



GOVERNMENT OF TAMILNADU

Naan Muthalvan - Project-Based Experiential Learning

A CRM APPLICATION FOR SCHOOLS /COLLEGES USING SALESFORCE

Submitted by

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TEAM ID :- NM2023TMID18277

Under the guidance of

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Guest Lecturer

PG AND RESEARCH DEPARTMENT OF MATHEMATICS



M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN

(Affiliated To Mother Teresa Women's University, Kodaikanal)

Reaccredited with "A" Grade by NAAC

DINDIGUL-624001.

APRIL - 2023

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BONAFIDE CERTIFICATE

This is to certify that this is a bonafide record of the project entitled ,

“A CRM APPLICATIONS FOR SCHOOLS / COLLEGES ” done by **Ms.G.RENGANAYAGI (20321ER056)** , **Ms.T.SHANMUGA PRIYA (20321ER057)** , **Ms.M.SIVABHARATHI (20321ER058)** , **Ms.V.SNEKA (20321ER059)** and **Ms.P.TAMILMOZHI (20321ER060)**. This is submitted in partial fulfillment for the award of the degree of **Bachelor of Science in Mathematics** in **M.V.MUTHIAH GOVERNMENT ARTS COLLEGE FOR WOMEN, DINDIGUL** during the period of December 2022 to April 2023.

Project Mentor(s)

Head of the Department

Submitted for viva-voce Examination held on -12.04.2023.

CREATION OF AN APPLICATION FOR SCHOOL MANAGEMENT

1. INTRODUCTION:

Salesforce is a cloud-based software company that provides its customers with a platform to develop their own applications without following the tough steps that they used to follow in the legacy system. The software or application once created can be uploaded onto the cloud allowing the end-users to view them.

1.1 Overview :

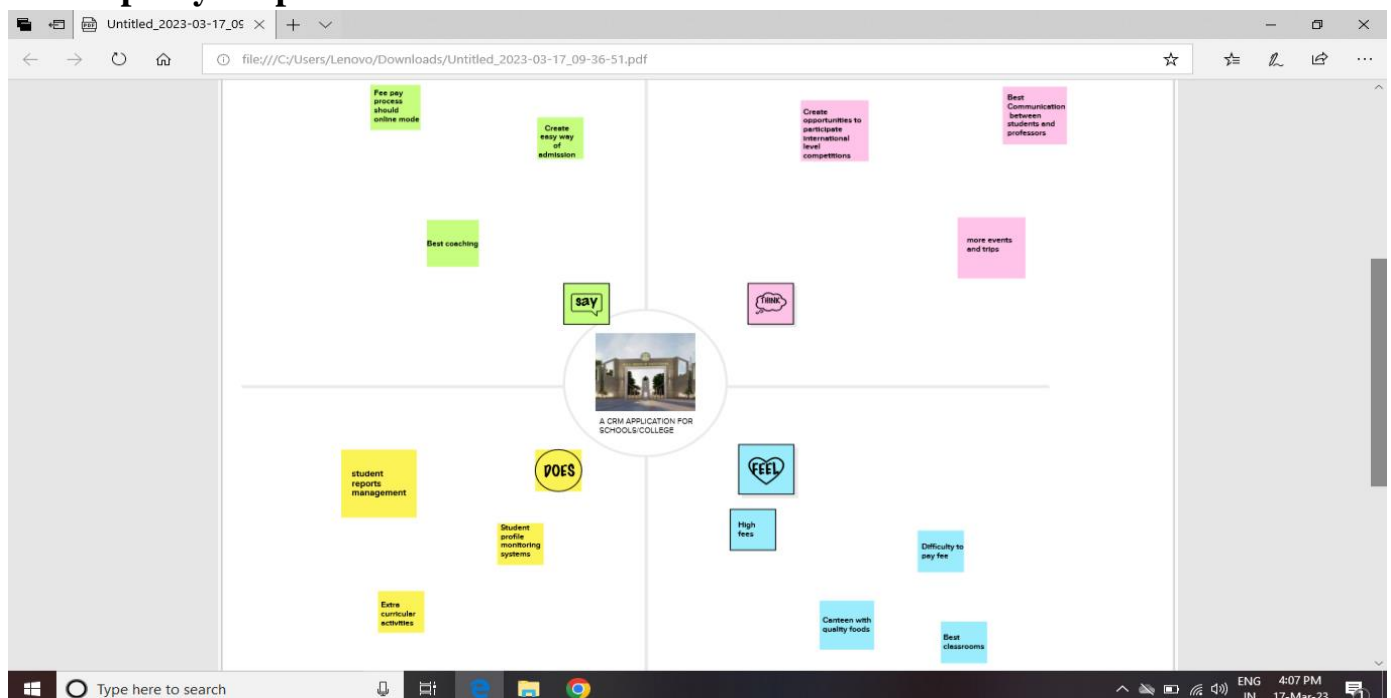
This Project helps you to maintain and manage the school related problems which further can be modified based on the requirements.

1.2 Purpose :

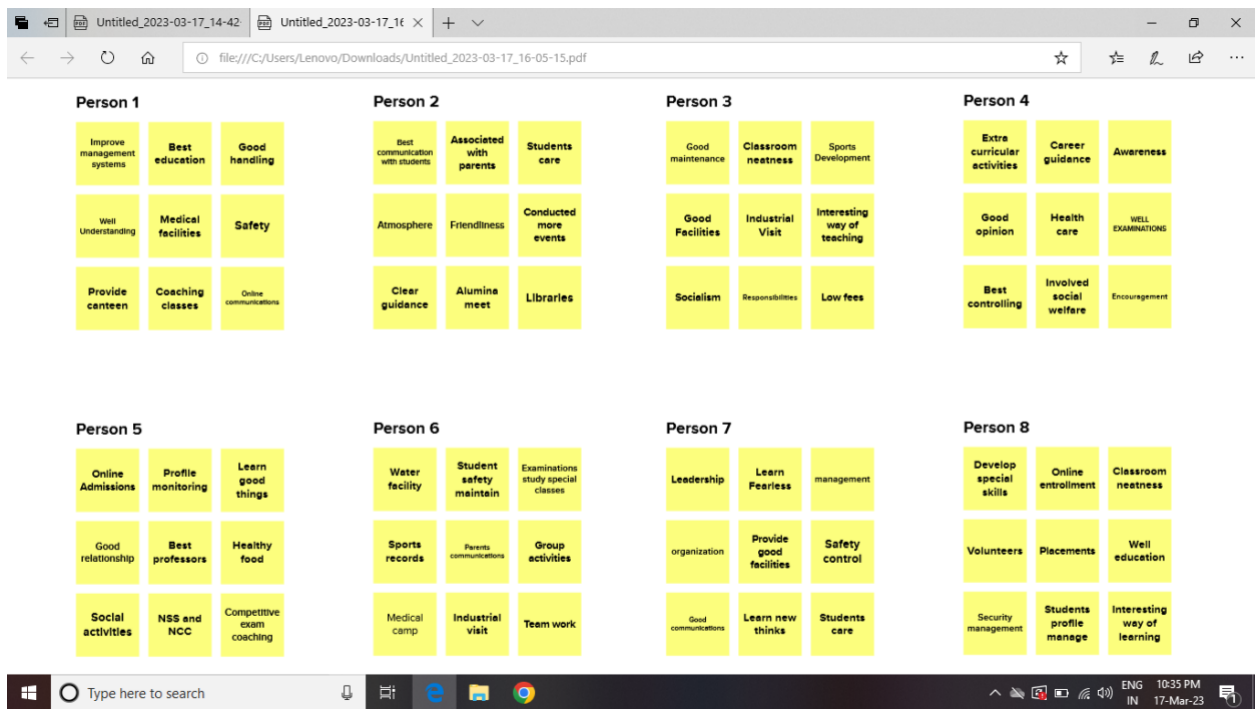
The project aim is to provide real-time knowledge for all the students who have basic knowledge of Salesforce and Looking for a real-time project. This project will also help those professionals who are in cross technology and want to switch to Salesforce. With the help of this project they will gain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

2. PROBLEM DEFINITION AND DESIGN THINKING

2.1 Empathy Map:



2.2 Ideation And Brainstorming Map:



3. RESULT

3.1 Data Model:

Object Name	Fields In The Object	
School	Field Label	Data Type
	address	text area
	district	text area
	state	text area
	school websites	text area
	phone number	phone
	number of students	roll-up summary
	highest marks	roll-up summary

<p>Student</p>	<table border="1"> <thead> <tr> <th>Field Label</th><th>Data Type</th></tr> </thead> <tbody> <tr> <td>phone number</td><td>phone</td></tr> <tr> <td>results</td><td>picklist</td></tr> <tr> <td>class</td><td>number</td></tr> </tbody> </table>	Field Label	Data Type	phone number	phone	results	picklist	class	number
Field Label	Data Type								
phone number	phone								
results	picklist								
class	number								
<p>Parent</p>	<table border="1"> <thead> <tr> <th>Field Label</th><th>Data Type</th></tr> </thead> <tbody> <tr> <td>parent address</td><td>text area</td></tr> <tr> <td>parent number</td><td>phone</td></tr> </tbody> </table>	Field Label	Data Type	parent address	text area	parent number	phone		
Field Label	Data Type								
parent address	text area								
parent number	phone								

3.2 ACTIVITY AND SCREENSHOT

Milestone-1:

Activity : Creating Developer Account

Creating a developer org in Salesforce.

1. Go to developers.salesforce
2. Click on sign
3. On t

he sign up form, enter the following details :

- a. First name & Last name
- b. Email
- c. Role : Developer
- d. Company : College Name
- e. County : India

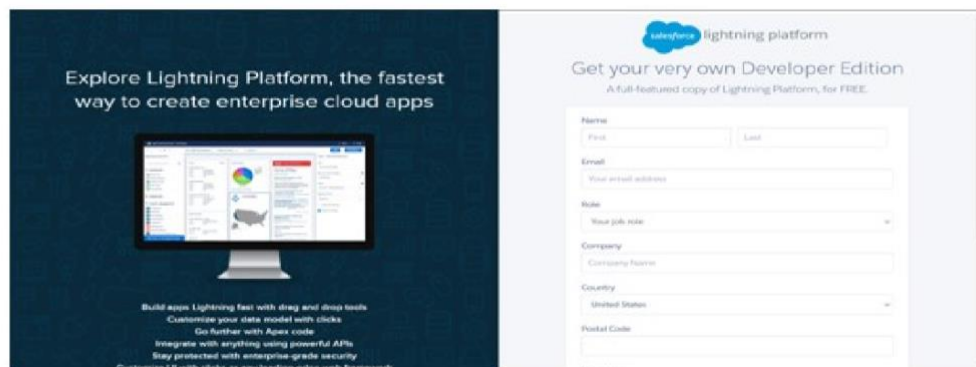
f. Postal Code : pin code

g. 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.



Click on sign up after filling these.

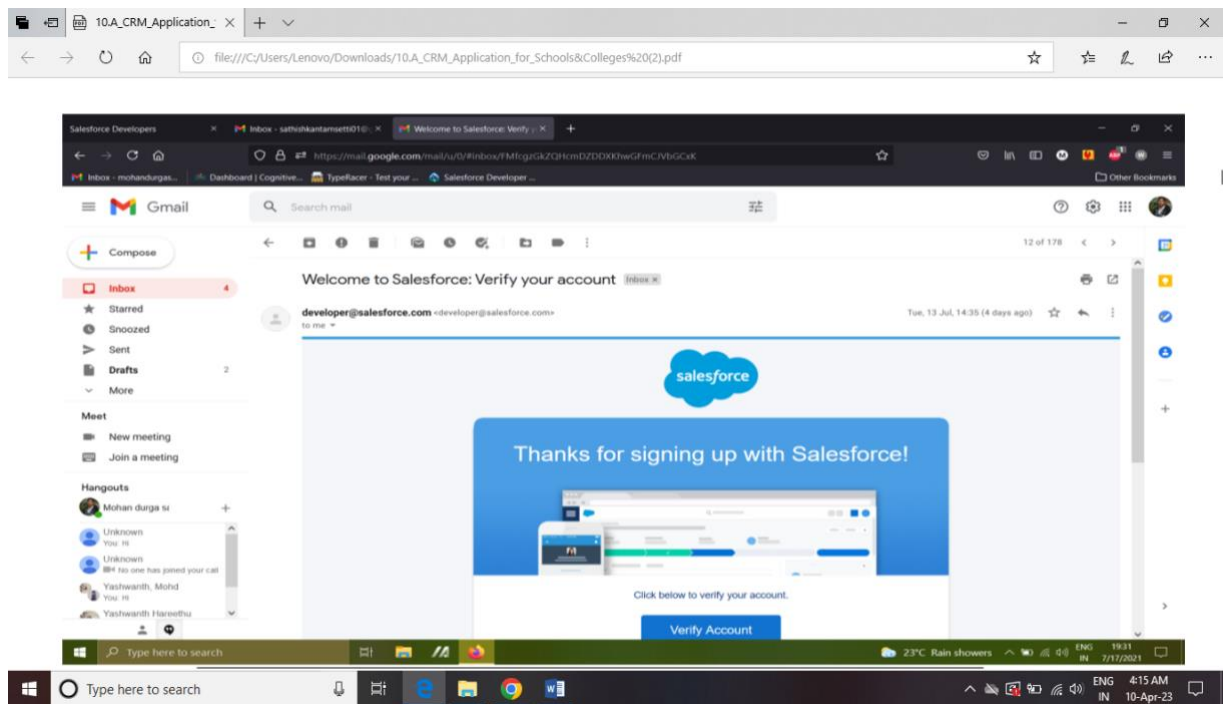


Account Activation



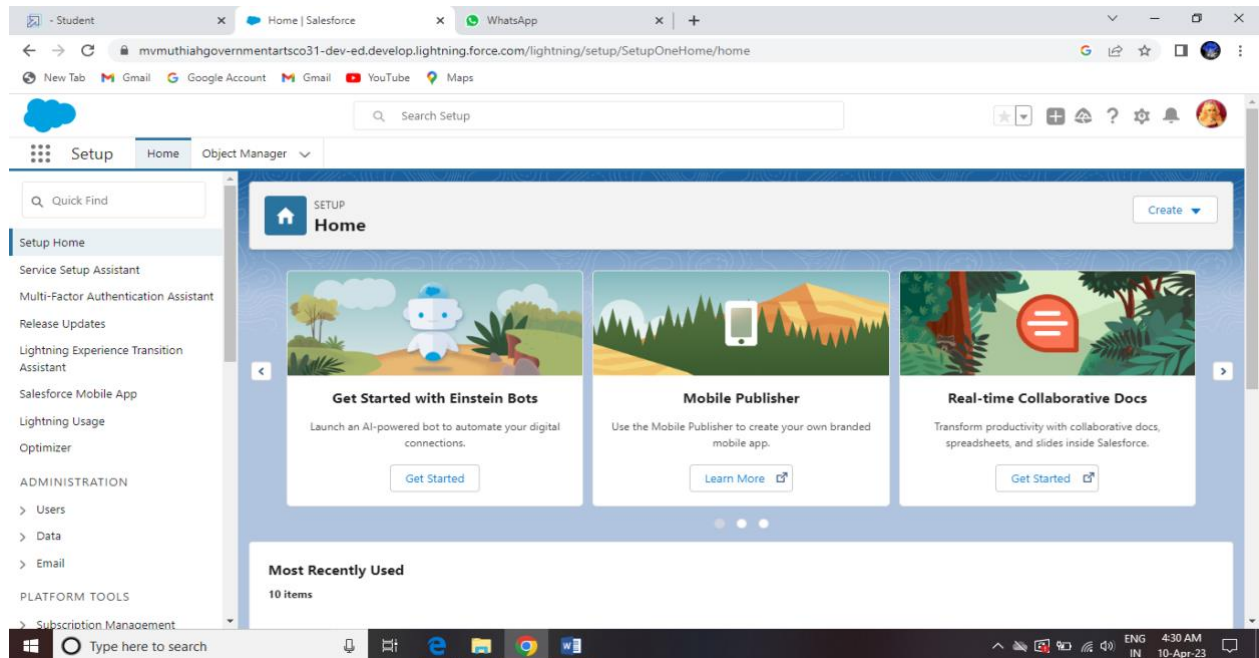
Account Activation

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



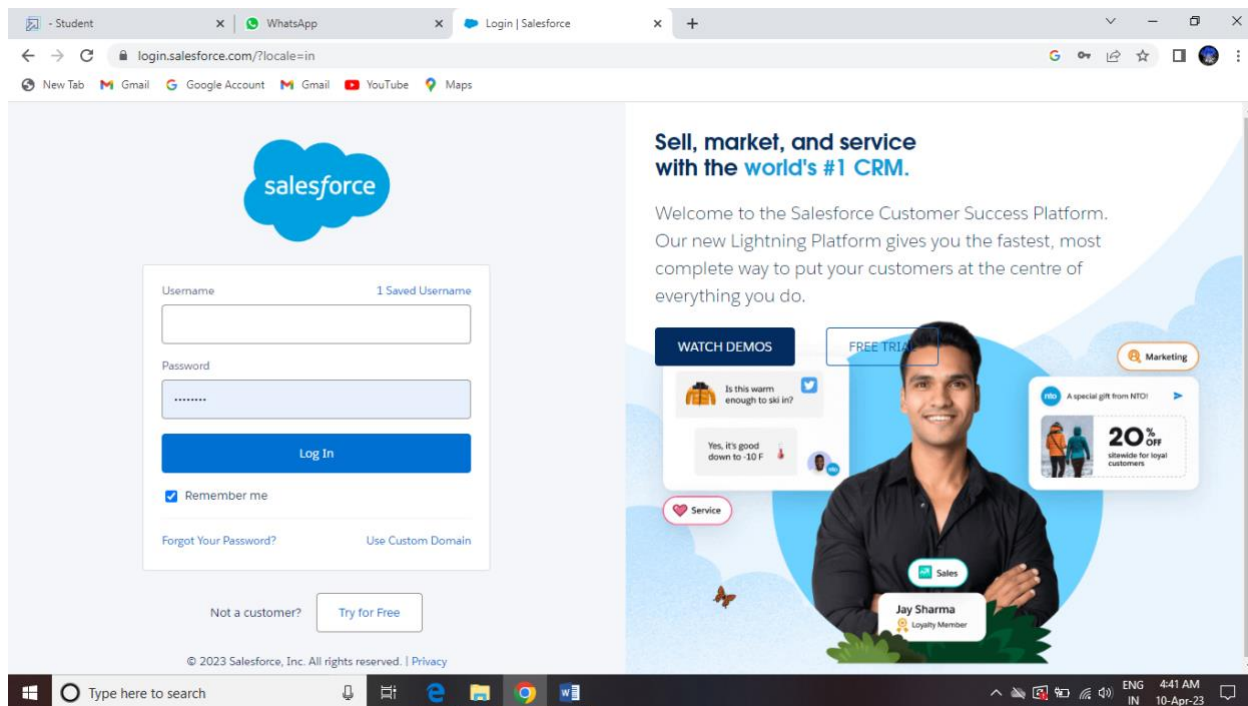
Login To Your Salesforce Account

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

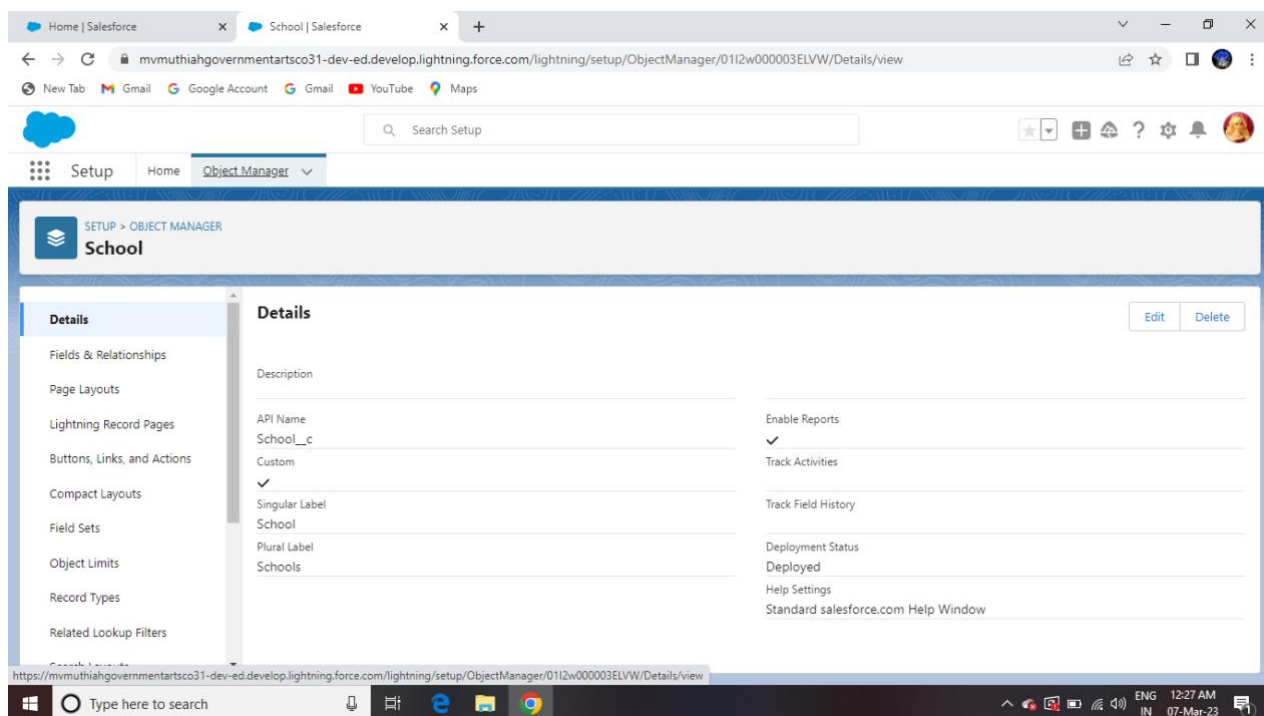
<https://login.salesforce.com>



MILESTONE -2: OBJECT

ACTIVITY -1: Creation of School 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: school
 - Plural label: schools
 - Record name: school name
 - Check the Allow Reports check box
 - Check the Allow Search check box
 - 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.

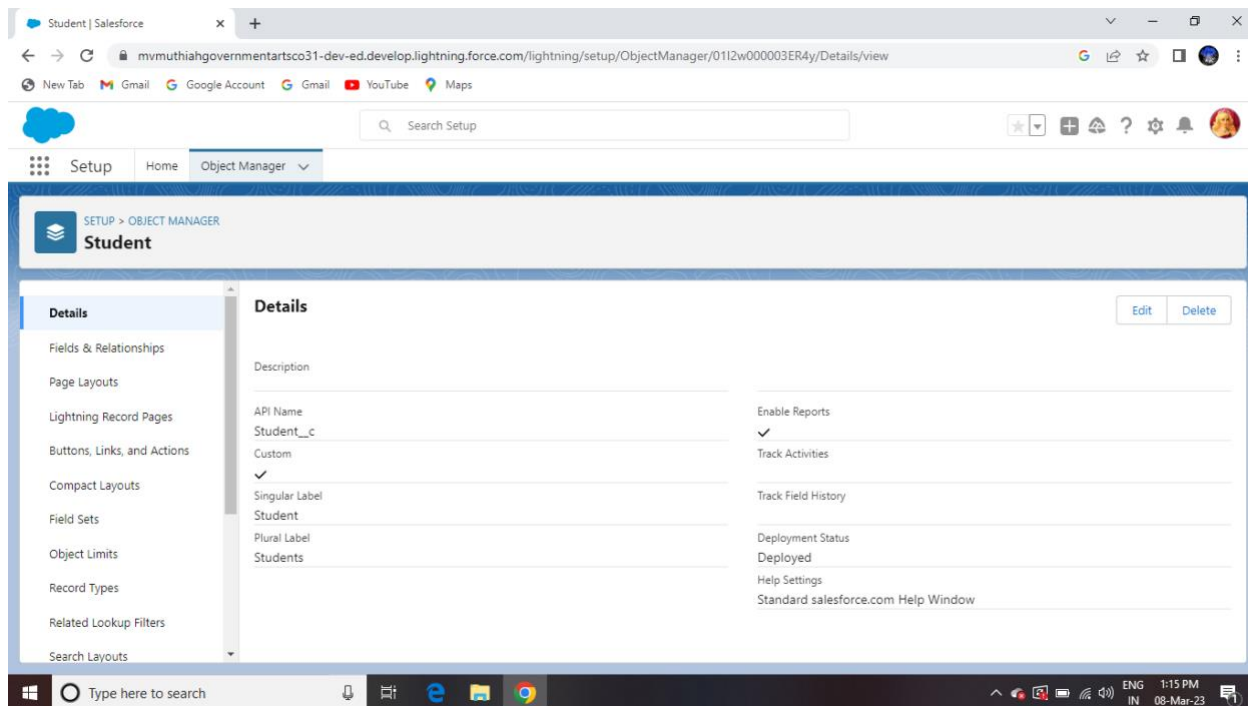
1. For Object, select School.
2. For Tab Style, select any icon.
3. Leave all defaults as is. Click Next, Next, and Save.

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

Activity 2: Create student object

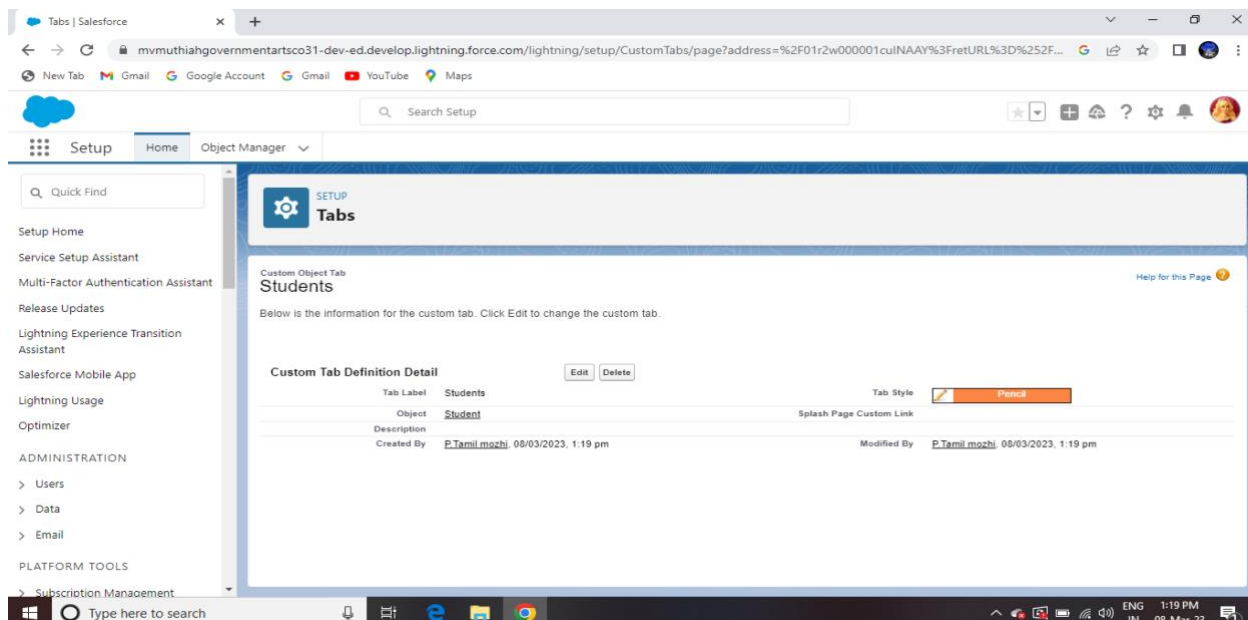
1. Click on the gear icon and then select Setup.
2. Click on the object manager tab just beside the home tab.
3. After the above steps, have a look on the extreme right you will find a Create Dropdown click on that and select Custom Object.

- 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.



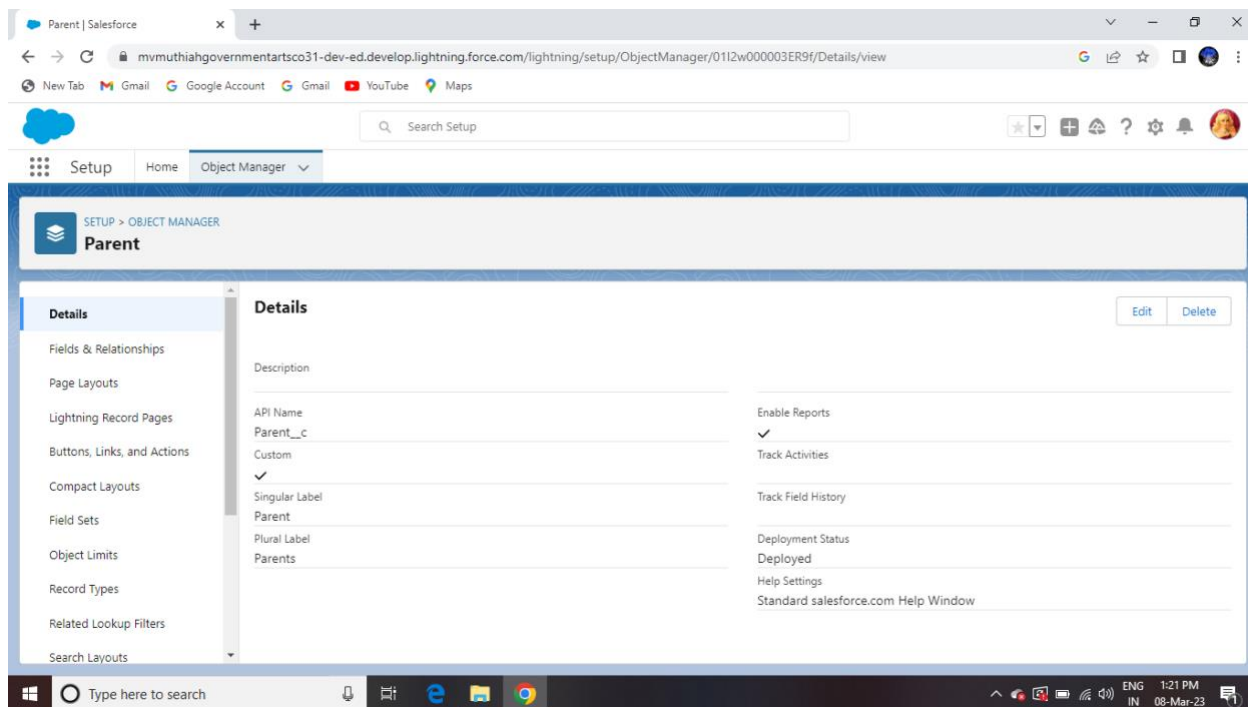
Activity 3: Create parent object

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.

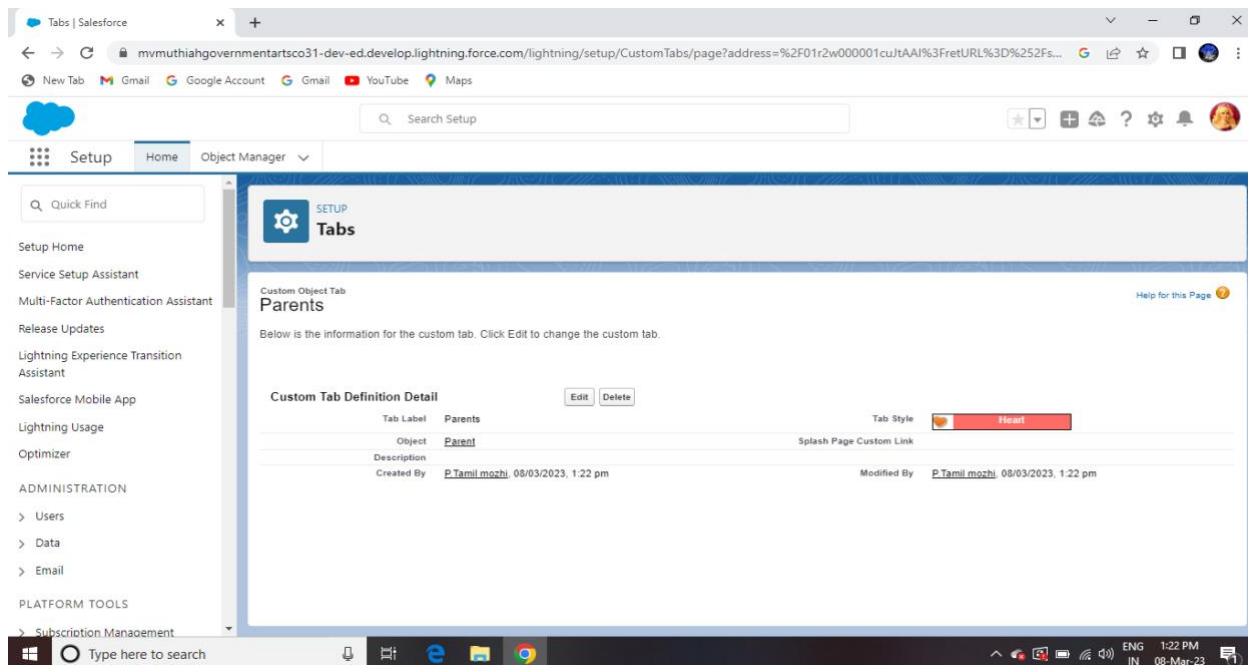
On the Custom Object Definition page, create the object as follows:

- 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.

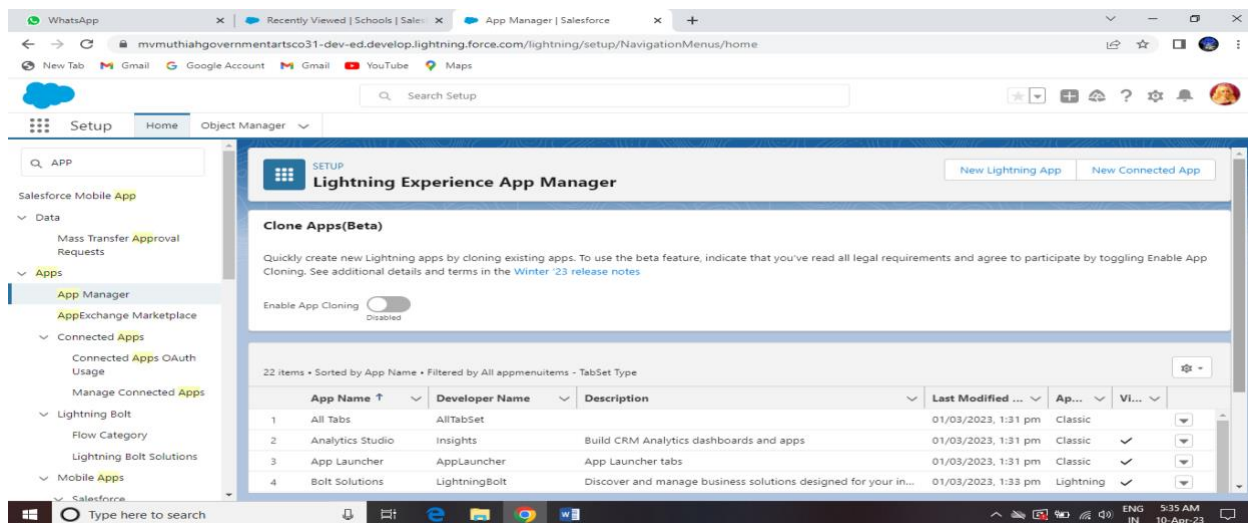


Milestone-3: Lightning App

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.



- 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.

This screenshot shows the 'App Details & Branding' configuration page in the Lightning App Builder. The left sidebar lists 'App Settings' with sub-items: 'App Details & Branding' (selected), 'App Options', 'Utility Items (Desktop Only)', 'Navigation Items', and 'User Profiles'. The main content area is titled 'App Details & Branding' and includes instructions: 'Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.' It is divided into two columns: 'App Details' and 'App Branding'. Under 'App Details', there are input fields for 'App Name' (containing 'School Management'), 'Developer Name' (containing 'School_Management'), and a 'Description' field with the placeholder 'Enter a description...'. Under 'App Branding', there is an 'Image' upload area with an 'Upload' button, a 'Primary Color Hex Value' dropdown set to '#0070D2', and 'Org Theme Options' with a checkbox 'Use the app's image and color instead of the org's custom theme' which is currently unchecked. At the bottom, an 'App Launcher Preview' shows a blue square icon with 'SM' and a grey button labeled 'School Management'.

This screenshot shows the 'Navigation Items' configuration page. The left sidebar is the same as the previous screenshot, with 'Navigation Items' selected. The main content area is titled 'Navigation Items' and includes instructions: 'Choose the items to include in the app, and arrange the order in which they appear. Users can personalize the navigation to add or move items, but users can't remove or rename the items that you add. Some navigation items are available only for phone or only for desktop. These items are dropped from the navigation bar when the app is viewed in a format that the item doesn't support.' It features two panels: 'Available Items' and 'Selected Items'. The 'Available Items' panel has a search bar and a list of items: Accounts, Alert Settings, All Sites, Alternative Payment Methods, App Launcher, Appointment Invitations, and Approval Requests. The 'Selected Items' panel shows a list of items that have been added: Schools, Students, Parents, Reports, and Dashboards. Arrows between the panels allow for moving items back and forth.

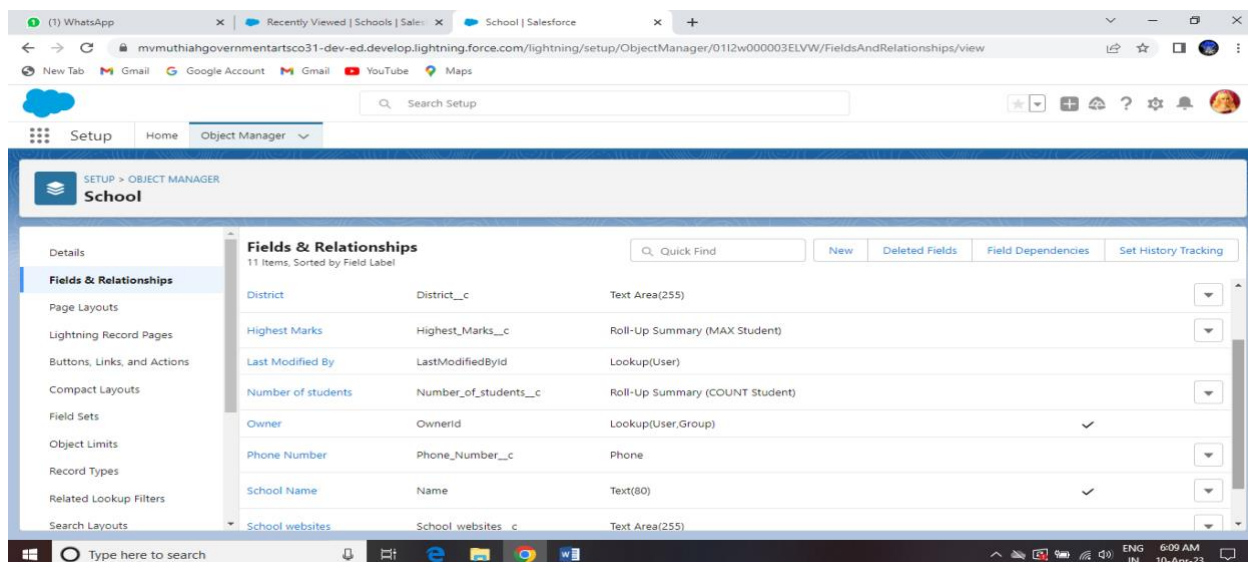
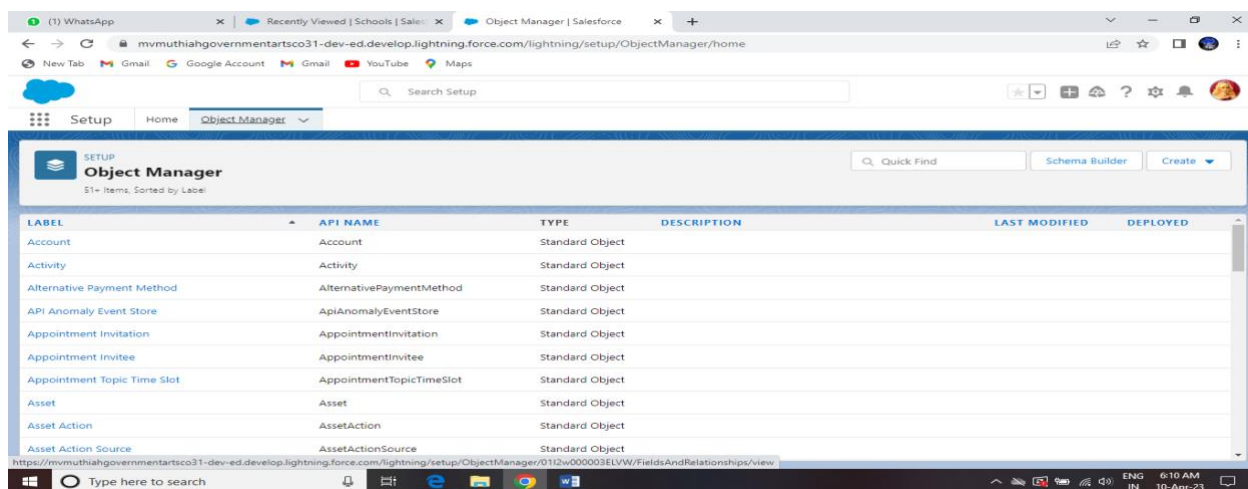
This screenshot shows the 'User Profiles' configuration page. The left sidebar is the same as the previous screenshots, with 'User Profiles' selected. The main content area is titled 'User Profiles' and includes instructions: 'Choose the user profiles that can access this app.' It features two panels: 'Available Profiles' and 'Selected Profiles'. The 'Available Profiles' panel has a search bar and a list of profiles: Analytics Cloud Integration User, Analytics Cloud Security User, Authenticated Website, Authenticated Website, Contract Manager, Custom: Marketing Profile, Custom: Sales Profile, and Custom: Support Profile. The 'Selected Profiles' panel shows a list of profiles that have been added: System Administrator. Arrows between the panels allow for moving profiles back and forth.

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

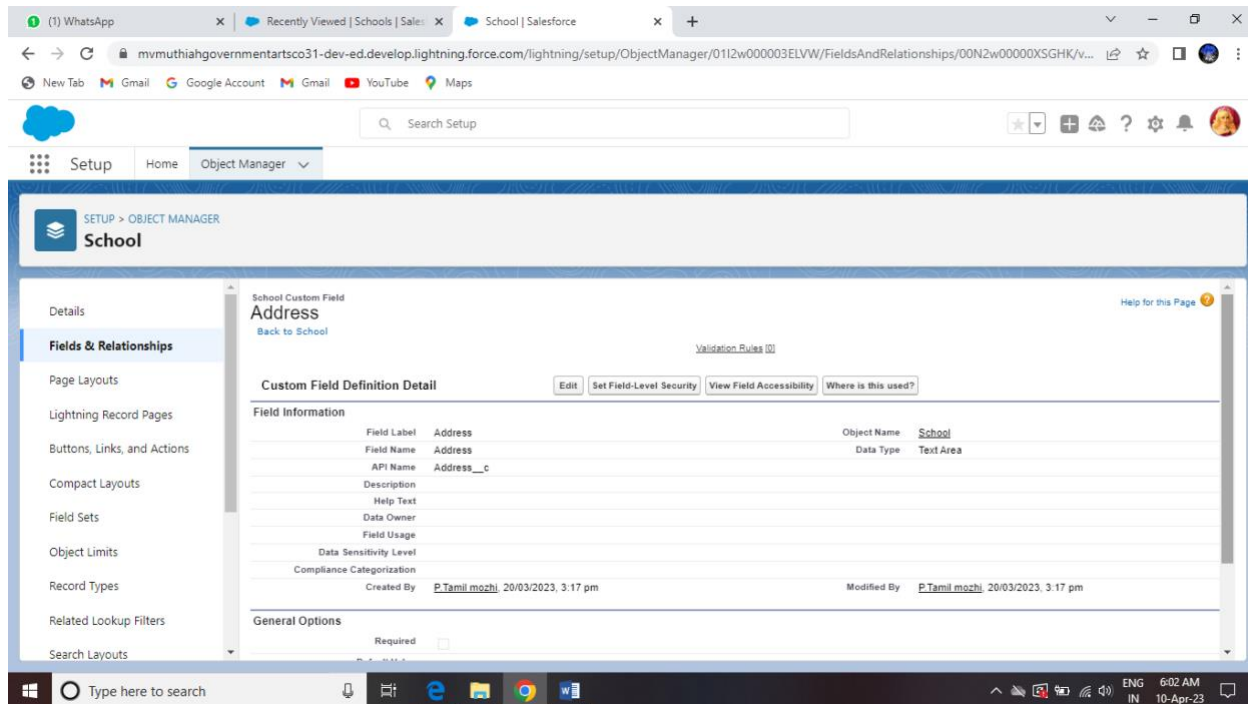
1. click the gear icon and select Setup. This launches Setup in a new tab.
2. Click the Object Manager tab next to Home.
3. Select School.
4. Select Fields & Relationships from the left navigation, and click New



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:

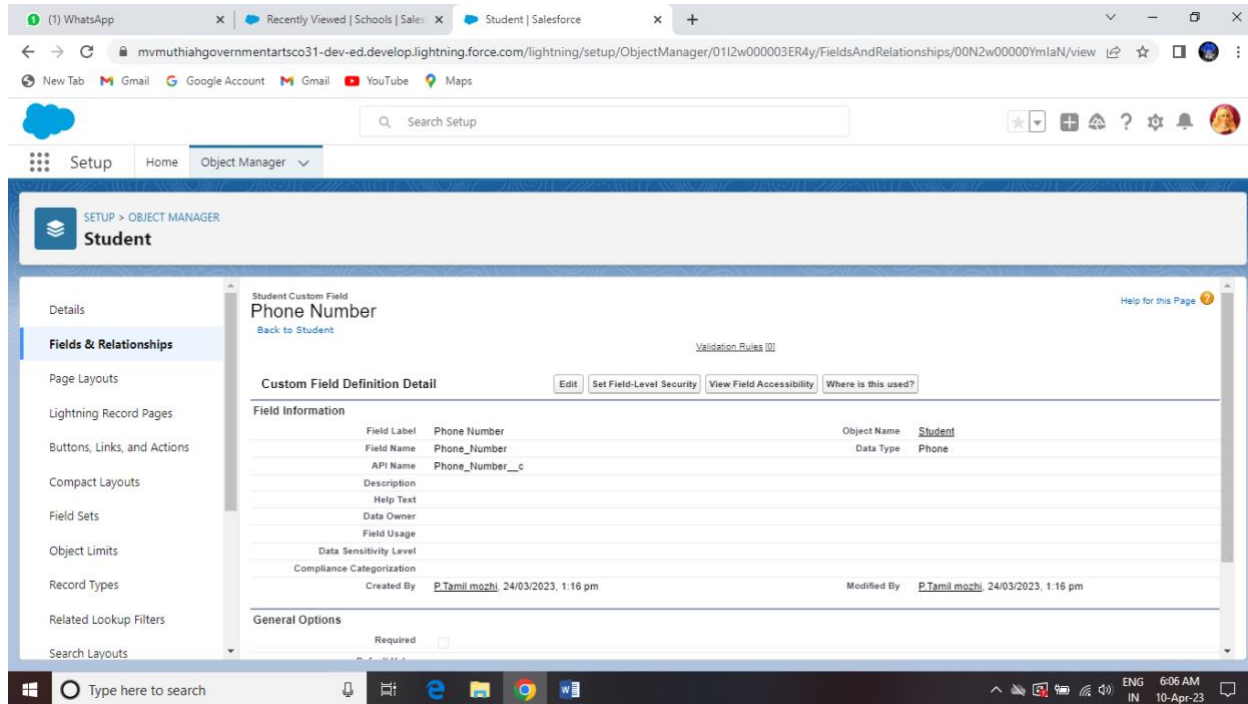
1. From Setup, click Object Manager and select Student.
2. Click Fields & Relationships, then New.
3. Select Pick-list as the Data Type and click Next.
4. For Field Label enter Results.
5. Select Enter values, with each value separated by a new line and enter these values:
6. Pass
7. Fail
8. Click Next,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



The screenshot shows the Salesforce Setup interface for the 'Student' object. The 'Phone Number' custom field is being defined. The 'Field Information' section shows the field label as 'Phone Number', field name as 'Phone_Number', and data type as 'Phone'. The 'General Options' section shows the field is not required.

Field Information	
Field Label	Phone Number
Field Name	Phone_Number
API Name	Phone_Number__c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	P.Tamil mozhi 24/03/2023, 1:16 pm
Modified By	P.Tamil mozhi 24/03/2023, 1:16 pm

General Options	
Required	<input type="checkbox"/>

Activity-3: Creation of fields for the Parent objects:

1. Select the Text Area as the Data Type, then click Next.

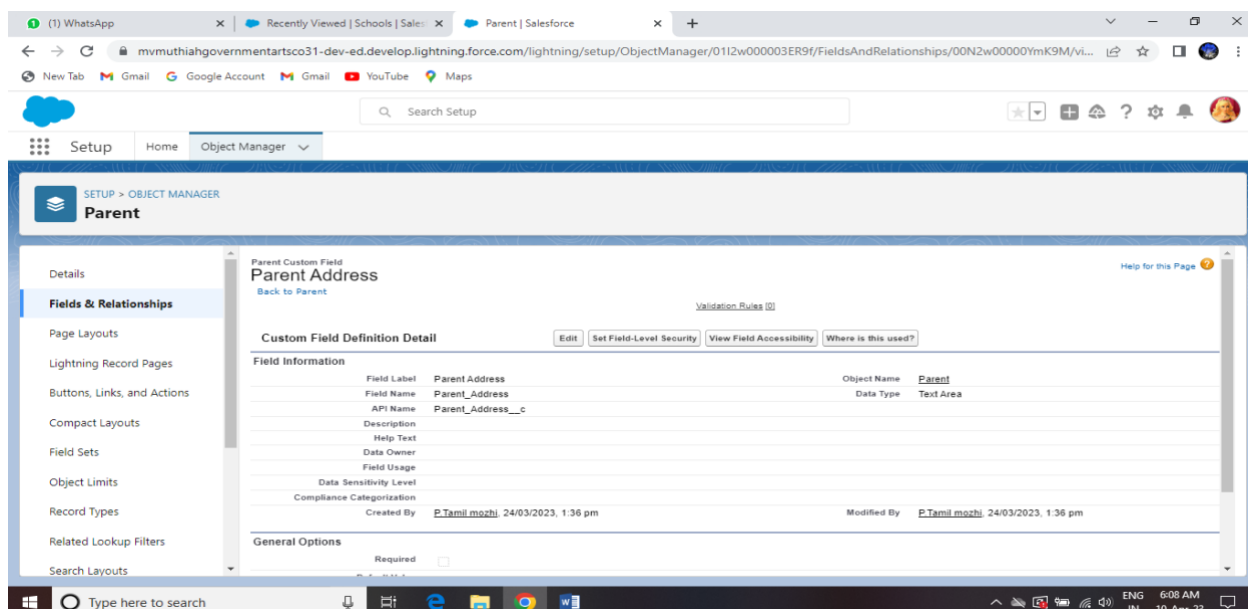
2. For Field Label, enter Parent Address.

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



The screenshot shows the Salesforce Setup interface for the 'Parent' object. The 'Parent Address' custom field is being defined. The 'Field Information' section shows the field label as 'Parent Address', field name as 'Parent_Address', and data type as 'Text Area'. The 'General Options' section shows the field is not required.

Field Information	
Field Label	Parent Address
Field Name	Parent_Address
API Name	Parent_Address__c
Description	
Help Text	
Data Owner	
Field Usage	
Data Sensitivity Level	
Compliance Categorization	
Created By	P.Tamil mozhi 24/03/2023, 1:36 pm
Modified By	P.Tamil mozhi 24/03/2023, 1:36 pm

General Options	
Required	<input type="checkbox"/>

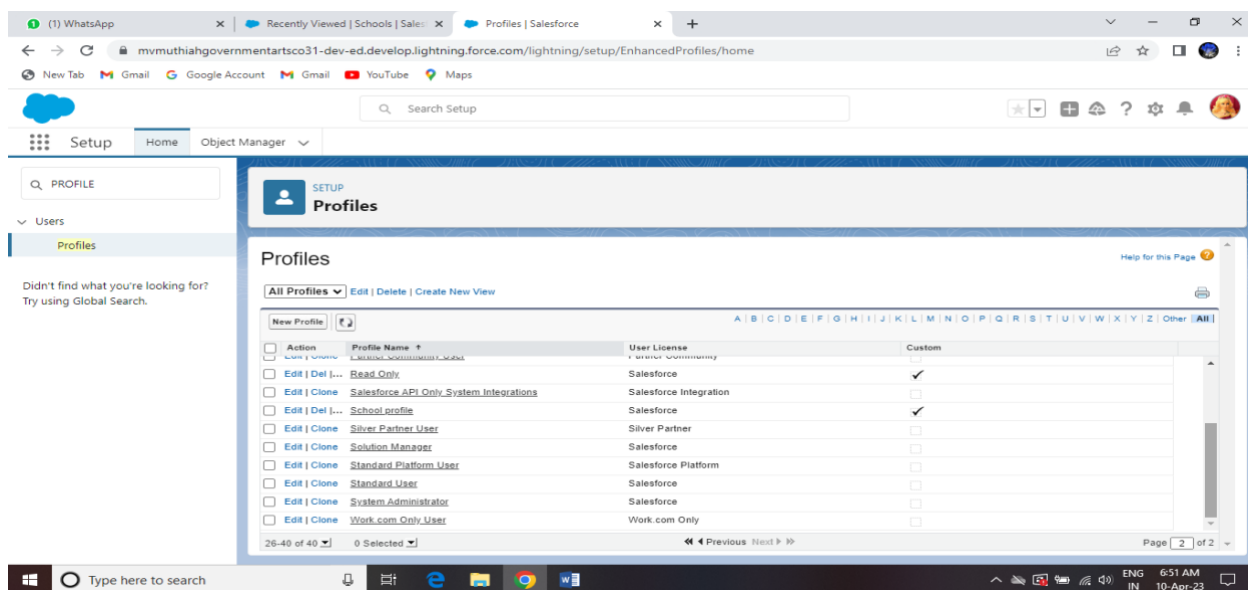
Milestone-5: Profile

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, Visual force page access, Page layouts, Record Types, Login hours & Login IP ranges

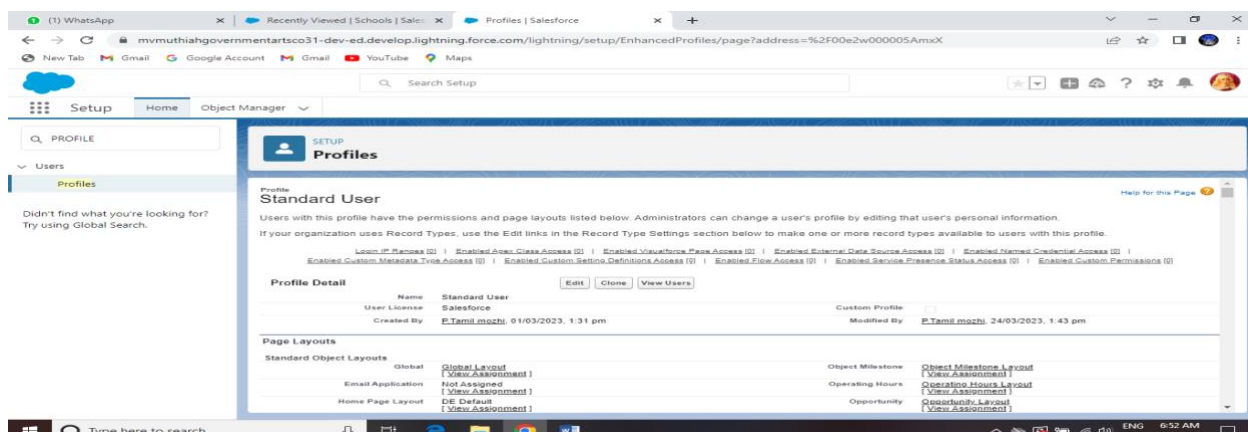
Activity : Creation on profile:

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

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



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

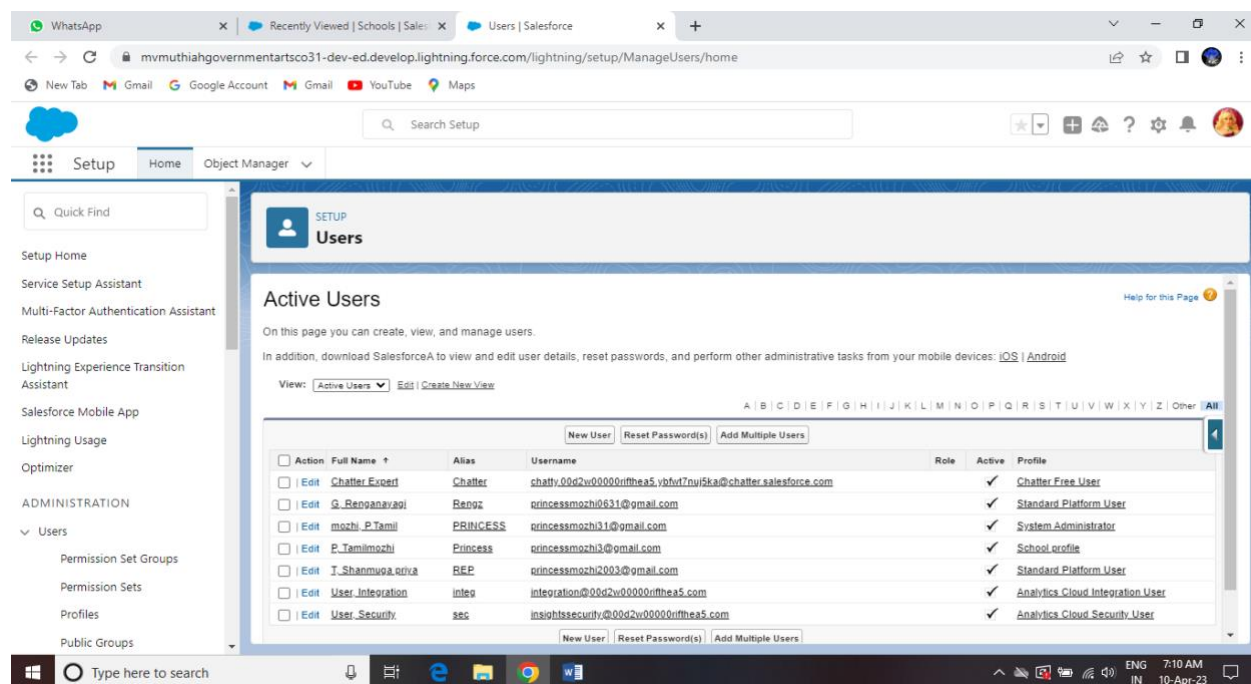


Milestone-6: Users

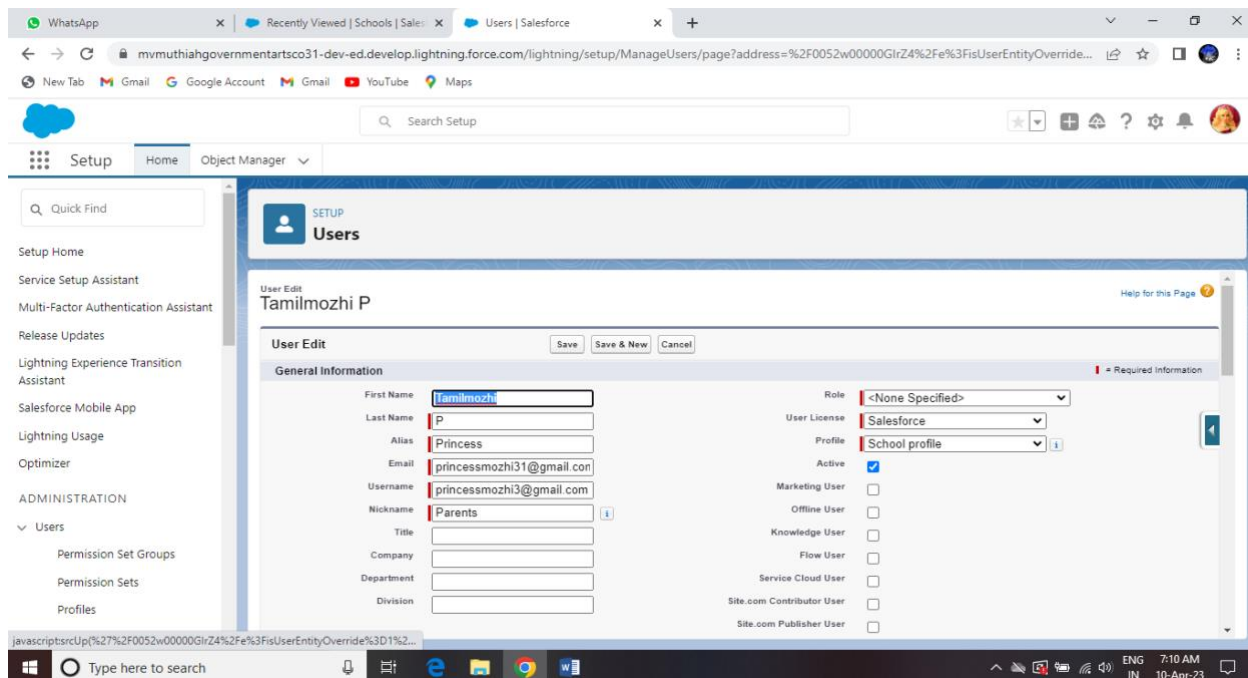
A user is anyone who logs in to Salesforce. Users are employees at your company, such as sales reps, managers, and IT specialists, who need access to the company's records. Every user in Salesforce has a user account.

Activity : Creating a Users:

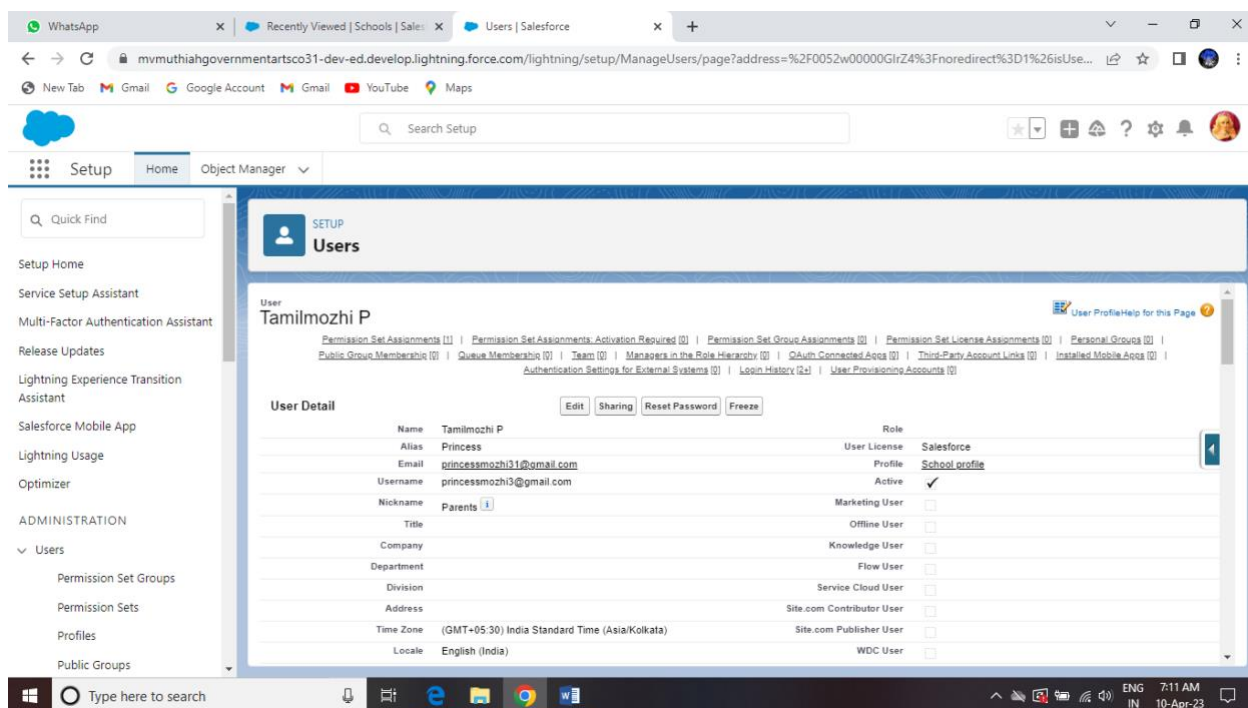
1. From Setup, in the Quick Find box, enter Users, and then select Users.
2. Click New User.



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.



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



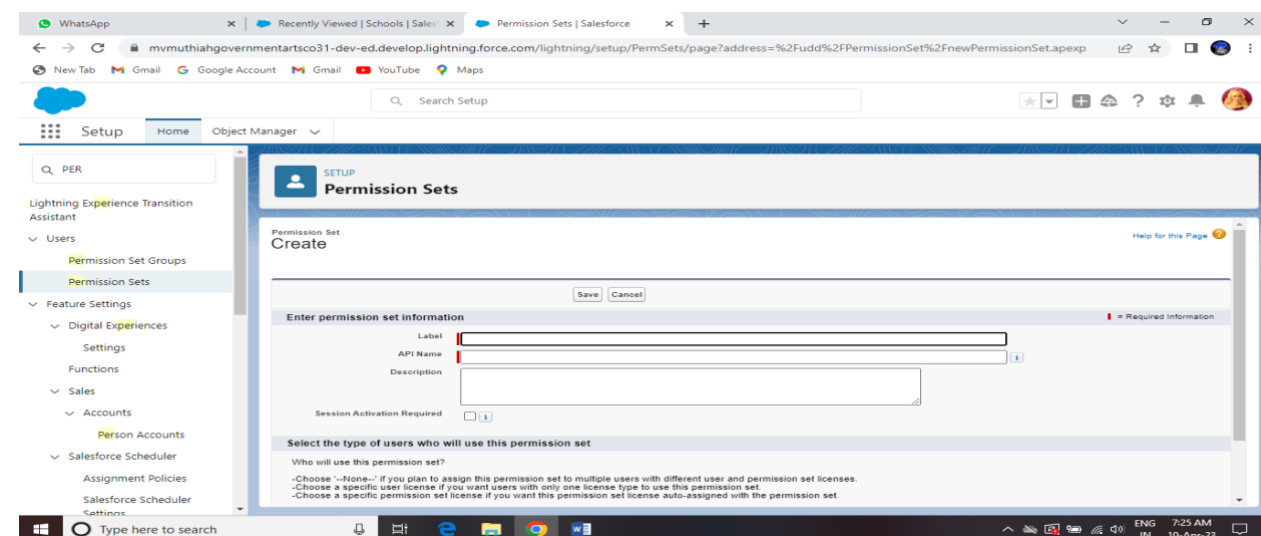
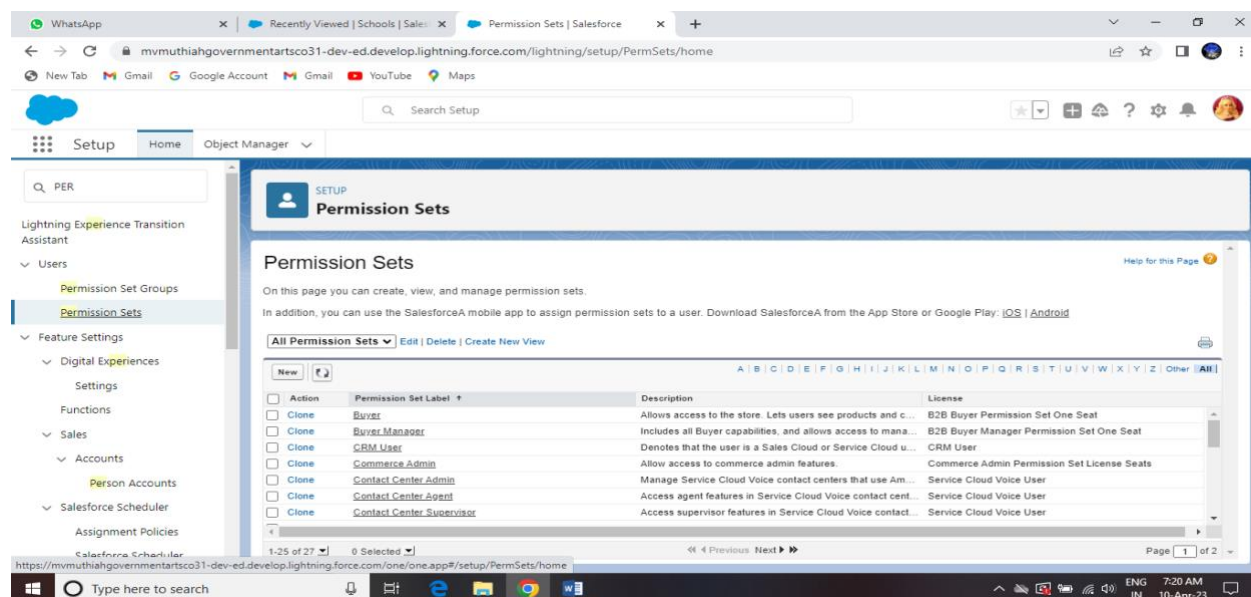
Milestone-7: Permission sets

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.

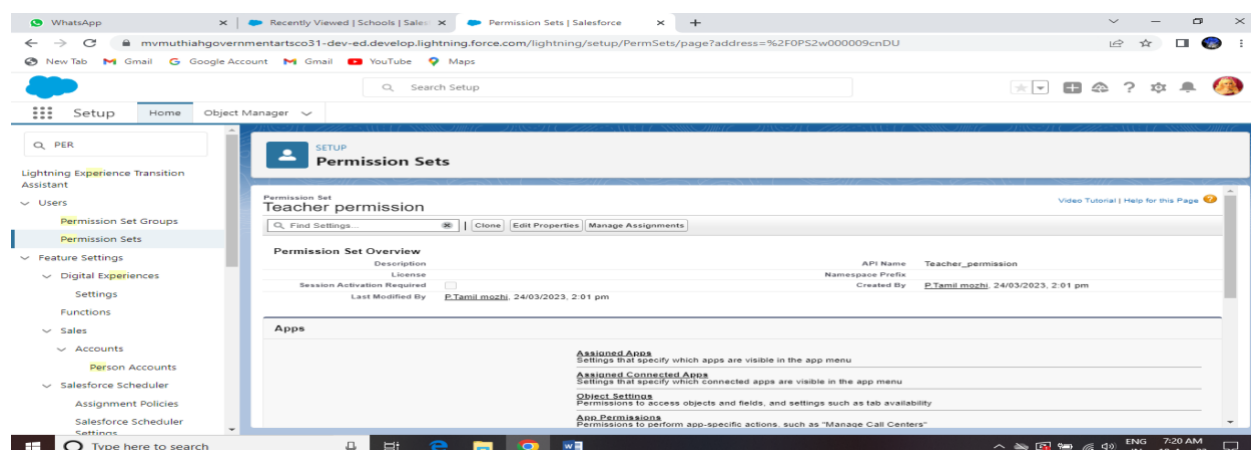
Activity-1:

Permission sets 1:

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 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

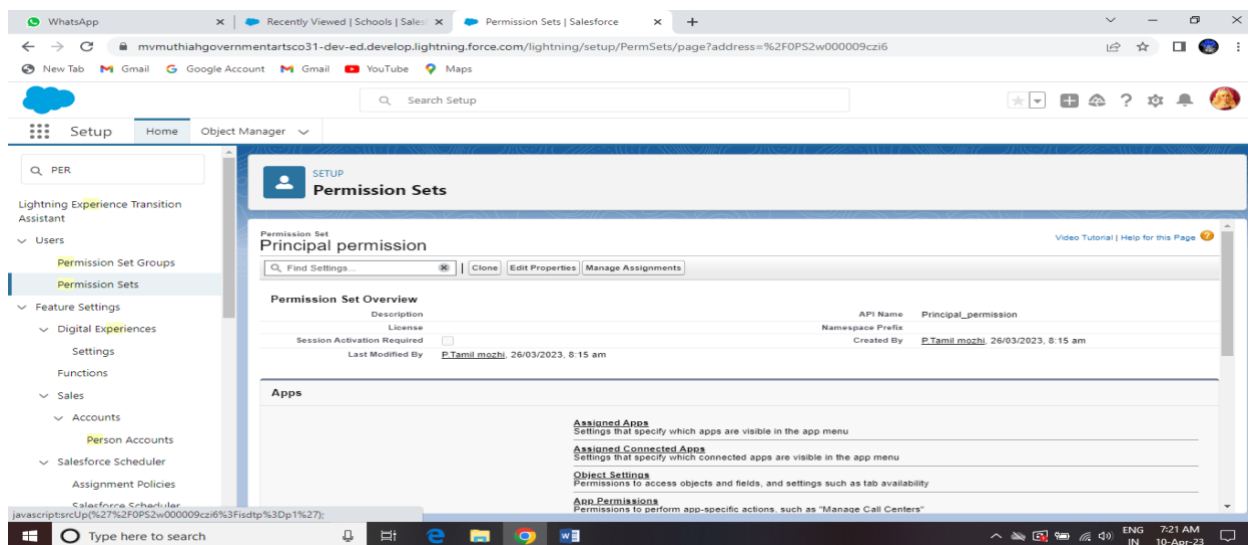


Similarly follow the above steps for the permission set 2.

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.

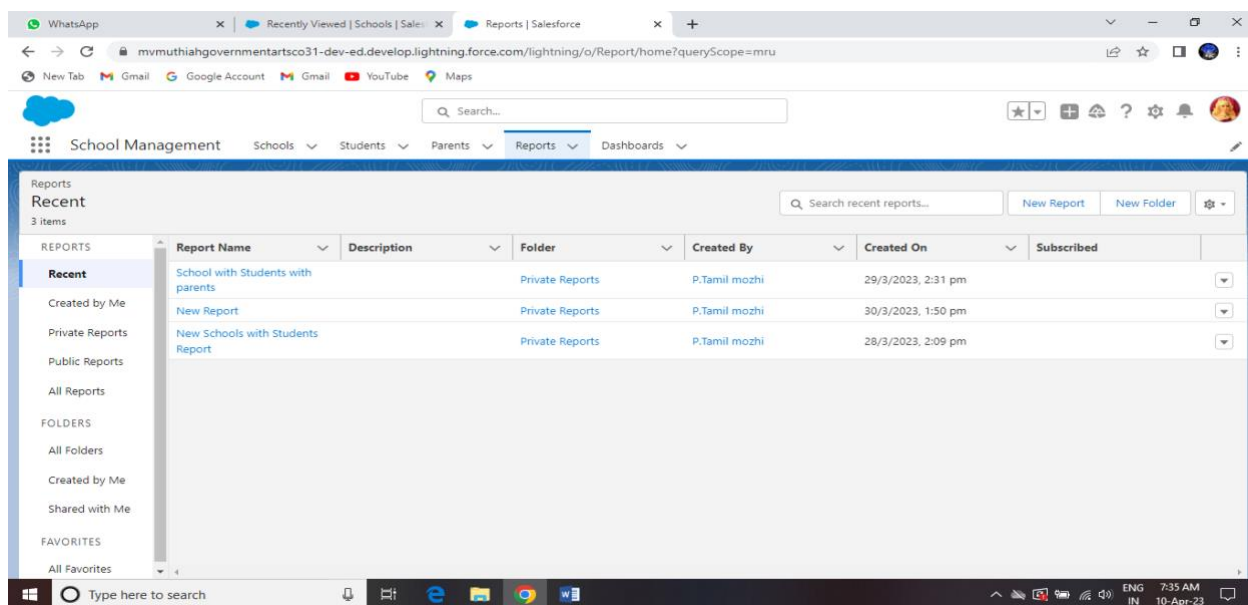


Milestone-8: Reports

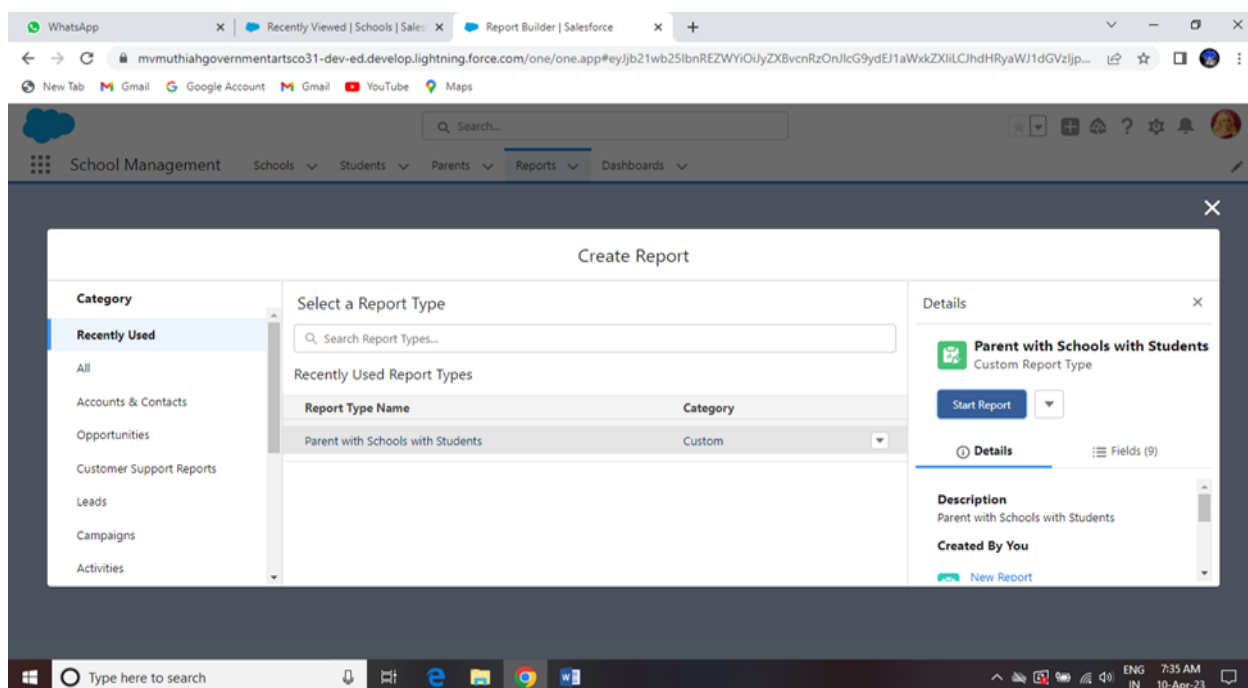
A report is a list of records that meet the criteria you define. It's displayed in Salesforce in rows and columns, and can be filtered, grouped, or displayed in a graphical chart. Every report is stored in a folder. Folders can be public, hidden, or shared, and can be set to read-only or read/write.

Activity : Reports :

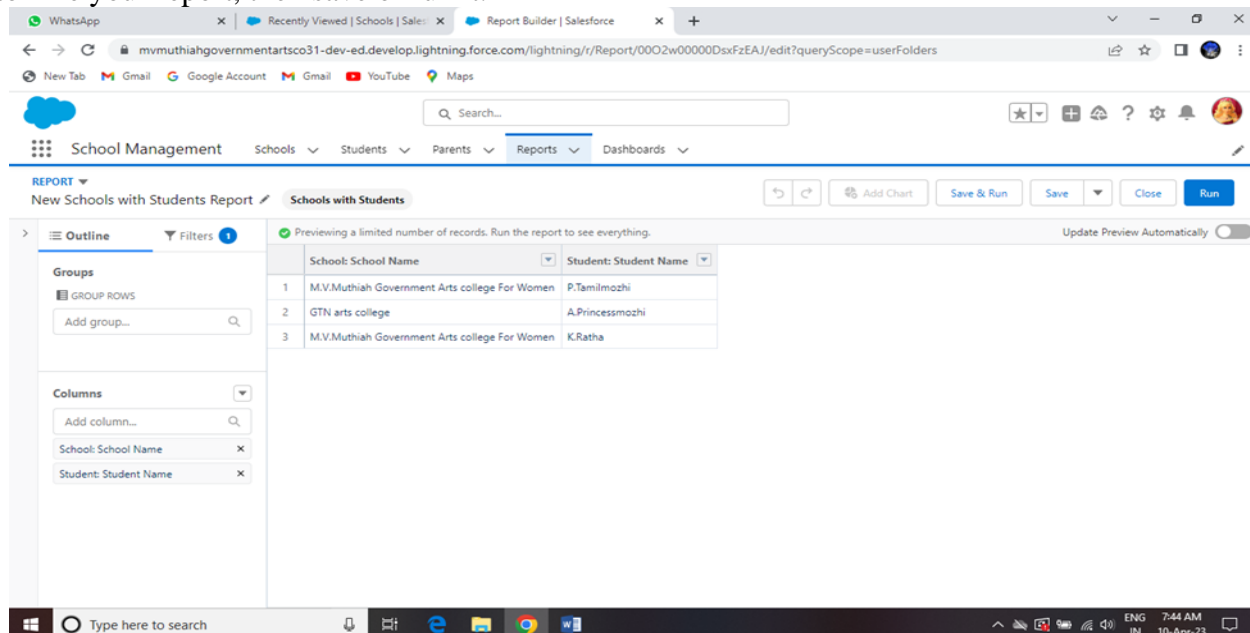
1. From the Reports tab, click New Report.



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



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



Report: Schools with Students
School with Students with parents

Enable Field Editing

Total Records: 3 Total Highest Marks: 200 Total Number of students: 3 Total Marks: 299 Total Class: 3

	School: School Name	Address	School websites	School: ID	District	State	Phone Number	Highes
1	M.V.Muthiah Government Arts college For Women	Kanyakumari Road , Meenachinayakkanpatti, Dindigul-624001	mvmwgacdgil.ac.in	a002w00000asOjP	Dindigul	Tamil Nadu	+451-2460120	
2	M.V.Muthiah Government Arts college For Women	Kanyakumari Road , Meenachinayakkanpatti, Dindigul-624001	mvmwgacdgil.ac.in	a002w00000asOjP	Dindigul	Tamil Nadu	+451-2460120	
3	GTN arts college	Karur Road, N.S.Nagar, Dindigul-624005	gtnartscollege.ac.in	a002w00000asOjQ	Dindigul	Tamil Nadu	7397783313	
4								

4. TRAILHEAD PROFILE PUBLIC URL:

Team Lead - <https://trailblazer.me/id/priya0018>

Team Member 1 - <https://trailblazer.me/id/renganayaki>

Team Member 2 - <https://trailblazer.me/id/siva333>

Team Member 3 - <https://trailblazer.me/id/snekajoe>

Team Member 4 - <https://trailblazer.me/id/tamilmozhi31>

5. ADVANTAGES & DISADVANTAGE:

1. Improve Student Admissions Lifecycle.

- CRM for educational institutions tracks and automates the tasks involved in the admission process, such as gathering and storing applicants' data, sending messages to inform about their enrollment status, etc .

2. Track Student Life-Cycles With in the Institution.

- Leveraging data stored in the system, you can also develop personalized messages to enrich the student interactions.
- In addition, the centralized platform improves information sharing outreach across all departments.

3. Monitor Fee Payments and Reminders.

- This helps your administrative department avoid discrepancies in the payment process while notifying students about their due fees.

6. APPLICATIONS:

A CRM system can help educational organizations effectively manage and track leads, resulting in improved enrolment numbers. Additionally, by personalizing communication and providing automated follow-up, educational organization can build better relationships with students and leads, and keep them engaged over time.

7. CONCLUSION:

Salesforce is a great platform and, easy to use, powerful, quick as well as have good community. This project showed in the above text, what concept of cloud computing and Salesforce is all about. After reading this paper you easily know, that Salesforce offers a conclusive concept to deliver an easy to use CRM Software as a service using a dynamic scale free cloud computing approach and also how to make college management system using sales force. So Salesforce.com is an excellent example for an e-Commerce company, management of information in college, universities, with mobile friendly Salesforce application, these reports would be accessible anywhere, anytime.

8. FUTURE SCOPE:

The project has a very vast scope in future. The project can be implemented on intranet in future. Project can be updated in near future as and when requirement for the same arises, as it is very flexible in terms of expansion. With the proposed software of database School Manager ready and fully functional the client is now able to manage and hence run the entire work in a much better, accurate and error free manner. The following are the future scope for the project. Discontinue of particular student eliminate potential attendance, Bar code Reader based attendance system and Individual Attendance system with photo using Student login.