

Project Report on

Creation Of An Application For School Management

Introduction:

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

Creating Developer Org.

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?"

Go to developer.salesforce.com

Click on sign up.

On the sign up form, enter the following details

a. First name & Last name: NANOORI ABHISHEK

b. Email:Shek71917@gmail.com

c. Role - Developer

d. Company – GAYATRI DEGREE COLLEGE

e. Country - India

f. Postal Code - 517501

g. Username- shek71917@gayatri.com

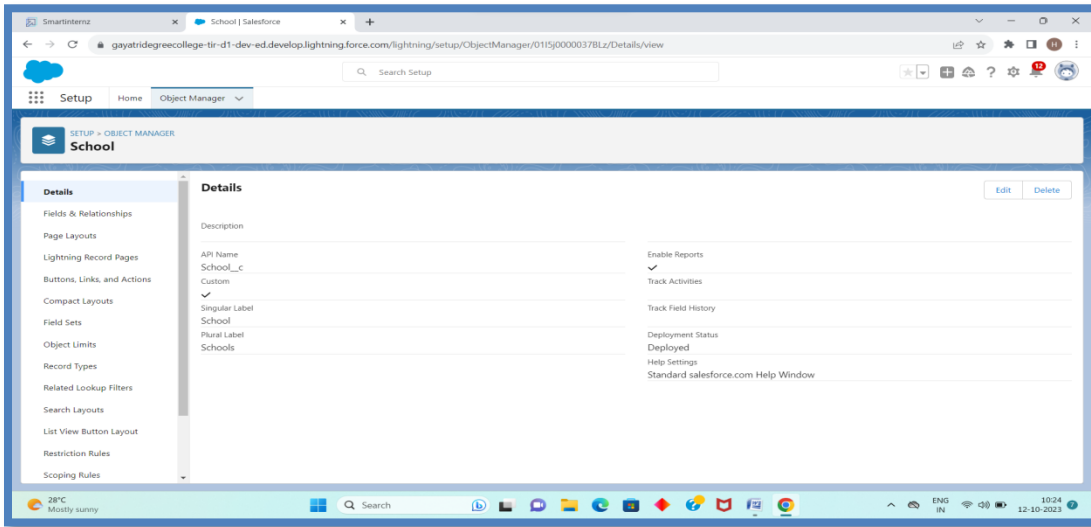
Click on sign up after filling these.

Milestone-1: Object

Create School Management:

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

5. Label: School
6. Plural Label: Schools
7. Record Name: School Name
8. Check the Allow Reports checkbox
9. Check the Allow Search checkbox
10. Click Save.

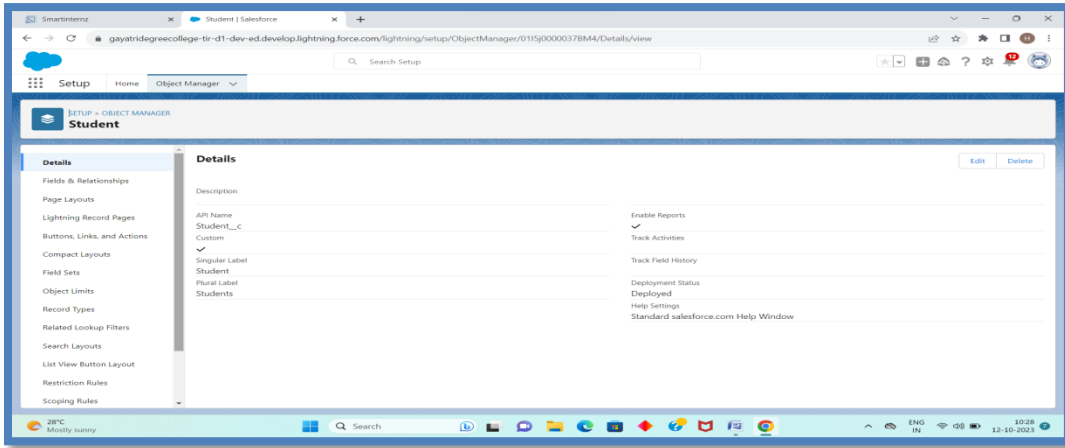


Now create a custom tab. Click the Home tab.

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: Student
 - Plural Label: Students

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

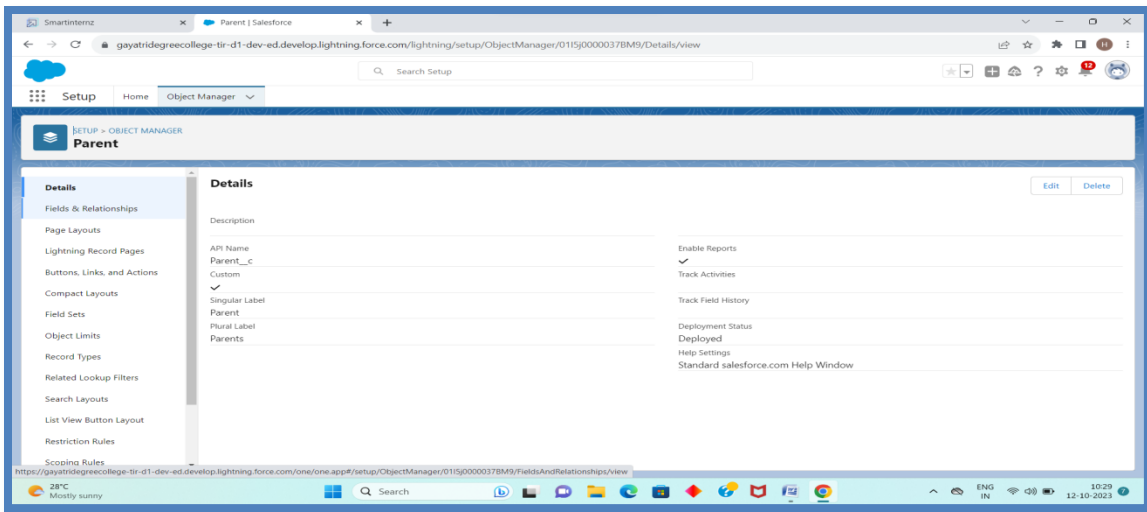


Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs. Under Custom Object Tabs, click New.

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

Create Parent Object:

1. Click on the object manager tab just beside the home tab.
2. 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



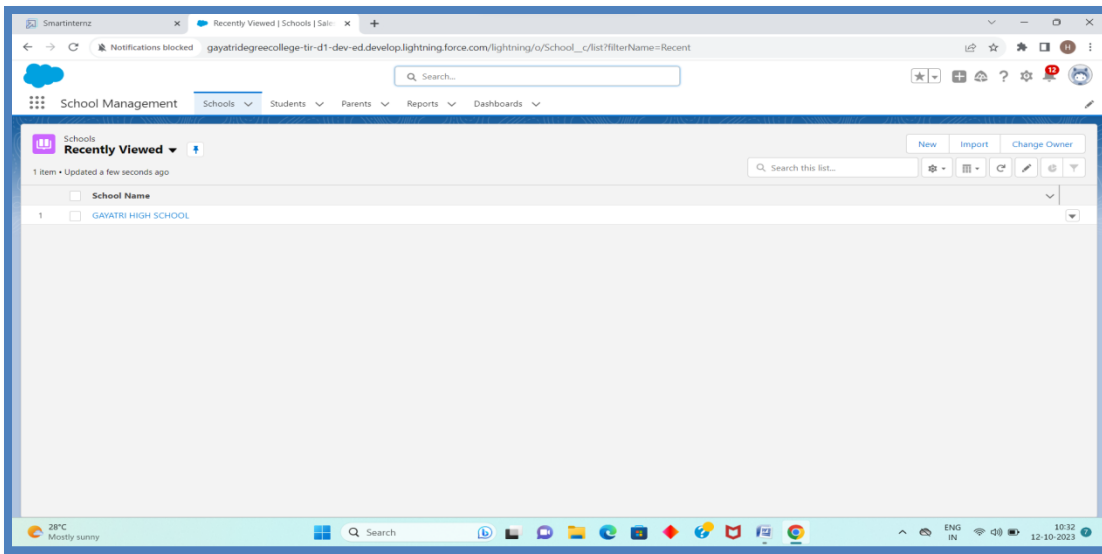
Now create a custom tab. Click the Home tab, enter Tabs in Quick Find and select Tabs. Under Custom Object Tabs, click New.

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

Milestone-2: Lightning App

Create The School Management App:

1. From Setup, enter App Manager in the Quick Find and select App Manager.
2. Click New Lightning App.
3. Enter School Management as the App Name, then click Next
4. Under App Options, leave the default selections and click Next.
5. Under Utility Items, leave as is and click Next.
6. From Available Items, select Schools, Students, Parents, Reports, and Dashboards and move them to Selected Items. Click Next.
7. 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:

App Launcher-Displays available apps.

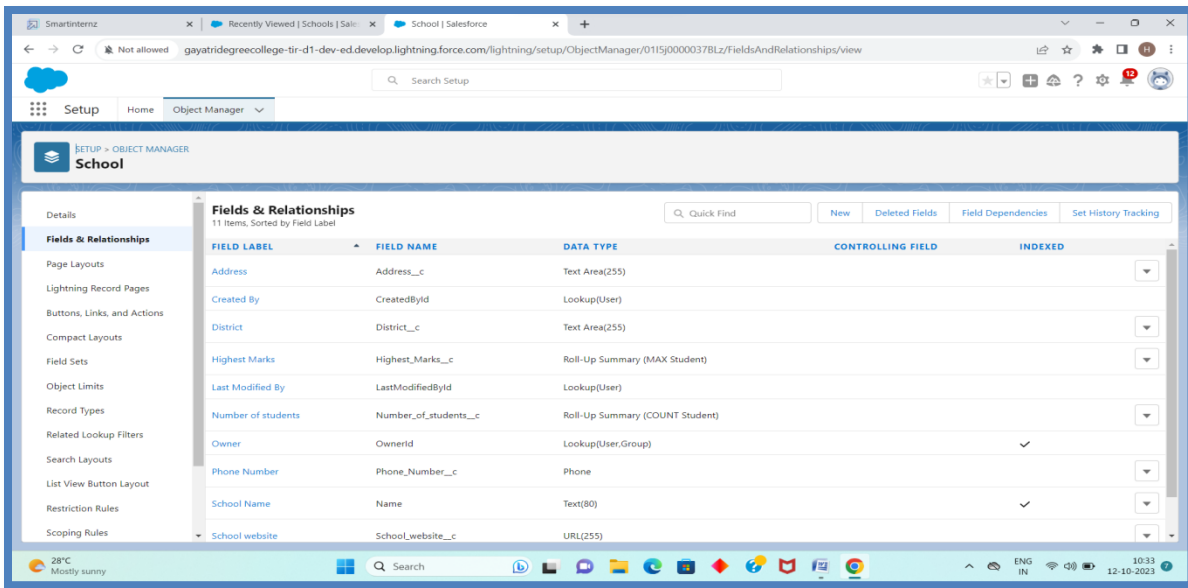
App Name-Displays the current selected app.

Navigation menu -Displays the tabs available inside the app.

Milestone-3: Fields And Relationship

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
5. Click New
6. Select the Text Area as the Data Type, click Next.
7. For Field Label, enter Address.
8. Click Next, Next, then Save & New.
9. Follow steps 1 to 3 and create two more Text type field - District & State.
10. Create URL type field & give School website as the field label.



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.

Let's see this

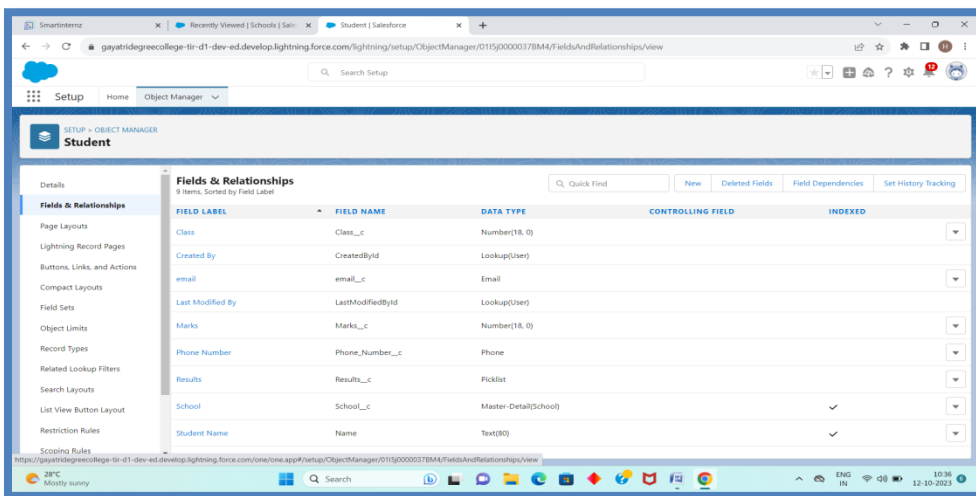
Note- Follow above steps 1 to 5 to create field and then follow below steps

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.

Creation Of Fields For The Student Objects

Note- Follow above steps 1 to 5 to create field and then follow below steps

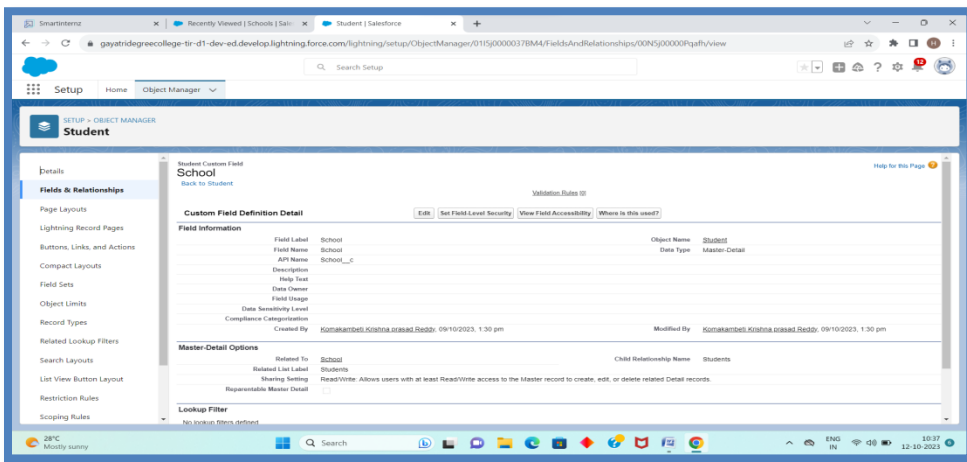
1. Select the Phone as the Data Type, then click Next.
2. For Field Label, enter Phone Number.
3. Click Next, Next, then Save & New



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

Note- Follow above steps 1 to 5 to create field and then follow below steps

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.



Let's create a Pick-List field:

Note- Follow above steps 1 to 5 to create field and then follow below steps

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

Let's create a Number field:

Note- Follow above steps 1 to 5 to create field and then follow below steps

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.

Let's create Roll-up summary fields on School Object to calculate the number of students

1. Click gear icon Select Setup, This launches Setup in a new tab.
2. click Object Manager
3. Select School.
4. Click Fields & Relationships
5. Click New.
6. Select the Roll-up summary field as data type
7. Enter the field label as Number of students
8. Click Next
9. Then select the master object summarized as students
10. Select count as roll-up and then click Next, Next and save.

The screenshot shows the Salesforce Setup interface for the 'School' object. The left sidebar contains a navigation menu with options like 'Details', 'Fields & Relationships', 'Page Layouts', 'Lightning Record Pages', 'Buttons, Links, and Actions', 'Compact Layouts', 'Field Sets', 'Object Limits', 'Record Types', 'Related Lookup Filters', 'Search Layouts', 'List View Button Layout', 'Restriction Rules', and 'Scoping Rules'. The main content area is titled 'School Custom Field: Number of students' and includes a 'Back to School' link. Below the title, there are tabs for 'Custom Field Definition Detail', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Custom Field Definition Detail' tab is active, showing the following information:

Field Information	
Field Label	Number of students
Field Name	Number_of_students
API Name	Number_of_students__c
Description	
Help Text	
Data Owner	
Field Usage	School Custom Field: Number of students - Salesforce - Developer Edition
Data Sensitivity Level	
Compliance Categorization	
Created By	Komakambeti Krishna prasad Reddy, 09/10/2023, 1:34 pm
Modified By	Komakambeti Krishna prasad Reddy, 09/10/2023, 1:34 pm

Below the field information, there is a 'Roll-Up Summary Options' section with the following details:

Roll-Up Summary Options	
Data Type	Roll-Up Summary
Summarized Object	Student
Filter Criteria	
Summary Type	COUNT

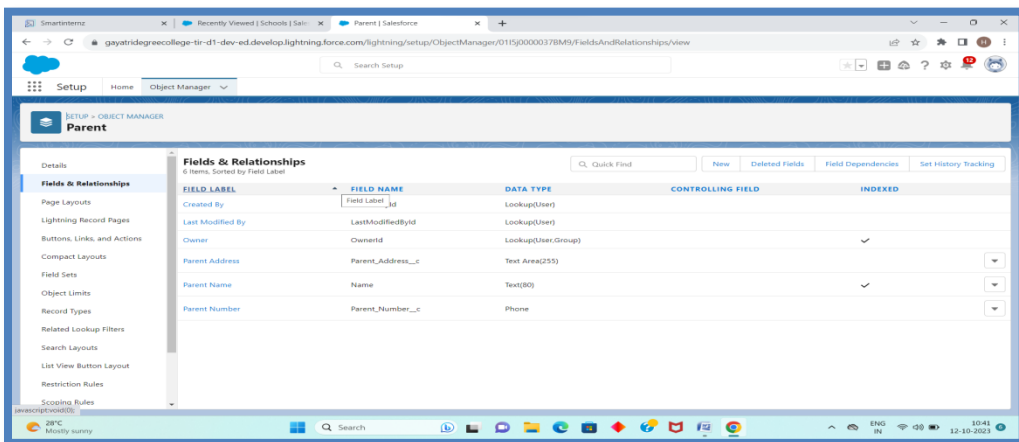
The bottom of the screen shows a Windows taskbar with the date and time as 10:40 on 12-10-2023.

Create one more rollup summary field-

- From Setup, click Object Manager and select School.
- Click Fields & Relationships, then New.
- Select the Roll-up summary field as data type
- Enter the field label as Highest Marks
- Click Next
- 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.

Creation Of Fields For The Parent Objects

- Select the Text Area as the Data Type, then click Next.
- For Field Label, enter Parent Address.
- Click Next, Next, then Save & New.
- Select the Phone as the Data Type, then click Next.
- For Field Label, enter Parent Number.
- Click Next, Next, then Save & New.

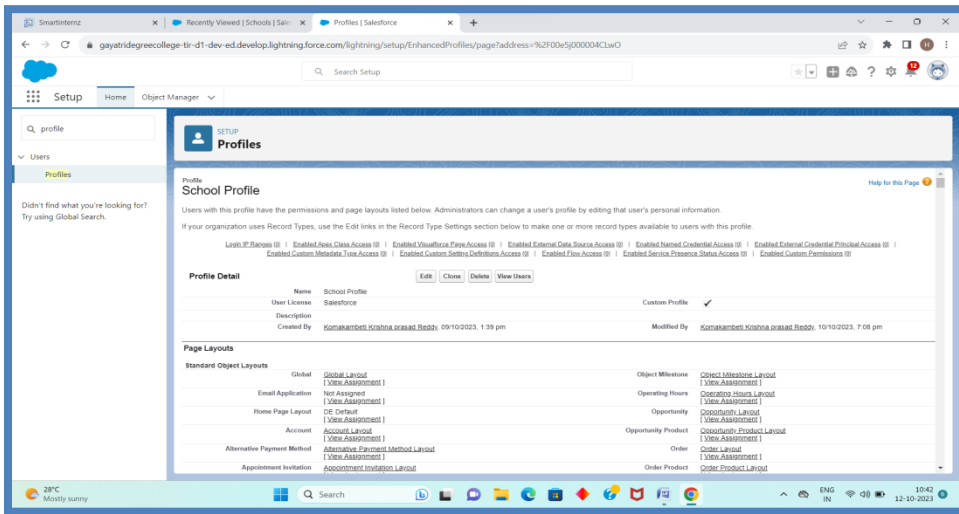


Milestone – 04: Profile

Creation On Profile:

- Give view all From Setup enter Profiles in the Quick Find box.

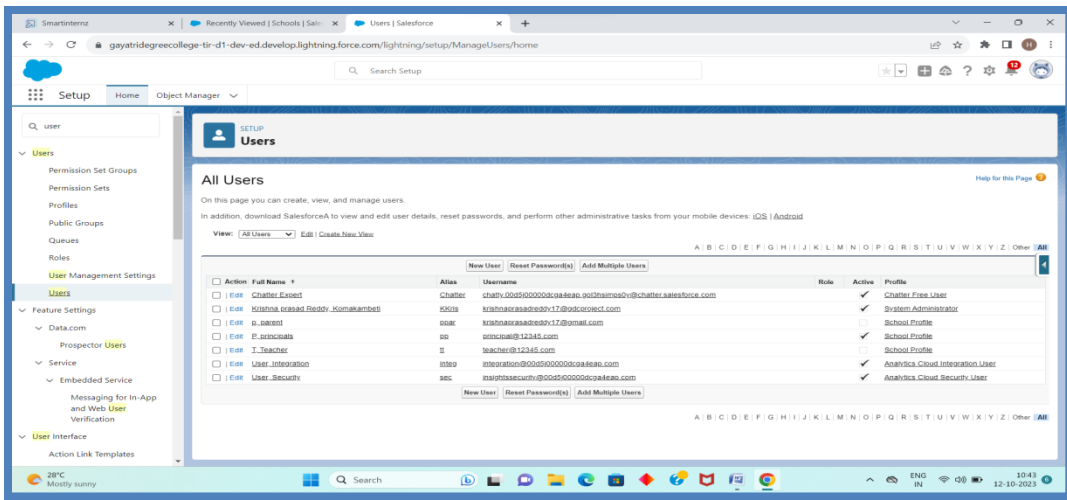
- Select Profiles.
- Click new, From the list of profiles, find Standard User (profile to clone)
- For Profile Name, enter School Profile
- Click Save.
- While still on the School profile page, then click Edit.
- Scroll down to Custom Object Permissions and access permissions.



Milestone – 05 Users:

Creating A User:

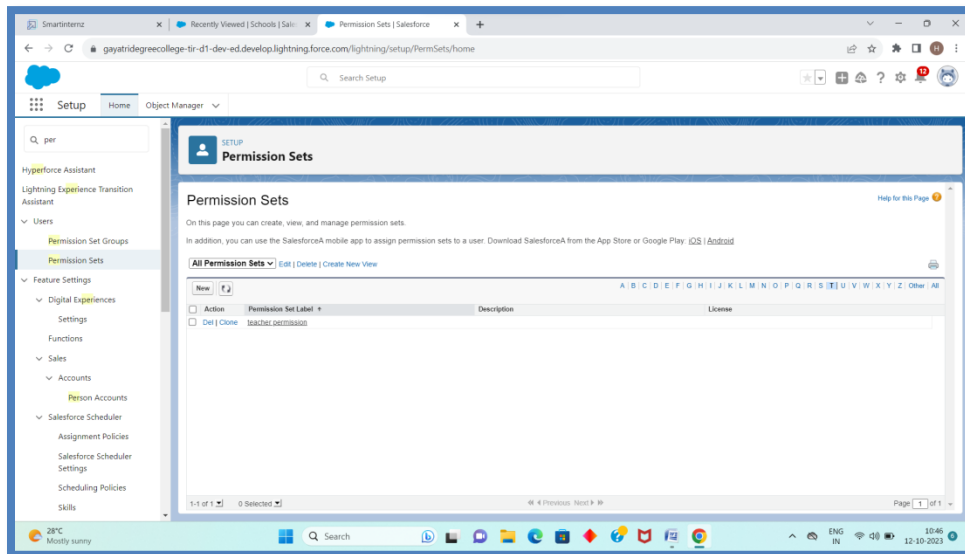
- From Setup, in the Quick Find box, enter Users.
- Select Users.
- Click New User.
- Enter the user's name Parents and (Your) email address and a unique username in the form of an email address. By default, the username is the same as the email address.
- Select a User License as salesforce.
- NOTE- As Salesforce license can only be used by 2 Users at a time in Dev Org, so If you don't find salesforce license then deactivate a user who has salesforce license or change the license type from Salesforce to any other.
- Select a profile as a School profile.
- 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 2 users as Teachers and principals.



Milestone – 06: Permission Sets

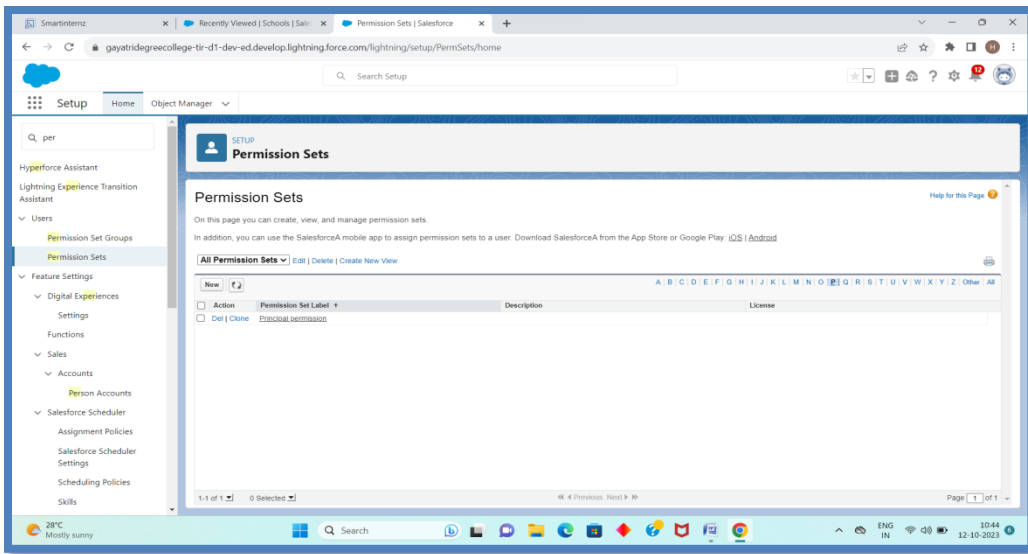
Permission Sets 1:

- From Setup, enter Permission Sets in the Quick Find box, then select Permission Sets.
- Click New.
- Give the name of the Permission set name as teacher permission.
- Under the object settings give the view create and edit permissions to all 3 custom objects (By click open the object)
- Click on manage assignment
- Click on add assignment.
- Click on Teacher (user), Next, Assign.



Permission Sets 2:

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



Milestone – 07: User Adoption

Create Record (School)

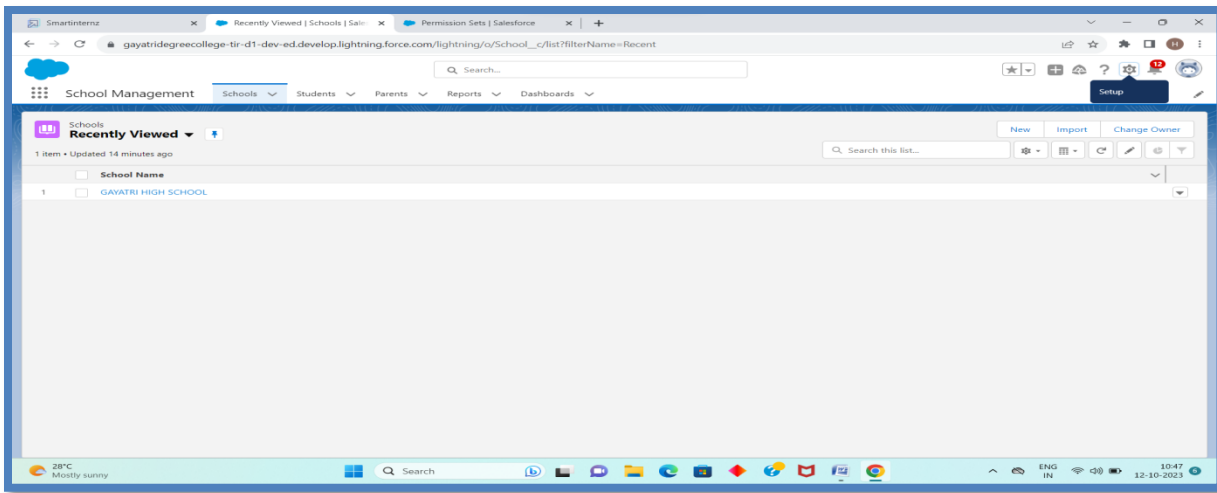
- Click on App Launcher on left side of screen.
- Search School Management App & click on it.
- Click on Schools tab.
- Click new button
- Fill all School record details.
- Click on Save Button

View Record (School)

- Click on App Launcher on left side of screen.
- Search School Management App & click on it.
- Click on Schools Tab.
- Click on any record name. you can see the details of the School.

Delete Record (School)

- Click on App Launcher on left side of screen.
- Search School Management App & click on it.
- Click on Schools Tab.
- Click on Arrow at right hand side on that Particular record.
- Click delete and delete again.



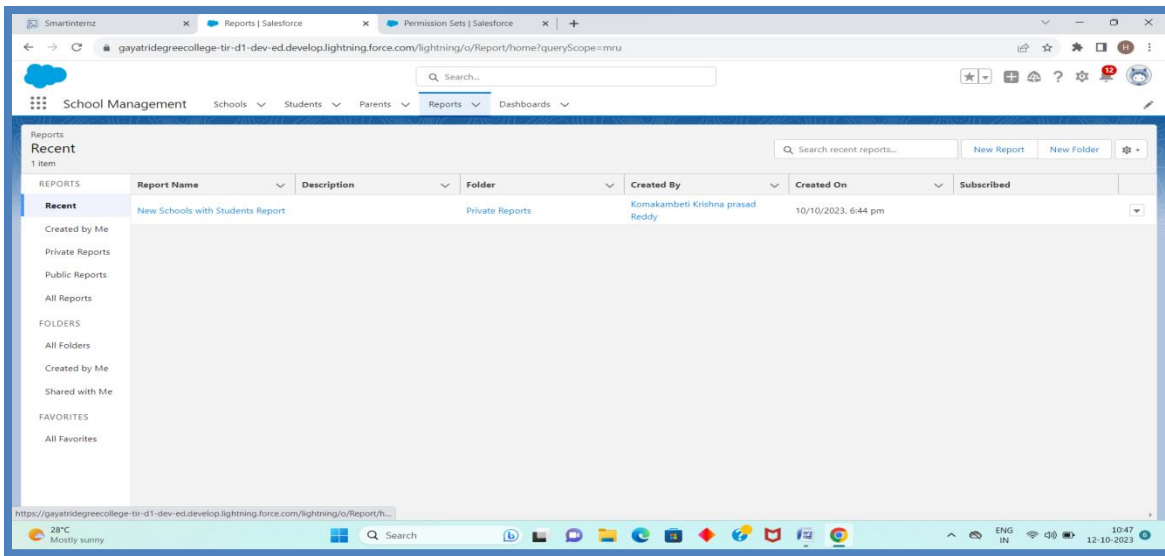
Milestone – 08: Reports

Create Report

- In School Management App click Reports tab.
- Click New Report.
- Select the report type as School with students and parents for the report.
- Click start report.
- Customize your report, then save and run
- Give report name – Schools with Students Report
- Click Save
- NOTE: In this report you can see your all record of the object you selected for reporting (What you Selects in “Select a report type option”).

View Report

- Click on App Launcher on left side of screen.
- Search School Management App & click on it.
- Click on Reports Tab.
- Click on School with Students report and see records



Milestone – 09:Triggers

Write A Trigger

write a trigger whenever the school website is null you should be unable to delete the record.

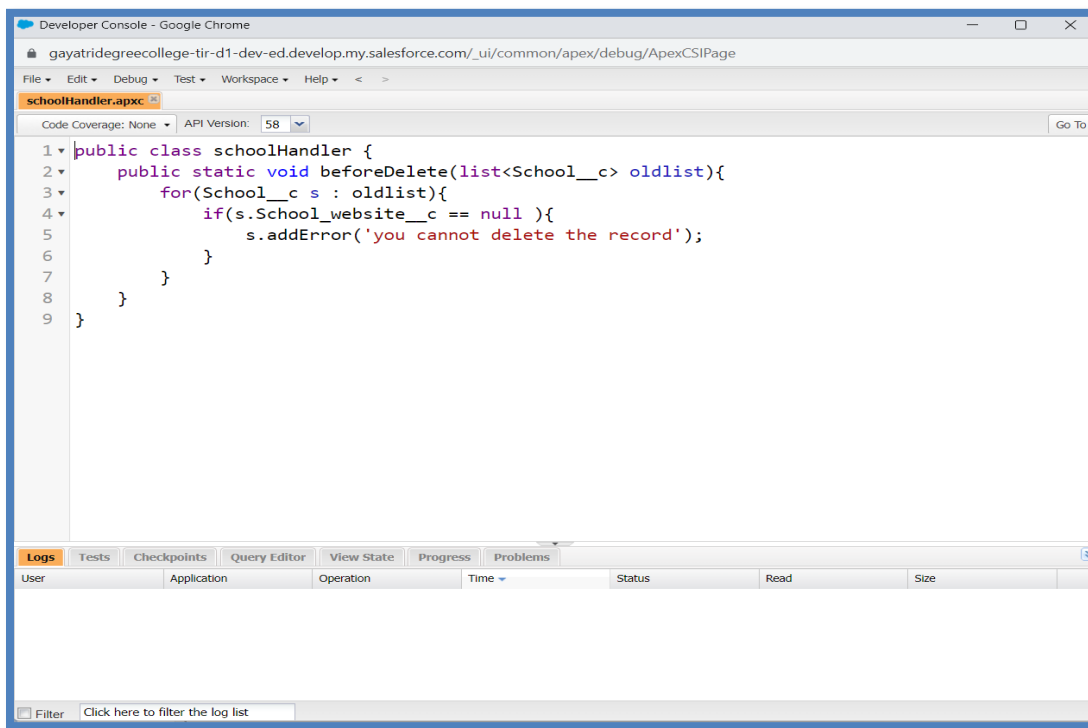
Go to the gear icon and select the developer console.

From the menu bar click on file and select Apex class.

Now give the class name as schoolHandler

Now Write the below code

```
public class schoolHandler {
    public static void beforeDelete(list<School__c> oldlist){
        for(School__c s : oldlist){
            if(s.Schoolwebsite__c == null ){
                s.addError('you cannot delete the record');
            }
        }
    }
}
```

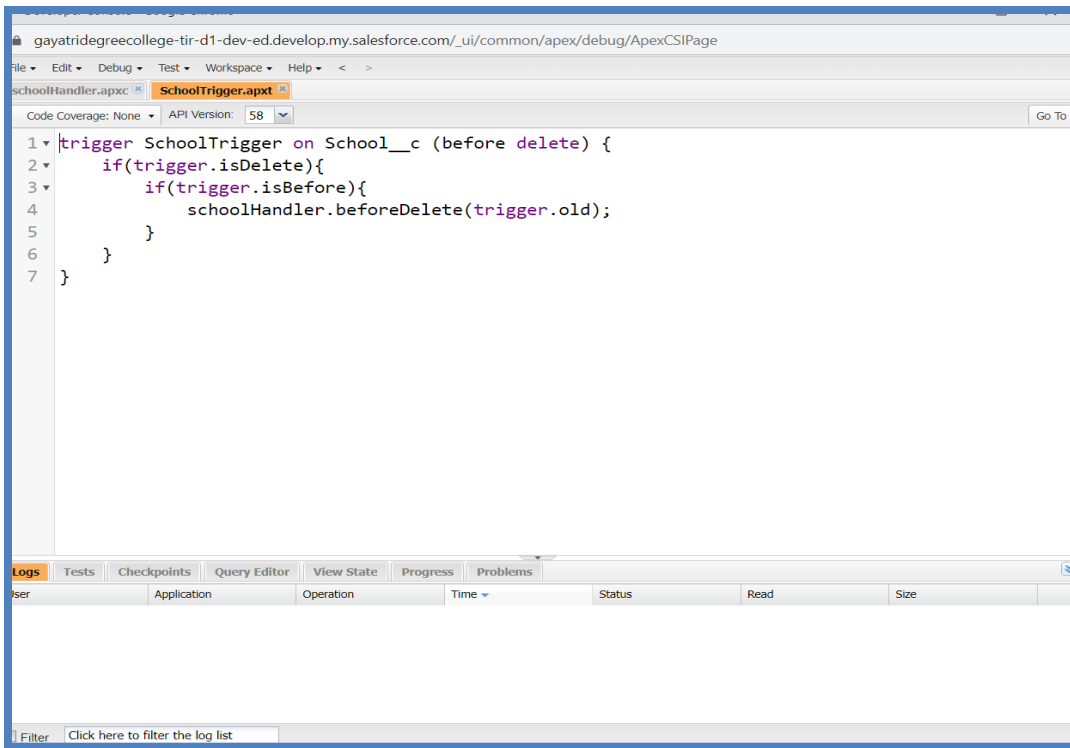


From the menu bar click on file and select Apex trigger.

Now give the trigger name as Internalmarks

Now write the below code

```
trigger SchoolTrigger on School__c (before delete) {  
    if(trigger.isDelete){  
        if(trigger.isBefore){  
            schoolHandler.beforeDelete(trigger.old);  
        }  
    }  
}
```



Milestone – 10: Flows

Create Flow

Create a record triggered flow whenever a student record is created it must send the email to the student about their welcome.

Click on Gear icon and select setup

In Quick find Box enter flow and select the flows

Click on New flow and Select Record triggered Flows.

In the search bar type student and click done.

Select (+)

type action and type email as follows.

Enter the following details

Label:Student Record Creation

Api Name:Student_Record_Creation(Auto-pupulated)

Body: Hi {{\$Record.Name}} , we are happy to inform you that you have joined in our {{\$Record.school__r.Name}}.

Subject: Record Creation

Recipient email Address:{{\$Record.Email__c}}

click on done and Click on save

Flow label:Student flow

Flow API Name:Student_flow

and then click Activate.

The screenshot displays the Salesforce Flow Builder interface for a flow named 'student flow - V1'. The browser address bar shows the URL: `gayatridegreecollege-tir-d1-dev-ed.develop.lightning.force.com/builder_platform_interaction/flowBuilder.app?flowId=3015j000001tnY1AAI`. The interface includes a top navigation bar with 'Flow Builder' and 'student flow - V1'. Below this is a toolbar with 'Select Elements', undo/redo buttons, and a settings icon. The main canvas shows the flow diagram with the following steps:

- Start** (Record-Triggered Flow): A green play button icon. A tooltip is visible with the following details:
 - Object: **Student** (with an 'Edit' link)
 - Trigger: **A record is created**
 - Optimize for: **Actions and Related Records**
 - + Add Scheduled Paths (Optional)
 - Open Flow Trigger Explorer for Student
- Run Immediately**: A small oval connector.
- Student Record Creation** (Action): A blue lightning bolt icon.
- End**: A red square icon.

The bottom of the screen shows a Windows taskbar with the date and time '10:51 12-10-2023'.

THE END

