



CREATION OF AN APPLICATION FOR SCHOOL MANAGEMENT



SALESFORCE NAAN MUDHALVAN PROJECT REPORT

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BONAFIDE CERTIFICATE

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ACKNOWLEDGEMENT

At the outset, we express our heartfelt gratitude to **GOD**, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved president **Mr. C. Balakrishnan**, who has provided all the facilities to us. We would like to convey our sincere thanks to our beloved Principal **Dr. PSS. Srinivasan**, for forwarding us to do our project and offering adequate duration in completing our project.

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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.

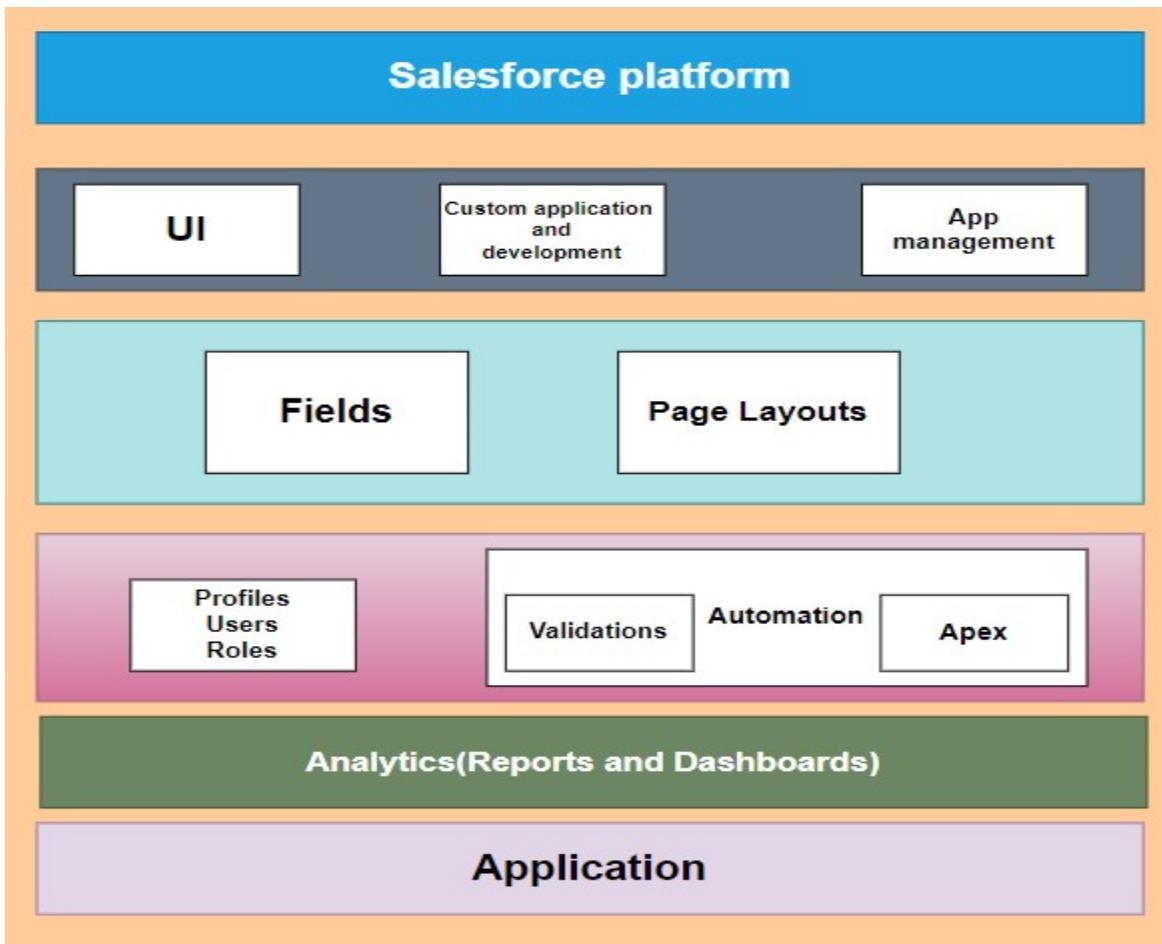
Salesforce has everything you need to run your business from anywhere. Using standard products and features, you can manage relationships with prospects and customers, collaborate and engage with employees and partners, and store your data securely in the cloud.

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>

Creation Of An Application For School Management

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.PROJECT FLOW:

In this project you can do hands on practice the configuration as well as customization with the Data modeling, App building, User Adoption & Apex Code

Milestone 1: Creation of developer account

Milestone 2: Object Creation

Milestone 3 : Tabs Creation

Milestone 4 : Create App

Milestone 5 : Fields & Relationships

Milestone 6 : Profile

Milestone 7 : Role and role hierarchy

Milestone 8 : Users

Milestone 9 : User Adoption

Milestone 10 : Reports

Milestone 11 : Dashboards

Milestone 12 : Flows

Milestone 13 : Apex Classes and Triggers

What you'll learn

1. Real Time Salesforce Project
2. Object
3. Lightning App.
4. Fields & Relationships
5. Profile

6. Users
7. Permission sets
8. User Adoption

Creating Developer Org, Creating a developer org in salesforce.

1. Go to developer.salesforce.com
2. Click on sign up.
3. On the sign up form, enter the following details
 - a. First name & Last name
 - b. Email
 - c. Role - Developer
 - d. Company - College Name
 - e. Country - 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

- 4.Click on sign up after filling these.
- 5.Account Activation
- 6.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.

3.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.

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.

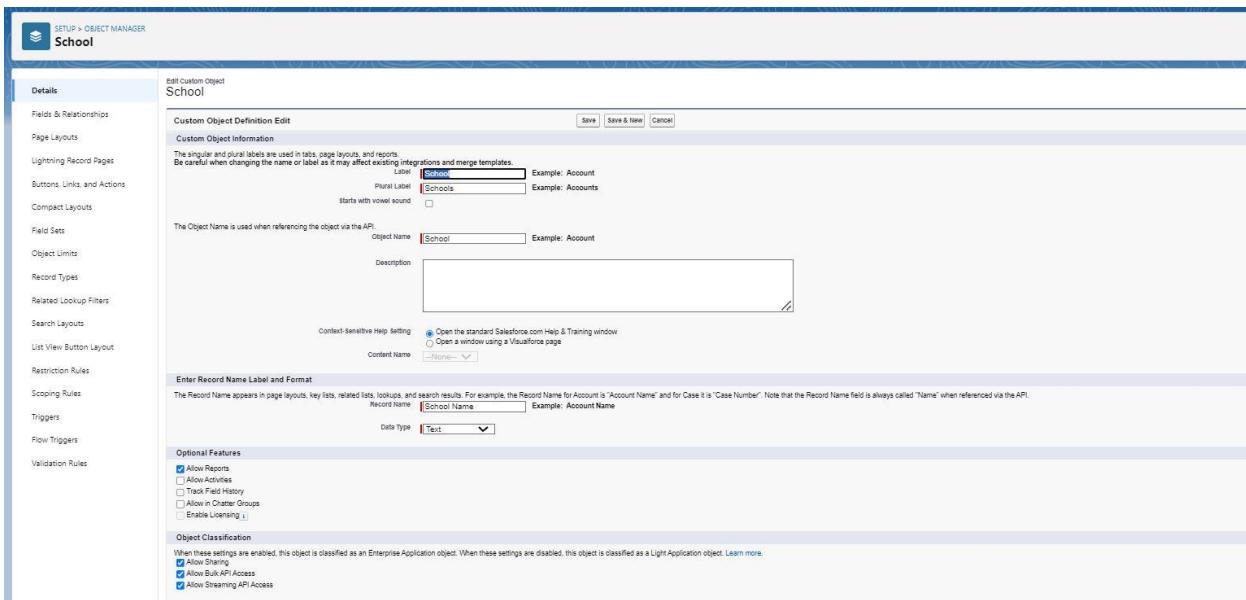
2.Custom Objects: Custom objects are those objects that are created by users. They supply information that is unique and essential to their organization. They are the heart of any application and provide a structure for sharing data.

3.1 Creation Of School Object

For this school management we need to create 3 objects School, Parents and Student. 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.
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.

NAME	TYPE	OBJECT
NewGroupRecord	Action	Group

3.2 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: Student
 - Plural Label: Students
 - Record Name: Student Name
 - Check the Allow Reports checkbox
 - Check the Allow Search checkbox

- Click Save

SETUP > OBJECT MANAGER
Student

Details

edit custom object
Student

Custom Object Definition Edit

Custom Object Information

The singular and plural labels are used in tabs, page layouts, and reports. Be careful when changing the name or label as it may affect existing integrations and merge templates.

Label: Student Example: Account

Panel Label: Students Example: Accounts

Starts with vowel sound

Object Name: Student Example: Account

Description:
A text area for entering a description of the object.

Context-sensitive Help Setting

- Open the standard Salesforce.com Help & Training window
- Open a window using a Visualforce page

Content Name:
A dropdown menu showing 'None'.

Enter Record Name Label and Format

The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.

Record Name: Student Name Example: Account Name

Data Type: Text

Optional Features

- Allow Reports
- Allow Activities
- Track Field History
- Allow in Chatter Groups
- [Enable Licensing](#)

Object Classification

When these settings are enabled, this object is classified as an Enterprise Application object. When these settings are disabled, this object is classified as a Light Application object. Learn more.

- Allow Sharing
- Allow Bulk API Access
- Allow Streaming API Access

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.

3.3 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.
4. 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.

The screenshot shows the 'Edit Custom Object' page for the 'Parent' object. The left sidebar lists various configuration tabs: 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, Triggers, Flow Triggers, and Validation Rules. The main content area is titled 'Custom Object Definition Edit' under 'Custom Object Information'. It shows the 'Label' as 'Parent' and 'Plural Label' as 'Parents'. There is a note about changing the name or label affecting existing integrations and merge templates. Below this, the 'Object Name' is set to 'Parent'. A 'Description' field is present but empty. Under 'Context-sensitive Help Setting', the 'Open the standard Salesforce.com Help & Training window' option is selected. The 'Content Name' dropdown is set to 'None'. In the 'Enter Record Name Label and Format' section, the 'Record Name' is 'Parent Name' and the 'Data Type' is 'Text'. The 'Optional Features' section includes checkboxes for Allow Reports (checked), Allow Activities, Track Field History, Allow in Chatter Groups, and Enable Licensing. The 'Object Classification' section contains checkboxes for Allow Sharing, Allow Bulk API Access, and Allow Streaming API Access, all of which are checked.

This screenshot shows a simplified version of the Object Manager screen. The left sidebar has been reduced to include only the most commonly used tabs: 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 'Details' and shows the 'API Name' as 'Parent__c'. To the right, there is a summary card with sections for 'Enable Reports' (checked), 'Track Activities', 'Track Field History', 'Deployment Status' (Deployed), 'Help Settings', and 'Standard salesforce.com Help Window'. At the top right of the main area, there are 'Edit' and 'Delete' buttons.

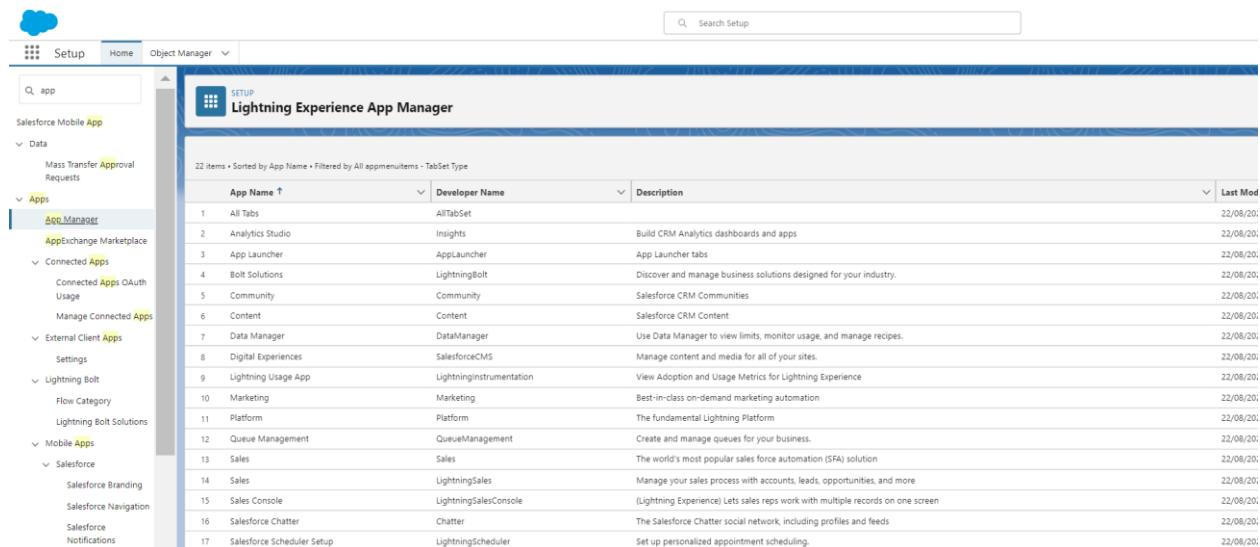
4.LIGHTNING APP

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.

There are two types of app - **Standard App:** Standard apps come with every occurrence of Salesforce as default. Many features like Sales, Marketing, Community, call center, content, Salesforce Chatter, App Launcher, etc are present in it.

Note: The description, Logo, and Label of standard app cannot be altered.

Custom Apps: Custom apps are created according to need of user. Custom Apps are made by using standard and custom tabs together.



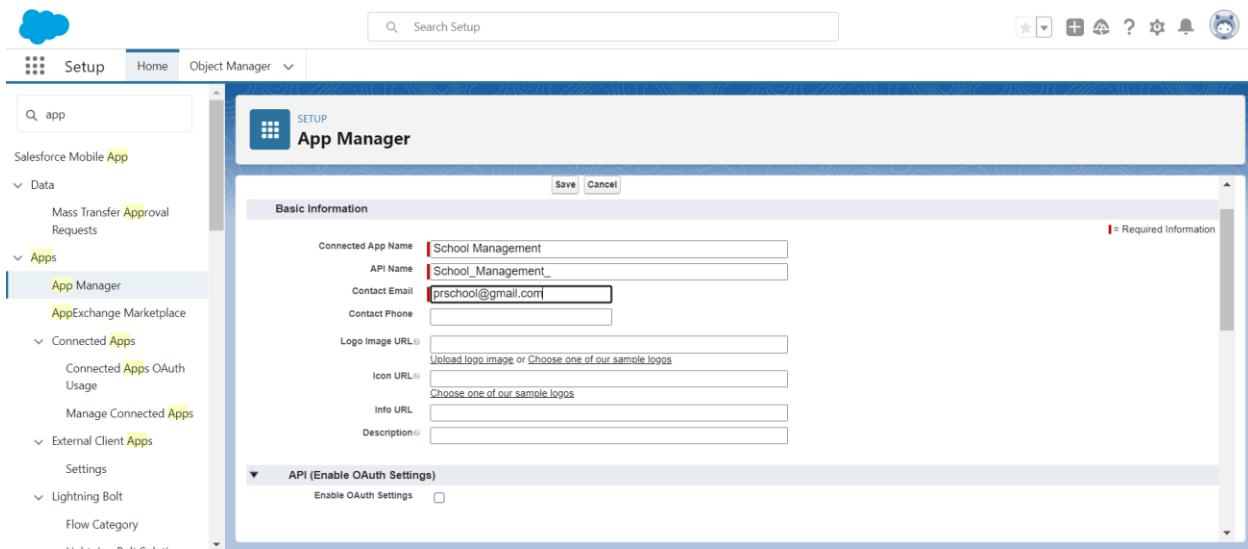
The screenshot shows the 'Lightning Experience App Manager' page within the Salesforce Setup interface. The left sidebar navigation includes 'Setup', 'Home', 'Object Manager', and sections for 'Data', 'Apps', 'Connected Apps', 'External Client Apps', 'Lightning Bolt', and 'Mobile Apps'. Under 'Apps', the 'App Manager' is selected. The main content area displays a table titled 'Lightning Experience App Manager' with 22 items. The columns are 'App Name', 'Developer Name', 'Description', and 'Last Mod'. The table lists various standard and custom apps, such as All Tabs, Analytics Studio, App Launcher, Bolt Solutions, Community, Content, Data Manager, Digital Experiences, Lightning Usage App, Marketing, Platform, Queue Management, Sales, Sales Console, Sales Chatter, and Salesforce Scheduler Setup. Each entry includes a brief description and the last modified date.

App Name ↑	Developer Name	Description	Last Mod
1 All Tabs	AllTabSet	Build CRM Analytics dashboards and apps	22/08/20
2 Analytics Studio	Insights	Build CRM Analytics dashboards and apps	22/08/20
3 App Launcher	AppLauncher	App Launcher tabs	22/08/20
4 Bolt Solutions	LightningBolt	Discover and manage business solutions designed for your industry.	22/08/20
5 Community	Community	Salesforce CRM Communities	22/08/20
6 Content	Content	Salesforce CRM Content	22/08/20
7 Data Manager	DataManager	Use Data Manager to view limits, monitor usage, and manage recipes.	22/08/20
8 Digital Experiences	SalesforceCMS	Manage content and media for all of your sites.	22/08/20
9 Lightning Usage App	LightningInstrumentation	View Adoption and Usage Metrics for Lightning Experience	22/08/20
10 Marketing	Marketing	Best-in-class on-demand marketing automation	22/08/20
11 Platform	Platform	The fundamental Lightning Platform	22/08/20
12 Queue Management	QueueManagement	Create and manage queues for your business.	22/08/20
13 Sales	Sales	The world's most popular sales force automation (SFA) solution	22/08/20
14 Sales	LightningSales	Manage your sales process with accounts, leads, opportunities, and more	22/08/20
15 Sales Console	LightningSalesConsole	(Lightning Experience) Lets sales reps work with multiple records on one screen	22/08/20
16 Salesforce Chatter	Chatter	The Salesforce Chatter social network, including profiles and feeds	22/08/20
17 Salesforce Scheduler Setup	LightningScheduler	Set up personalized appointment scheduling.	22/08/20

Note: Logos for Custom Apps can be changed.

4.1 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.

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

4.2 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.

LABEL	API NAME	TYPE	DESCRIPTION	LAST MODIFIED	DEPLOYED
School	School__c	Custom Object		17/10/2023	✓

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 Schoolwebsite as the field label.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address_c	Text Area(255)		
Created By	CreatedByld	Lookup(User)		
District	District_c	Text Area(255)		
Highest Marks	Highest_Marks_c	Roll-Up Summary (MAX Student)		
Last Modified By	LastModifiedByld	Lookup(User)		
Number of students	Number_of_students_c	Roll-Up Summary (COUNT Student)		
Owner	OwnerId	Lookup(User,Group)		

Custom Field Definition Edit Change Field Type

Field Information Help for this Page

Address * Data Type Text Area

Address = Required Information

Description:

Help Text:

Data Owner:

Field Usage:

Data Sensitivity Level:

Compliance Categorization: Chosen

SETUP > OBJECT MANAGER
School

Custom Field Definition Detail

Field Information

- Field Label: Address
- Field Name: Address
- API Name: Address__c
- Description:
- Help Text:
- Data Owner:
- Field Usage:
- Data Sensitivity Level:
- Compliance Categorization:
- Created By: Balaji_S.S. 17/10/2023, 10:43 am
- Modified By: Balaji_S.S. 17/10/2023, 10:43 am

General Options

Required:

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.

SETUP > OBJECT MANAGER
Student

Details

Description:

API Name: Student__c

Custom:

Singular Label: Student

Plural Label: Students

Actions

Edit | Delete

Enable Reports:

Track Activities:

Track Field History:

Deployment Status: Deployed

Help Settings: Standard salesforce.com Help Window

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. A custom field named 'Phone Number' is being created for the 'School' object. The field has a label 'Phone Number', a name 'Phone_Number', and an API name 'Phone_Number__c'. It is of type 'Phone' and is required. The field is associated with the 'School' object.

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
4. Select the E-mail as the Data Type, then click Next
5. For Field Label, enter E-mail.

The screenshot shows the Salesforce Setup interface with the 'Object Manager' selected. A custom field named 'Phone Number' is being created for the 'Student' object. The field has a label 'Phone Number', a name 'Phone_Number', and an API name 'Phone_Number__c'. It is of type 'Phone' and is required. The field is associated with the 'Student' object.

The screenshot shows the Salesforce Setup interface. The top navigation bar includes 'Setup', 'Home', and 'Object Manager'. The main title is 'SETUP > OBJECT MANAGER Student'. On the left, a sidebar lists various setup options like 'Details', 'Fields & Relationships', 'Page Layouts', etc. The main content area is titled 'Edit Student Custom Field E-mail'. It shows a 'Custom Field Definition Edit' form with fields for 'Field Label' (E-mail), 'Field Name' (E_email), 'Data Type' (Email), 'Data Owner' (User), 'Field Usage' (None), 'Data Sensitivity Level' (None), and 'Compliance Categorization' (Available PII HIPAA Chosen). A note at the top right says '= Required Information'.

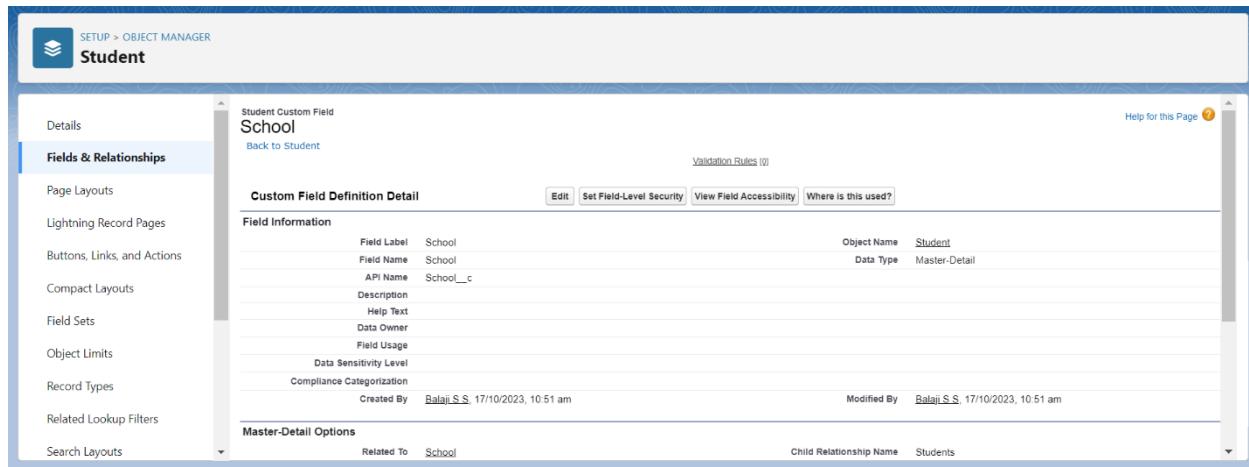
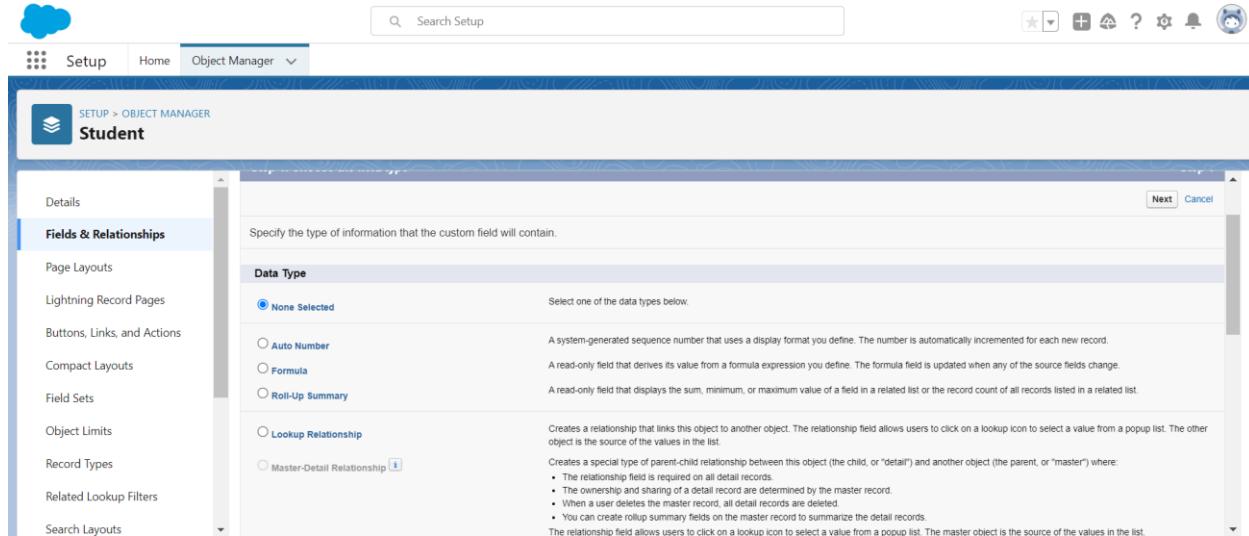
This screenshot shows the 'Custom Field Definition Detail' page for the 'E-mail' field. It displays the same information as the previous screen but in a more detailed view. It includes sections for 'Field Information' (Field Label: E-mail, Field Name: E_email, API Name: E_email_c, Description, Help Text, Data Owner, Field Usage, Data Sensitivity Level, Compliance Categorization), 'General Options' (Required checked), and a note about validation rules. Navigation links include 'Back to Student', 'Edit', 'Set Field-Level Security', 'View Field Accessibility', and 'Where is this used?'. The 'Object Name' is listed as 'Student' and 'Data Type' as 'Email'.

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:

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

SETUP > OBJECT MANAGER
Student

Fields & Relationships

Custom Field Definition Edit

Field Information

Field Label	Results	Data Type	Picklist
Field Name	Results		
Description			
Help Text			
Data Owner	User		
Field Usage	--None--		
Data Sensitivity Level	--None--		
Compliance Categorization	Available	PII	HIPAA
	Chosen		

SETUP > OBJECT MANAGER
Student

Fields & Relationships

Custom Field Definition Detail

Field Information

Field Label	Results	Object Name	Student
Field Name	Results	Data Type	Picklist
API Name	Results__c		
Description			
Help Text			
Data Owner			
Field Usage			
Data Sensitivity Level			
Compliance Categorization			

Created By: Balaji.S.S. 17/10/2023, 11:25 am Modified By: Balaji.S.S. 17/10/2023, 11:25 am

Let's create a Number field:

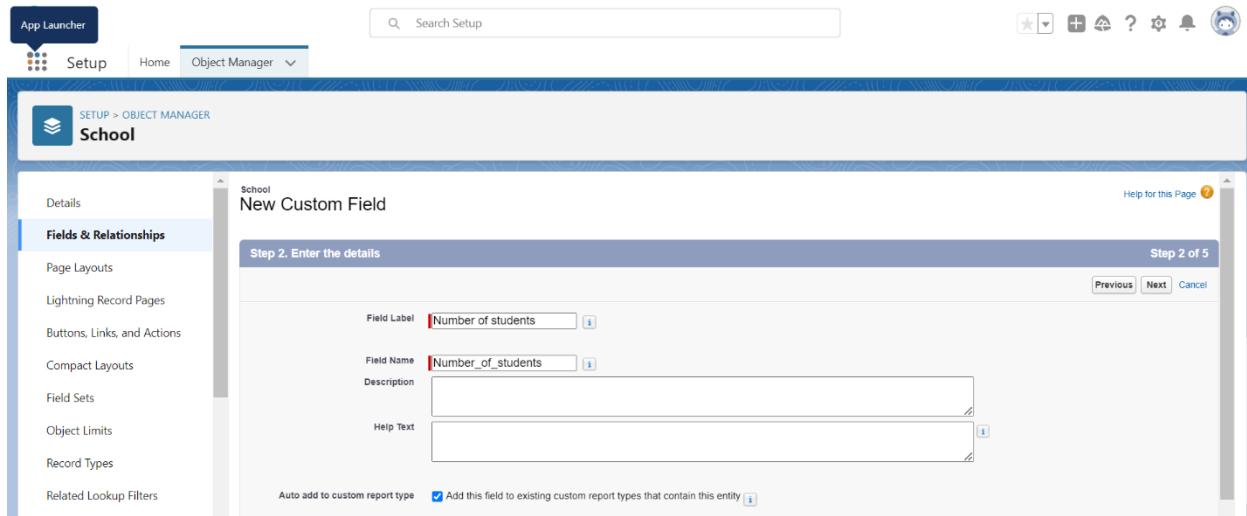
1. Select the Number as the Data Type, then click Next.

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.

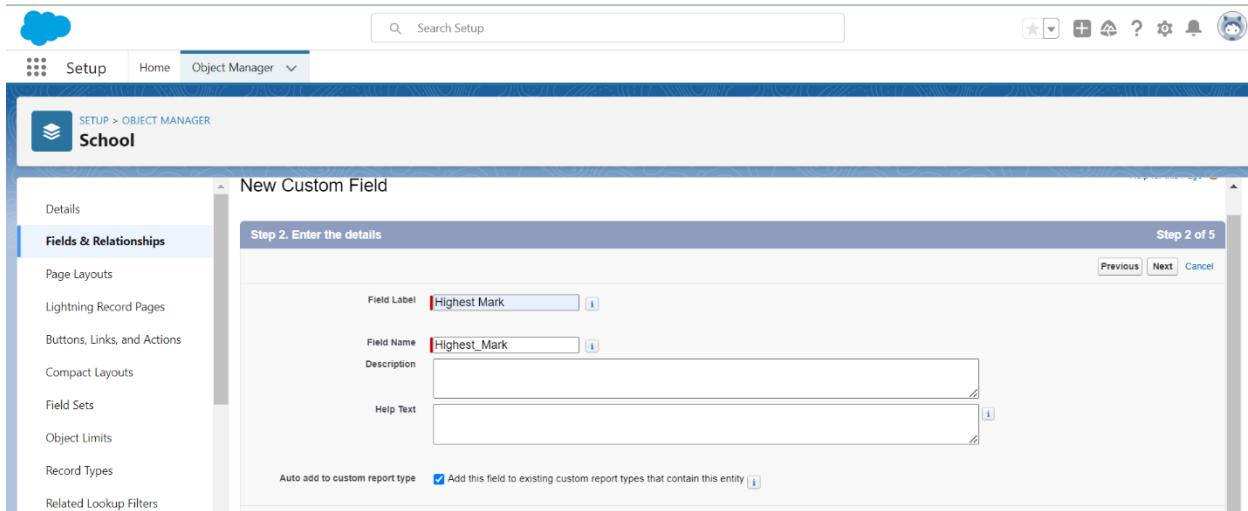
Let's create **Roll-up summary** fields on **School** Object to calculate the number of students

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 andthen click Next, Next and save.

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

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.

The screenshot shows the 'Object Manager' interface for creating a custom field. The left sidebar lists various setup options like Details, Fields & Relationships, Page Layouts, etc. The main area is titled 'Custom Field Definition Detail' for 'Parent Address'. Under 'Field Information', the 'Field Label' is set to 'Parent Address', 'Field Name' to 'Parent_Address', and 'Data Type' to 'Text Area'. Other settings include 'Help Text', 'Data Owner' (User), 'Field Usage' (None), and 'Data Sensitivity Level' (None). The 'Validation Rules' section is empty. The right side shows the object name 'Parent' and data type 'Text Area' again.

6. Click Next, Next, then Save & New

This screenshot shows the 'Edit Parent Custom Field' screen for 'Parent Address'. It's a detailed view of the same fields as the previous screenshot, with 'Field Label' and 'Field Name' both set to 'Parent Address'. The 'Data Type' is explicitly labeled as 'Text Area'. The 'General Options' section includes a 'Required' checkbox which is unchecked. The right side of the screen displays a note about required information.

The final screenshot shows the 'Custom Field Definition Detail' screen for 'Parent Number'. The 'Field Label' is 'Parent Number', 'Field Name' is 'Parent_Number', and 'Data Type' is 'Phone'. The 'General Options' section has the 'Required' checkbox checked. The right side shows the object name 'Parent' and data type 'Phone'.

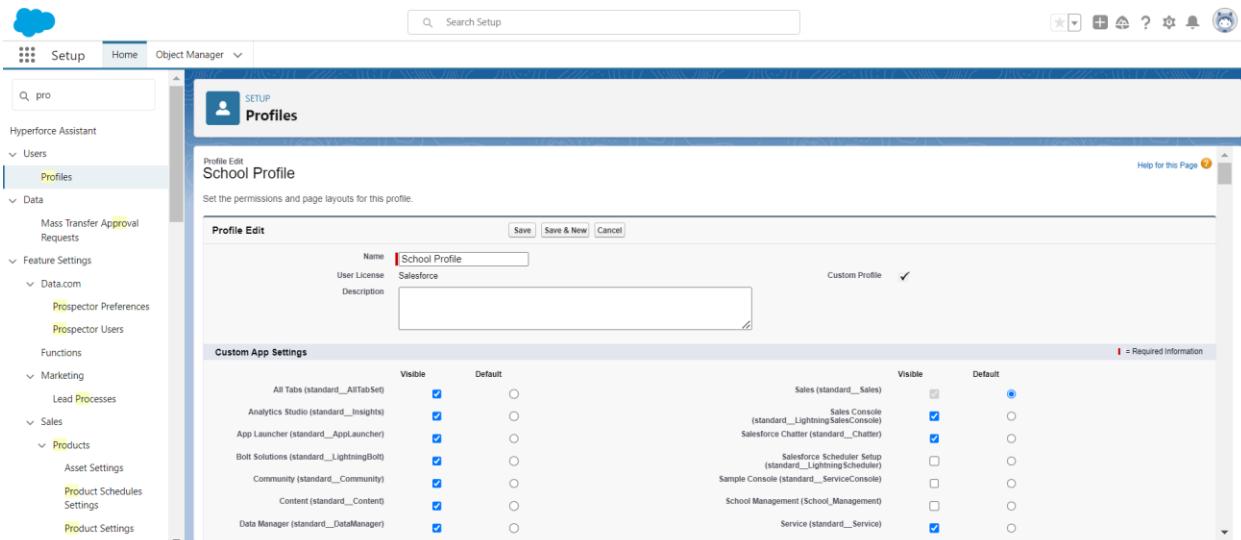
5.PROFILE

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

5.1Creation On Profile

Creation on profile:

1. From Setup enter Profiles in the Quick Find box
2. Select Profiles.
3. Click new, From the list of profiles, find Standard User (profile to clone) 4. 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.



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.

6.1 Creating A User

1. From Setup, in the Quick Find box, enter Users.
2. Select Users.
3. Click New User.
4. 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.
5. 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.

6. Select a profile as a School profile.

7. Check Generate new password and notify the user immediately to have the user's login name and a temporary password emailed to your email.
8. Similarly follow the above steps and create 2 users as Teachers and principals

7.Permission Sets

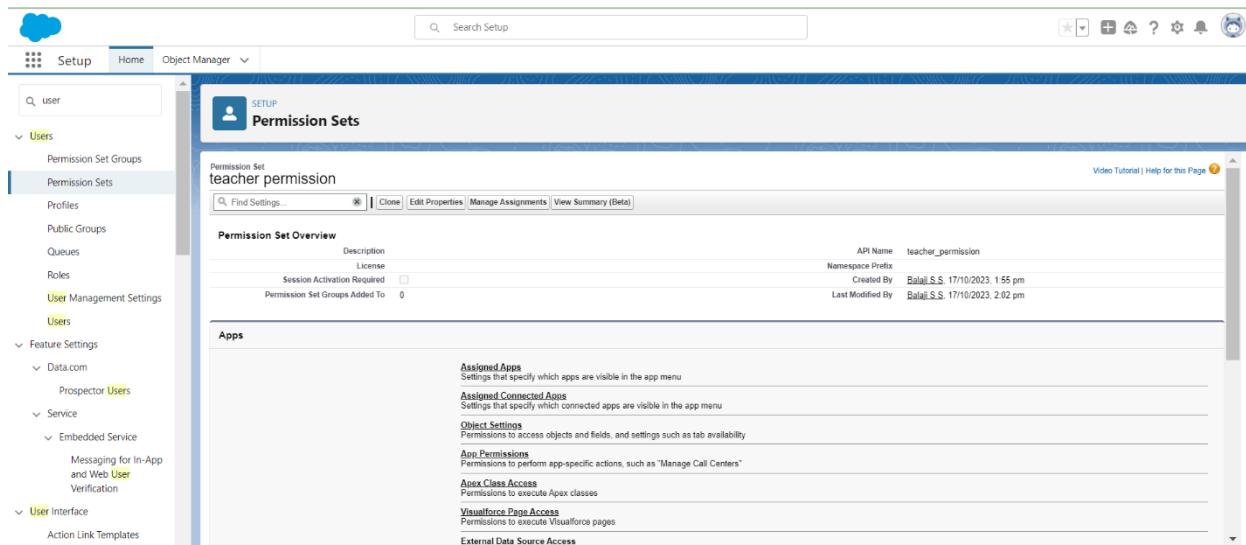
A permission set is a collection of settings and permissions that give users access to various tools and functions. Permission sets extend users' functional access without changing their profiles.

7.1Create A Permission Set

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.

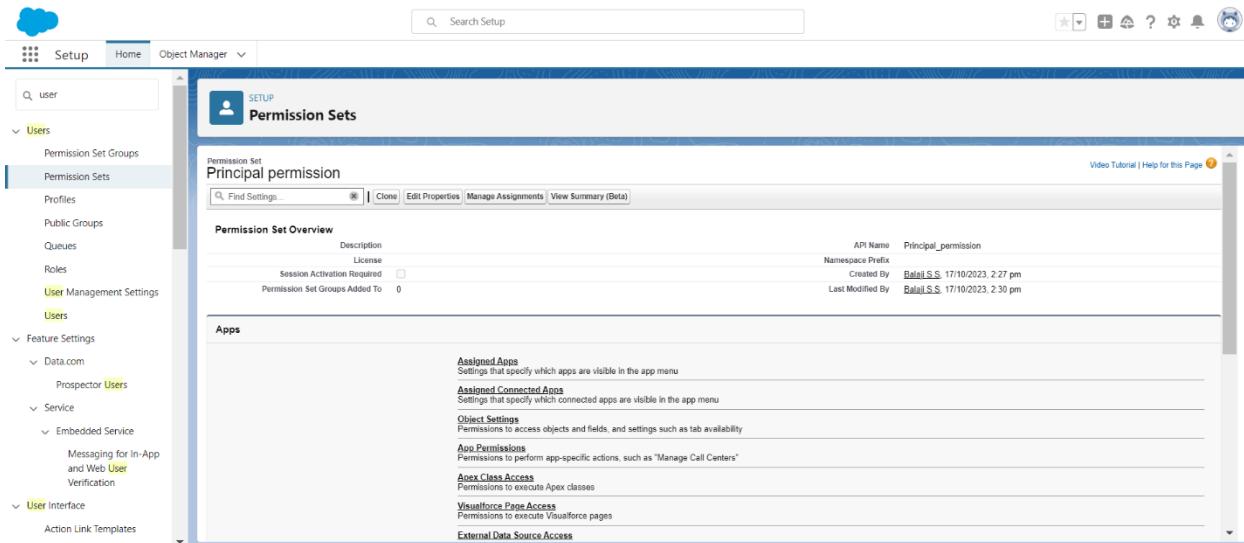
Under the object settings give the view create and edit permissions to all 3 custom objects (By click open the object)

4. Click on manage assignment
5. Click on add assignment.
6. Click on Teacher (user), Next, Assign.



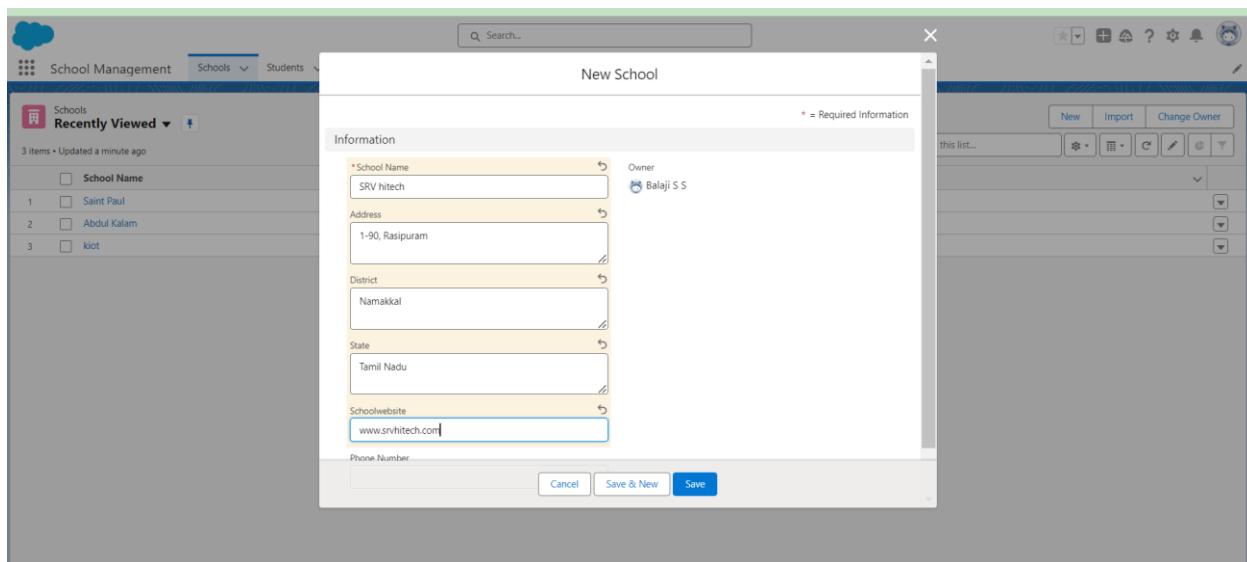
7.2Create A Another Permission Set

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 all 3 custom objects and assign them to the Principal user.



8.Create Record (School)

1. Click on App Launcher on left side of screen.
2. Search **School Management App** & click on it.
3. Click on **Schools** tab.
4. Click new button
5. Fill all School record details.
6. Click on Save Button



9. View Record (School)

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

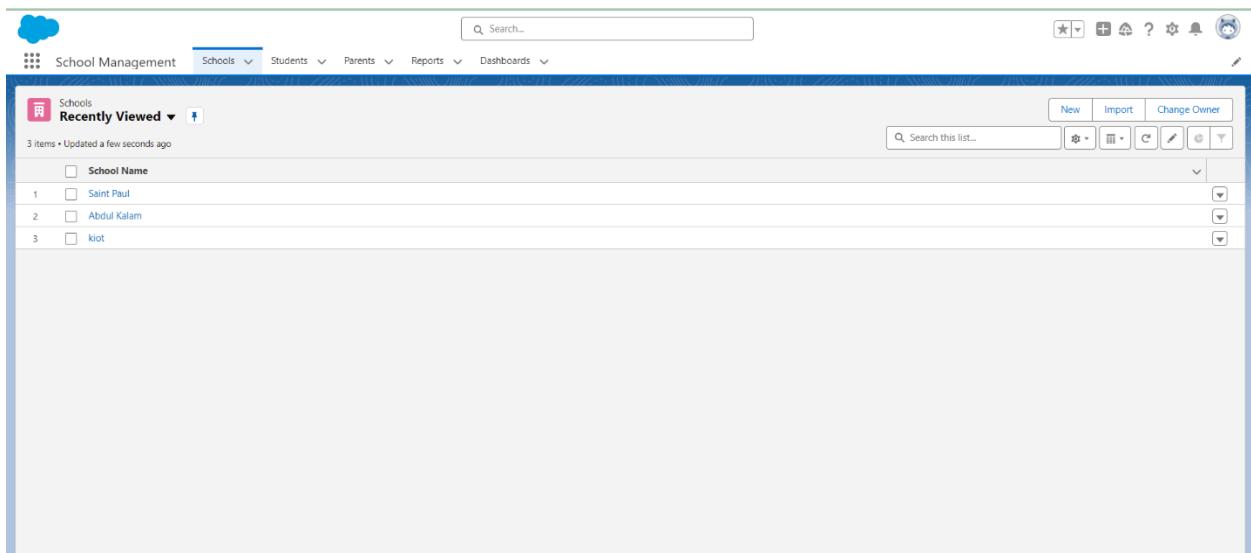
The screenshot shows the 'School Management' application interface. At the top, there is a navigation bar with icons for Home, School Management, Schools, Students, Parents, Reports, and Dashboards. A search bar labeled 'Search...' is located at the top right. Below the navigation bar, a header bar includes 'Recently Viewed' with a dropdown arrow, a 'New' button, an 'Import' button, and a 'Change Owner' button. To the right of this is a search field 'Search this list...' and several filter icons. The main content area displays a list titled 'Recently Viewed' with 4 items, updated a few seconds ago. The list includes:

- 1. SRV hitech
- 2. Saint Paul
- 3. Abdul Kalam
- 4. kiot

Each item has a small checkbox icon to its left.

10.Delete Record (School)

1. Click on App Launcher on left side of screen.
2. Search **School Management App** & click on it.
3. Click on **Schools Tab**.
4. Click on Arrow at right hand side on that Particular record.
5. Click delete and delete again.



11. Reports

Reports in Salesforce is a list of records that meet a particular criterion which gives an answer to a particular question. These records are displayed as a table that can be filtered or grouped based on any field.

There are 4 types of report formats in Salesforce:

Tabular Reports:

This is the most basic report format. It just displays the row of records in a table with a grand total. While easy to set up they can't be used to create groups of data or charts and also cannot be used in Dashboards. They are mainly used to generate a simple list or a list with a grand total.

Summary Reports:

It is the most commonly used type of report. It allows grouping of rows of data, view subtotal, and create charts.

Matrix Report:

It is the most complex report format. Matrix report summarizes information in a grid format. It allows records to be grouped by both columns and rows. It can also be used to generate dashboards. Charts can be added to this type of report.

Joined Reports:

These types of reports let us create different views of data from multiple report types. The data is joined reports are organized in blocks. Each block acts as a subreport with its own fields, columns, sorting, and filtering. They are used to

group and show data from multiple report types in different views.

Viewer:

With this access level, users can see the data in a report but cannot make any changes except cloning it into a new report.

Editor:

With this access level, users can view and modify the reports it contains and can also move them to/from any other folders they have access level as Editor or Manager.

Manager:

With this access level, users can do everything Viewers & Editors can do, plus they can also control other user's access levels to this folder. Also, users with Manager Access levels can delete the report.

From this milestone we are going to import the data and create the reports and dashboards for data visualization in the application

Create Report

Reports:

1. In **School Management App** click Reports tab.
2. Click New Report.
3. Select the report type as School with students and parents for the report.
4. Click start report.

5. Customize your report, then save and run

6. Give report name – Schools with Students Report

7. Click Save

The screenshot shows the 'School Management' application interface. At the top, there is a navigation bar with icons for cloud, School Management, Schools, Students, Parents, Reports, and Dashboards. A search bar is located at the top right. Below the navigation bar, the title 'Report: Schools with Students' and 'Schools with Students Report' is displayed. A sub-header 'Total Records' shows '3'. A table lists three records with columns 'School: School Name' and 'Student: Student Name'. The data is as follows:

	School: School Name	Student: Student Name
1	Abdul Kalam	sanjay
2	Saint Paul	Mega V
3	Saint Paul	Priya B

At the top right of the report view, there are buttons for 'Enable Field Editing', 'Search', 'Add Chart', 'Edit', and other report-specific options.

View Report

1. Click on App Launcher on left side of screen.
2. Search **School Management App** & click on it.
3. Click on Reports Tab.
4. Click on **School with Students report** and see records

This screenshot is identical to the one above, showing the 'Schools with Students Report' page in the 'School Management' application. It displays the same 3 records in the table:

	School: School Name	Student: Student Name
1	Abdul Kalam	sanjay
2	Saint Paul	Mega V
3	Saint Paul	Priya B

12.Triggers

A trigger refers to an Apex code that is automatically executed before or after certain events occur in the

Salesforce platform, such as when a record is inserted, updated, deleted, or undeleted. Triggers are used to automate business processes, enforce data integrity, and perform custom logic on data.

A before trigger in Salesforce is executed before the records are actually inserted, updated, or deleted in the Salesforce database. This allows the trigger to perform certain actions or validations before the data is saved to the database.

Create An Apex Trigger

1. Go to the gear icon and select the developer console.
2. From the menu bar click on file and select Apex class.
3. Now give the class name as schoolHandler
4. 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 ){  
                saddError('you cannot delete the record');  
            }  
        }  
    }  
}
```

1. From the menu bar click on file and select Apex trigger.
2. Now give the trigger name as Internalmarks

3. Now write the below code

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

The screenshot shows the Salesforce IDE interface. At the top, there are tabs for 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help'. Below the tabs, it says 'Code Coverage: None' and 'API Version: 59'. The main area displays the trigger code:

```
1 trigger Internalmarks on School__c (before delete) {  
2     if(trigger.isDelete)  
3         if(trigger.isBefore)  
4             schoolHandler.beforeDelete(trigger.old);  
5 }
```

At the bottom, there is a 'Logs' tab and a 'Tests' tab which is selected. Below the tabs, there are buttons for 'Checkpoints', 'Query Editor', 'View State', 'Progress', and 'Problems'. The 'Tests' section shows a table for 'Overall Code Coverage':

Class	Percent	Lines
Overall	0%	
Internalmarks	0%	0/3
schoolHandler	0%	0/4

The screenshot shows the Salesforce IDE interface. At the top, there are tabs for 'File', 'Edit', 'Debug', 'Test', 'Workspace', and 'Help'. Below the tabs, it says 'Code Coverage: None' and 'API Version: 59'. The main area displays the implementation code:

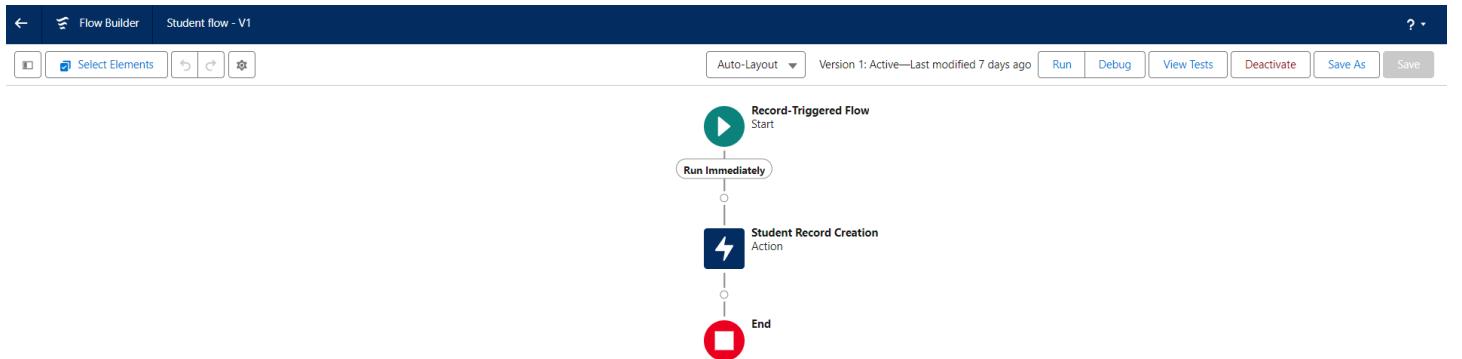
```
1 public class schoolHandler {  
2     public static void beforeDelete(List<School__c> oldList) {  
3         for(School__c s : oldlist){  
4             if(s.Schoolwebsite__c == null )  
5                 saddError('you cannot delete the record');  
6         }  
7     }  
8 }
```

At the bottom, there is a 'Logs' tab and a 'Tests' tab which is selected. Below the tabs, there are buttons for 'Checkpoints', 'Query Editor', 'View State', 'Progress', and 'Problems'. The 'Tests' section shows a table for 'Overall Code Coverage':

Class	Percent	Lines
Overall	0%	
Internalmarks	0%	0/3
schoolHandler	0%	0/4

13.Flows

Record-triggered flows are a powerful automation tool in Salesforce that can streamline business processes, reduce manual work, and improve productivity. They can be used to automate a wide range of tasks, from simple to complex, and can be tailored to meet the unique needs of your organization.



The screenshot shows the Flow Builder interface for a flow named "Student flow - V1". The flow consists of a single step: "Student Record Creation" (Action). This step is triggered by "Run Immediately" (Record-Triggered Flow Start) and ends at "End".

Below the Flow Builder, the Salesforce Setup page is visible, showing the "Flows" section under the "SETUP" tab. The "Flow Definitions" table lists various flows, including "Basic Approval Request", "Basic survey", "Book Appointment from Invitation", etc., with columns for Flow Label, Process Type, Active, Template, Package State, Last Modified Date, and Last Modified User.

GitHub & Project Video Demo Link

GitHub Link:

<https://github.com/2k20csbs46/Phase-1>

Video Link:

https://drive.google.com/drive/folders/1jaPZNPNi_nmleW4MiSEK57sJ1xoB8Sr-?usp=sharing