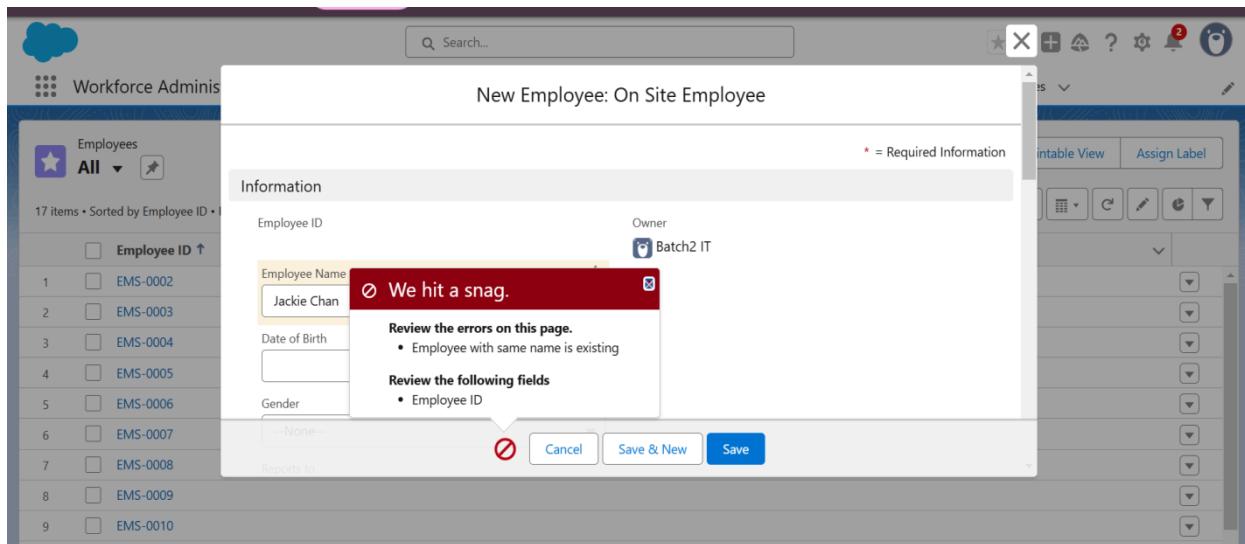
```
trigger EmpInsert on Employee__c (before insert) {
    for(Employee__c pass : Trigger.New){
        List<Employee__c> mynew = [SELECT Id, Name FROM Employee__c
        WHERE Employee_Name__c =: pass.Employee_Name__c];
        if(mynew.size() > 0){
            pass.Name.addError('Employee with same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

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



Testing the Trigger

Follow the steps which are mentioned in User Adoption, 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 ”.



6.Key Scenarios Addressed by Salesforce in the Implementation Project

Here are some key scenarios addressed by Salesforce in the implementation project for Workforce Administration Solution development:

Scenario 1: Employee Data Management

Challenge: Managing employee data, including personal, job, and benefits information.

Solution: Salesforce implements Employee Data Management using custom objects, fields, and page layouts to store and manage employee data.

Scenario 2: Time-Off Management

Challenge: Managing employee time-off requests, approvals, and tracking.

Solution: Salesforce implements Time-Off Management using custom objects, workflows, and approval processes to manage time-off requests.

7. Conclusion

The development of a Workforce Administration solution within Salesforce provides organizations with a powerful, scalable, and integrated approach to manage and optimize their workforce processes. By leveraging Salesforce's cloud-based platform, businesses can automate key workforce tasks such as employee onboarding, time and attendance tracking, performance management, and scheduling.

Through the integration of various Salesforce tools like Salesforce Service Cloud, Salesforce Lightning, and Salesforce AppExchange, a custom Workforce Administration solution can be tailored to meet the unique needs of any business, ensuring data security, scalability, and flexibility. Additionally, with the use of automation features, reporting tools, and analytics, organizations can improve decision-making and ensure that they are making the most of their human capital.

Moreover, the adoption of such a solution promotes a streamlined and cohesive user experience by providing a single platform for both HR and workforce management functions. This leads to greater collaboration, improved operational efficiency, and enhanced employee satisfaction.

Ultimately, a Workforce Administration solution developed on Salesforce can not only enhance day-to-day operations but also support strategic growth and long-term sustainability by enabling organizations to respond quickly and effectively to workforce challenges.

