



A CRM APPLICATION FOR SCHOOLS/COLLEGES

Project Based Experiential Learning Program

Creation of an Application for school Management.

This Project helps you to maintain and manage the school related problems which further can be modified based on the requirements.

Project Description

The project aim is to provide real-time knowledge for all the students who have basic knowledge of Salesforce and Looking for a real-time project. This project will also help those professionals who are in cross-technology and want to switch to Salesforce. With the help of this project they will gain knowledge and can include it into their resume as well.

What you'll learn

1. Real Time Salesforce Project
2. Object & Relationship in Salesforce
3. Profile
4. Users
5. Reports
6. Permission sets
7. Reports

Creation Salesforce Org:

Milestone-1:

Introduction

Are you new to Salesforce? Not sure exactly what it is, or how to use it? Don't know where you should start on your learning journey? If you've answered yes to any of these questions, then you're in the right place. This module is for you.

Welcome to Salesforce! Salesforce is game-changing technology, with a host of productivity-boosting features, that will help you sell smarter and faster. As you work toward your badge for this module, we'll take you through these features and answer the question, "What is Salesforce, anyway?"

What Is Salesforce?

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

Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

So what does that really mean? Well, before Salesforce, your contacts, emails, follow-up tasks, and prospective deals might have been organized something like this:

<https://youtu.be/r9EX3lGde5k>

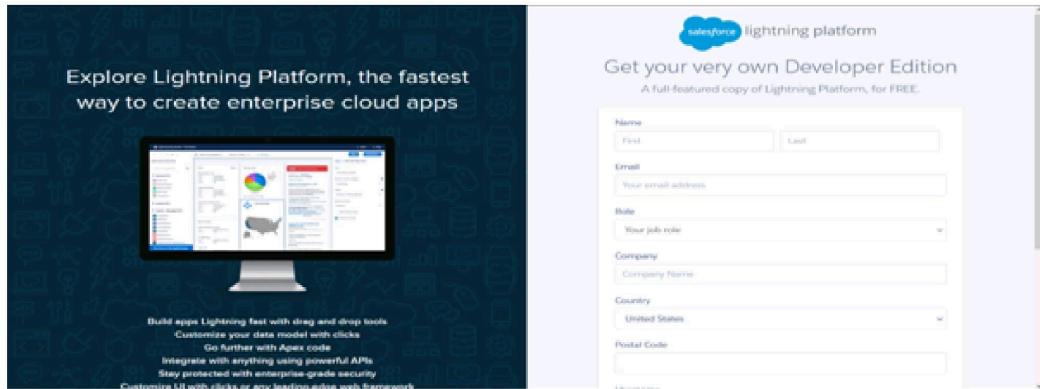
Activity :Creating Developer Account

Creating Developer Account

Creating a developer org in salesforce.

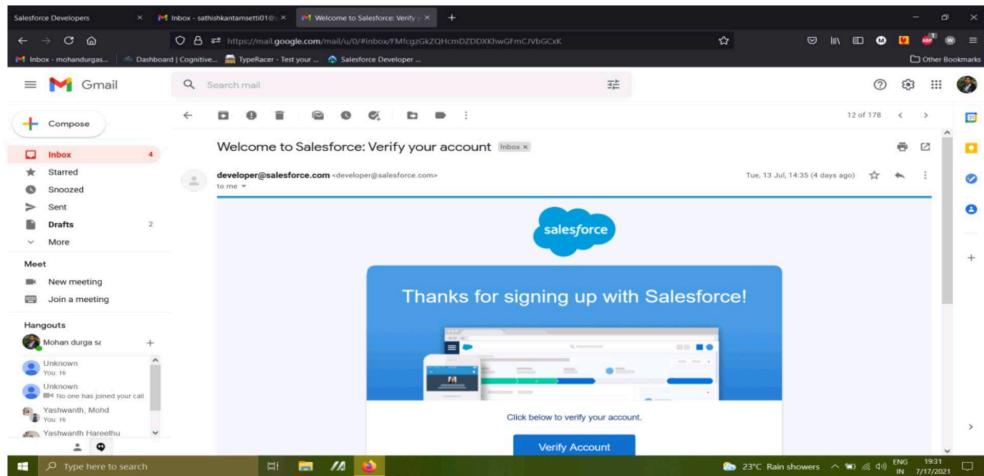
1. Go to [developers.salesforce.com/](https://developer.salesforce.com/)
2. Click on sign up.
3. On the sign up form, enter the following details :
 - a. First name & Last name
 - a. Email
 - b. Role : Developer
 - c. Company : College Name
 - d. County : India
 - e. Postal Code : pin code
 - f. Username : should be a combination of your name and company
This need not be an actual email id, you can give anything in the format :
username@organization.com

Click on sign up after filling these.



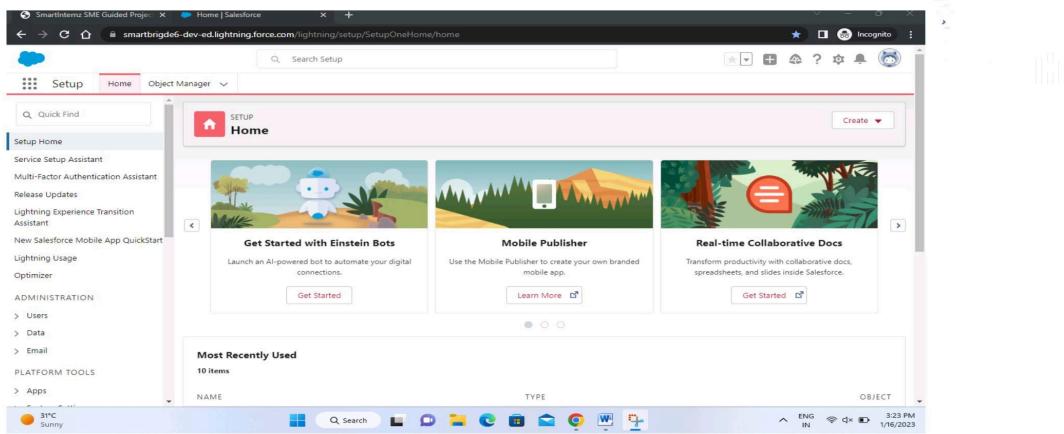
Account Activation

Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins, as



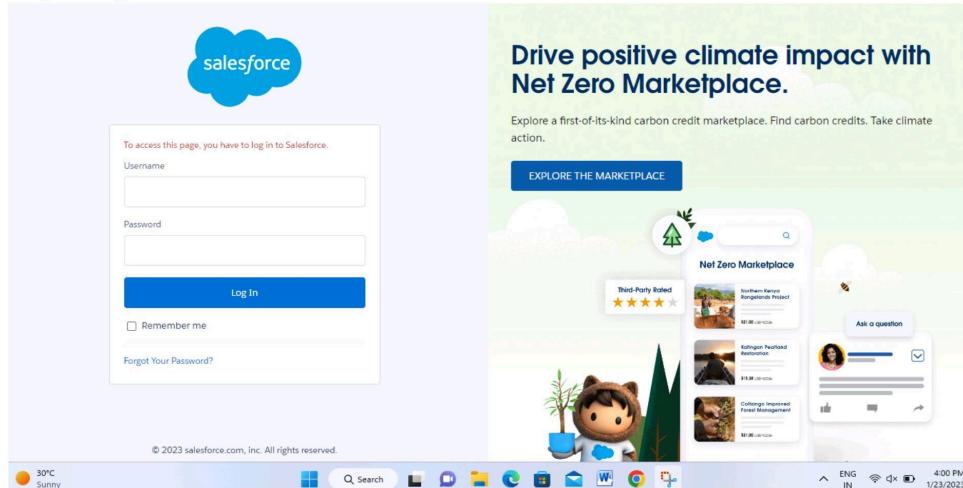
Login To Your Salesforce Account

1. Go to salesforce.com and click on login.
2. Enter the username and password that you just created.
3. After login this is the home page which you will see.



Salesforce Login

<https://login.salesforce.com>



Milestone-2: Object

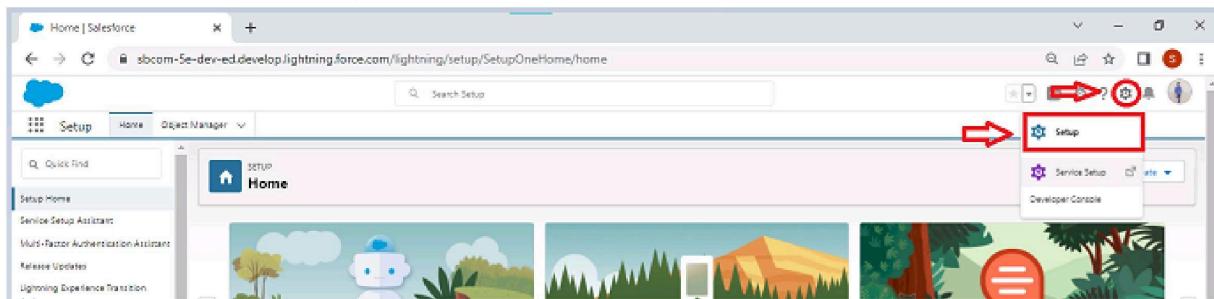
Salesforce objects are **database tables that permit you to store data that is specific to an organization**. Salesforce objects are of two types: Standard Objects: Standard objects are the kind of objects that are provided by salesforce.com such as users, contracts, reports, dashboards, etc.

Activity-1: Creation of School Object

Creation of Objects for School Management:

For this school management we need to create 3 objects i.e school,parents and students.
The below steps will assist you in creating those objects.

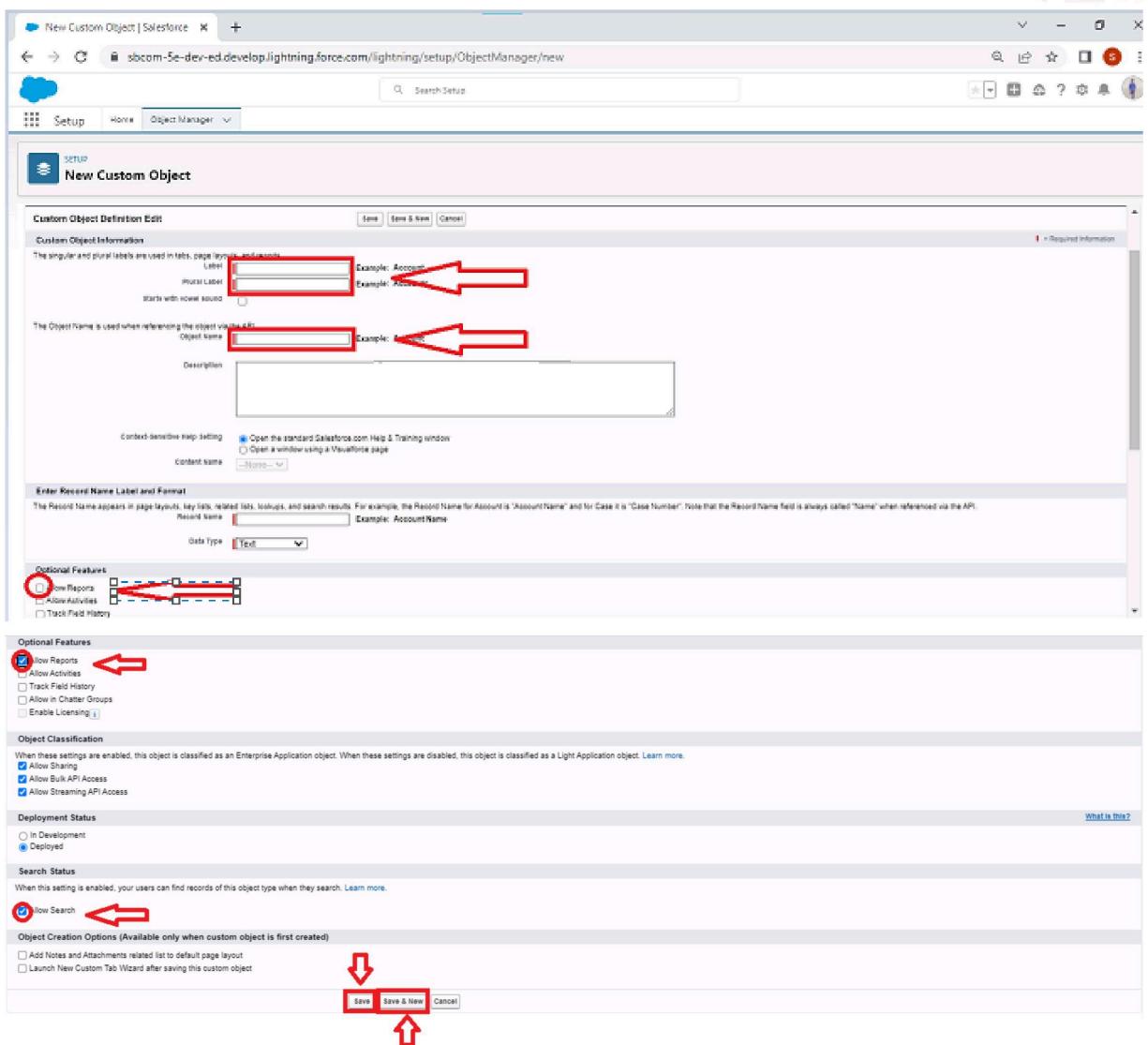
1. Click on the gear icon and then select Setup.



2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.

- On the Custom Object Definition page, create the object as follows:
- Label: School
- Plural Label: Schools
- Record Name: School Name
- Check the Allow Reports checkbox
- Check the Allow Search checkbox
- Click Save.





Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs. Under Custom Object Tabs, click New.

1. For Object, select School.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save.

The screenshots illustrate the process of creating a custom object tab in Salesforce. In the first screenshot, the 'Custom Object Tabs' list is displayed, and a red arrow points to the 'New' button. In the second screenshot, the 'New Custom Object Tab' wizard is open, and a red arrow points to the 'Object' dropdown menu where 'Student' is selected.

In the same way create other objects such as students and parents.

Activity 2: Create student object

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.
 - On the Custom Object Definition page, create the object as follows:

- Label: Students
- Plural Label: Students
- Record Name: Student Name
- Check the Allow Reports checkbox
- Check the Allow Search checkbox
- Click Save.

Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.

Under Custom Object Tabs, click New.

1. For Object, select Students.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save.

Activity 3: Create parent object

1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.
 - On the Custom Object Definition page, create the object as follows:
 - Label: Parent
 - Plural Label: Parents
 - Record Name: Parent Name
 - Check the Allow Reports checkbox
 - Check the Allow Search checkbox
 - Click Save.

Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs.

Under Custom Object Tabs, click New.

1. For Object, select Parents.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save.

Milestone-3:Lightning App

Apps in Salesforce are a group of tabs that help the application function by working together as a unit. It has a name, a logo, and a particular set of tabs. The simplest app usually has just two tabs

Activity:

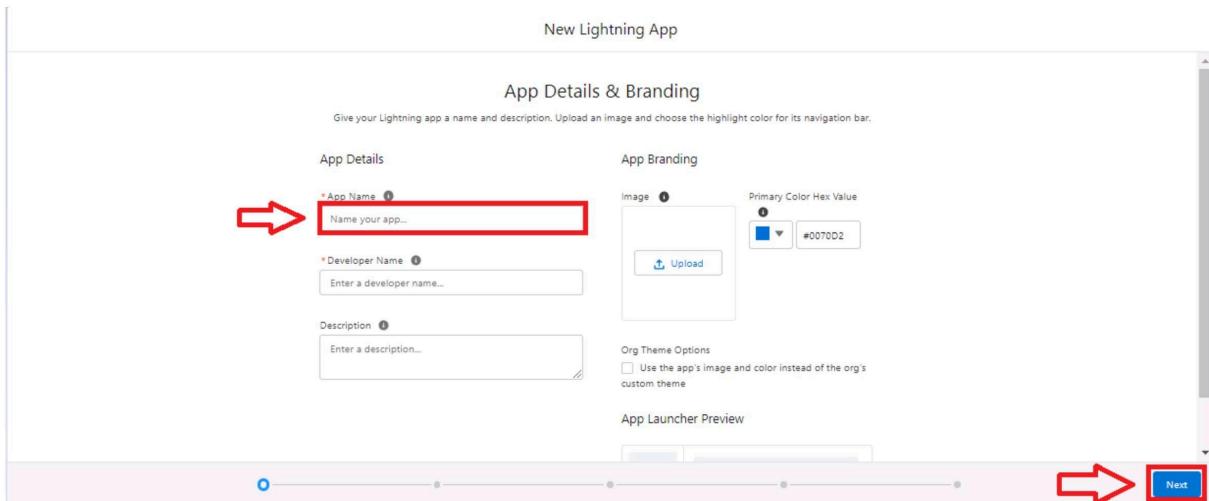
Create the School Management app

- From Setup, enter App Manager in the Quick Find and select App Manager.

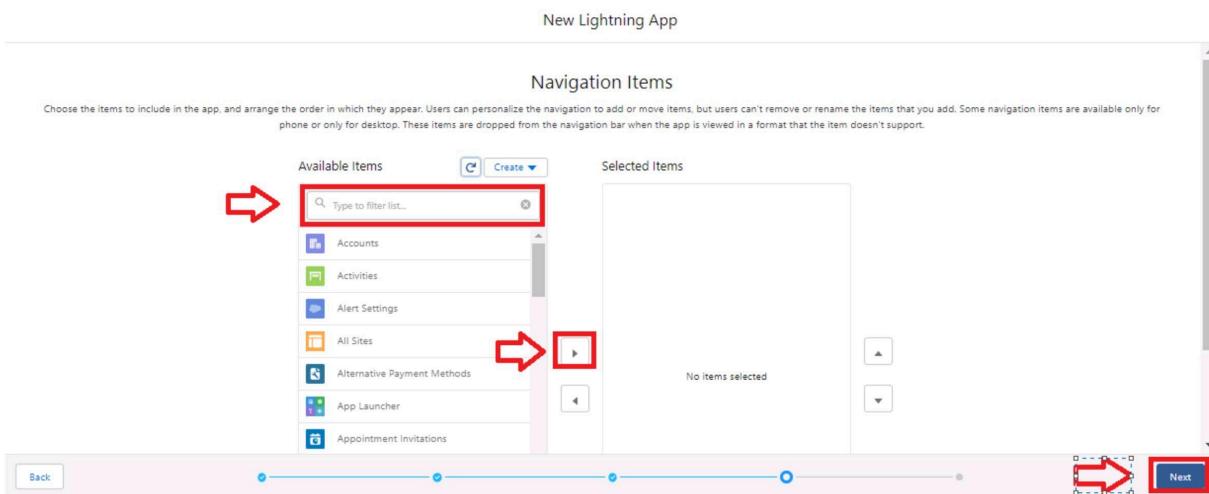
The screenshot shows the Salesforce App Manager interface. At the top, there are three tabs: 'App Manager' (highlighted with a red box), 'Home', and 'Object Manager'. Below the tabs, there's a search bar and a 'Setup' button. On the left, there's a sidebar with 'App Manager' (highlighted with a red box) and 'Data Manager' (highlighted with a red box). In the center, the main area is titled 'Lightning Experience App Manager' (highlighted with a red box). At the top right of this area, there are three buttons: 'New Lightning App' (highlighted with a red box), 'New Connected App', and 'Clone (Populate)' (highlighted with a red box). Below this, there's a note about cloning existing apps. At the bottom, there's a table listing various apps, with the first few rows shown below:

| App Name | Developer Name | Description | Last Modified | Type |
|------------------------------------|------------------------|--|----------------------|---------------------|
| 1 All Tabs | AllTabset | Build CRM Analytics dashboards and apps | 04/12/2022, 10:18 am | Classic |
| 2 Analytics Studio | Analytics | Build CRM Analytics dashboards and apps | 04/12/2022, 10:18 am | Classic |
| 3 App Launcher | AppLauncher | App Launcher tab | 04/12/2022, 10:18 am | Classic |
| 4 B2B Solutions | LightningB2B | Discover and manage business solutions designed for your industry. | 04/12/2022, 10:18 am | Lightning |
| 5 Chatter Desktop | Chatter/Desktop | Chatter Desktop is an Adobe AIR-based desktop application that lets Chatter users stay connected... | 29/12/2022, 4:04 pm | Connected (Managed) |
| 6 Chatter Mobile for BlackBerry... | Chatter_for_BlackBerry | The Salesforce.com Chatter Mobile app lets you access Chatter data on the go. Use it to view feed... | 29/12/2022, 4:05 pm | Connected (Managed) |
| 7 College Management System | Naveen | Demo app | 08/12/2022, 4:18 pm | Lightning |
| 8 Community | Community | Salesforce CRM Communities | 04/12/2022, 10:12 am | Classic |
| 9 Content | Content | Salesforce CRM Content | 04/12/2022, 10:18 am | Classic |
| 10 Data Manager | DataManager | Use Data Manager to view limits, monitor usage, and manage recipes. | 04/12/2022, 10:18 am | Lightning |

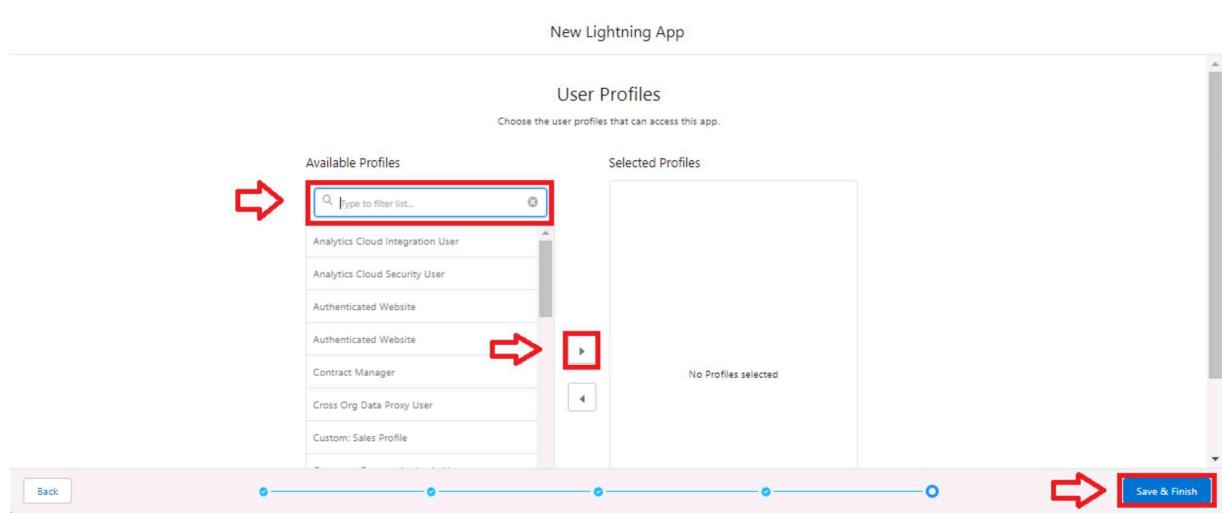
- Click New Lightning App. Enter School Management as the App Name, then click Next



- Under App Options, leave the default selections and click Next.
- Under Utility Items, leave as is and click Next.
- From Available Items, select Schools, Students, Parents, Reports, and Dashboards and move them to Selected Items. Click Next.



- From Available Profiles, select System Administrator and move it to Selected Profiles. Click Save & Finish.



- To verify your changes, click the App Launcher, type School Management and select the School Management app.

Note:

1. App Launcher-Displays available apps.
2. App Name-Displays the current selected app.
3. Navigation menu-Displays the tabs available inside the app.

Milestone -4:Fields and Relationship

An object relationship in Salesforce is a **two-way association between two objects**.

Relationships are created by creating custom relationship fields on an object. This is done so that when users view records, they can also see and access related data.

Activity-1:

Creation of fields for the School objects:

1. click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.

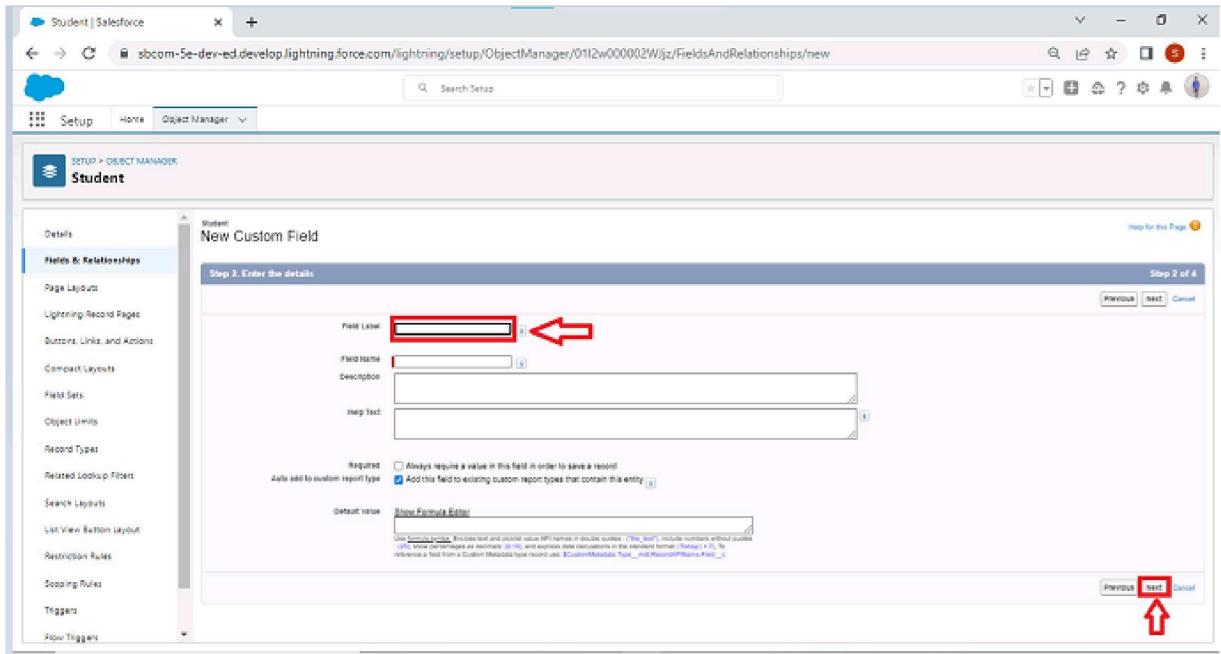
The screenshot shows the Salesforce Object Manager interface. At the top, there's a navigation bar with 'Setup' and 'Object Manager'. A red arrow points to the 'Object Manager' tab. Below it, a search bar contains the text 'student', with another red arrow pointing to it. The main area displays a table with two rows. The first row is highlighted with a red box and has 'Student' in the 'LABEL' column and 'Custom Object' in the 'TYPE' column. The second row has 'Student Activity' in the 'LABEL' column and 'Custom Object' in the 'TYPE' column. The table includes columns for 'API NAME', 'DESCRIPTION', 'LAST MODIFIED', and 'DEPLOYED'.

3. Select School.
4. Select Fields & Relationships from the left navigation, and click New

The screenshot shows the 'Fields & Relationships' page for the 'Student' object. On the left, a sidebar lists various object settings like 'Page Layouts', 'Lightning Record Pages', etc., with 'Fields & Relationships' selected and highlighted with a red box. At the top right, there are buttons for 'Quick Find', 'New' (which is highlighted with a red box), 'Deleted Fields', 'Field Dependencies', and 'Set History Tracking'. The main area is a table titled 'Fields & Relationships' with 12 items. The columns are 'FIELD LABEL', 'FIELD NAME', 'DATA TYPE', 'CONTROLLING FIELD', and 'INDEXED'. The table lists fields such as 'Address', 'Age', 'Created By', 'Date of Birth', 'Date of Joining', 'Gender', 'Last Modified By', 'Name', 'Owner', 'Phone No.', 'Record Type', and 'Teacher'.

Now we're ready to make a custom field. Let's do this!

1. Select the Text Area as the Data Type, then click Next.
2. For Field Label, enter Address.
3. Click Next, Next, then Save & New.
4. Follow steps 1 through 3 and create two more text areas with District, State and School websites as the field labels.



Now let's create the other fields and we must choose the data types of the fields carefully .Let's have a look at it.

For example, a phone number is a number field. For that we need to select the phone as data type

Lets see this

1. Select the Phone as the Data Type, then click Next.
2. For Field Label, enter Phone Number.
3. Click Next, Next, then Save & New.

Lets create Roll-up summary fields to calculate the number of students

1. From Setup, click Object Manager and select School.
2. Click Fields & Relationships, then New.
3. Select the Roll-up summary field as data type
4. Enter the field label as Number of students
5. Click Next
6. Then select the master object summarized as students and then select count as roll-up and then click Next,Next and save.

1. From Setup, click Object Manager and select School.
2. Click Fields & Relationships, then New.
3. Select the Roll-up summary field as data type

4. Enter the field label as Highest Marks
5. Click Next
6. Then select the master object summarized as students and then select Max as roll-up and then select Marks as field to aggregate.click Next,Next and save.

Activity-2:

Creation of fields for the Student objects:

1. Select the Phone as the Data Type, then click Next.
2. For Field Label, enter Phone Number.
3. Click Next, Next, then Save & New

Let's create a master-detail relationship with school object

1. Select Master-Detail Relationship as the Data Type and click Next.
2. For Related to, enter School.
3. Click Next.
4. For Field Label, enter School.
5. Click Next, Next, Next and Save.

Lets create a Pick-List field:

1. From Setup, click Object Manager and select Student.
2. Click Fields & Relationships, then New.
3. Select Picklist as the Data Type and click Next.
4. For Field Label enter Results.
5. Select Enter values, with each value separated by a new line and enter these values:
6. Pass
7. Fail
8. Click Next, Next, then Save & New

Lets create a Number field:

1. Select the Number as the Data Type, then click Next.
2. For Field Label, enter Class.
3. Click Next, Next, then Save & New
4. Follow steps 1 through 3 and create one more number field with Marks as the field labels.

Activity-3:

Creation of fields for the Parent objects:

1. Select the Text Area as the Data Type, then click Next.
2. For Field Label, enter Parent Address.
3. Click Next, Next, then Save & New.
4. Select the Phone as the Data Type, then click Next.
5. For Field Label, enter Parent Number.
6. Click Next, Next, then Save & New

Milestone-5: Profile

A profile is a group/collection of settings and permissions that define what a user can do in salesforce. A profile controls “Object permissions, Field permissions, User permissions, Tab settings, App settings, Apex class access, Visualforce page access, Page layouts, Record Types, Login hours & Login IP ranges

Activity:

Creation on profile:

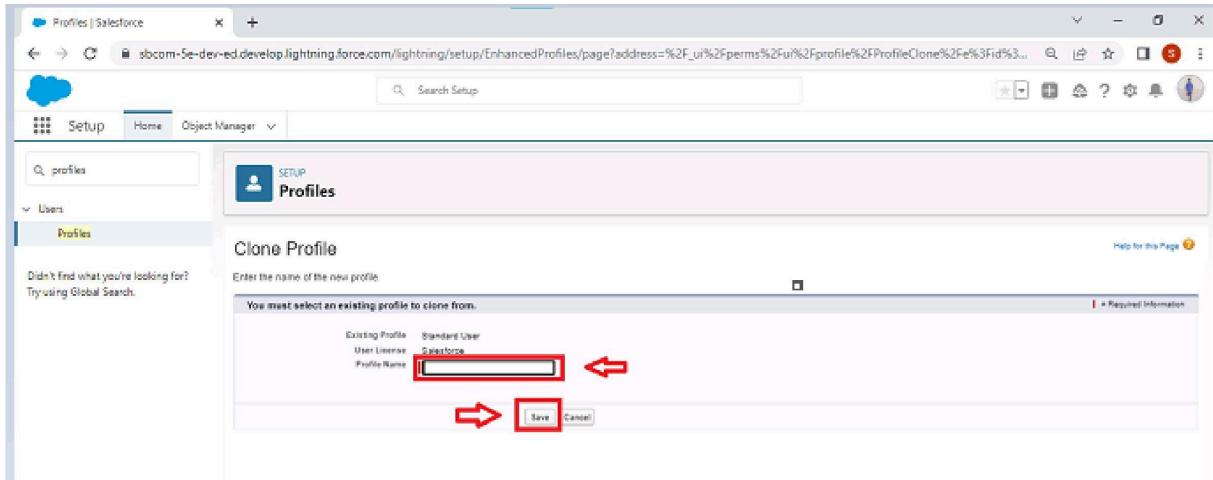
From Setup enter Profiles in the Quick Find box, and select Profiles.

1. From the list of profiles, find Standard User.
2. Click Clone.

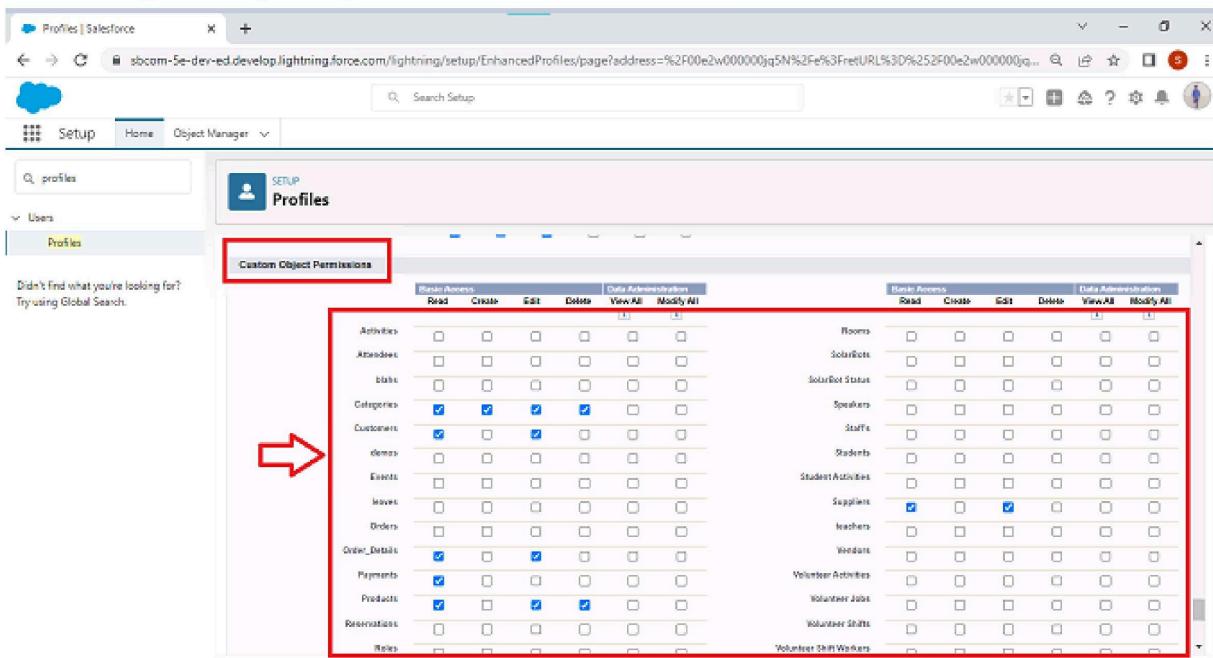
The screenshot shows the Salesforce Setup interface for managing Profiles. The top navigation bar includes 'Profiles | Salesforce' and a search bar labeled 'Search Setup'. Below the navigation is a toolbar with various icons. The main area has a sidebar with 'Users' expanded, showing 'Profiles' selected. The main content area is titled 'Profiles' and contains a table with columns for 'Action', 'Profile Name', 'User License', and 'Custom'. The table lists several profiles, including 'Standard User' which is highlighted with a red box. Below the table, there are buttons for 'New Profile' and 'Edit' or 'Clone' (the latter also highlighted with a red box). The bottom of the screen shows standard Salesforce navigation and status bars.

| Action | Profile Name | User License | Custom |
|-------------------------------|------------------------|---------------------|-------------------------------------|
| <input type="checkbox"/> Edit | String | Salesforce | <input checked="" type="checkbox"/> |
| <input type="checkbox"/> Edit | Silver Partner User | Silver Partner | <input type="checkbox"/> |
| <input type="checkbox"/> Edit | Solution Manager | Salesforce | <input type="checkbox"/> |
| <input type="checkbox"/> Edit | Standard Platform User | Salesforce Platform | <input type="checkbox"/> |
| <input type="checkbox"/> Edit | Standard User | Salesforce | <input type="checkbox"/> |
| <input type="checkbox"/> Edit | System Administrator | Salesforce | <input type="checkbox"/> |

3. For Profile Name, enter School profile.



4. Click **Save**.
5. While still on the School profile page, then click **Edit**.
6. Scroll down to Custom Object Permissions and Give view all access permissions and assign to the parent profile



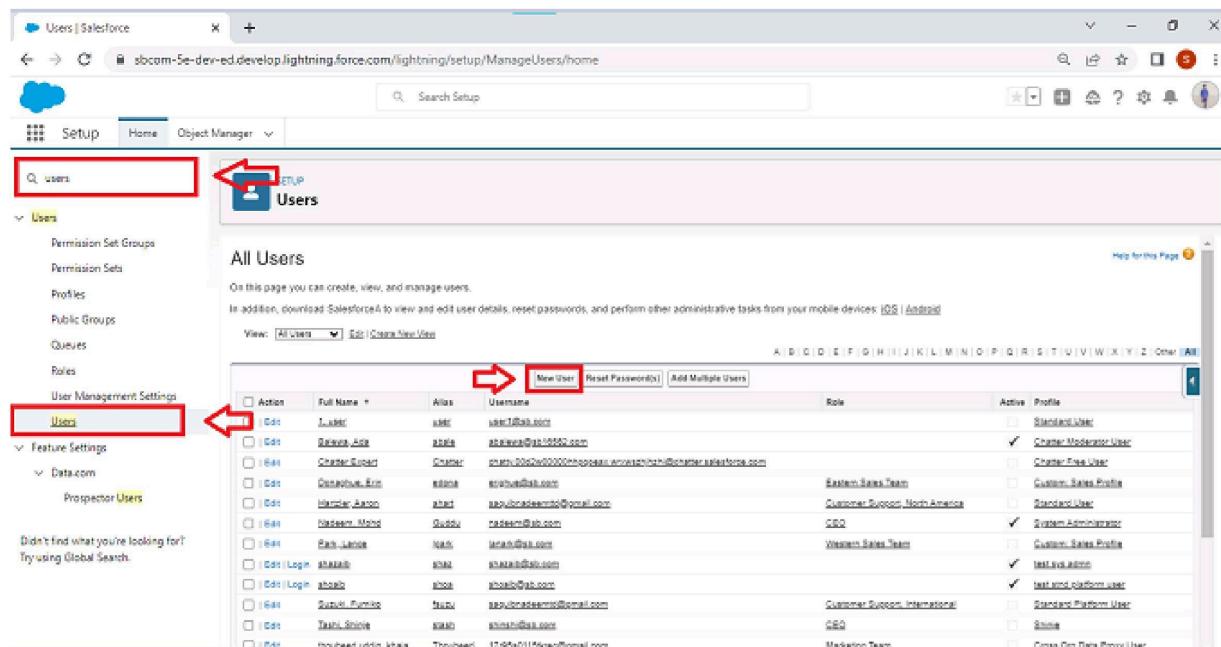
Milestone-6: Users

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.

Activity:

Creating a User:

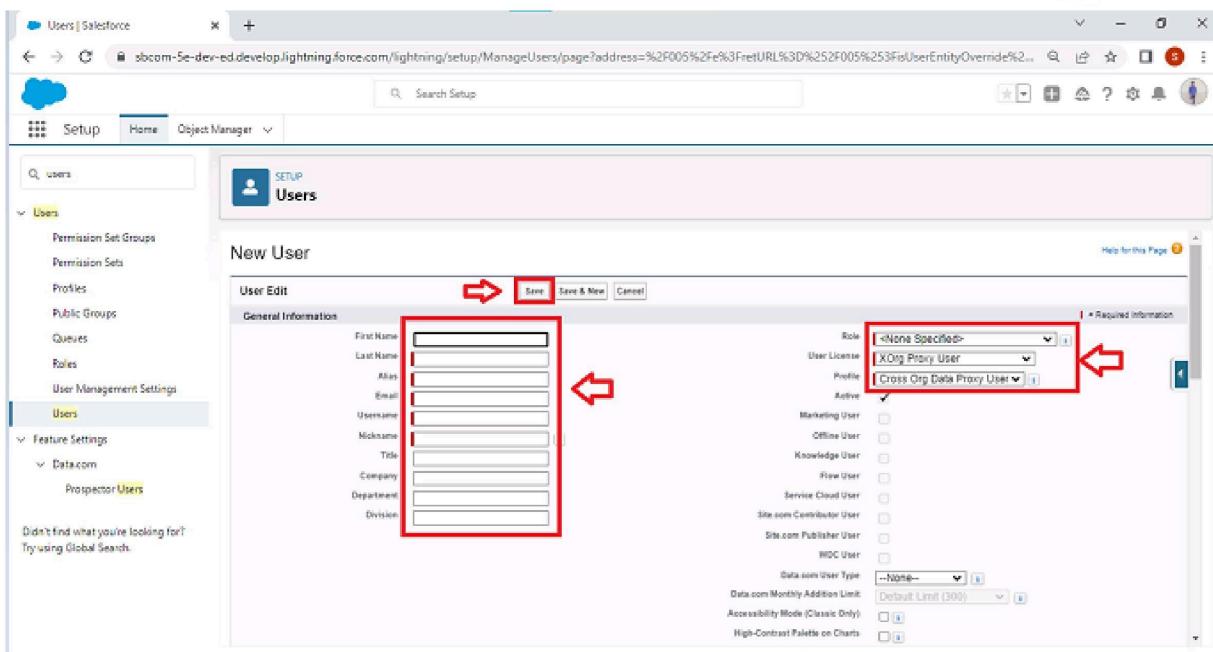
1. From Setup, in the Quick Find box, enter Users, and then select Users.
2. Click New User.



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

- Left Sidebar:** Shows navigation categories like Permission Set Groups, Profiles, Public Groups, Queues, Roles, User Management Settings (with 'Users' selected), Feature Settings, Datacom, and Prospector Users. A red box highlights the 'Users' link under 'User Management Settings'.
- Top Bar:** Shows the current page as 'Users | Salesforce' and the URL as 'sbcom-5e-dev-ed.lightning.force.com/lightning/setup/ManageUsers/home'. It also includes a 'Search Setup' bar.
- Main Content Area:** Titled 'All Users', it displays a table of existing users with columns for Action, Full Name, Alias, Username, Role, Active, and Profile. A red box highlights the 'New User' button at the top right of the table.

3. Enter the user's name Parents and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.
4. Select a User License As salesforce.
5. Select a profile as a School profile.
6. Check Generate new password and notify the user immediately to have the user's login name and a temporary password emailed to your email.



- Similarly follow the above steps and create 3 users as Teachers and principals.

Milestone-7: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.

Activity-1:

Permission sets 1:

- From Setup, enter Permission Sets in the Quick Find box, then select Permission Sets.
- Click New.

Permission Sets | Salesforce

Search Setup

Users

Permission Sets

New

| Action | Permission Set Label | Description | Licenses |
|--------------------------|---------------------------|--|---|
| <input type="checkbox"/> | B2B Buyer | Allows access to the store. Lets users see products and categories. ... | B2B Buyer Permission Set One Seat |
| <input type="checkbox"/> | Buyer | Includes all Buyer capabilities, and allows access to manage deals a... | B2B Buyer Manager Permission Set One Seat |
| <input type="checkbox"/> | Buyer Manager | Denotes that the User is a Sales Cloud or Service Cloud user. | CRM User |
| <input type="checkbox"/> | CRM User | Allow access to Commerce Admin features. | Commerce Admin Permission Set License Seat |
| <input type="checkbox"/> | Commerce Admin | Manage Service Cloud Voice contact centers that use Amazon Con... | Service Cloud Voice User |
| <input type="checkbox"/> | Contact Center Admin | Access agent features in Service Cloud Voice contact centers that u... | Salesforce |
| <input type="checkbox"/> | Contact Center Agent | Lets users create, read, edit, and delete locations, suggestions, que... | Facility Manager |
| <input type="checkbox"/> | Co-worker Profile Manager | Give your mobile workforce access to the Field Service mobile app. ... | Field Service Mobile |
| <input type="checkbox"/> | Field Manager | Allow access to Commerce merchandising features. | Commerce Merchandise User Permission Set License Seat |
| <input type="checkbox"/> | Field Services Mobile | Read Access to all entities enabled by Order Management. | Lightning Order Management User |
| <input type="checkbox"/> | Merchandise Manager | | |
| <input type="checkbox"/> | Order Management Agent | | |

- GIve the name of the Permission set name as teacher permission and then under the object settings give the view create and edit permissions to all custom objects and assign to the teacher user

Permission Sets | Salesforce

Search Setup

Users

Permission Sets

Create

Label * Required Information

API Name

Description

Session Activation Required

Select the type of users who will use this permission set

Who will use this permission set?

- <Choose> 'None' if you plan to assign this permission set to multiple users with different user and permission set licenses.
- <Choose> a specific user license if you want users with only one license type to use this permission set.
- <Choose> a specific permission set license if you want this permission set license auto-assigned with the permission set.

Not sure what a permission set license is? [Learn more here.](#)

License

Save Cancel

Permission Sets | Salesforce

sbcem-5e-dev-ed.lightning.force.com/lightning/setup/PermSets/page?address=%2F0P52w000006svw7

Setup Home Object Manager

permission sets

Users

Permission Sets

teacher permission

Manage Assignments

Permission Set Overview

Description: teacher permission
License: Standard
Session Activation Required:
Last Modified By: Mudit Nagaria, 23/01/2023, 2:29 pm

API Name: teacher_permission
Namespace Prefix:
Created By: Mudit Nagaria, 23/01/2023, 2:29 pm

Apps

Assigned Apps
Assigned Connected Apps
Object Settings
App Permissions
Box Class Access
Visualforce Page Access
External Data Source Access

Settings that apply to Salesforce apps, such as Sales, and custom apps built on the Lightning Platform

Didn't find what you're looking for?
Try using Global Search.

Permission Sets | Salesforce

sbcem-5e-dev-ed.lightning.force.com/lightning/setup/PermSets/0P52w000006svw7/PermissionSetAssignment/home

Setup Home Object Manager

permission sets

Users

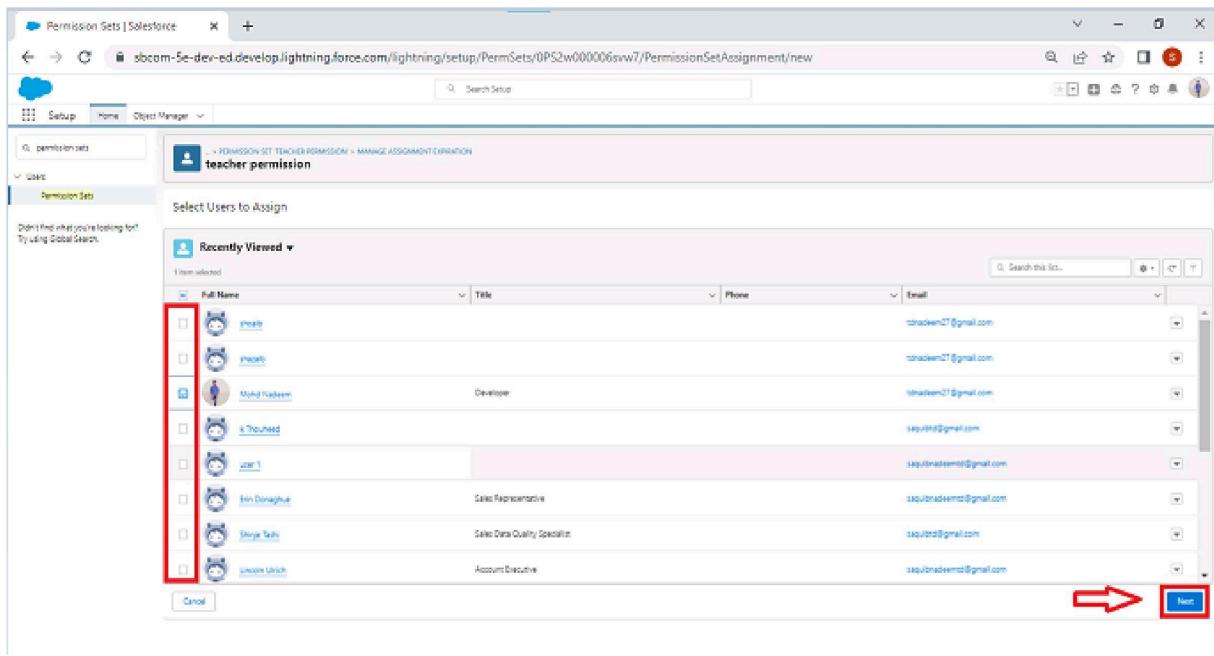
Permission Sets

teacher permission

Add Assignment

Current Assignments

No assignments defined.



Similarly follow the above steps for the permission set 2.

Activity-2:

Permission sets 2:

1. From Setup, enter Permission Sets in the Quick Find box, then select Permission Sets.
2. Click New.
3. Give the name of the Permission set name as Principal permission and then under the object settings give all permissions for the custom objects and assign them to the Principal user.

Milestone-8:Reports

A report is **a list of records that meet the criteria you define**. It's displayed in Salesforce in rows and columns, and can be filtered, grouped, or displayed in a graphical chart. Every report is stored in a folder. Folders can be public, hidden, or shared, and can be set to read-only or read/write.

Activity:

Reports :

1. From the Reports tab, click New Report.

Screenshot of the Salesforce Reports page. The page shows a grid of reports with columns for Report Name, Description, Folder, Created By, Created On, and Subscribed. A red arrow points to the 'New Report' button in the top right corner.

2. Select the report type as School with students and parents for the report, and click Create.

Screenshot of the 'Create Report' dialog. The 'Category' sidebar on the left is highlighted with a red box. The 'Select a Report Type' main area is also highlighted with a red box. The 'Details' pane on the right shows report settings like 'Start Report' and 'Fields (71)'.

3. Customize your report, then save or run it.

