Creation Of An Application For School Management

SALESFORECE NAAN MUDHALVAN

PROJECT REPORT

Submitted By

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SALEM-637504

ANNA UNIVERSITY::CHENNAI 600025

BONAFIDE CERTIFICATE

Certified that this project report titled **"Creation Of An Application For School Management"** is the bonafide work of **"DINESH M (611220205004), NARAYANASAMY R (611220205021), SUSMITHA V (611220205041) , NAVEEN KUMAR S (611220205022) "**who carried out the project work under my supervision.

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SPOC

HEAD OF THE DEPARTMENT

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. Wewould 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.

We express our sincere thanks to our Head of the Department **Dr.P.SACHIDHANANDAM,** Department of Computer Science and Business Systemsfor fostering the excellent academic climate in the Department.

We express our pronounced sense of thanks with deepest respect andgratitude to our Faculty Mentor **Mr.R.AYYAPPAN,** Department of Computer Science and Business Systems for their valuableand precious guidance and for having amicable relation.

With deep sense of gratitude, we extend our earnest and sincere thanksto our SPOC **Mr.T.KARTHIKEYAN,** Assistant Professor, Department of Computer Science and Engineering for his guidance and encouragement during this project.

We would also like express our thanks to all the faculty members of our Department, friends and students who helped us directly and indirectlyin all aspects of the project work to get completed successfully.

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LIST OF FIGURES

LIST OF ABBREVIATION

CRM	Customer Relationship Management
ESP	Email Service Provider
UI	User Interface
UX	User Experience
OWD	Org - Wide Default
CTA	Call To Action
CSV	Comma - Separated Values
SLA	Service Level Agreement
API	Application Programming Interface
SaaS	Software as a Service
PaaS	Platform as a Service

CHAPTER - 1
INTRODUCTION

Salesforce, a leading cloud-based Customer Relationship Management (CRM) platform, is a pivotal tool for organizations to manage customer data, optimize sales processes, and elevate customer interactions. Its multifaceted features include Sales Cloud, which enhances sales management through lead tracking, opportunity management, and seamless email integration. Service Cloud focuses on exceptional customer support, featuring case management, knowledge base development, and multi-channel support. Marketing Cloud empowers businesses with marketing automation, email campaigns, social media engagement, and in-depth analytics. Salesforce's hallmark is its customizability, allowing businesses to tailor the platform to meet specific requirements, while robust integration capabilities facilitate seamless connections with other business applications.

The platform equips businesses with powerful reporting and analytics tools, enabling data-driven decisions and insightful, customized reports and dashboards. Salesforce ensures mobile accessibility, enabling users to stay connected and productive while on the move. A paramount emphasis on data security and compliance guarantees data protection and privacy. Whether you're a small start-up or a large enterprise, Salesforce offers scalability to accommodate your evolving needs.

Through Salesforce, organizations foster improved customer relationships, increased sales efficiency, and superior customer support. It empowers businesses to make data-driven decisions, streamline operations, and create impactful, targeted marketing campaigns. This introduction encapsulates Salesforce's capabilities and benefits, offering a concise overview for your project document, allowing for a better understanding of how the platform can contribute to your specific project goals.

CHAPTER - 2
PROJECT SPECIFICATIONS

2.1 Project Goal:

The primary goal of the Employee Travel Approval Application in Salesforce for corporates is to optimize and streamline the management of employee travel requests and approvals. The project aims to provide a user-friendly and efficient solution that automates approval workflows, ensures real-time visibility and notifications, and simplifies expense tracking and reimbursement. User training and support are essential for ensuring adoption, and the application should be scalable and highly customizable to meet evolving organizational needs. Overall, the project's focus is on enhancing productivity, cost control, and compliance with corporate policies in the realm of travel management.

2.2 Project Scope

- **Creation of developer account (Milestone 1):**
  To create a developer account in Salesforce, visit the Salesforce Developer website, sign up for a free account, and follow the registration process.
- **Tabs Creation (Milestone 2):**
  Tabs will be configured to segment and simplify access to different sections of the application, such as travel requests,approvals, feedback, and reporting.
- **App Creation (Milestone 3):**
  The Employee Travel Approval Application will be launched, serving as the primary hub for submitting, reviewing, and approving corporate travel.
- **Fields & Relationships (Milestone 4):**
  Custom fields and relationships will be defined to capture travel details like destination, dates, expenses, and justifications.

- **Profile Configuration (Milestone 5):**
  User profiles will be set up to dictate roles, access permissions, and interaction levels within the application.
- **Role and Role Hierarchy (Milestone 6):**
  The platform will structure role-based access controls to specify who can view, edit, or approve travel requests, with hierarchies such as junior employees, senior employees, team leads, and department heads.
- **Users (Milestone 7):**
  Users will be added and configured based on their roles within the organization. This step involves determining the permissions and access levels for each user category.
- **Sharing Rules (Milestone 8):**
  Predefined criteria will inform sharing rules, ensuring data is appropriately shared and accessed, maintaining confidentiality where needed.
- **User Adoption Strategies (Milestone 9):**
  Tools, training sessions, and guides will be introduced to ensure users can efficiently utilize the application. Feedback loops will be set up to continually enhance user experience.
- **Reports Generation (Milestone 10):**
  Custom reports will be developed, offering stakeholders insights into travel trends, expenses, approval durations, and policy adherence.
- **Dashboards Development (Milestone 11):**
  Visual dashboards will be designed, showcasing KPIs, travel analytics, and summary reports for a swift overview and decision-making.
- **Apex Classes and Triggers(Milestone 12):**
  Apex classes are used to define custom business logic in Salesforce, while triggers are Apex code that automate actions in response to data changes, such as record updates or inserts.

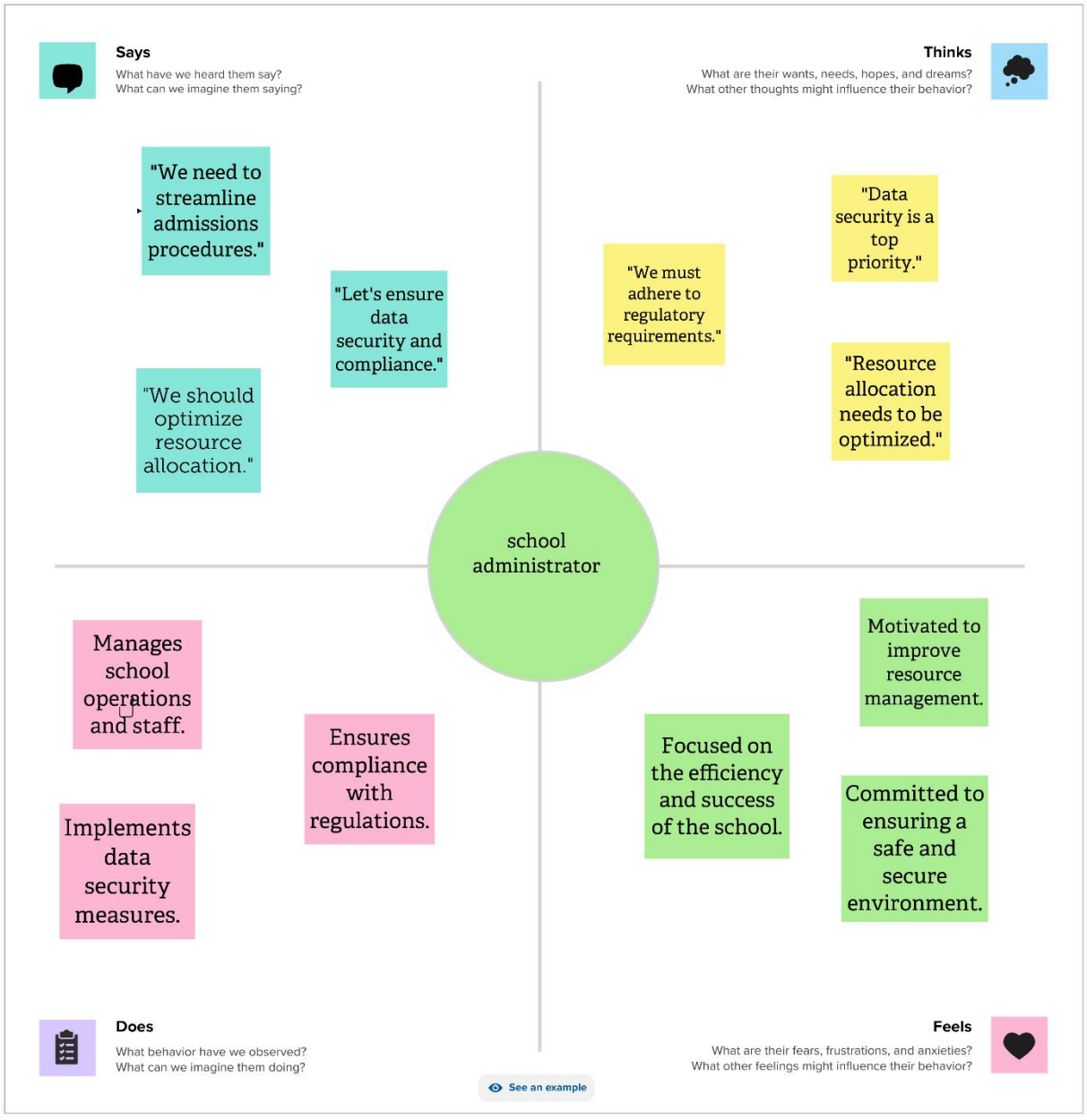
2.3 Problem Statement Definition :

Problem Statement (PS)	I am (Student)	I'm trying to	But	Because	Which makes me feel
PS	Student	Creating a comprehensive school management application to streamline administrative tasks, enhance communication, and improve overall efficiency for educators, students, and parents.	Developing a user-friendly school management app to automate administrative processes, manage student data, and facilitate seamless communication between school staff, students, and parents	Developing a school management application to simplify administrative processes, facilitate better communication, and enhance academic operations for improved educational outcomes and stakeholder satisfaction.	Developing a user-friendly school management application to provide a seamless and empowering experience for all stakeholders, fostering a sense of ease and satisfaction

2.3 Empathy Map Canvas:

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behavior and attitudes.

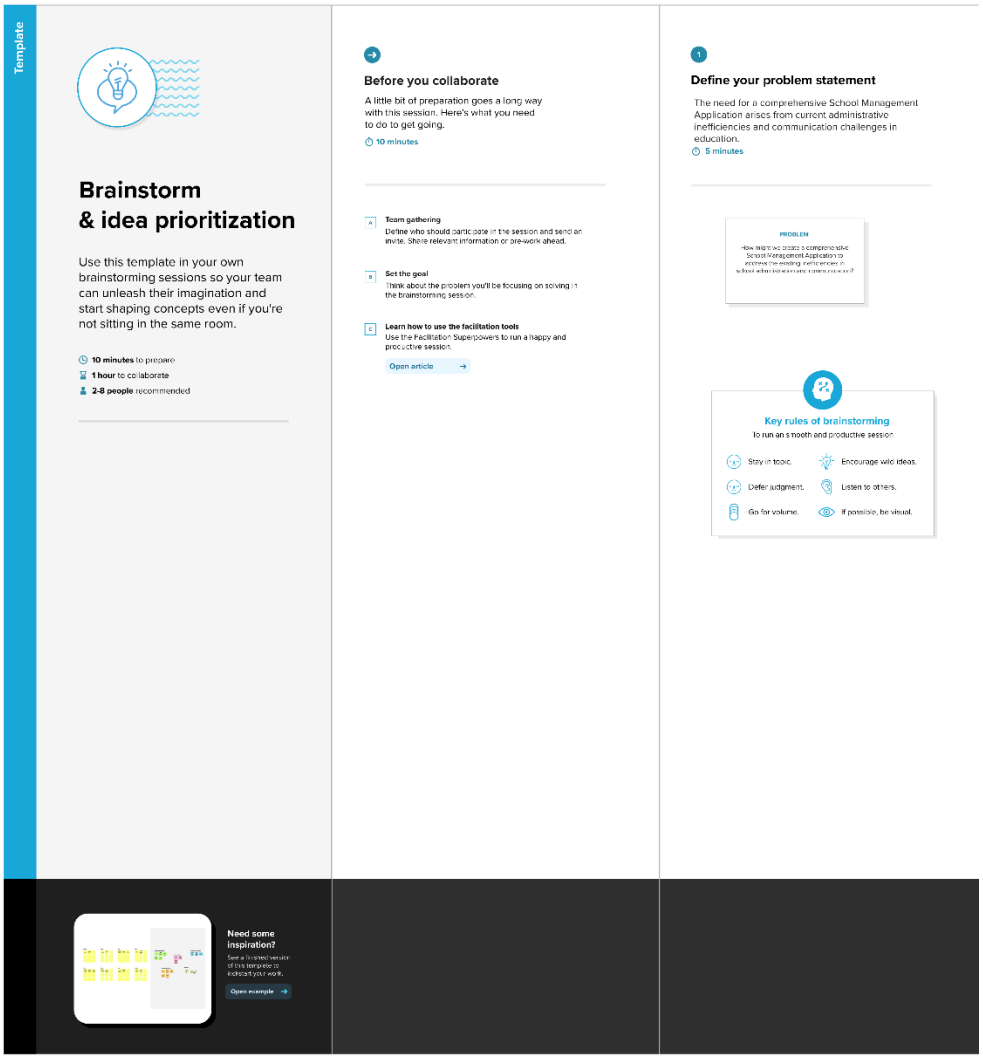
It is a useful tool to helps teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



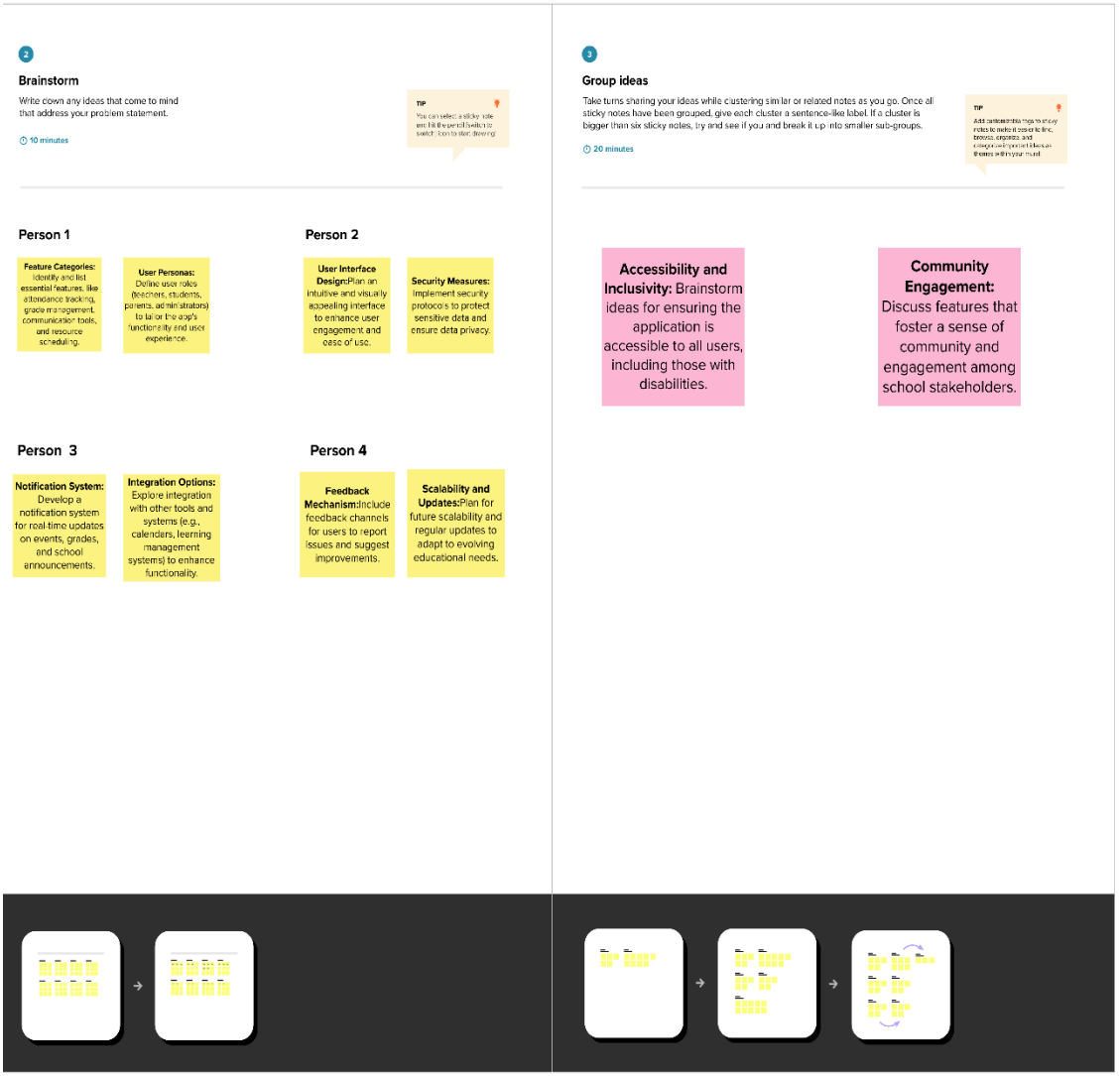
2.3 Ideation & Brainstorming :

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Step-1: Team Gathering, Collaboration and Select the Problem Statement:

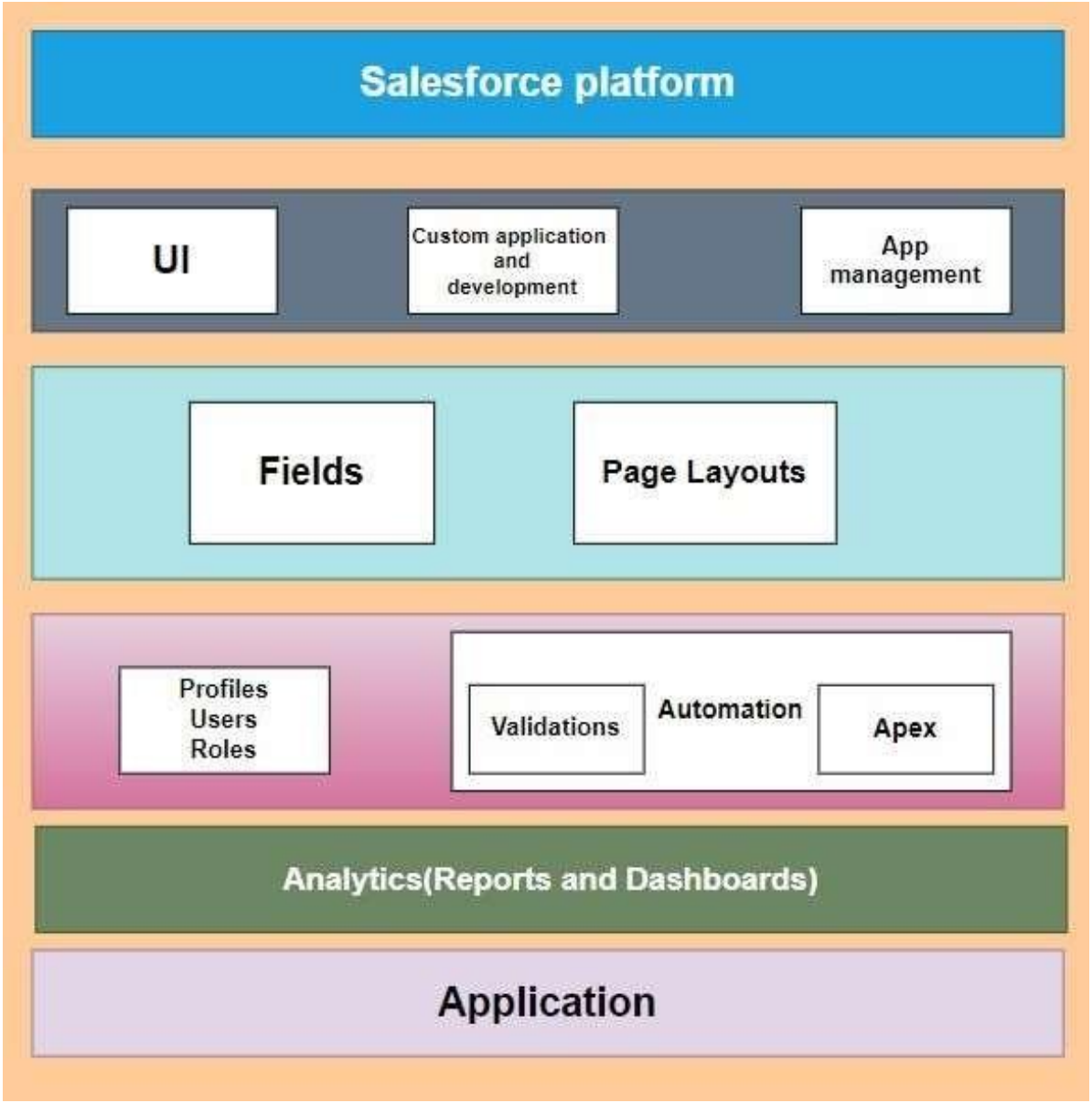


Step-2: Brainstorm, Idea Listing and Grouping:



Step-3: Idea Prioritization:

2.4 Technical Requirements



2.5 Functional Requirements

2.5.1 **User Registration and Authentication:** Provide a registration and login system for employees, approvers, and administrators to access the application securely.

2.5.2 **Travel Request Submission:** Allow employees to submit travel requests, providing essential details such as travel dates, destinations, purpose, and estimated expenses.

2.5.3 **Customizable Approval Workflows:** Support the configuration of approval workflows, including the ability to set approval criteria, create multi-level approval hierarchies, and define routing rules.

2.5.4 **Real-time Notifications:** Automate email notifications to keep employees informed about the status of their travel requests and notify approvers when their input is required.

2.5.5 **Expense Tracking:** Enable employees to record and track travel-related expenses, categorizing them for easy reference and reimbursement.

2.5.6 **Approval Management:** Provide a dashboard for approvers to review and approve travel requests, with the ability to leave comments or request additional information.

2.5.7 **Reporting and Analytics:** Offer a suite of reporting tools to generate insights into travel expenses, approval trends, and policy compliance. These reports should be customizable and accessible to authorized users.

2.5.8 **Mobile Accessibility:** Ensure that the application is accessible on mobile devices, allowing users to submit requests and perform approvals on the go.

2.5.9 **Security and Access Control:** Implement robust security measures and role-based access control to protect sensitive travel data and ensure that only authorized personnel can access, edit, and approve travel requests.

2.5.10 **Integration Capabilities:** Support integration with other corporate systems, such as accounting and HR software, to

streamline expense tracking, data sharing, and synchronization of travel data.

2.5.11 **User Training and Support:** Provide training materials and support resources for users and approvers to ensure they can navigate and utilize the application effectively.

2.5.12 **Scalability and Customization:** Design the application to be highly scalable, allowing it to adapt to the evolving needs of the organization. Ensure it can be customized to accommodate specific workflows and policies.

2.5.13 **Compliance Features:** Include features to ensure compliance with corporate and regulatory policies, including the ability to capture and store necessary documentation for audits.

2.5.14 **Budget Management:** Implement tools for tracking and managing travel budgets, helping organizations stay within financial limits.

2.5.15 **Expense Reimbursement:** Facilitate the expense reimbursement process by allowing approvers to verify expenses and trigger reimbursement to employees.

2.5.16 **User Profiles and Roles:** Define user profiles and roles to determine who can perform specific actions within the application.

2.5.17 **Approval History and Audit Trail:** Maintain an audit trail and history of all travel requests, approvals, and changes for transparency and accountability.

2.5.18 **Notifications and Reminders**: Send automated reminders and notifications to users for pending actions, approvals, and upcoming trips.

2.5.19 **Document Management:** Provide a repository for storing travel-related documents, such as itineraries, receipts, and approvals.

2.5.20 **Multi-platform Support:** Ensure compatibility with various web browsers and devices, enhancing user accessibility.

CHAPTER - 3
OBJECT CREATION

Objects:

Salesforce objects are database tables that permit you to store data that is specific to an organization. It consists of fields (columns) and records (rows).

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.

In This Application We Use 9 Standard Objects:

1. Account
2. Contact.
3. Opportunity
4. Lead.
5. Case
6. Task and Event
7. User
8. Product
9. Custom Object.

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.

In This Application We Use 5 Custom Objects:

1. Employee Details
2. Expense
3. Expense Item
4. Travel Approval

1) Create A Custom Object for School Details:

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Click the "Gear" icon and select "Setup" to access the Salesforce Setup menu.

Step 3: In Setup, find "Objects" and select "Object Manager."

Step 4: Click the "Create" button to create a new custom object.

Step 5: Object Settings

Label: Enter "School."

Plural Label: Enter "Schools."

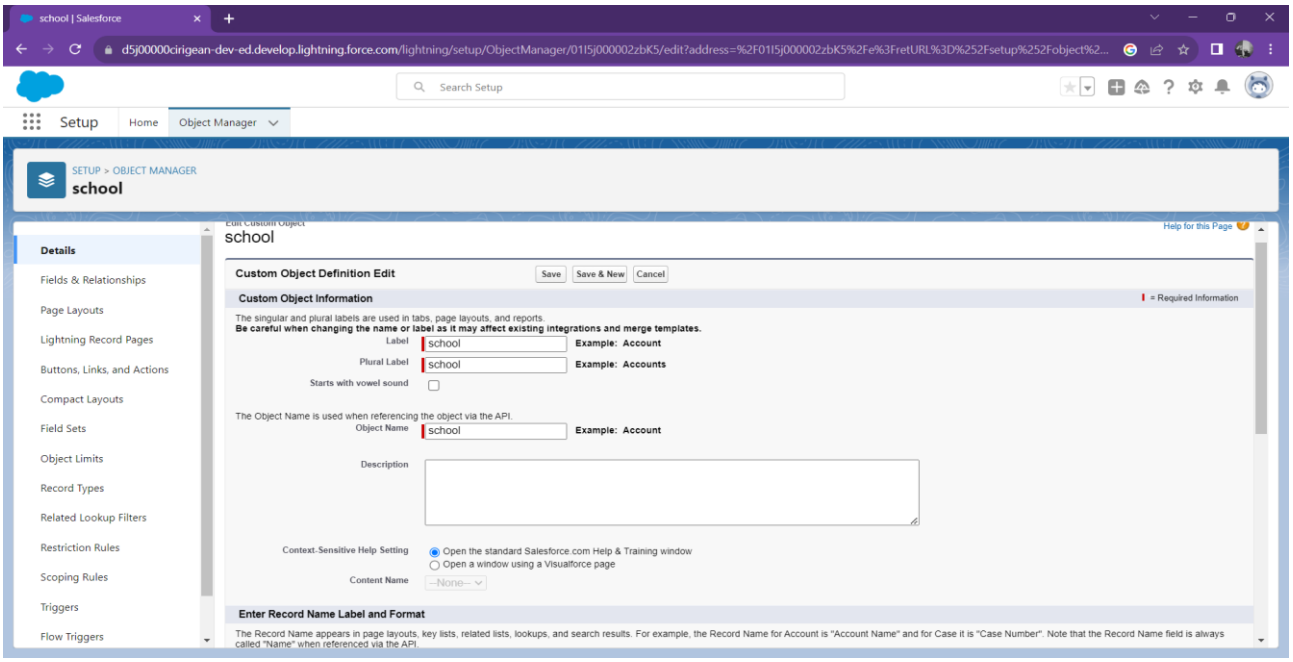
St**ep 6:** Choose to auto-number records or manually specify the record name as "Employee Name."

Step 7: Select "Text" as the data type for the record name.

Step 8: Check the Allow Reports checkbox.

Step 9: Check the Allow Search checkbox.

Step 10: Click "Save" to create the "School" object.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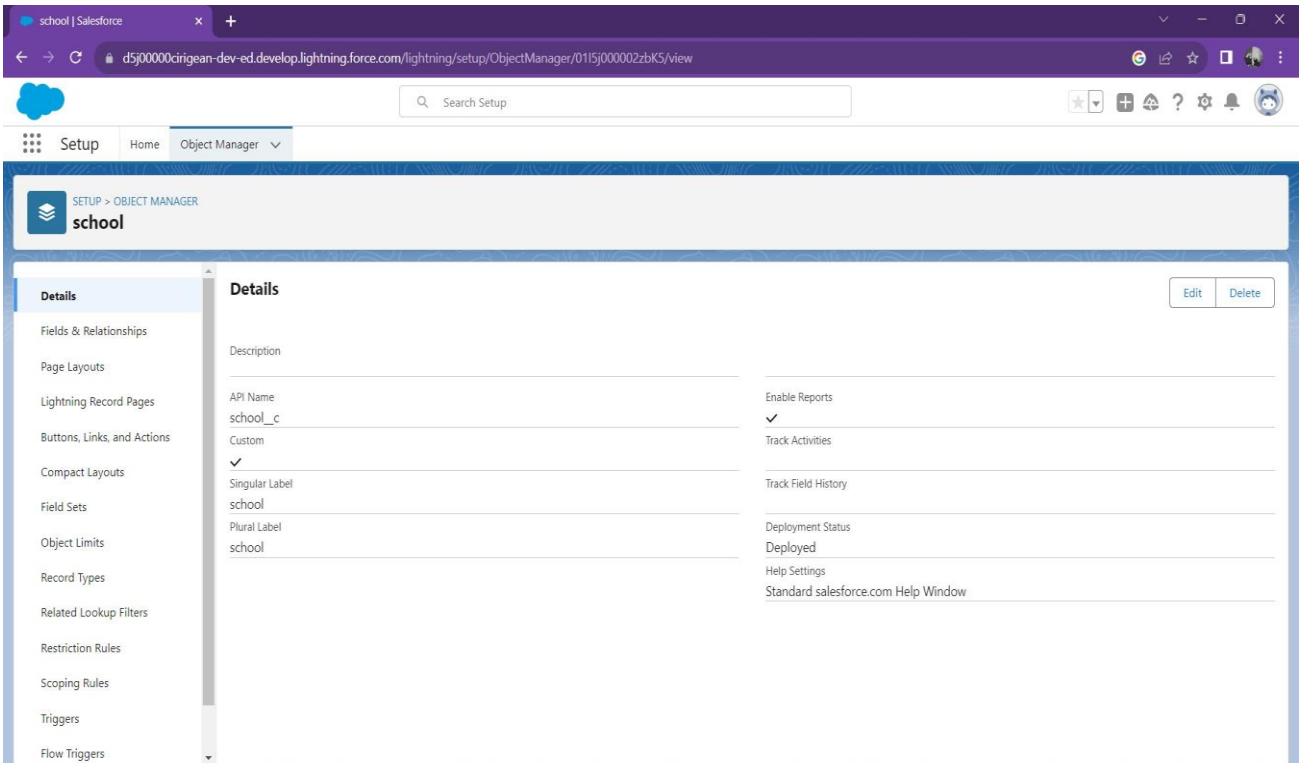
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Triggers
Flow Triggers
Edit Custom Object
school
Help for this Page
Custom Object Definition Edit
Save
Save & New
Cancel
Custom Object Information
= Required Information
The singular and plural labels are used in tabs, page layouts, and reports.
Be careful when changing the name or label as it may affect existing integrations and merge templates.
Label
school
Example: Account
Plural Label
school
Example: Accounts
Starts with vowel sound
The Object Name is used when referencing the object via the API.
Object Name
school
Example: Account
Description
Context-Sensitive Help Setting
Open the standard Salesforce.com Help & Training window
Open a window using a Visualforce page
Content Name
--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.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Restriction Rules
Scoping Rules
Triggers
Flow Triggers
Details
Edit
Delete
Description
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Custom
Singular Label
school
Plural Label
school
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

2) Creation of Student:

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Click the "Gear" icon and select "Setup" to access the Salesforce Setup menu.

Step 3: In Setup, find "Objects" and select "Object Manager."

Step 4: Click the "Create" button to create a new custom object.

Step 5: Object Settings

Label: Enter "Student."

Plural Label: Enter "Students."

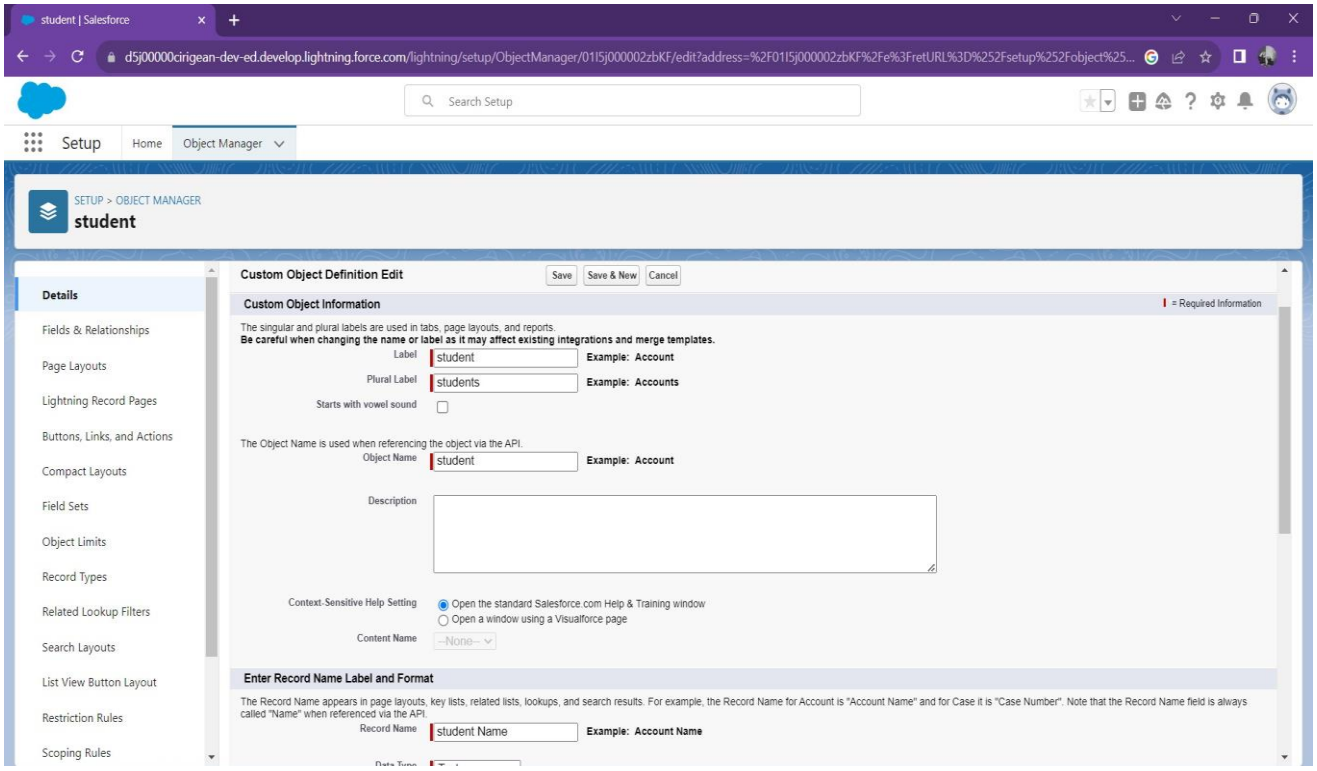
Step 6: Choose to auto-number records or manually specify the record name as "Student Name."

Step 7: Select "Text" as the data type for the record name.

Step 8: Check the Allow Reports checkbox.

Step 9: Check the Allow Search checkbox.

Step 10: Click "Save" to create the "Student" object.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Save
Save & New
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Custom Object Information
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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
Plural Label
students
Example: Accounts
Starts with vowel sound
The Object Name is used when referencing the object via the API.
Object Name
student
Example: Account
Description
Context-Sensitive Help Setting
Open the standard Salesforce.com Help & Training window
Open a window using a Visualforce page
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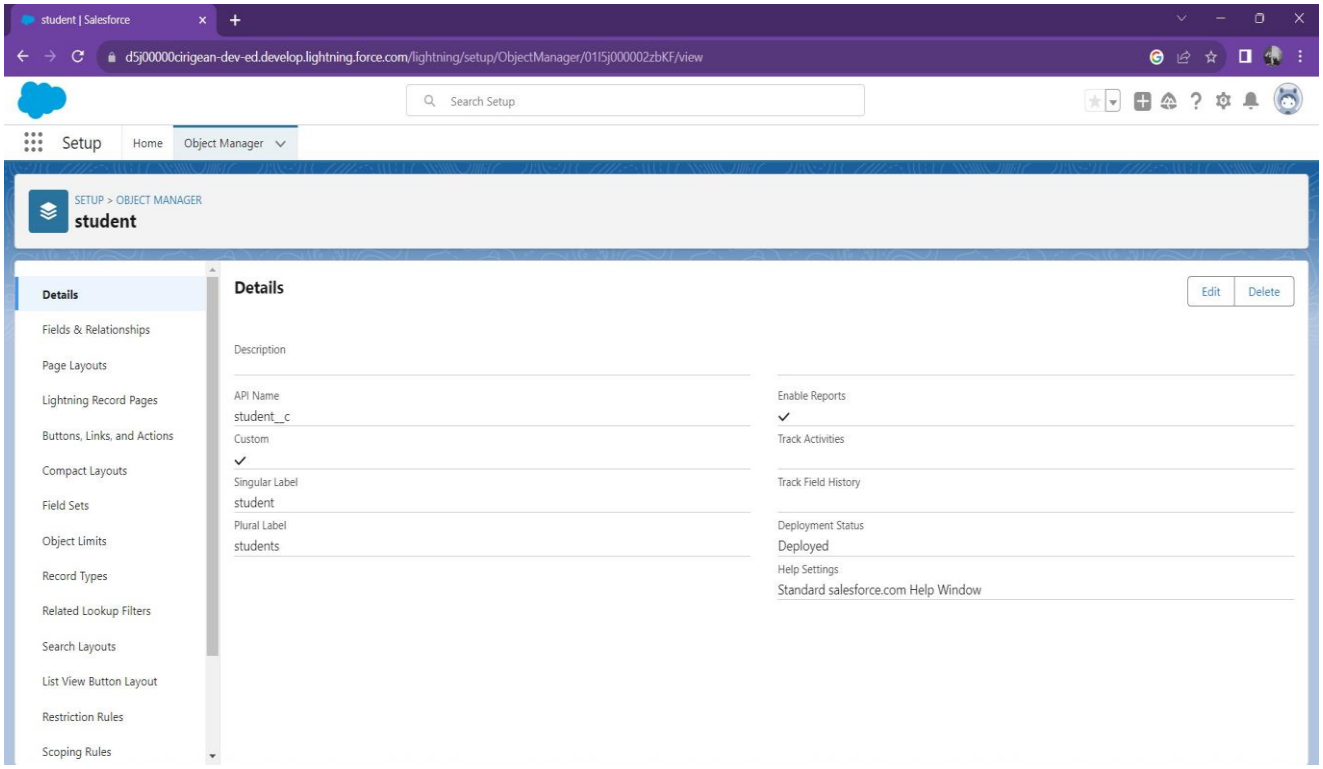
Enter Record Name Label and Format
The Record Name appears in page layouts, key lists, related lists, lookups, and search results. For example, the Record Name for Account is "Account Name" and for Case it is "Case Number". Note that the Record Name field is always called "Name" when referenced via the API.
Record Name
student Name
Example: Account Name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Details
Edit
Delete
Description
API Name
student__c
Custom
Singular Label
student
Plural Label
students
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

3) Creation of Parent:

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Click the "Gear" icon and select "Setup" to access the SalesforceSetup menu.

Step 3: In Setup, find "Objects" and select "Object Manager."

Step 4: Click the "Create" button to create a new custom object.

Step 5: Object Settings

Label: Enter "Parent."

Plural Label: Enter "Parents."

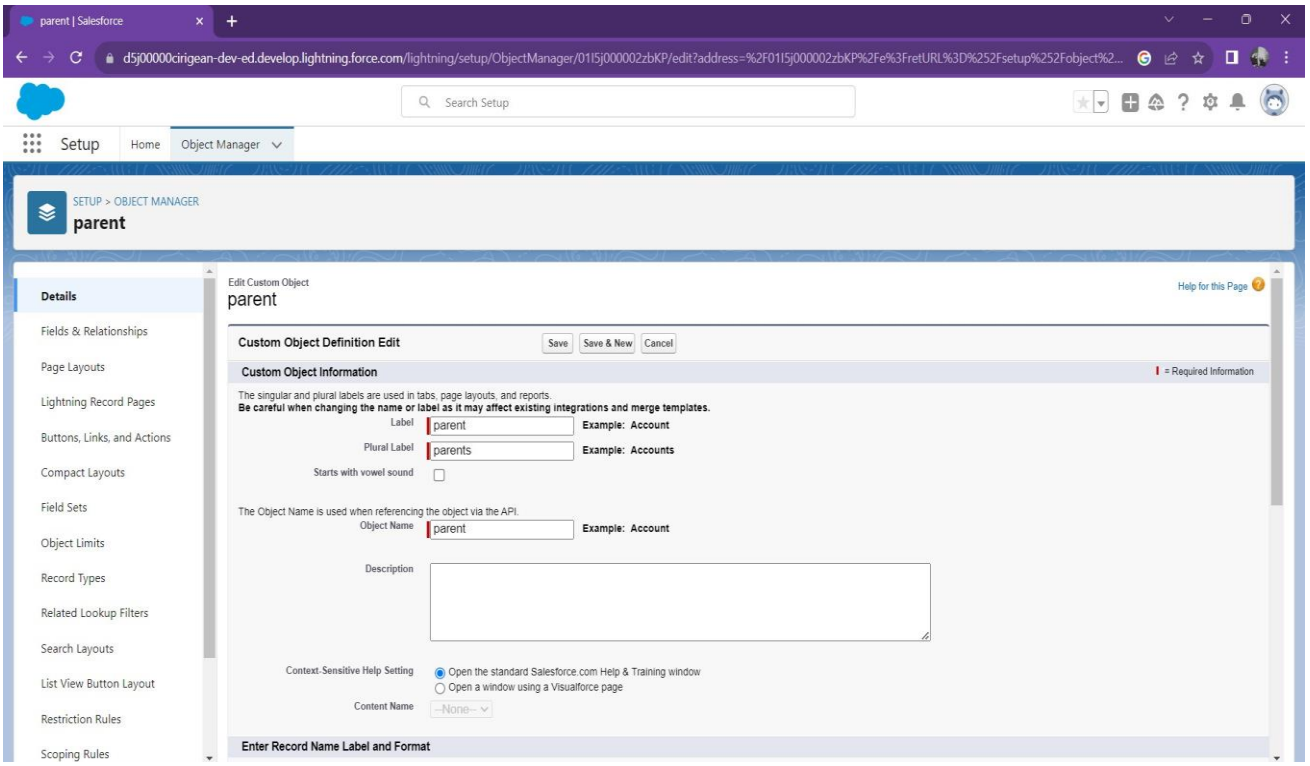
Step 6: Choose to auto-number records or manually specify the record name as "Item Name" or "Parents Name."

Step 7: Select "Text" as the data type for the record name.

Step 8: Check the Allow Reports checkbox.

Step 9: Check the Allow Search checkbox.

Step 10: Click "Save" to create the "Parent" object.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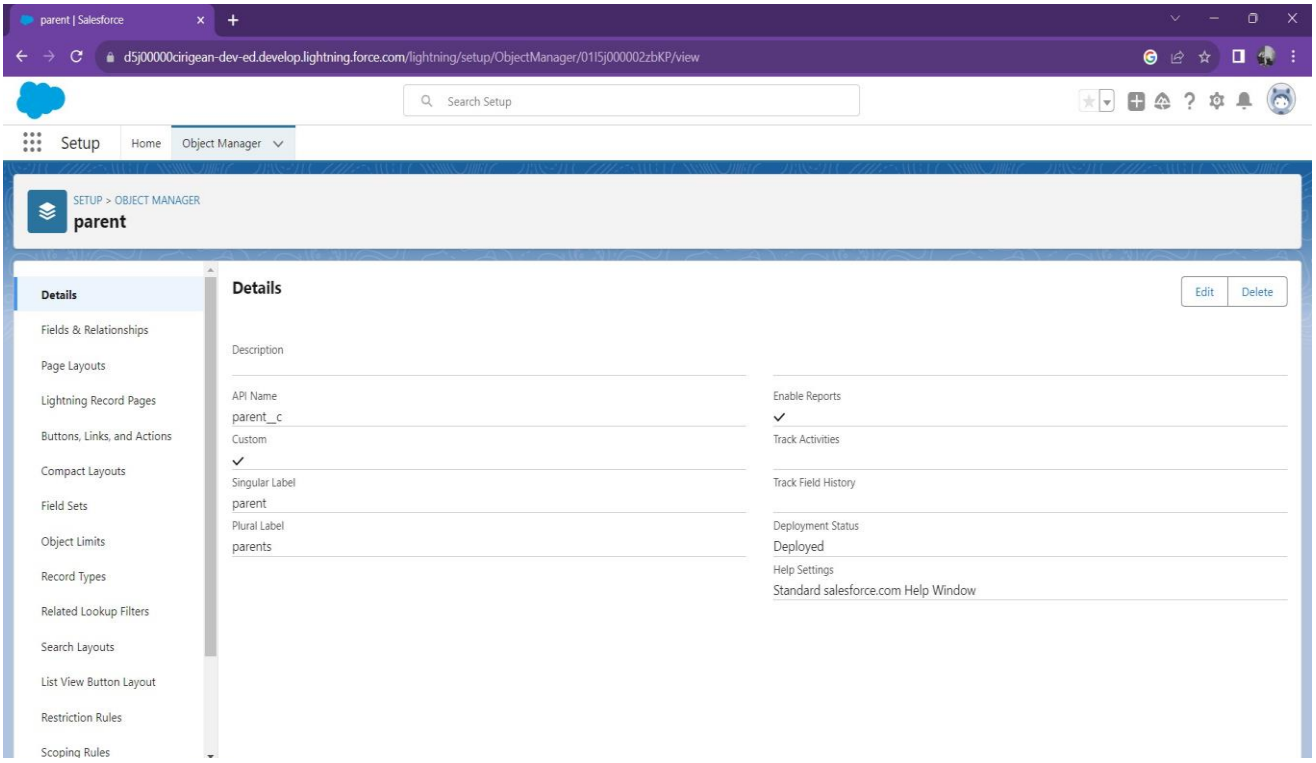
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Description
API Name
parent__c
Custom
Singular Label
parent
Plural Label
parents
Enable Reports
Track Activities
Track Field History
Deployment Status
Deployed
Help Settings
Standard salesforce.com Help Window

Tabs:

Tabs in Salesforce help users view the information at a glance. It displays the data of objects and other web content in the application.

There are mainly 4 types of tabs:

1. **Standard Object Tabs:** Standard object tabs display data related tostandard objects.

2. **Custom Object Tabs:** Custom object tabs display data related tocustom objects. These tabs look and function just like standard tabs.

3. **Web Tabs:** Web Tabs display any external Web-based application orWeb page in a Salesforce tab.

4. **Visual force Tabs:** Visual force Tabs display data from a Visual force Page.

1) Creation of School Tab

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Access Setup from the "Gear" icon.

Step 3: In Setup, find "User Interface" and select "Tabs."

Step 4: Click "New Custom Object Tab."

Step 5: Choose the "School" object and label it as "Schools."

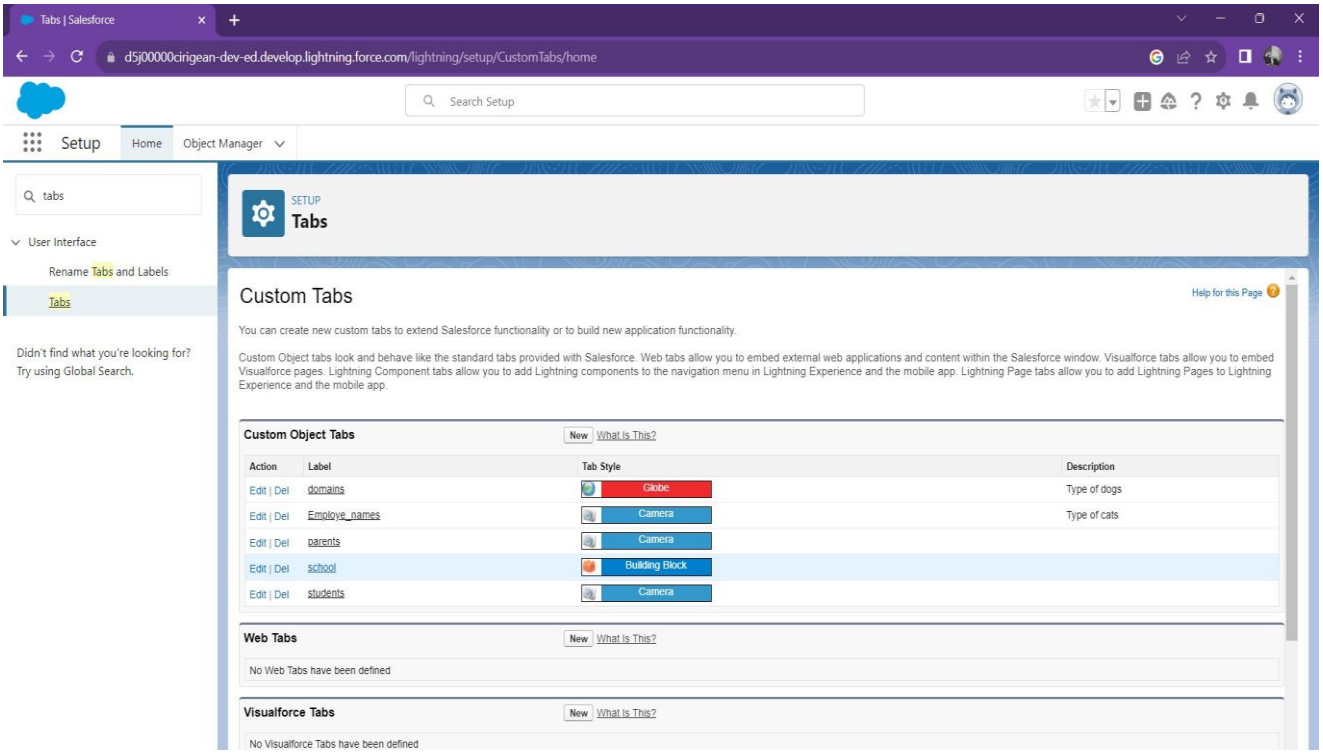
Step 6: Configure tab appearance, accessibility, and styling.

Step 7: Save the tab.

Step 8: Arrange the tab's order in "App Manager."

Step 9: Assign the tab to relevant user profiles in the "Profiles" section of Setup.

Step 10: Test the tab and deploy it for user access.



2) Creation of Student Tab

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Access Setup from the "Gear" icon.

Step 3: In Setup, go to "Objects and Fields" and select "Object Manager."

Step 4: Create a custom object for "Student" if it doesn't already exist. Ensure it has the necessary fields to capture Student information.

Step 5: Go to "User Interface" in Setup and select "Tabs."

Step 6: Click "New Custom Object Tab."

Step 7: Choose the custom object for "Student."

Step 8: Label the tab as "Student" and configure its style and color.

Step 9: Save the tab.

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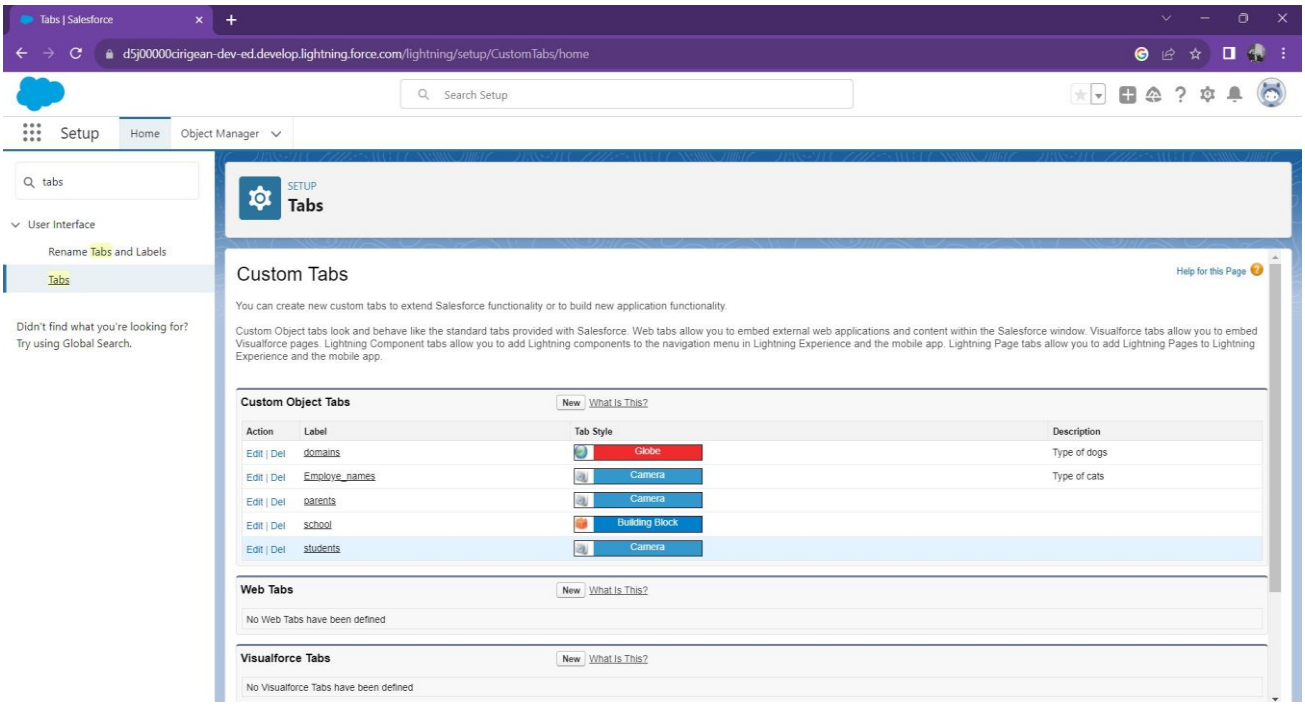


3) Creation of Parent Tab

Step 1: Log in to Salesforce with administrative privileges.

Step 2: Access Setup from the "Gear" icon.

Step 3: In Setup, go to "Objects and Fields" and select "Object Manager."

Step 4: Create a custom object for "Parent" if it doesn't alreadyexist. Ensure it has the necessary fields to capture individual Parent details.

Step 5: Go to "User Interface" in Setup and select "Tabs."

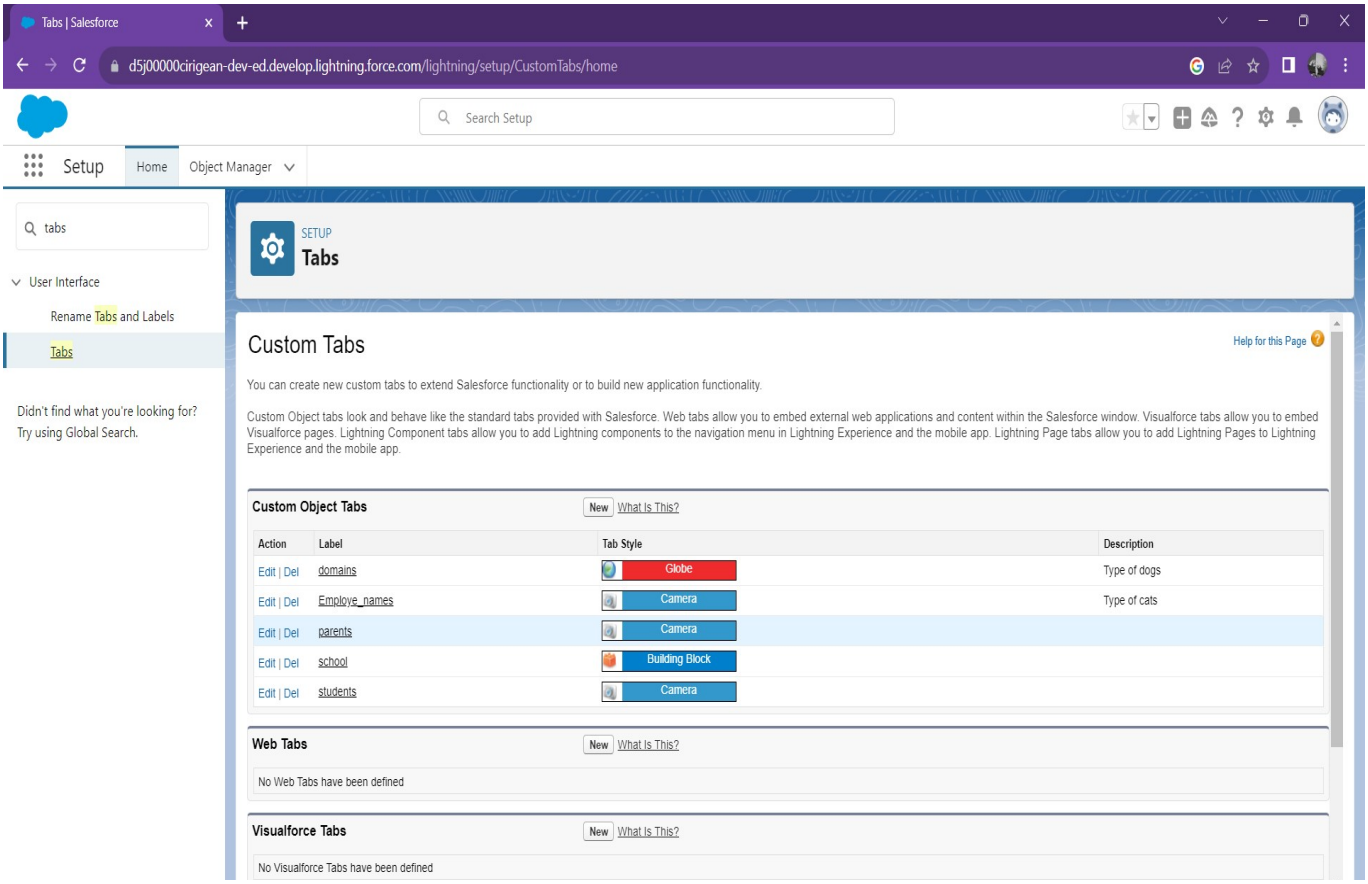
Step 6: Click "New Custom Object Tab."

Step 7: Choose the custom object for "Parent."

Step 8: Label the tab as "Parent" and configure its style andcolor.

Step 9: Save the tab.

Step 10: Arrange the tab's order in your app and assign it to relevant.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Search Setup
Setup
Home
Object Manager
tabs
User Interface
Rename Tabs and Labels
Tabs
Didn't find what you're looking for?
Try using Global Search.
SETUP
Tabs
Custom Tabs
Help for this Page
You can create new custom tabs to extend Salesforce functionality or to build new application functionality.
Custom Object tabs look and behave like the standard tabs provided with Salesforce. Web tabs allow you to embed external web applications and content within the Salesforce window. Visualforce tabs allow you to embed Visualforce pages. Lightning Component tabs allow you to add Lightning components to the navigation menu in Lightning Experience and the mobile app. Lightning Page tabs allow you to add Lightning Pages to Lightning Experience and the mobile app.
Custom Object Tabs
New
What Is This?
Action
Label
Tab Style
Description
Edit | Del
domains
Globe
Type of dogs
Edit | Del
Employe_names
Camera
Type of cats
Edit | Del
parents
Camera
Edit | Del
school
Building Block
Edit | Del
students
Camera
Web Tabs
New
What Is This?
No Web Tabs have been defined
Visualforce Tabs
New
What Is This?
No Visualforce Tabs have been defined

CHAPTER - 4

LIGHTNING APP

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 2 types of Salesforce applications:

Standard apps: these apps come with every occurrence ofSalesforce as default. Community, Call Centre, Content, Sales, Marketing, Salesforce Chatter, Site.com, and App Launcher are included in these apps. The description, logo, and label of a standard app cannot be altered.

Custom apps: these apps are created according to the needs of a company. They can be made by putting custom and standard tabs together. Logos for custom apps can be changed.

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

2. Click New Lightning App.

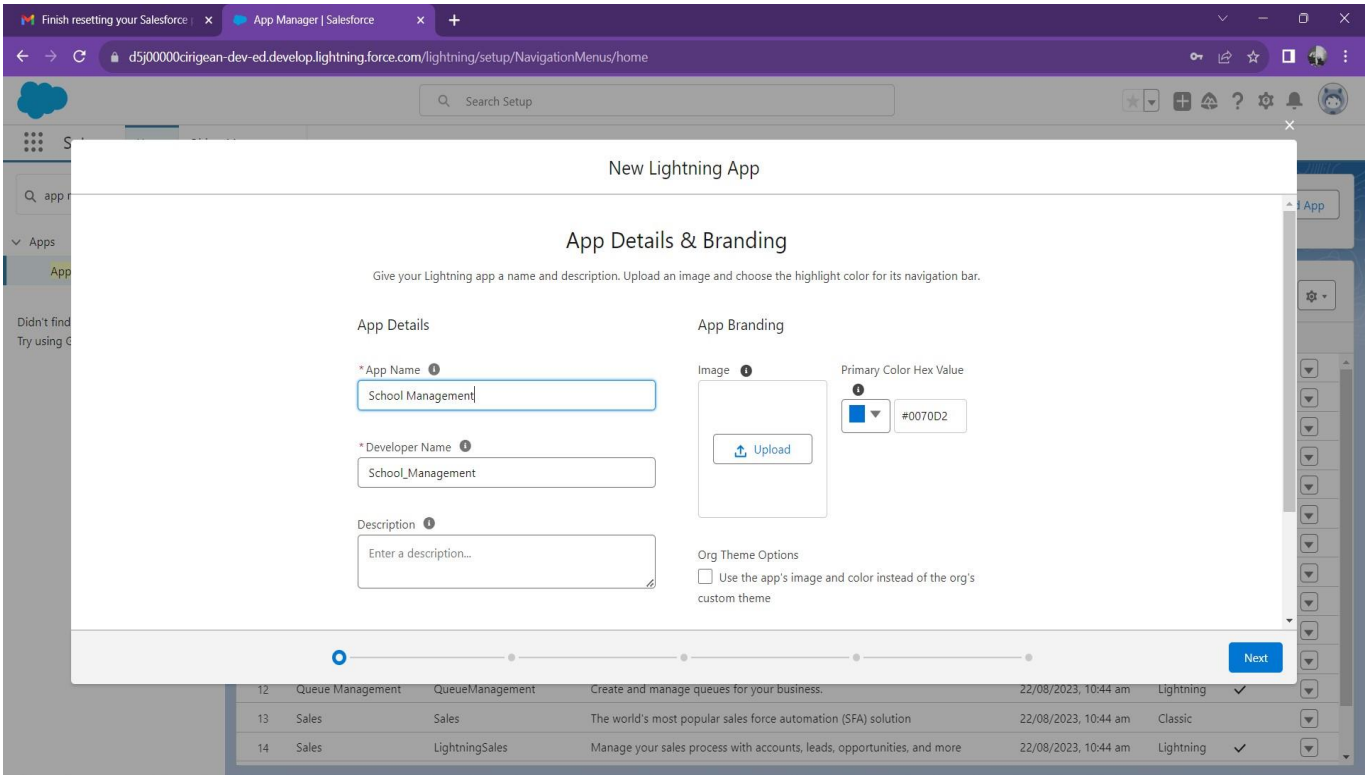
3. Enter School Management as the App Name, then click next.

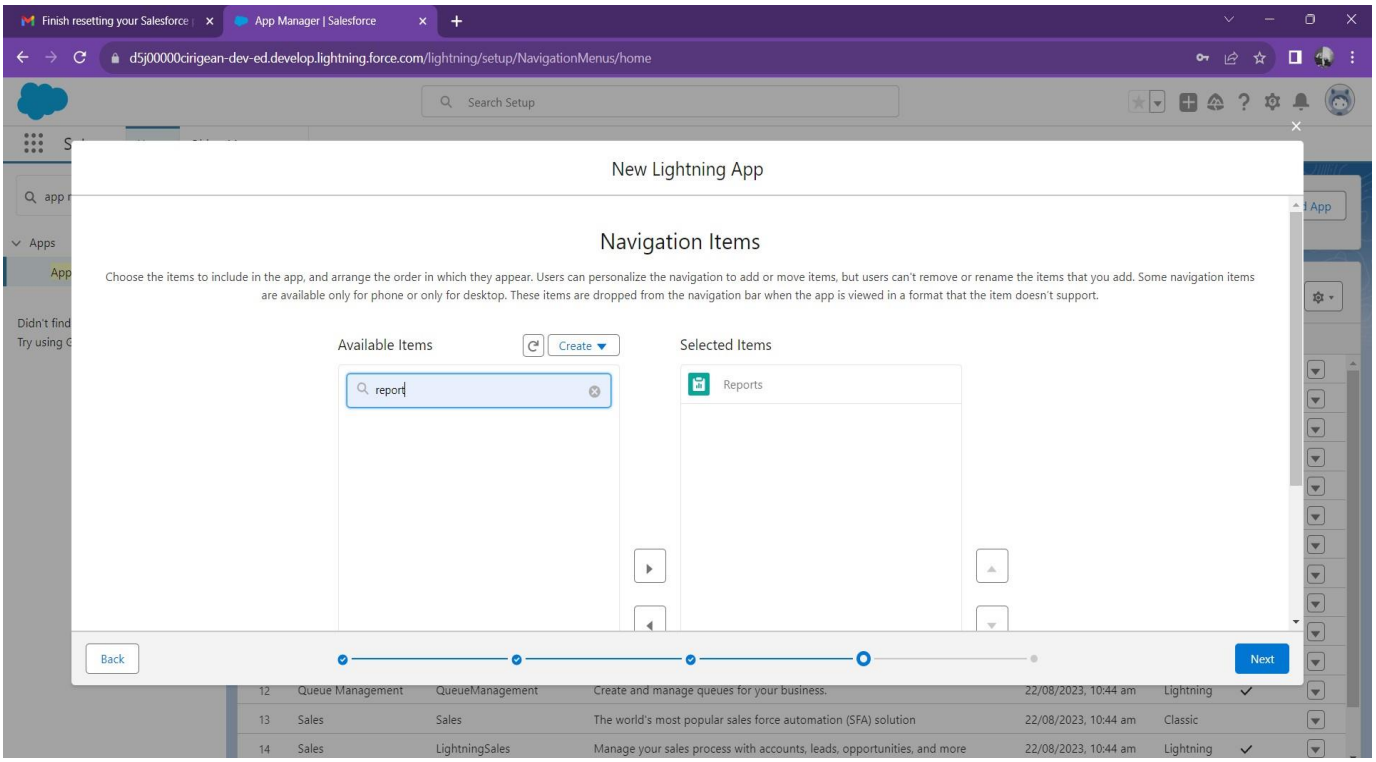
4. Under App Options, leave the default selections and click next.

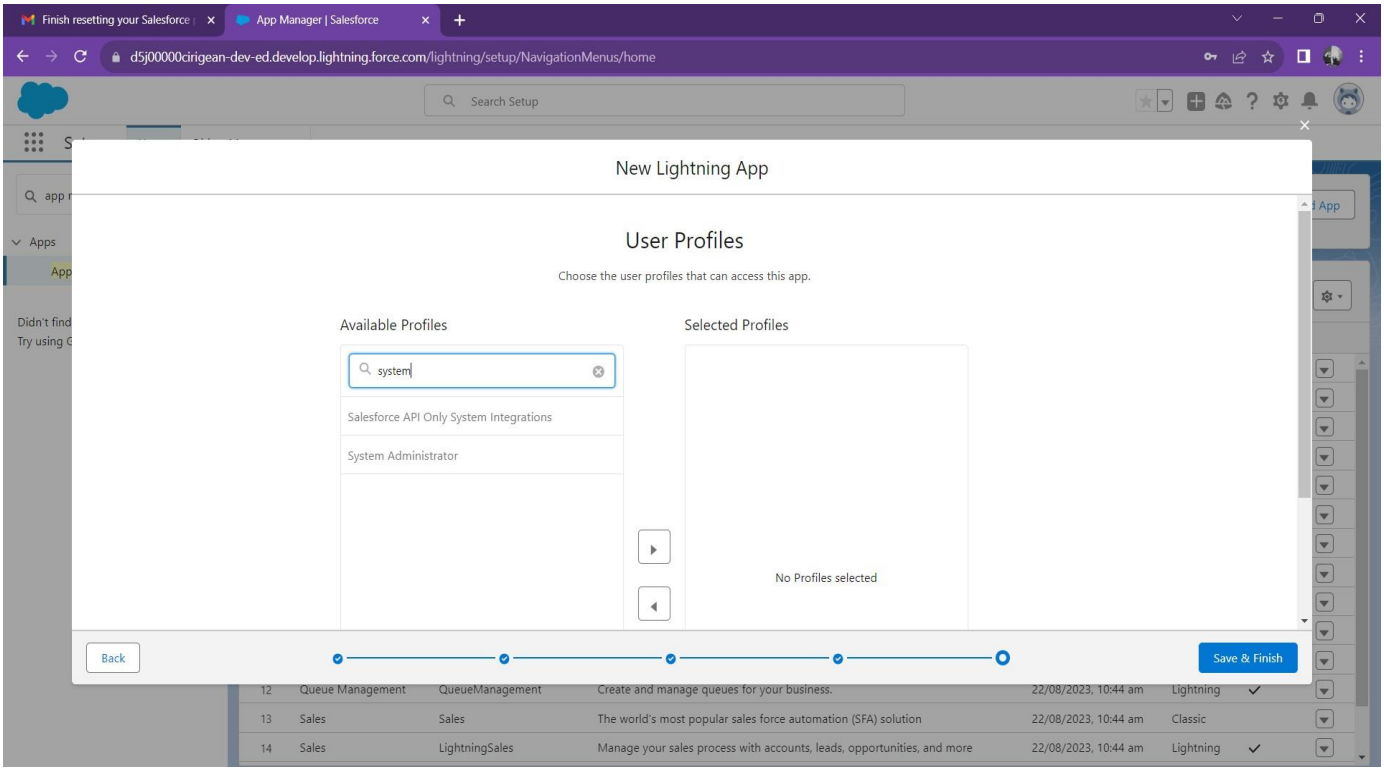
5. Under Utility Items, leave as is and click next.

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.


Finish resetting your Salesforce
App Manager | Salesforce
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/NavigationMenus/home
Search Setup
New Lightning App
App Details & Branding
Give your Lightning app a name and description. Upload an image and choose the highlight color for its navigation bar.
App Details
App Branding
*App Name
School Management
*Developer Name
School_Management
Description
Enter a description...
Image
Upload
Primary Color Hex Value
#0070D2
Org Theme Options
Use the app's image and color instead of the org's custom theme
Next
12 Queue Management QueueManagement Create and manage queues for your business. 22/08/2023, 10:44 am Lightning
13 Sales Sales The world's most popular sales force automation (SFA) solution 22/08/2023, 10:44 am Classic
14 Sales LightningSales Manage your sales process with accounts, leads, opportunities, and more 22/08/2023, 10:44 am Lightning


Finish resetting your Salesforce
App Manager | Salesforce
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/NavigationMenus/home
Search Setup
New Lightning App
Navigation Items
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.
Available Items
Create
report
Selected Items
Reports
Back
Next
12 Queue Management QueueManagement Create and manage queues for your business. 22/08/2023, 10:44 am Lightning
13 Sales Sales The world's most popular sales force automation (SFA) solution 22/08/2023, 10:44 am Classic
14 Sales LightningSales Manage your sales process with accounts, leads, opportunities, and more 22/08/2023, 10:44 am Lightning



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.

CHAPTER - 5

FIELDS AND RELATIONSHIP

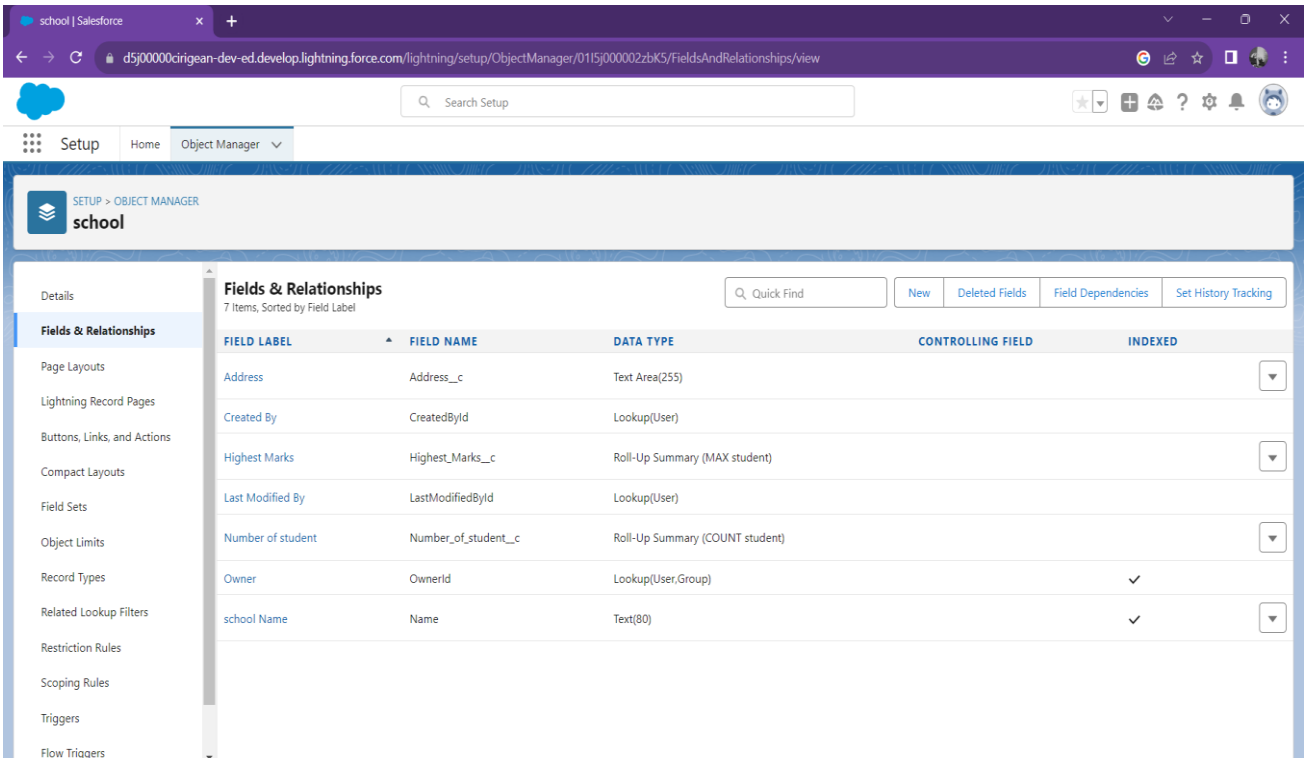
Fields and Relationship:

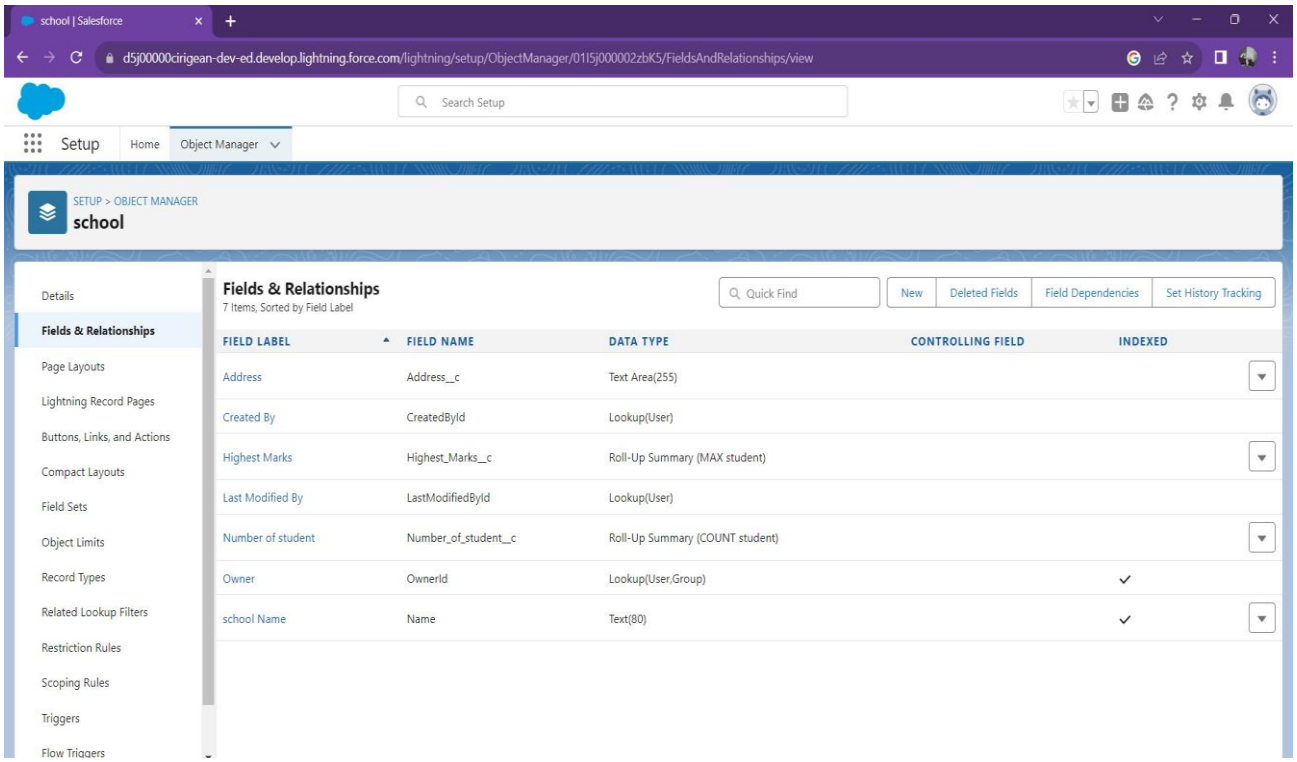
Fields in Salesforce represent what the columns represent in relational databases. It can store data values which are required for a particular object in a record.

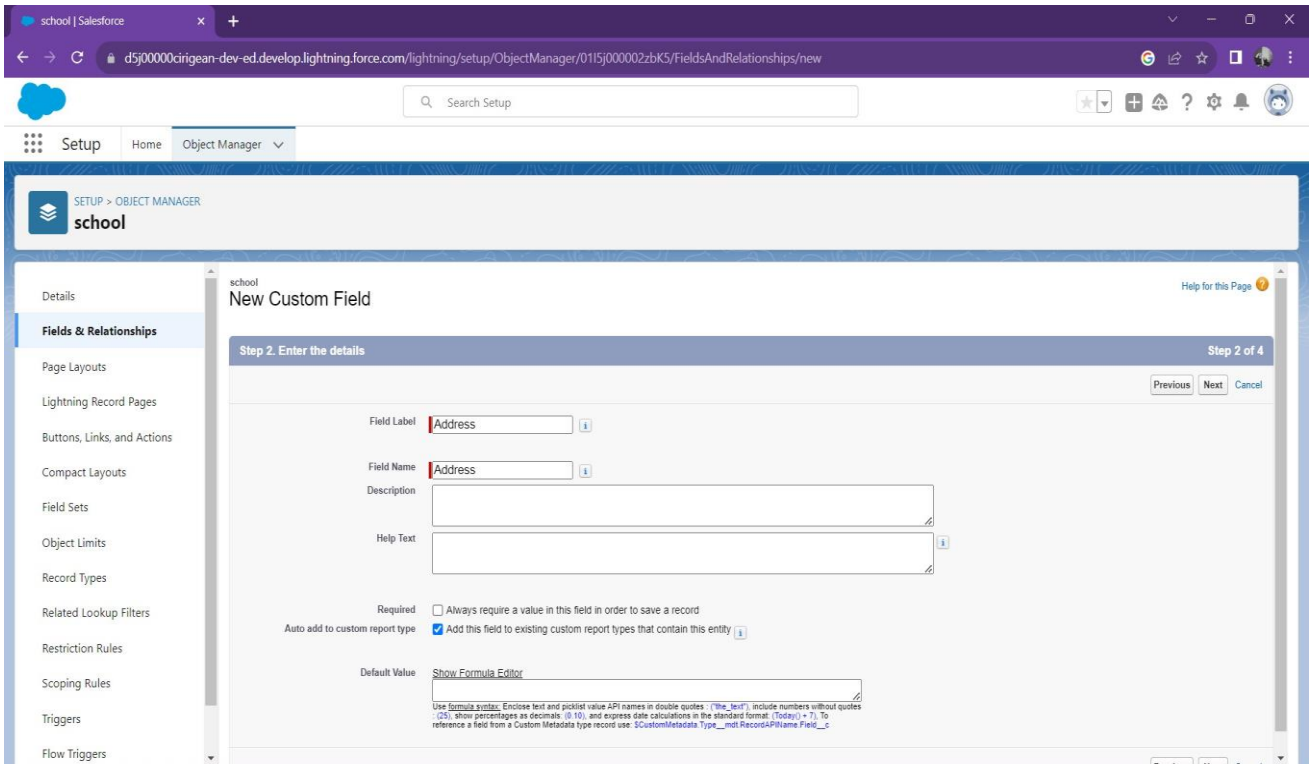
There are 2 types of fields in Salesforce

Standard fields: There are four standard fields in every custom object that are Created By, Last Modified By, Owner, and the field created at the time of the creation of an object. These fields cannot be deleted or edited and they are always required. For standardobjects, the fields which are present by default in them and cannot be deleted from standard objects are standard fields.

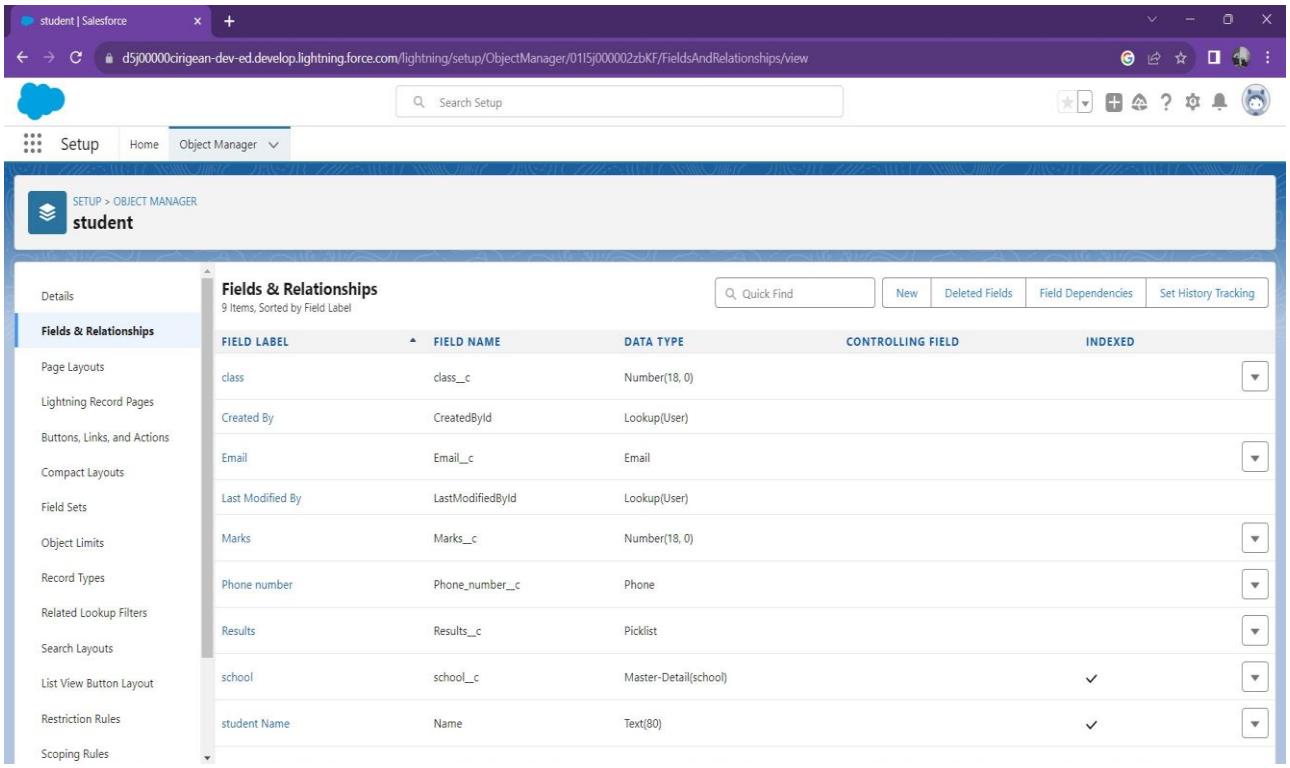
Custom fields: The Custom fields which are added by the administrator/developer to meet the business requirements of any organization. They may or may not be required.



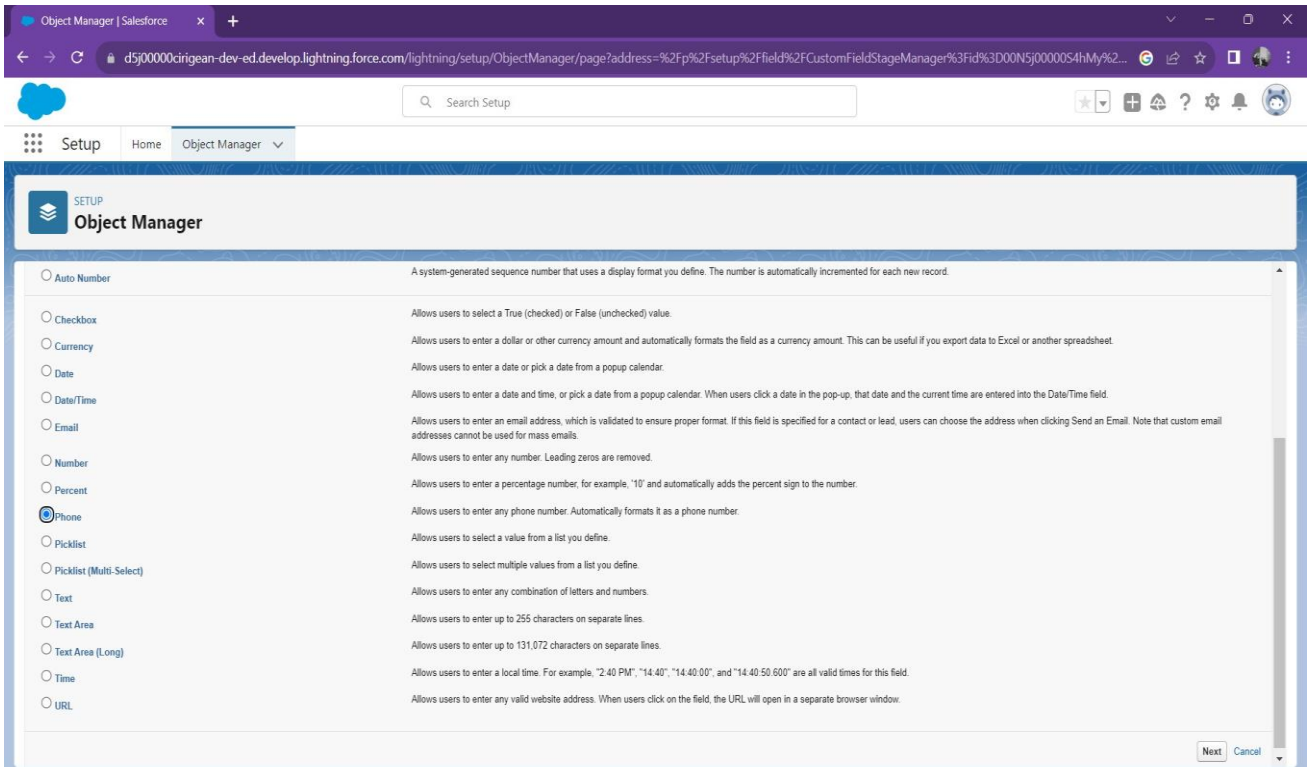

school | Salesforce
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01I5j000002zbK5/FieldsAndRelationships/view
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
school
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Triggers
Flow Triggers
Fields & Relationships
7 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Address
Address__c
Text Area(255)
Created By
CreatedById
Lookup(User)
Highest Marks
Highest_Marks__c
Roll-Up Summary (MAX student)
Last Modified By
LastModifiedById
Lookup(User)
Number of student
Number_of_student__c
Roll-Up Summary (COUNT student)
Owner
OwnerId
Lookup(User,Group)
school Name
Name
Text(80)

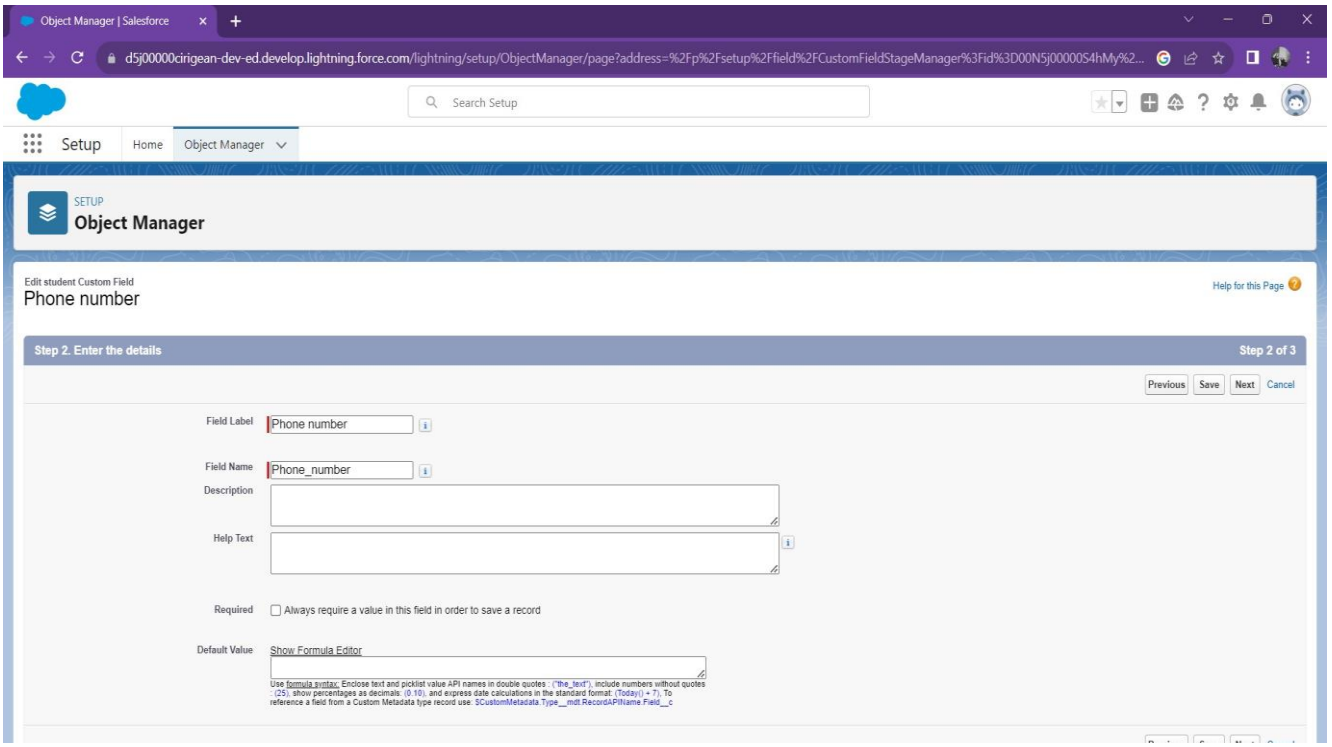

school | Salesforce
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/ObjectManager/01I5j000002zbK5/FieldsAndRelationships/new
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
school
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Object Limits
Record Types
Related Lookup Filters
Restriction Rules
Scoping Rules
Triggers
Flow Triggers
school
New Custom Field
Help for this Page
Step 2. Enter the details
Step 2 of 4
Previous
Next
Cancel
Field Label
Address
Field Name
Address
Description
Help Text
Required
Always require a value in this field in order to save a record
Auto add to custom report type
Add this field to existing custom report types that contain this entity
Default Value
Show Formula Editor

1) Creation Of Fields For The Student Objects

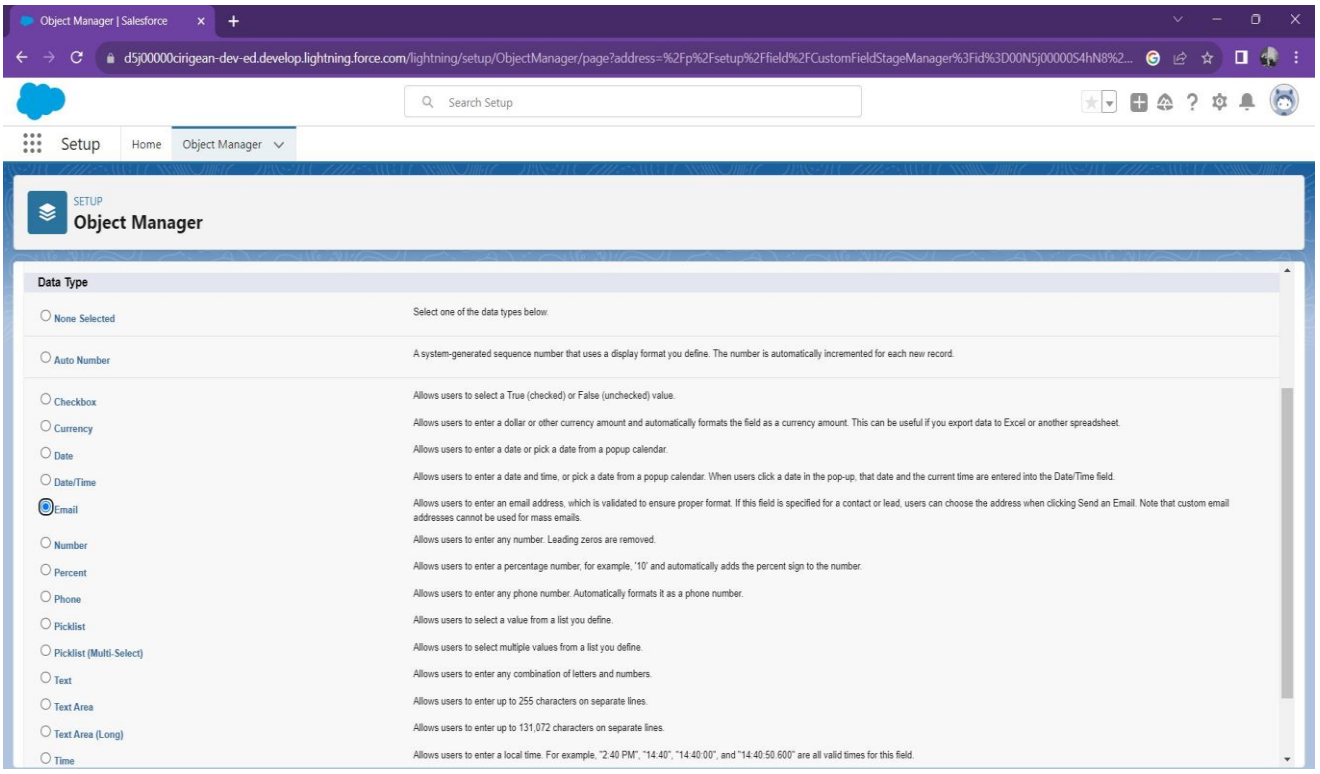


1) Phone Data Type:

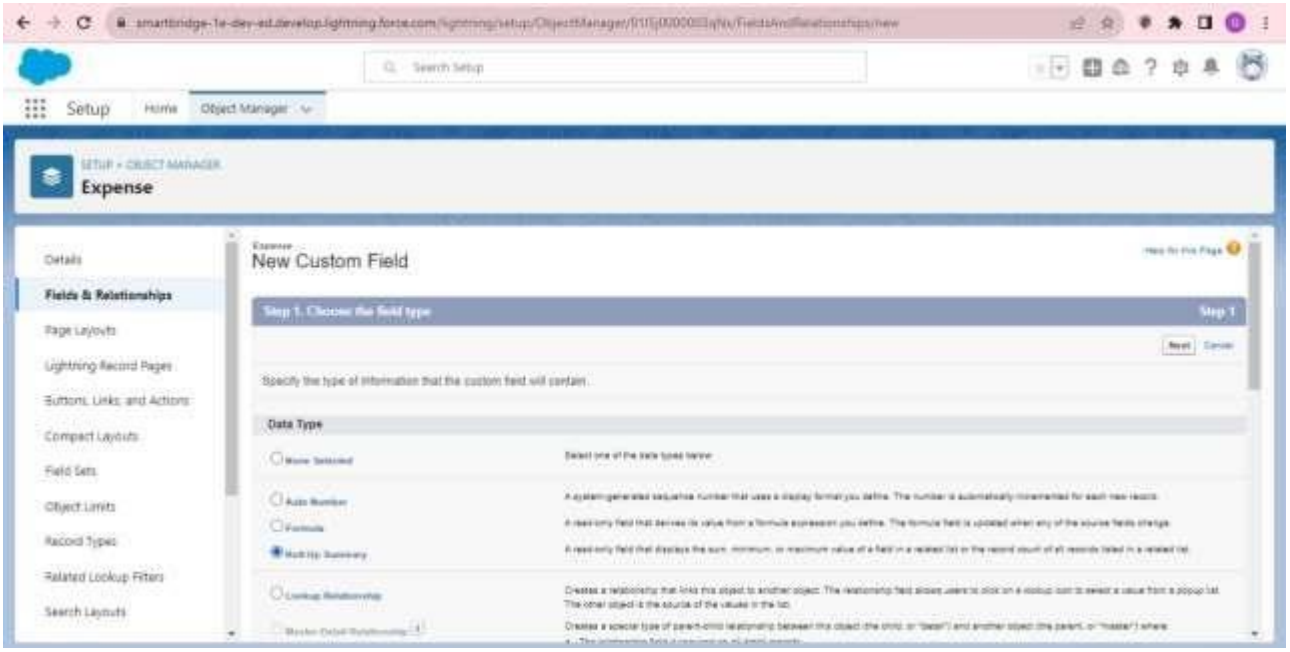




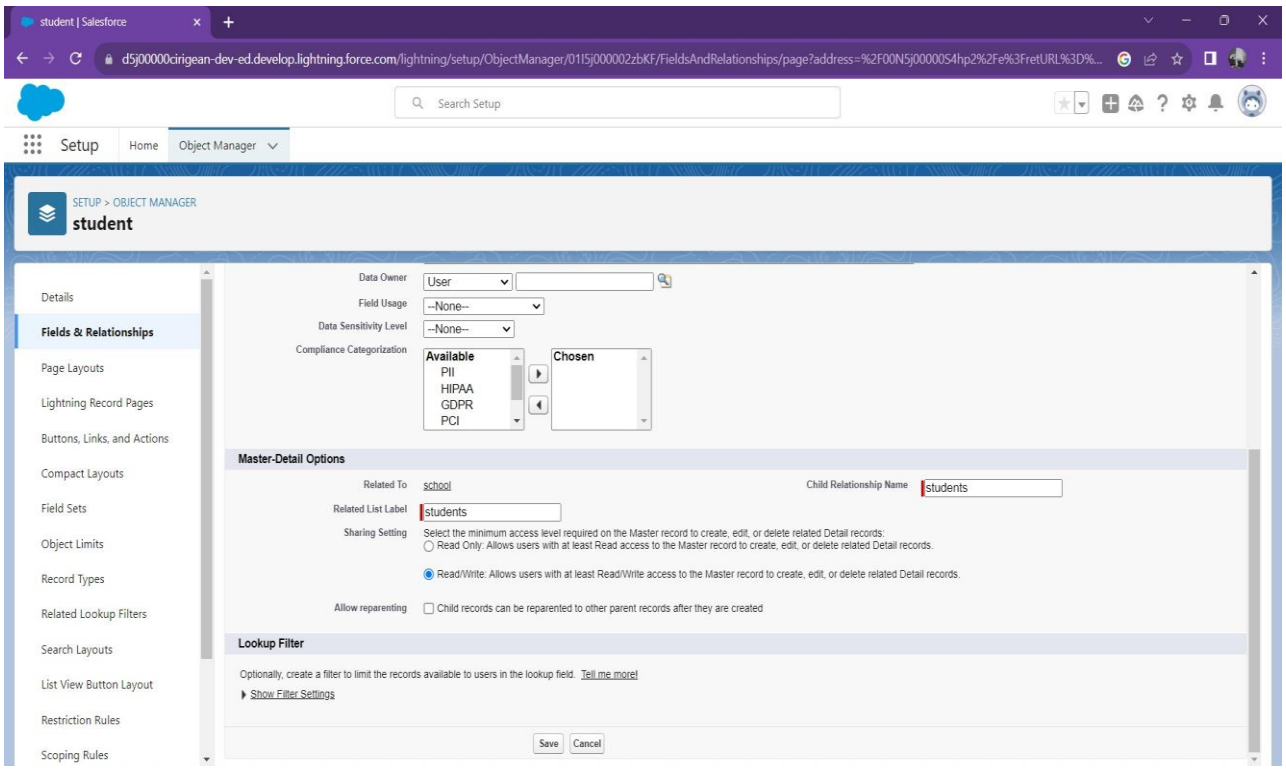
2) Email Data Type:



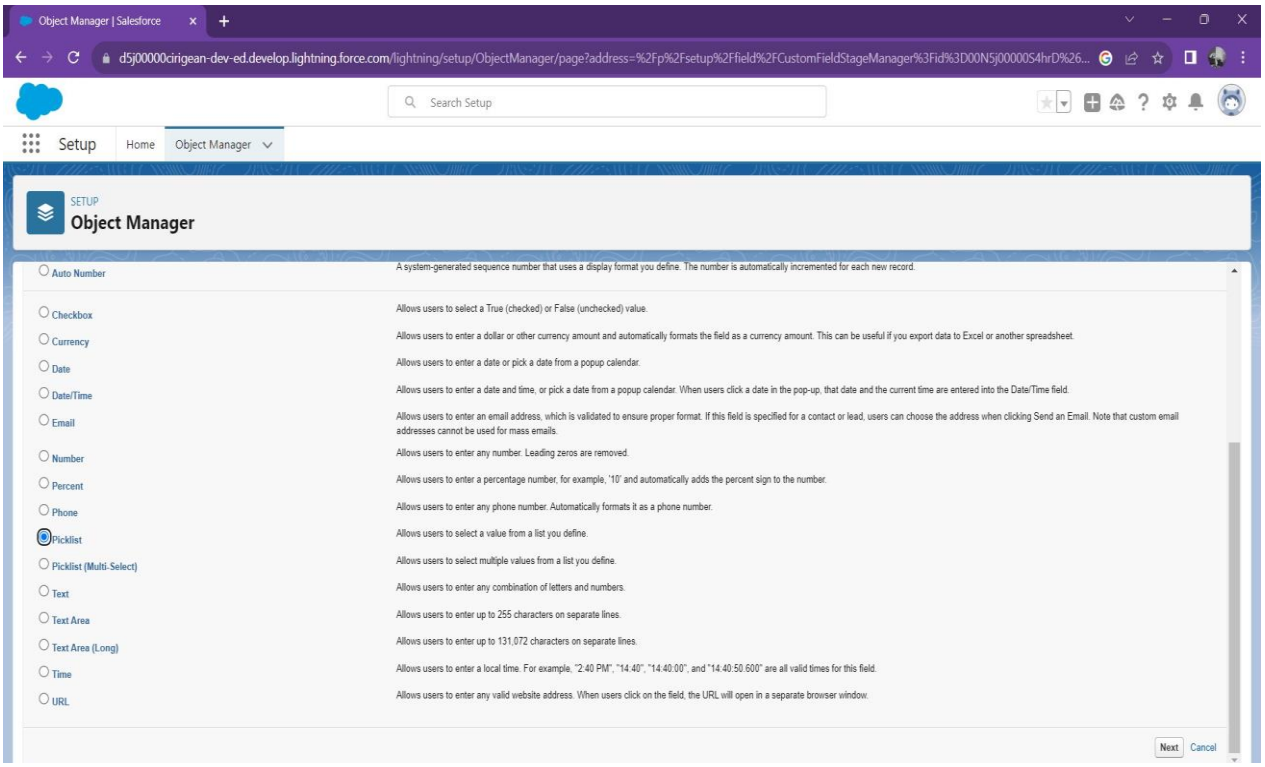
3) Rollup summary:

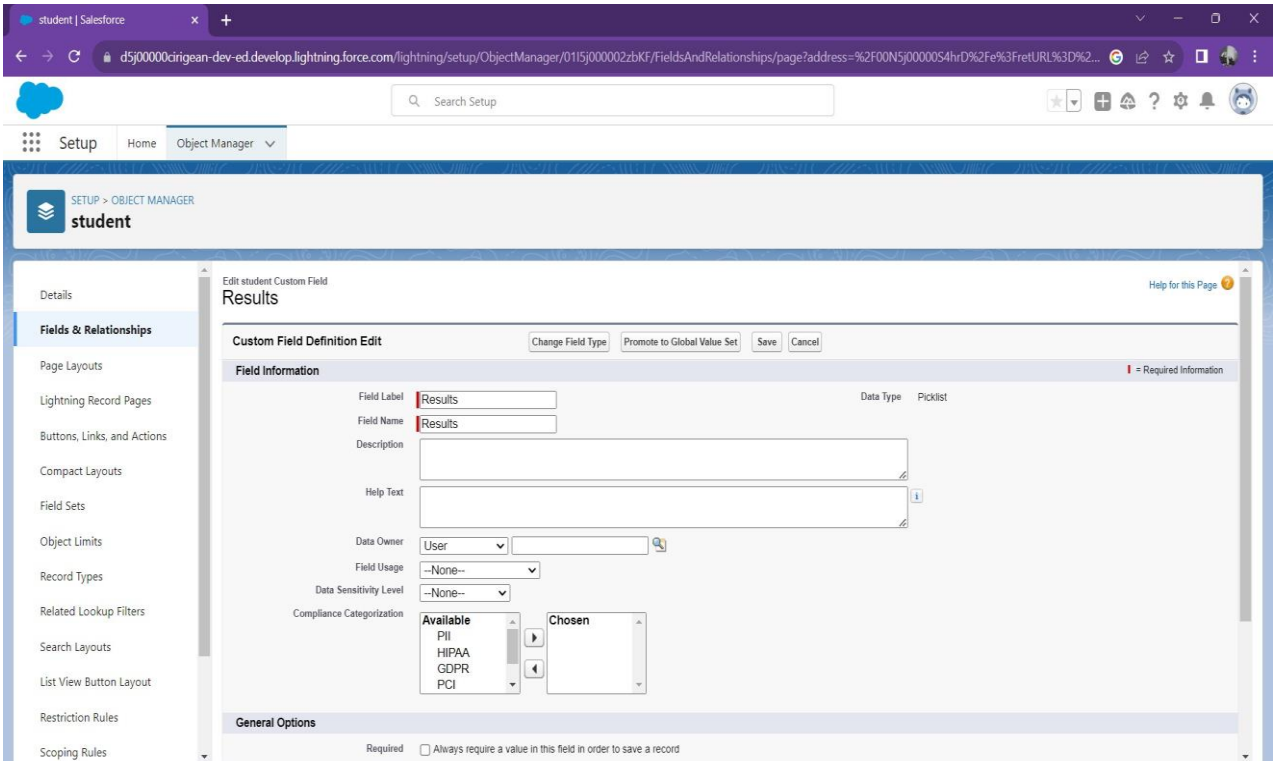


4) Create a master-detail relationship with School object:

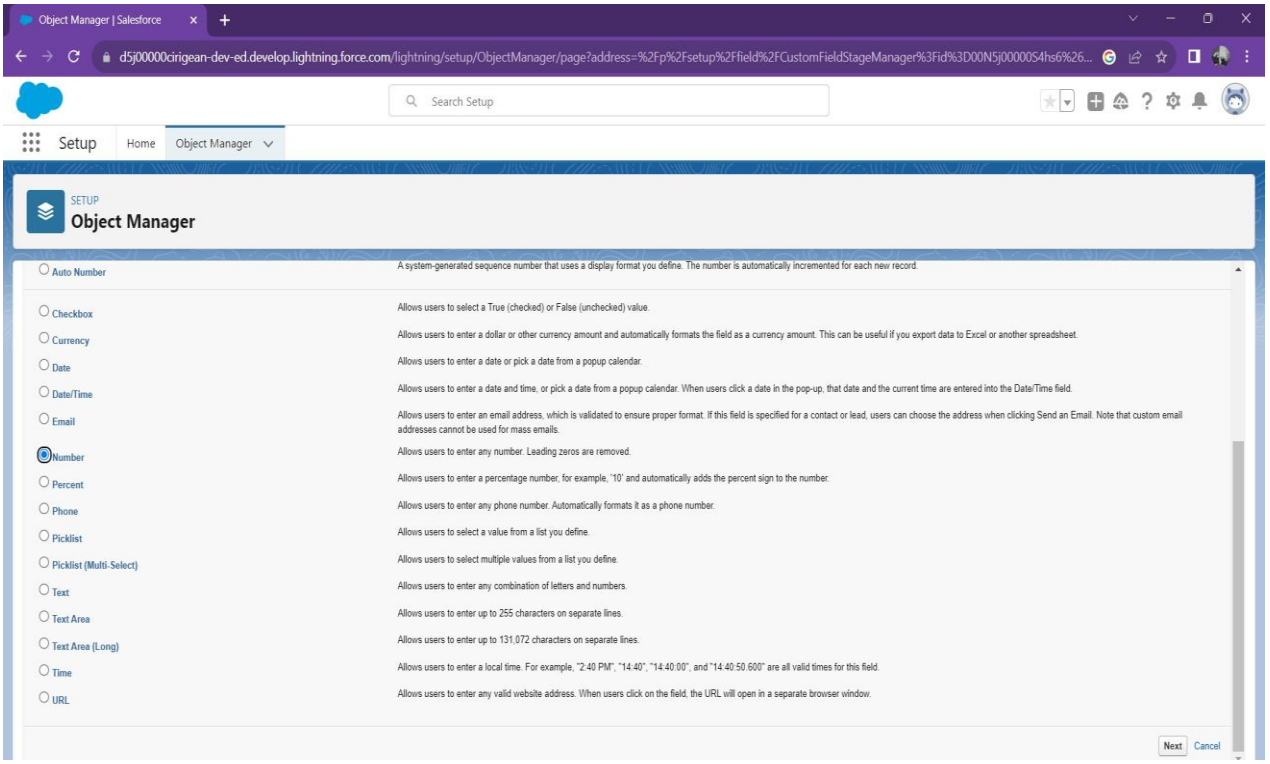


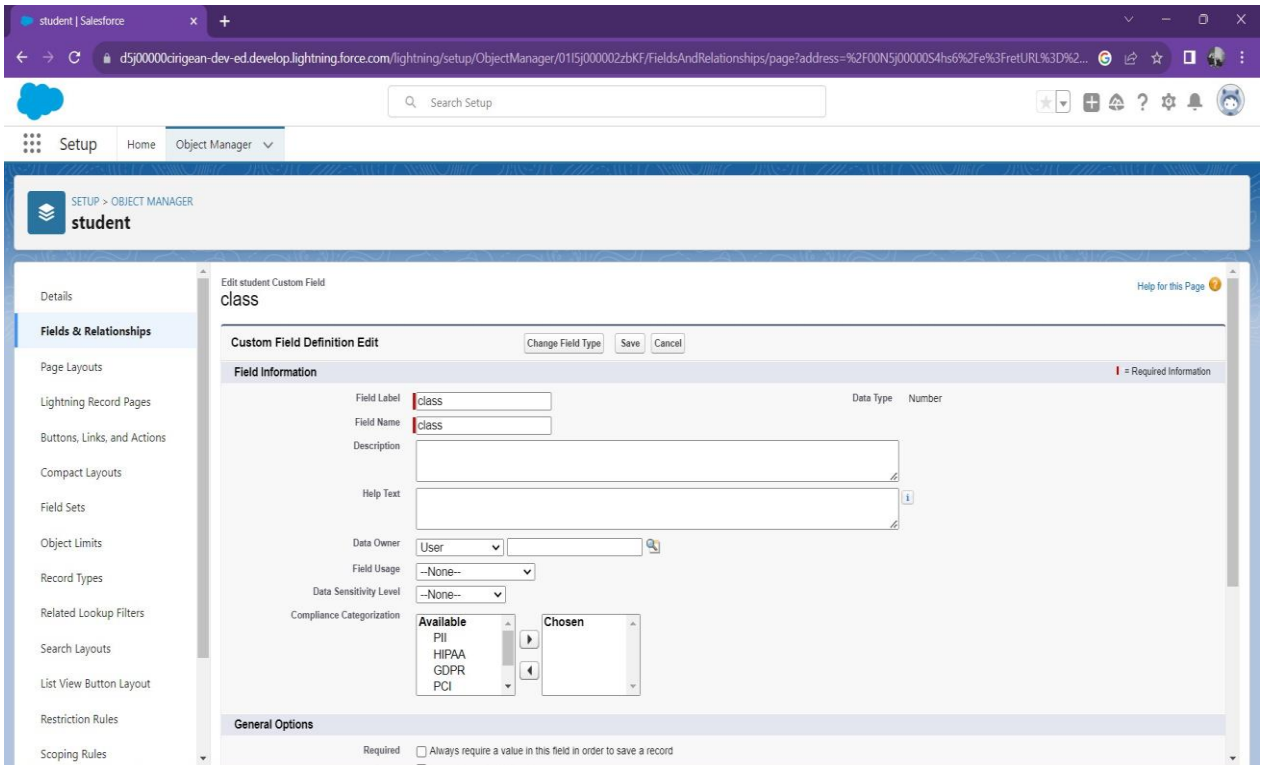
5) Create a Pick – List Field:



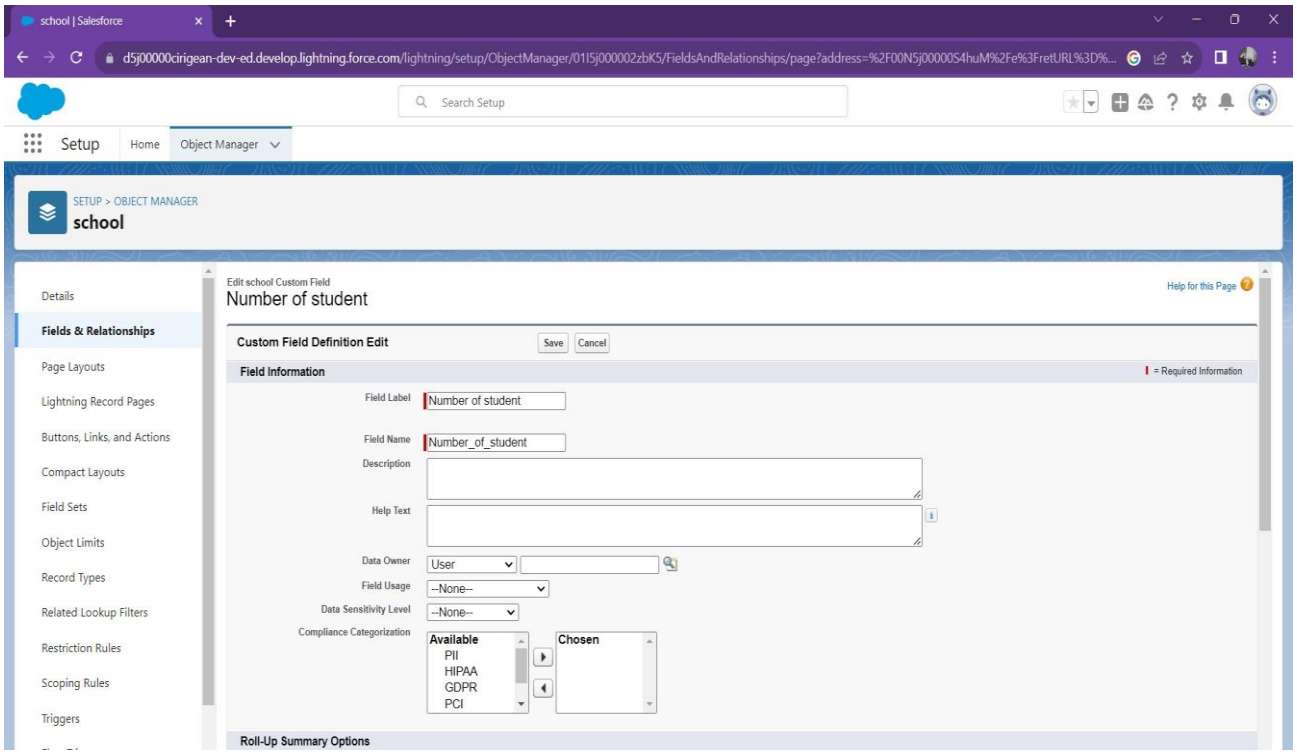


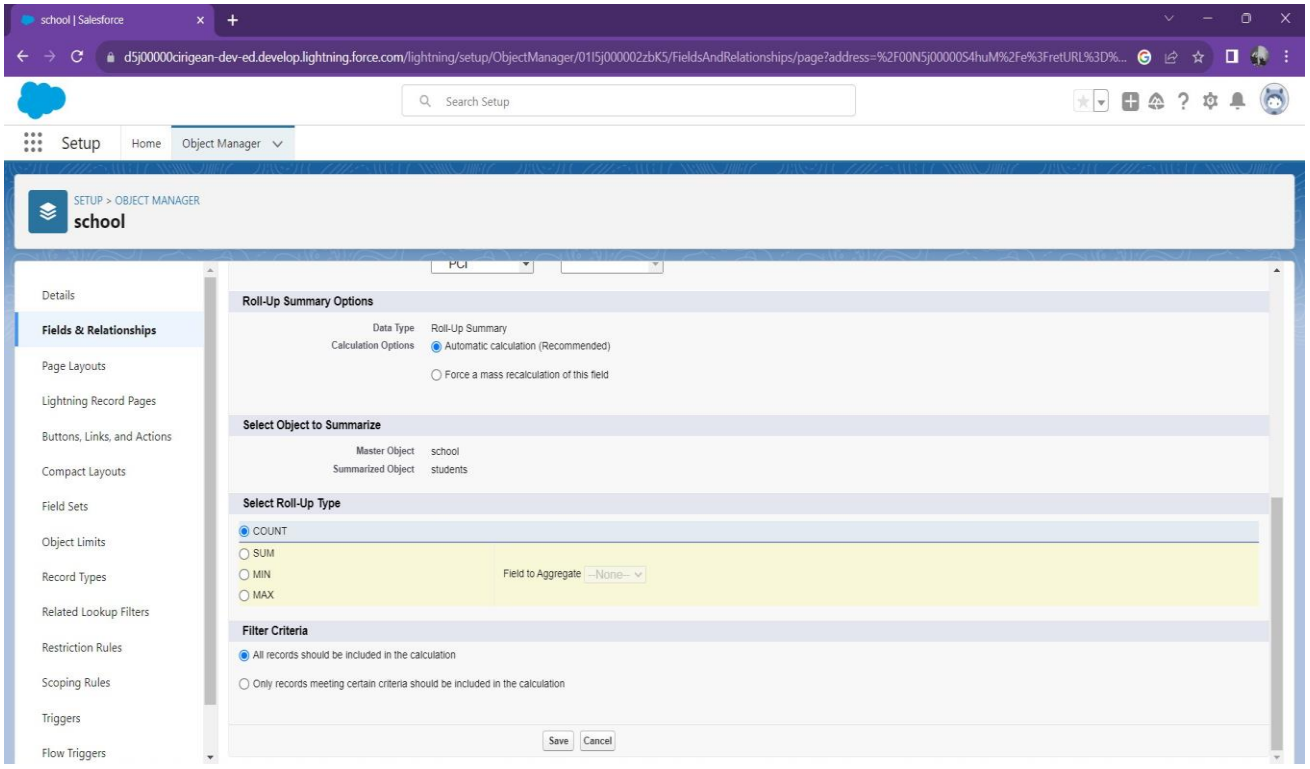
6) Create a Number field:





7) Create Roll-up summary fields on School Object to calculate the number of students:





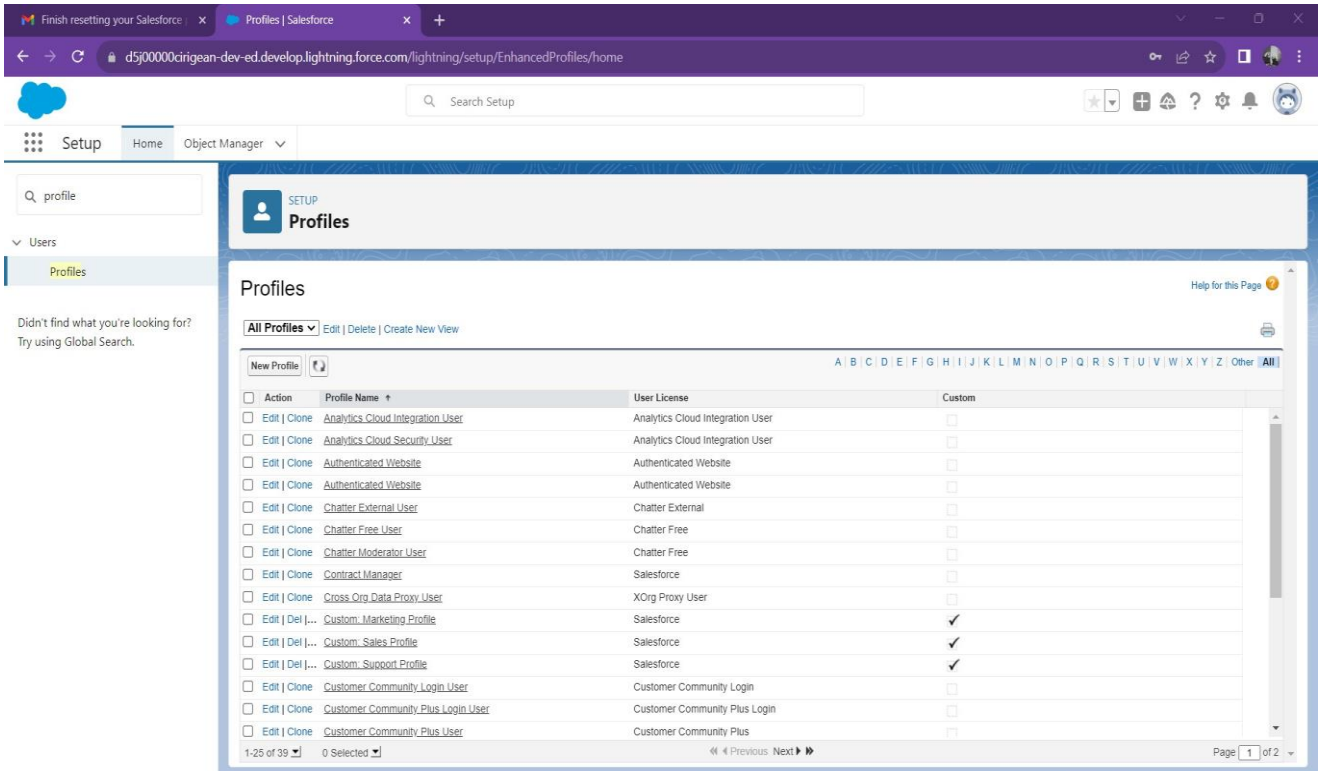
CHAPTER - 6

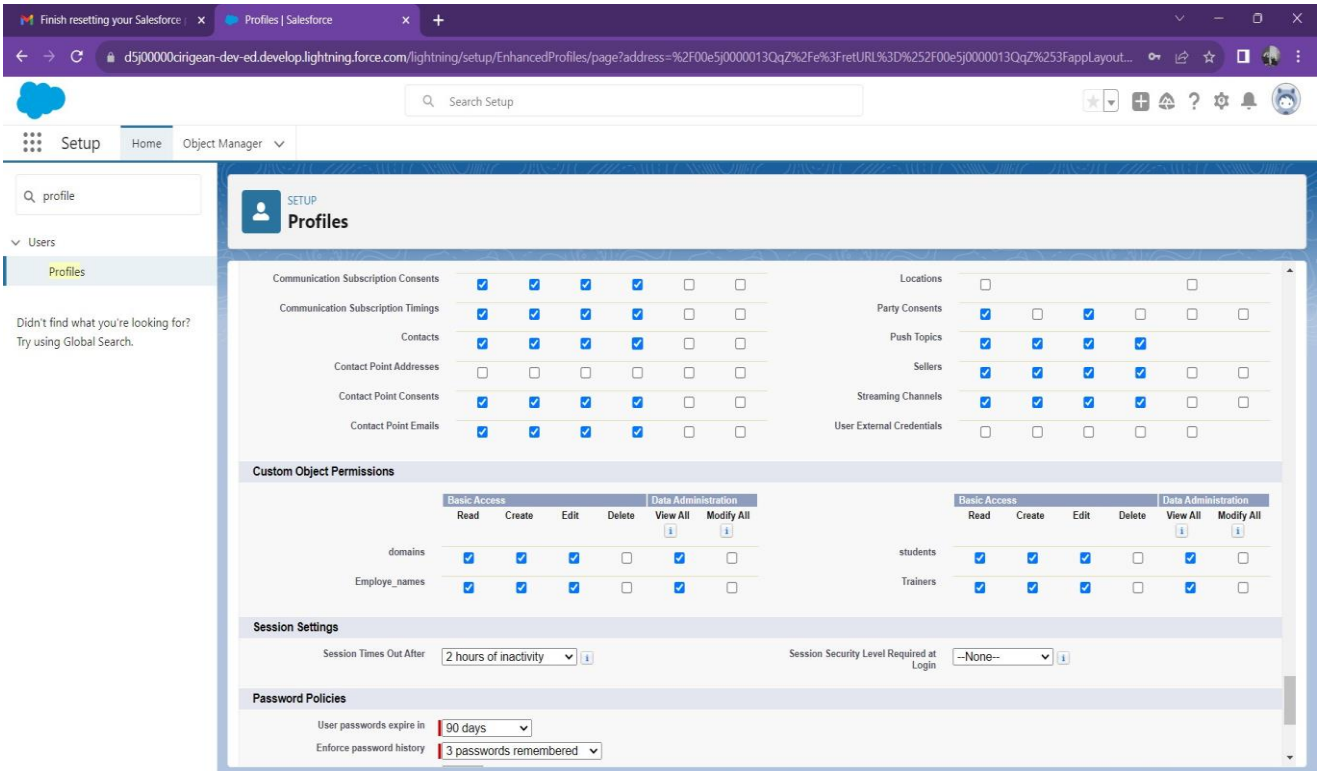
CREATION ON PROFILE

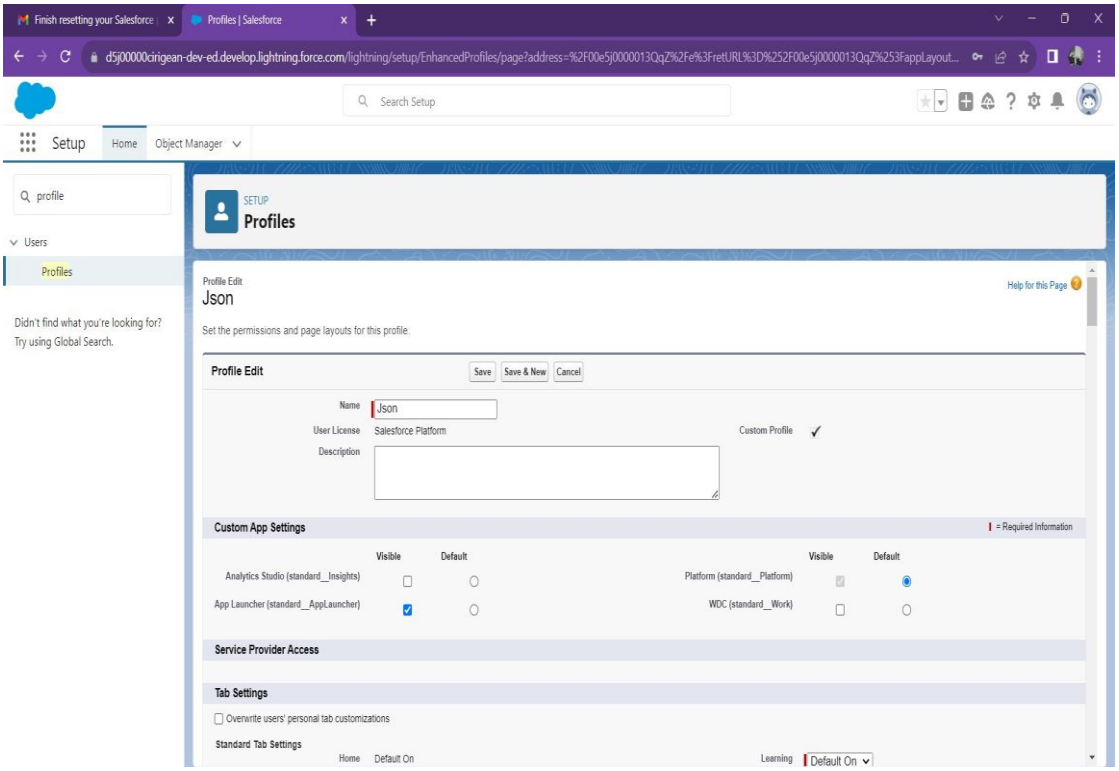
Creation on profile:

Profile:

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



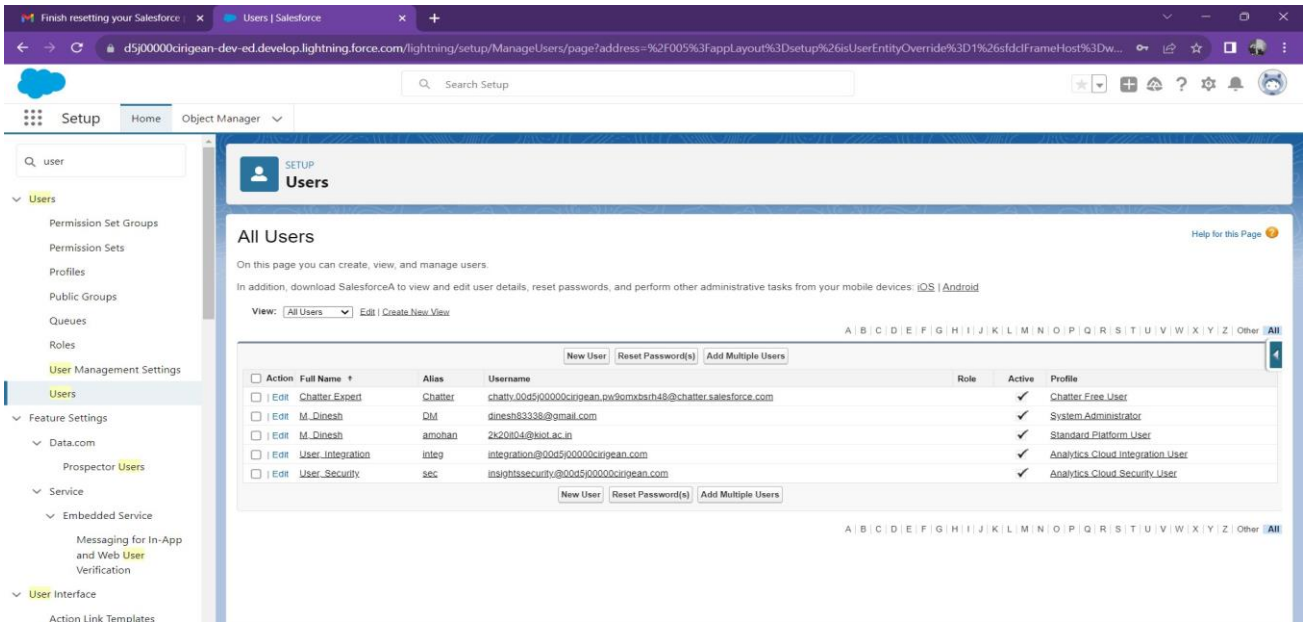

Finish resetting your Salesforce
Profiles | Salesforce
Search Setup
Setup
Home
Object Manager
profile
Users
Profiles
Didn't find what you're looking for?
Try using Global Search.
SETUP
Profiles
Communication Subscription Consents
Communication Subscription Timings
Contacts
Contact Point Addresses
Contact Point Consents
Contact Point Emails
Locations
Party Consents
Push Topics
Sellers
Streaming Channels
User External Credentials
Custom Object Permissions
Basic Access
Data Administration
Read
Create
Edit
Delete
View All
Modify All
domains
Employe_names
students
Trainers
Session Settings
Session Times Out After
2 hours of inactivity
Session Security Level Required at Login
--None--
Password Policies
User passwords expire in
90 days
Enforce password history
3 passwords remembered

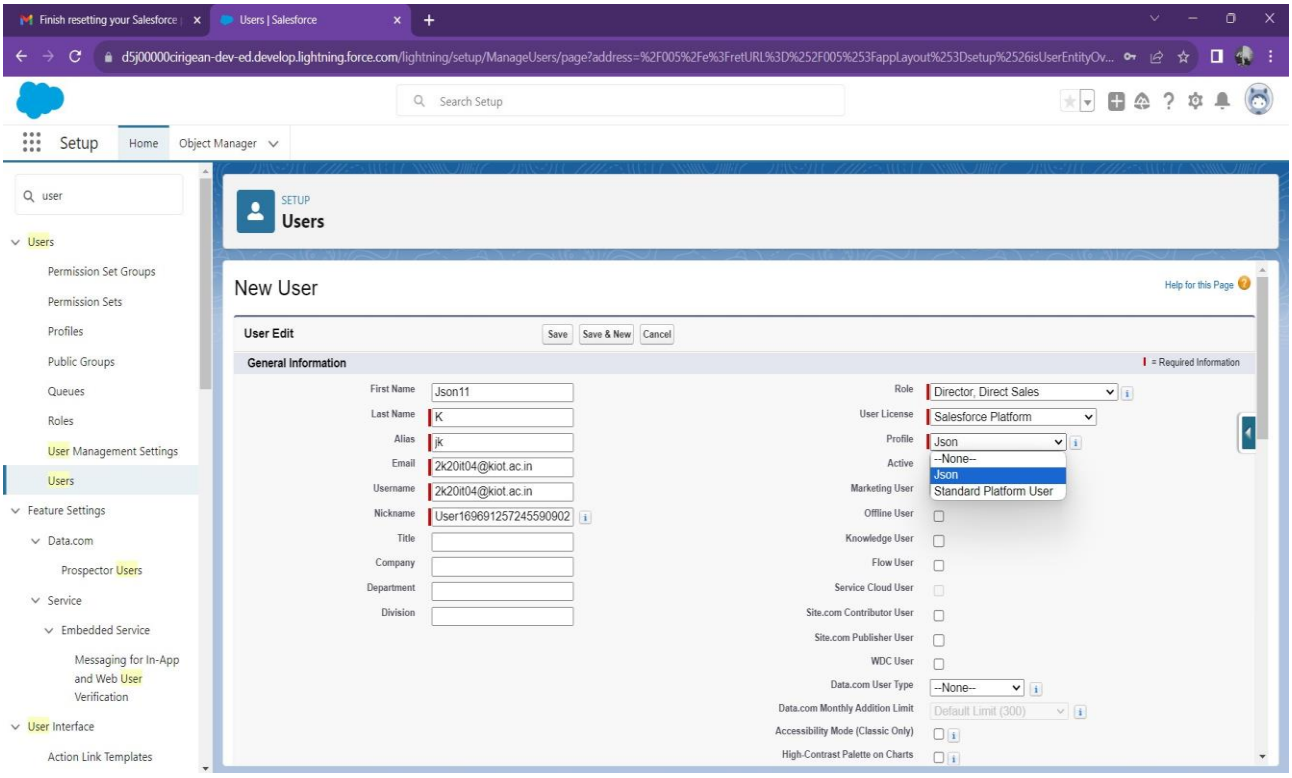

Finish resetting your Salesforce
Profiles | Salesforce
Search Setup
Setup
Home
Object Manager
profile
Users
Profiles
Didn't find what you're looking for?
Try using Global Search.
SETUP
Profiles
Profile Edit
Json
Help for this Page
Set the permissions and page layouts for this profile.
Profile Edit
Save
Save & New
Cancel
Name
Json
User License
Salesforce Platform
Custom Profile
Description
Custom App Settings
= Required Information
Visible
Default
Analytics Studio (standard__Insights)
App Launcher (standard__AppLauncher)
Platform (standard__Platform)
WDC (standard__Work)
Service Provider Access
Tab Settings
Overwrite users' personal tab customizations
Standard Tab Settings
Home
Default On
Learning
Default On

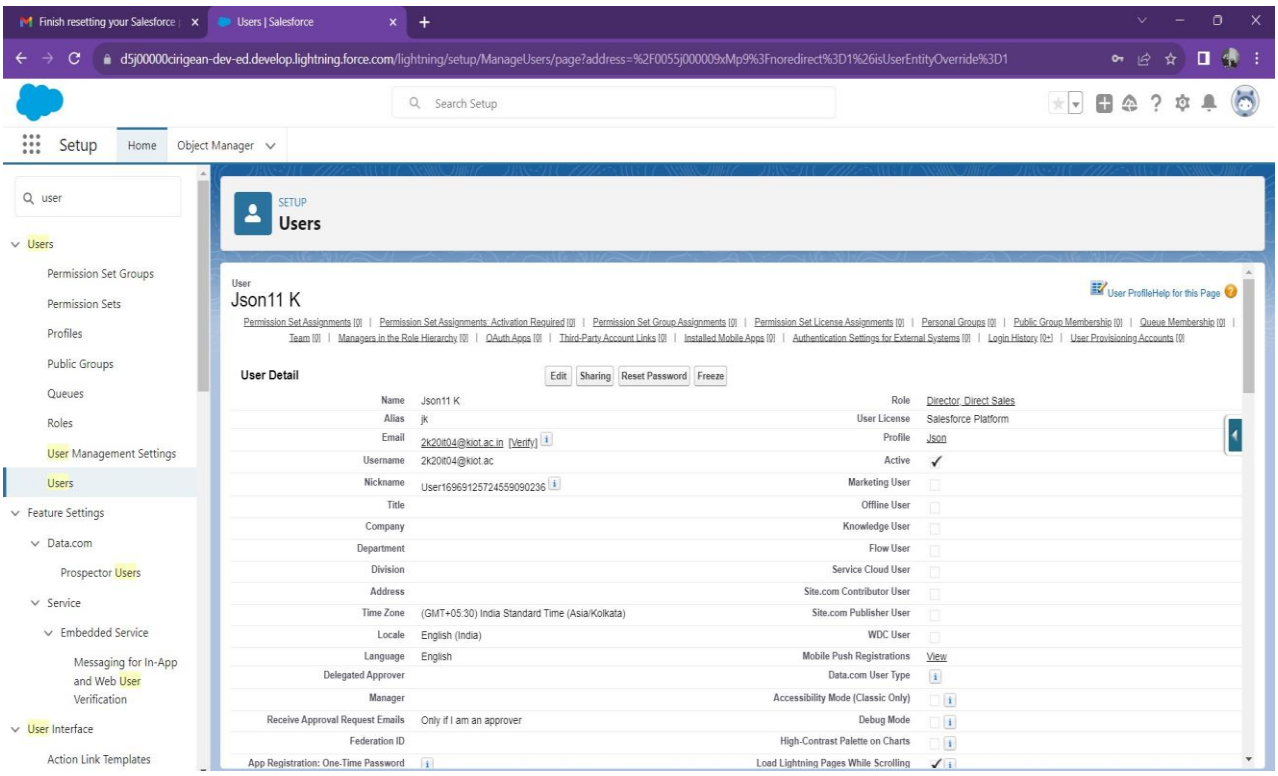
CHAPTER - 7
CREATING A USER

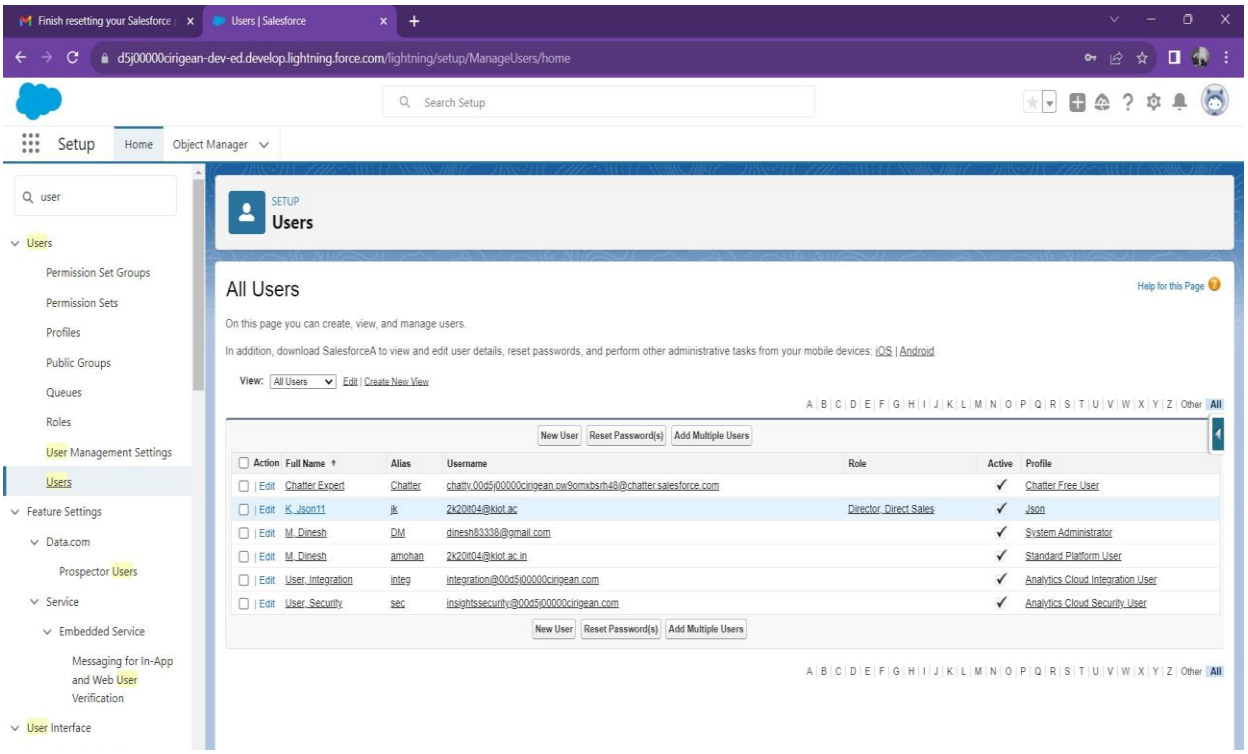
Creating a User:

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.
5. By default, the username is the same as the email address.
6. Select a User License as sales force.
7. Select a profile as a School profile.
8. Check Generate new password and notify the user immediately to have the user's login name and a temporary password emailed to your email.
9. Similarly follow the above steps and create 2 users as Teachers and principals.




Finish resetting your Salesforce
Users | Salesforce
Search Setup
Setup
Home
Object Manager
user
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface
Action Link Templates
SETUP
Users
New User
Help for this Page
User Edit
Save
Save & New
Cancel
General Information
= Required Information
First Name
Json11
Last Name
K
Alias
jk
Email
2k20it04@kiot.ac.in
Username
2k20it04@kiot.ac.in
Nickname
User16969125724559090 2
Title
Company
Department
Division
Role
Director, Direct Sales
User License
Salesforce Platform
Profile
Json
--None--
Json
Standard Platform User
Active
Marketing User
Offline User
Knowledge User
Flow User
Service Cloud User
Site.com Contributor User
Site.com Publisher User
WDC User
Data.com User Type
--None--
Data.com Monthly Addition Limit
Default Limit (300)
Accessibility Mode (Classic Only)
High-Contrast Palette on Charts


Finish resetting your Salesforce
Users | Salesforce
Search Setup
Setup
Home
Object Manager
user
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface
Action Link Templates
SETUP
Users
User
Json11 K
User ProfileHelp for this Page
Permission Set Assignments [0] | Permission Set Assignments: Activation Required [0] | Permission Set Group Assignments [0] | Permission Set License Assignments [0] | Personal Groups [0] | Public Group Membership [0] | Queue Membership [0] | Team [0] | Managers in the Role Hierarchy [0] | OAuth Apps [0] | Third-Party Account Links [0] | Installed Mobile Apps [0] | Authentication Settings for External Systems [0] | Login History [0+] | User Provisioning Accounts [0]
User Detail
Edit
Sharing
Reset Password
Freeze
Name
Json11 K
Alias
jk
Email
2k20it04@kiot.ac.in [Verify]
Username
2k20it04@kiot.ac
Nickname
User16969125724559090236
Title
Company
Department
Division
Address
Time Zone
(GMT+05:30) India Standard Time (Asia/Kolkata)
Locale
English (India)
Language
English
Delegated Approver
Manager
Receive Approval Request Emails
Only if I am an approver
Federation ID
App Registration: One-Time Password
Role
Director, Direct Sales
User License
Salesforce Platform
Profile
Json
Active
Marketing User
Offline User
Knowledge User
Flow User
Service Cloud User
Site.com Contributor User
Site.com Publisher User
WDC User
Mobile Push Registrations
View
Data.com User Type
Accessibility Mode (Classic Only)
Debug Mode
High-Contrast Palette on Charts
Load Lightning Pages While Scrolling


Finish resetting your Salesforce
Users | Salesforce
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/ManageUsers/home
Search Setup
Setup
Home
Object Manager
user
Users
Permission Set Groups
Permission Sets
Profiles
Public Groups
Queues
Roles
User Management Settings
Users
Feature Settings
Data.com
Prospector Users
Service
Embedded Service
Messaging for In-App and Web User Verification
User Interface
SETUP
Users
All Users
Help for this Page
On this page you can create, view, and manage users.
In addition, download SalesforceA to view and edit user details, reset passwords, and perform other administrative tasks from your mobile devices: iOS | Android
View: All Users Edit | Create New View
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other All
New User
Reset Password(s)
Add Multiple Users
Action
Full Name
Alias
Username
Role
Active
Profile
| Edit Chatter Expert Chatter chatty.00d5j00000cirigean.pw9omxbsrh48@chatter.salesforce.com ✓ Chatter Free User
| Edit K Json11 jk 2k20it04@kiot.ac Director, Direct Sales ✓ Json
| Edit M Dinesh DM dinesh83338@gmail.com ✓ System Administrator
| Edit M Dinesh amohan 2k20it04@kiot.ac.in ✓ Standard Platform User
| Edit User Integration integ integration@00d5j00000cirigean.com ✓ Analytics Cloud Integration User
| Edit User Security sec insightssecurity@00d5j00000cirigean.com ✓ Analytics Cloud Security User
New User
Reset Password(s)
Add Multiple Users
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other All

CHAPTER - 8

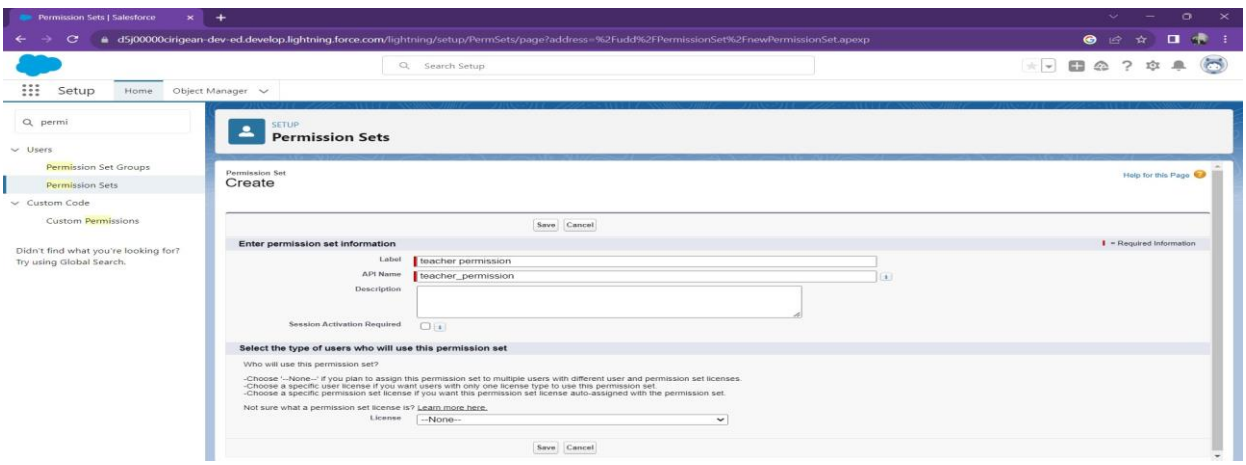
PERMISSION SETS

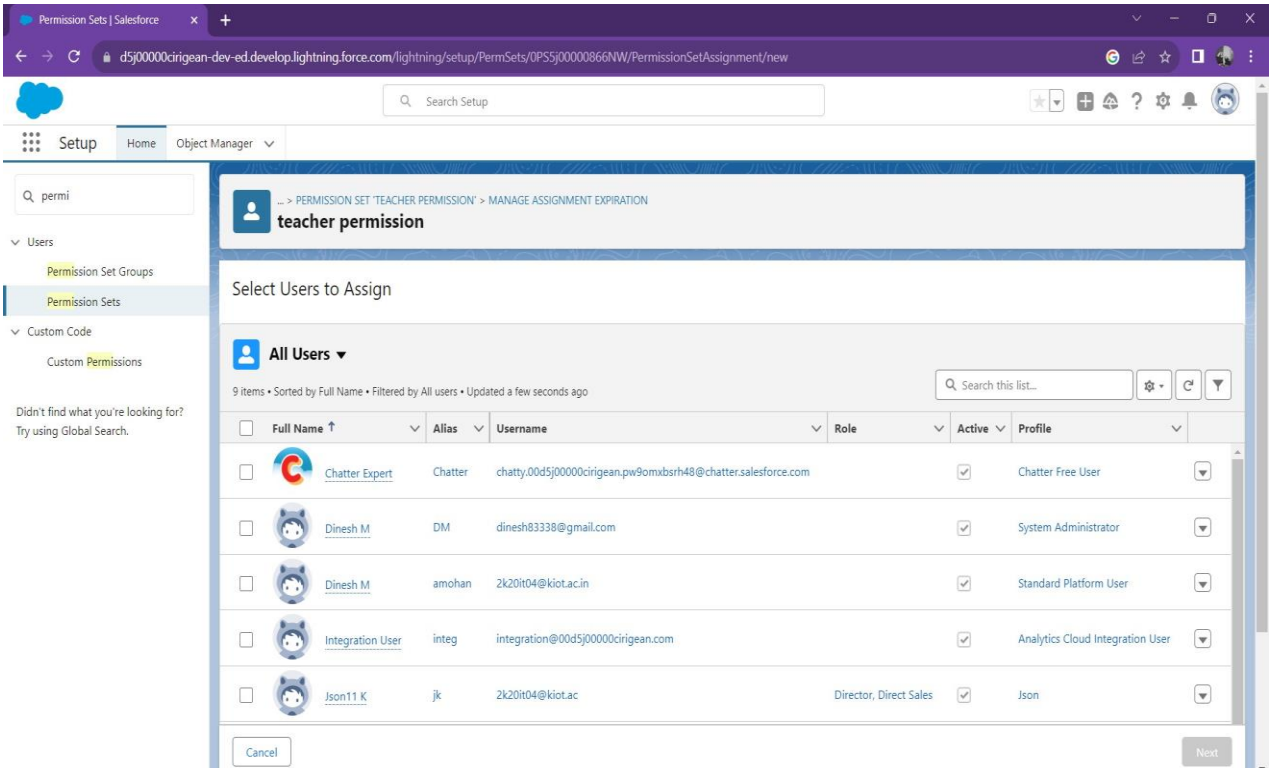
Permission Sets

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.

1) Create 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.
4. Under the object settings give the view create and edit permissions to all 3 custom objects (By click open the object)
5. Click on manage assignment
6. Click on add assignment.
7. Click on Teacher (user), Next, Assign.



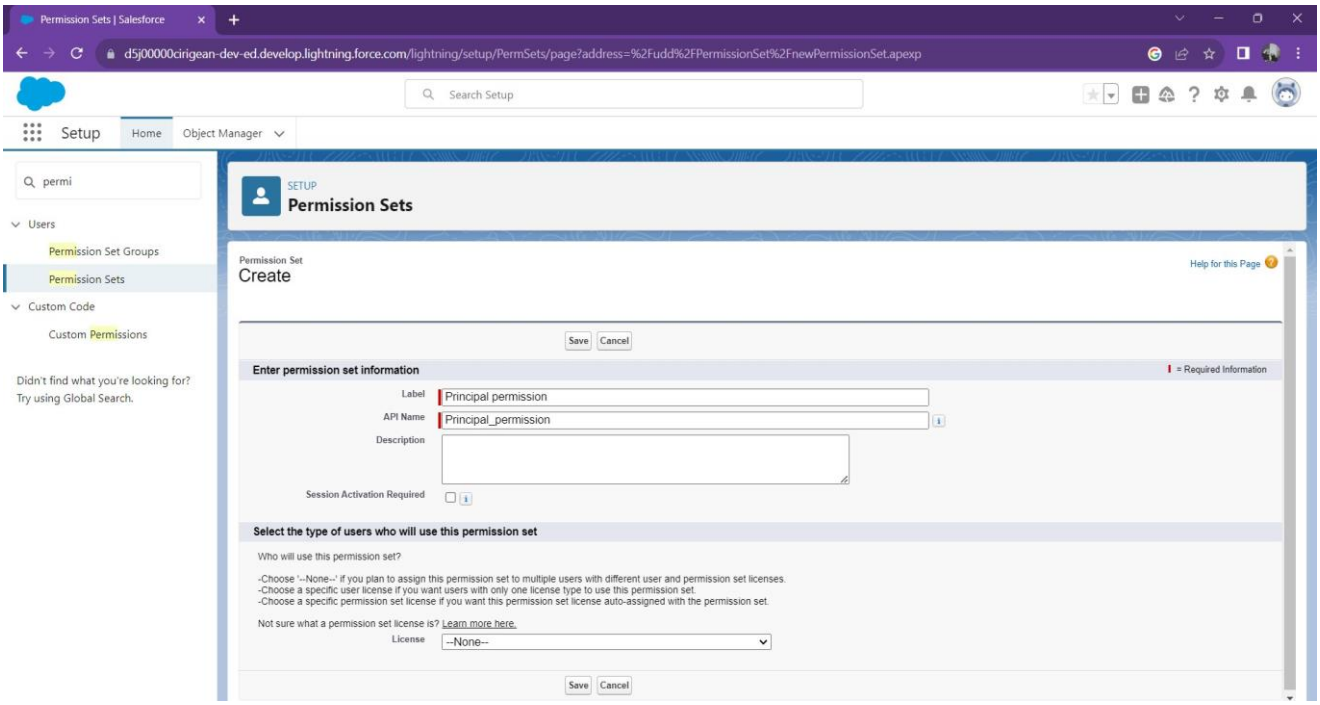


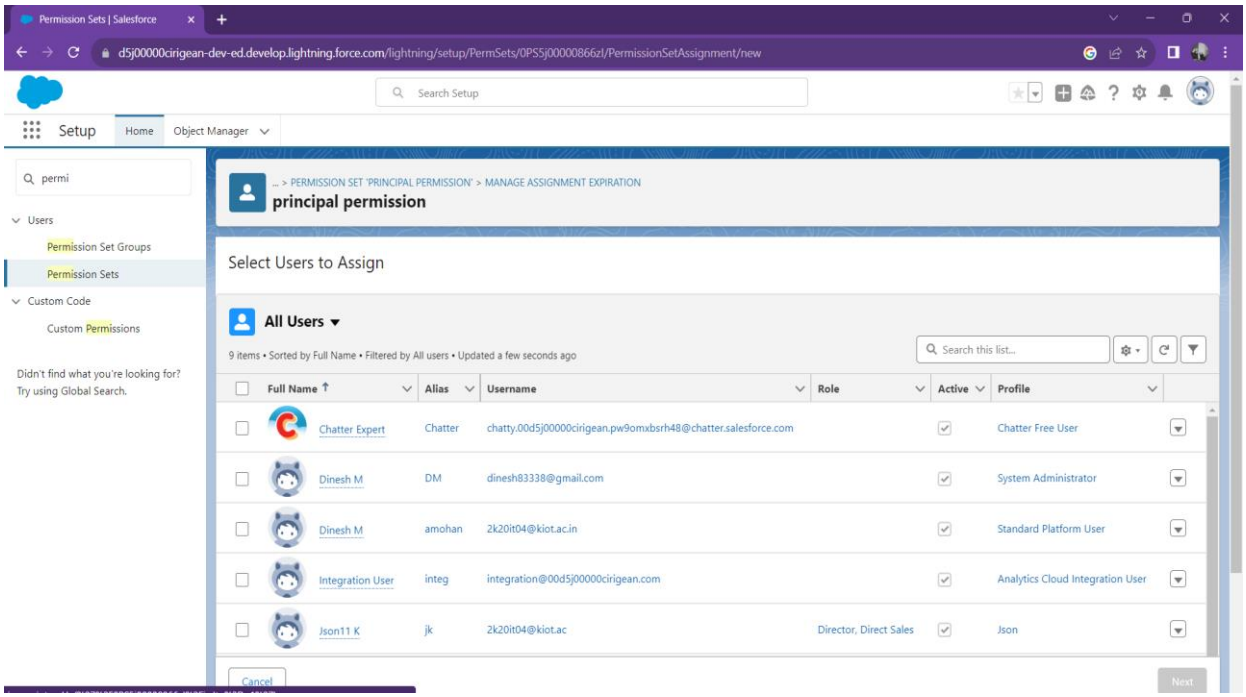
Create A Another Permission Set:

Permission sets 2:

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

Principal permission:





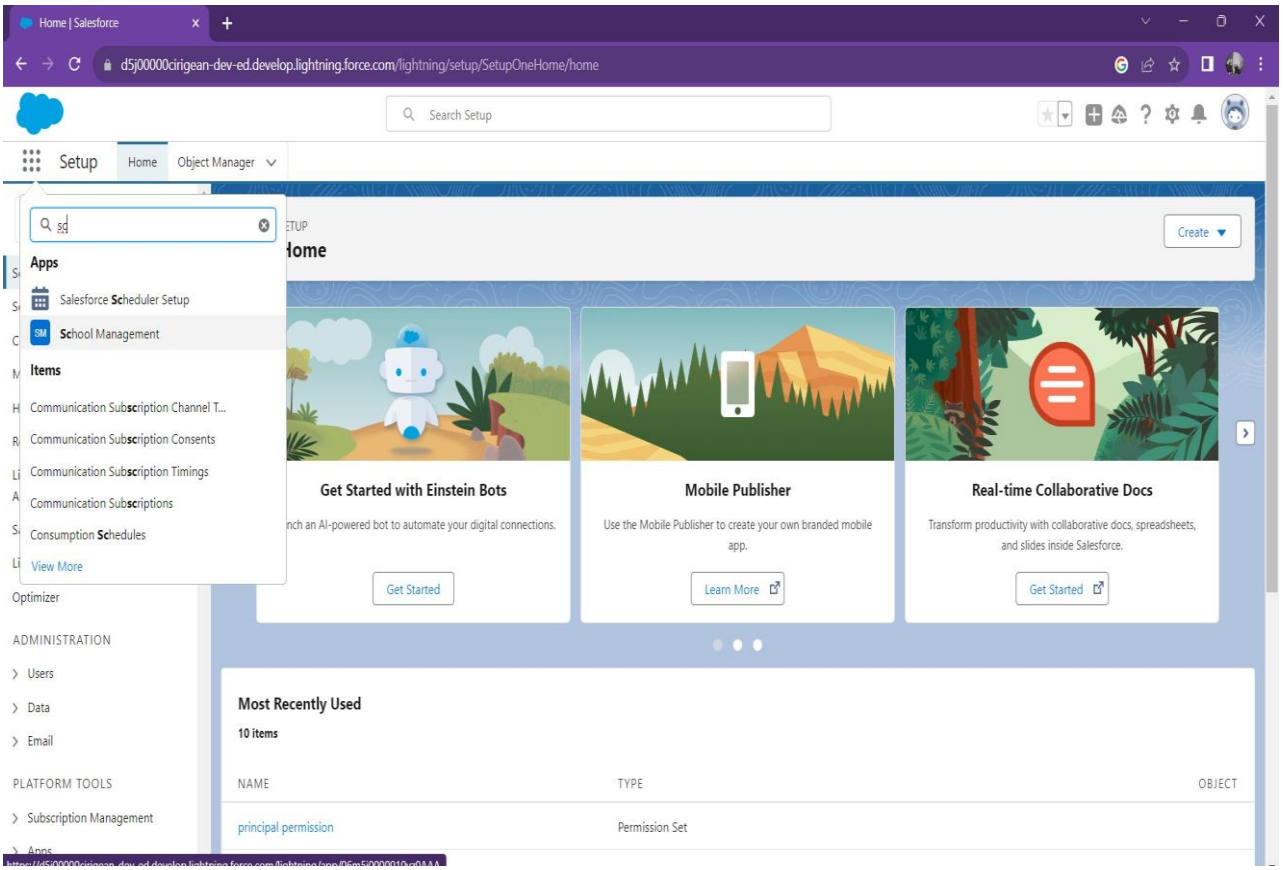
CHAPTER - 9

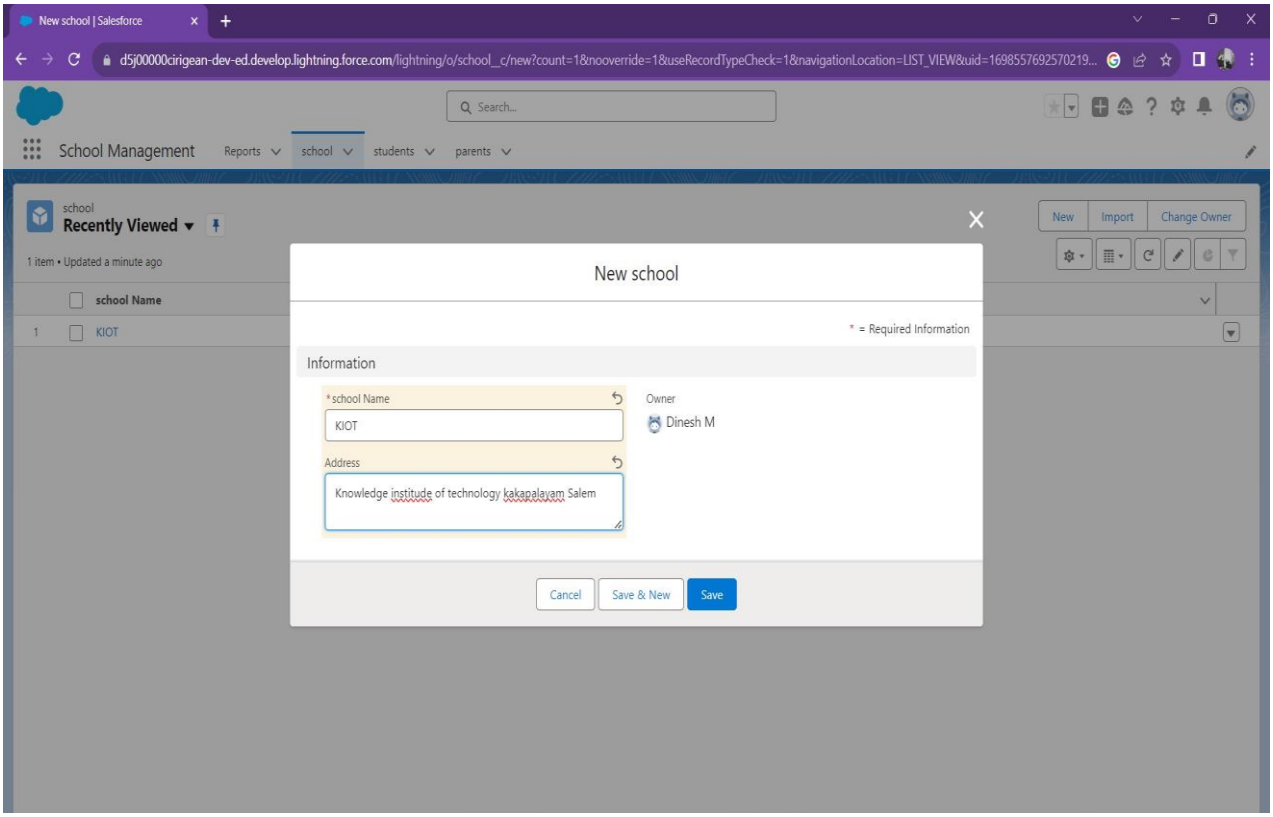
USER ADOPTION

Create Record (School)

Create Record (**School**):

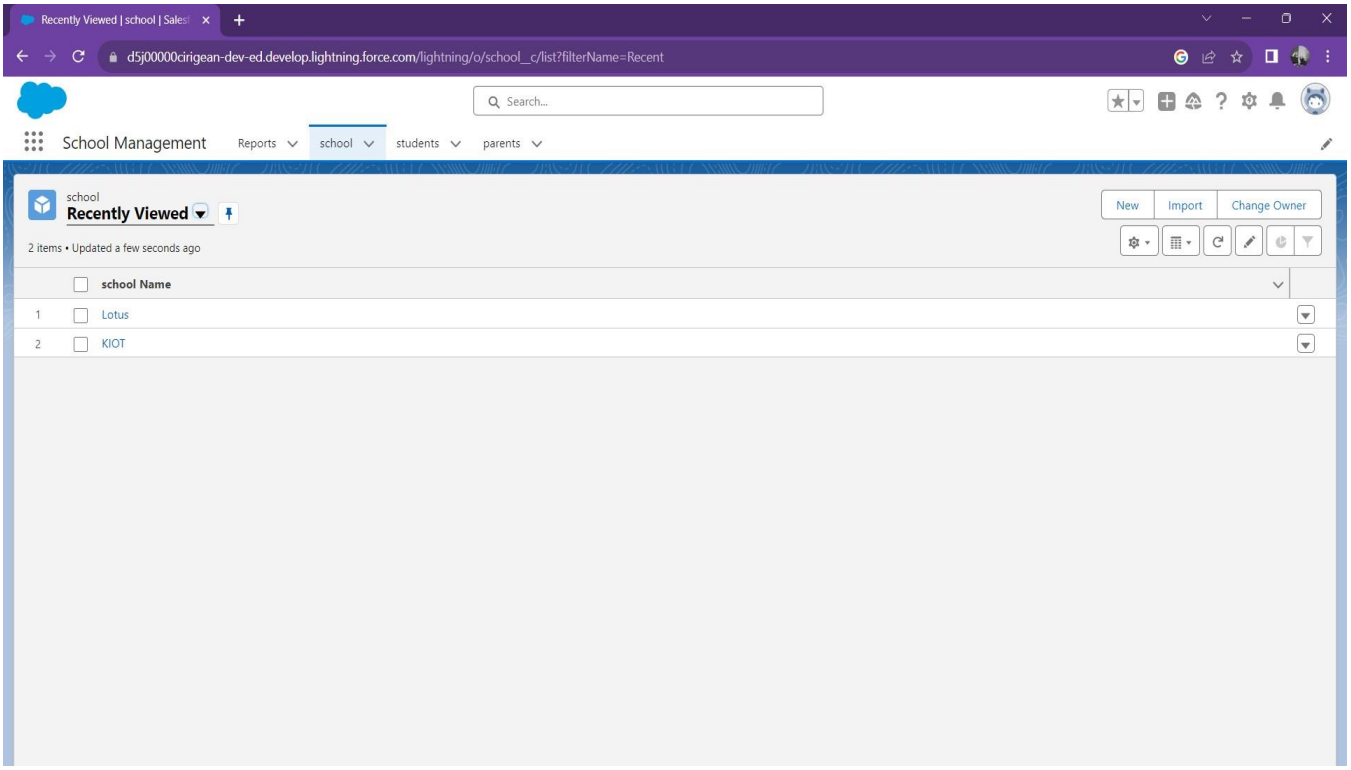
1. Click on App Launcher on left side of screen.
2. Search **School Management App** & click on it.
3. Click on **Schools** tab.
4. Click new button
5. Fill all School record details.
6. Click on Save Button





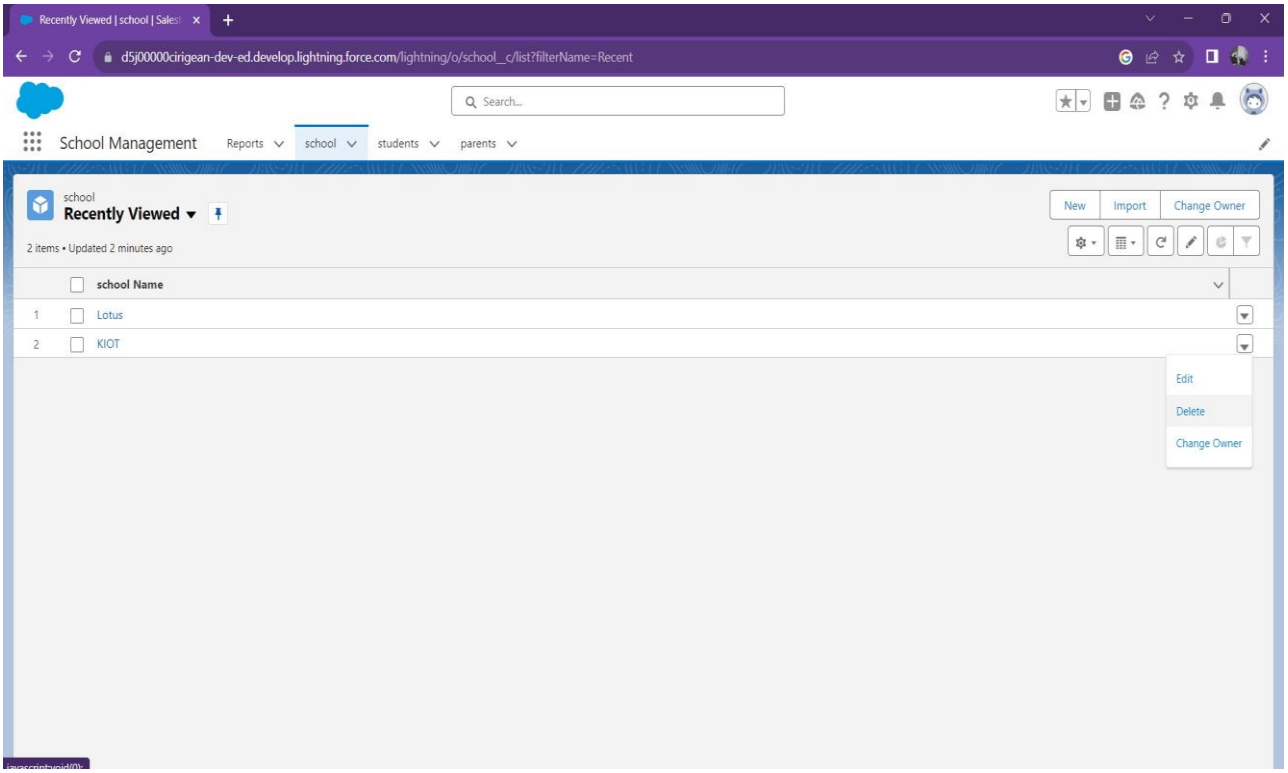
View Record (School):

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.



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.


Recently Viewed | school | Sales
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/o/school__c/list?filterName=Recent
Search...
School Management
Reports
school
students
parents
school
Recently Viewed
2 items • Updated 2 minutes ago
New
Import
Change Owner
school Name
1
Lotus
2
KIOT
Edit
Delete
Change Owner

CHAPTER - 10

Reports

Reports:

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

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.

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.

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.

Report types:

Report type determines which set of records will be available in a report. Every report is based on a particular report type.

1. **Standard Report Types:**

Standard Report Types are automatically included with standard objects and also with custom objects where"**AllowReports**"checked.

Standard report types cannot be customized and automatically include standard and custom fields for each object within the report type. Standard report types get created when an object is created, also when a relationship is created.

Custom Report Types:

Custom Reports are created by an administrator or User with "Manage Custom Report Types" permission. Custom report types are created when standard report types cannot specify which records will be available on reports.
There are 3 types of access levels of folders:

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.

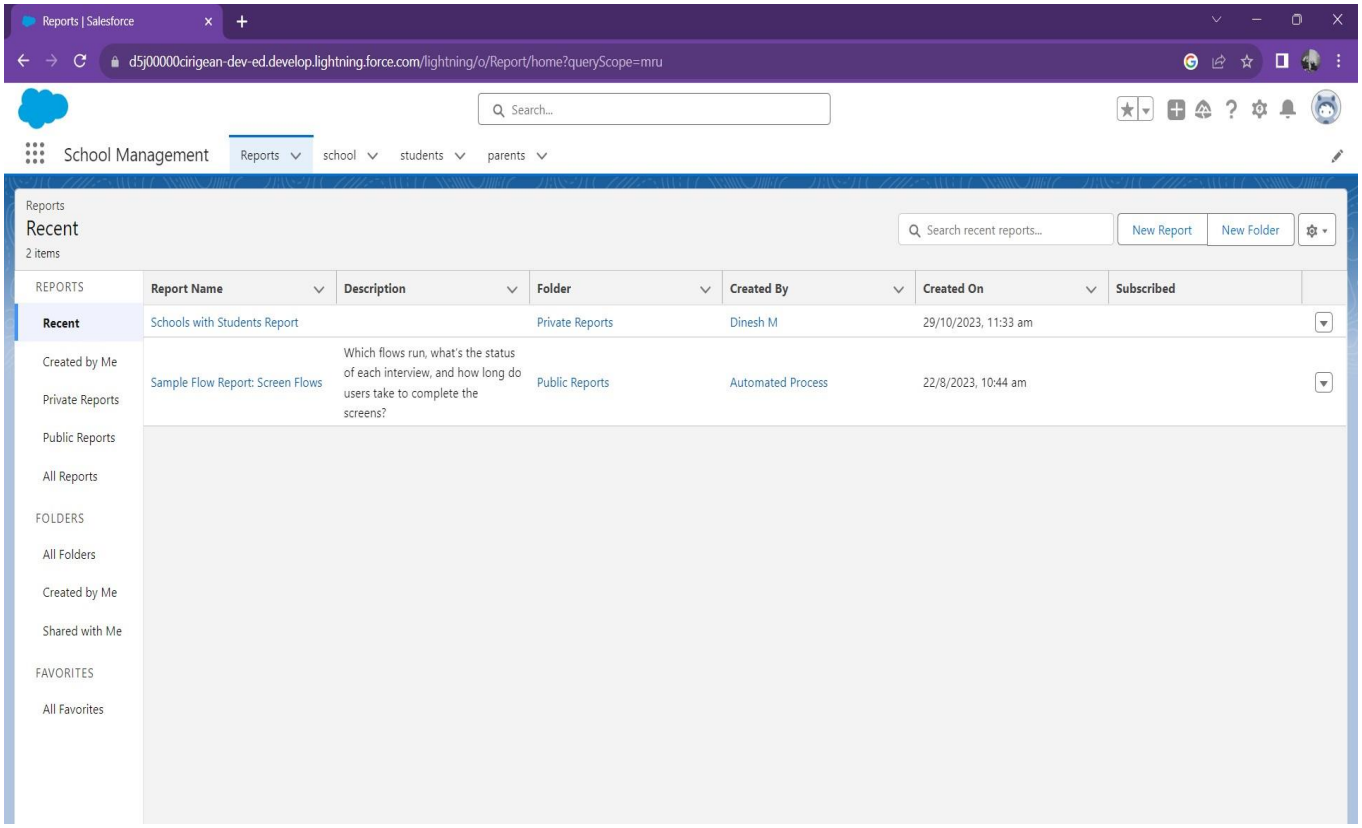
Manager:

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.

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



CHAPTER - 11

TRIGGERS

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 get the chance for an automate business processes.

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:

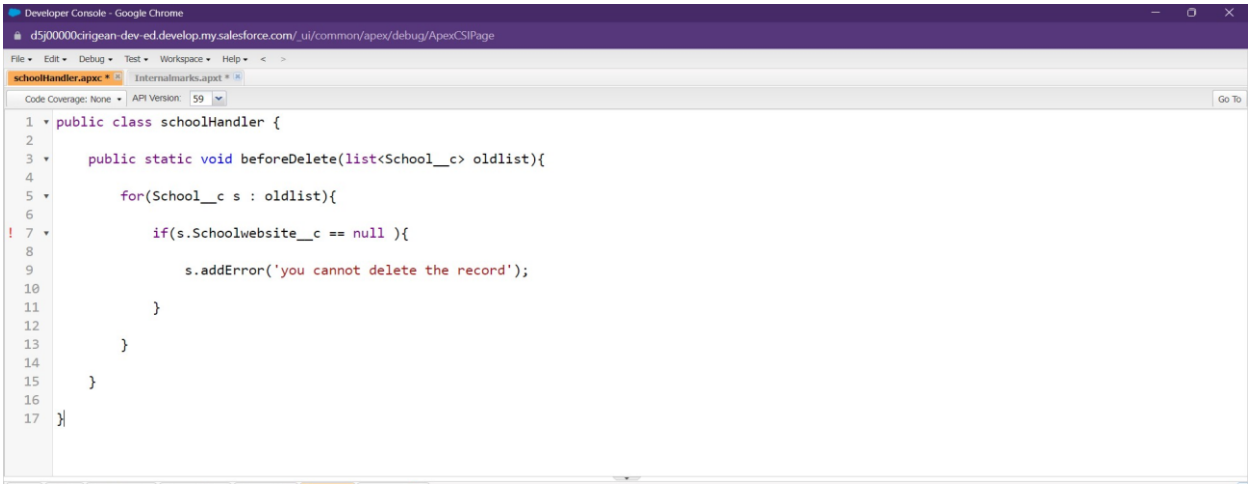
Write a trigger whenever the school website is null you should be unable to delete the record.

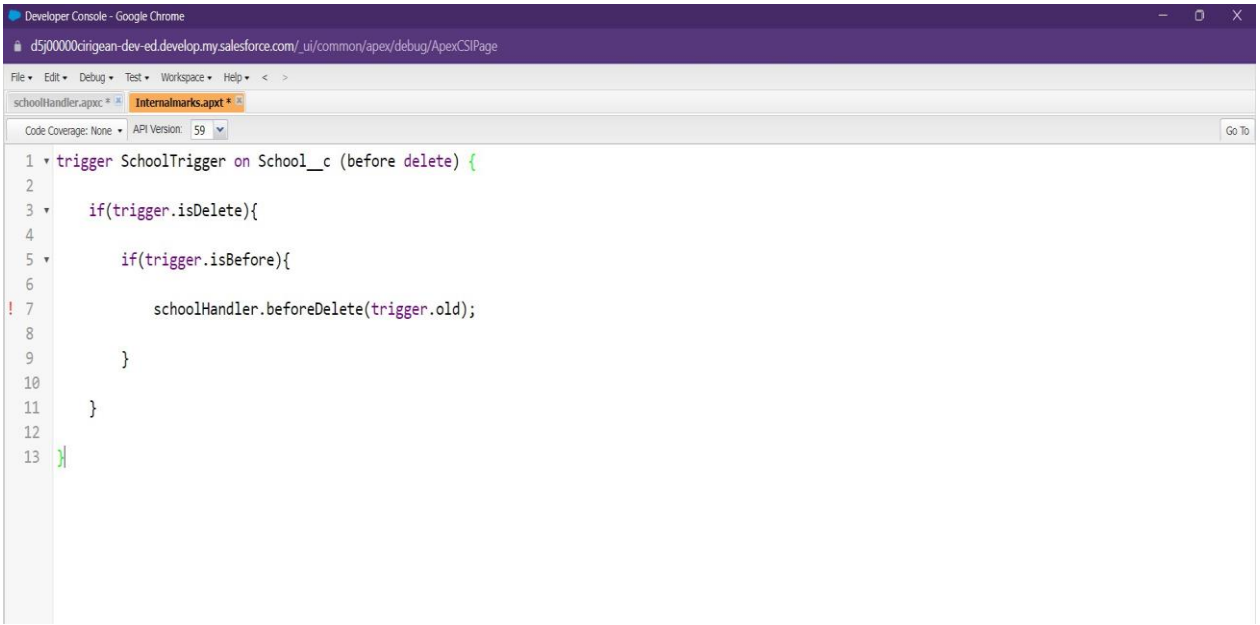
1. Go to the gear icon and select the developer console.
2. From the menu bar click on file and select Apex class.
3. Now give the class name as School Handler
4. Now Write the below code.

```
public class schoolHandler {
   public static void before Delete(list<School__c> oldlist){
      for(School__c s : oldlist){
         if(s.Schoolwebsite__c == null ){
            s.addError('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);
        }
    }
}
```





CHAPTER - 12

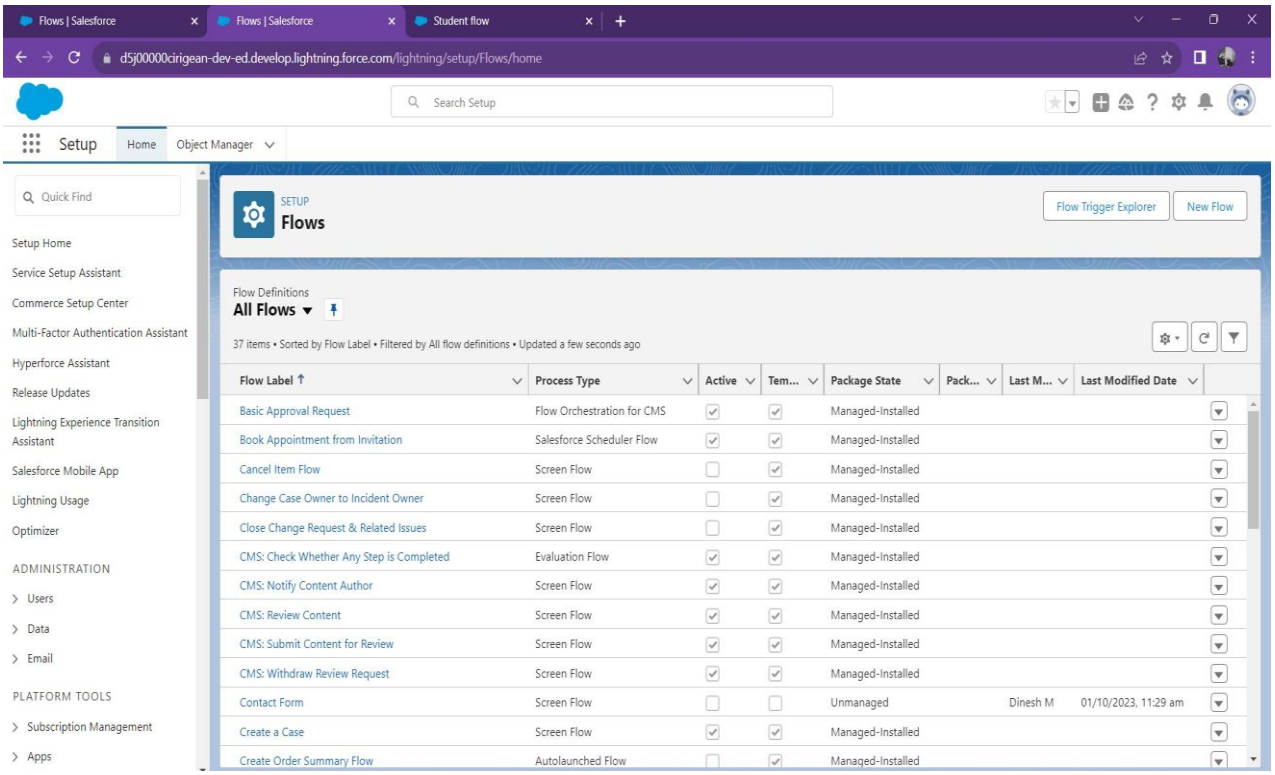
FLOWS

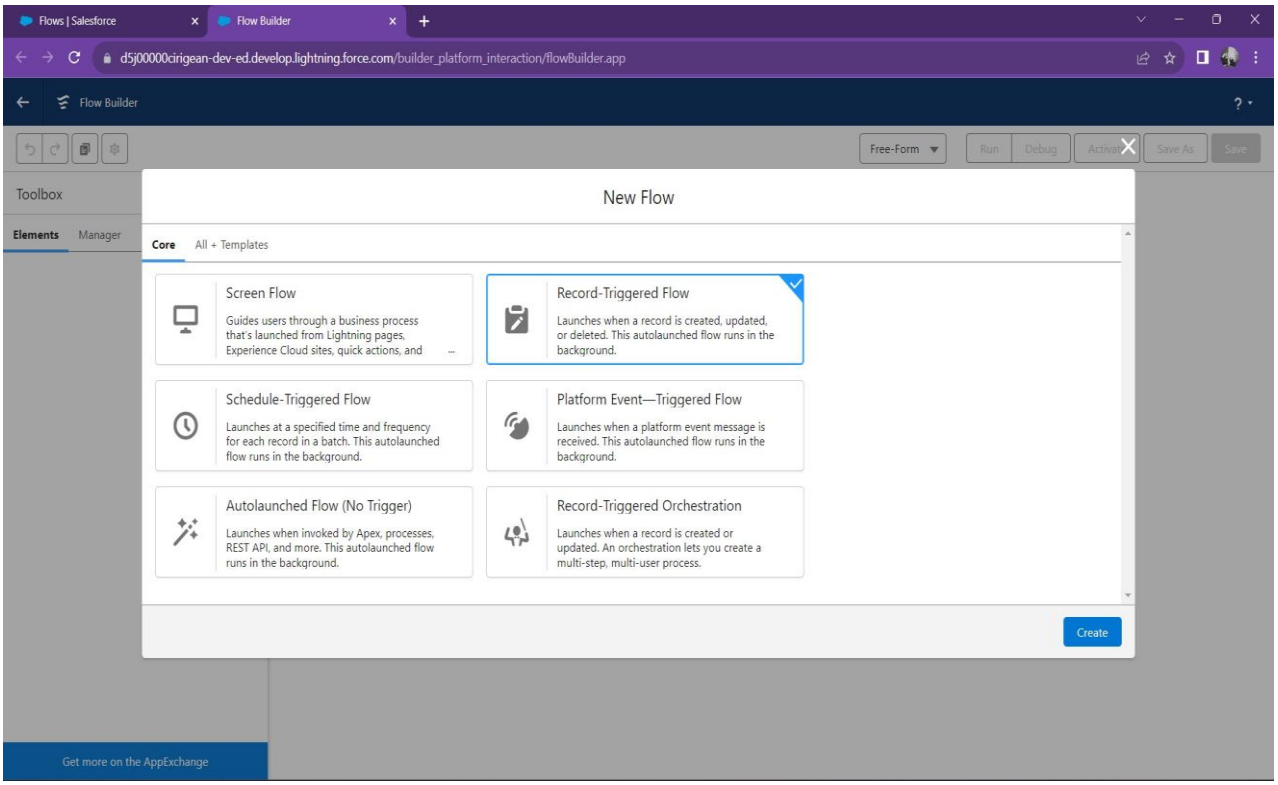
Flows:

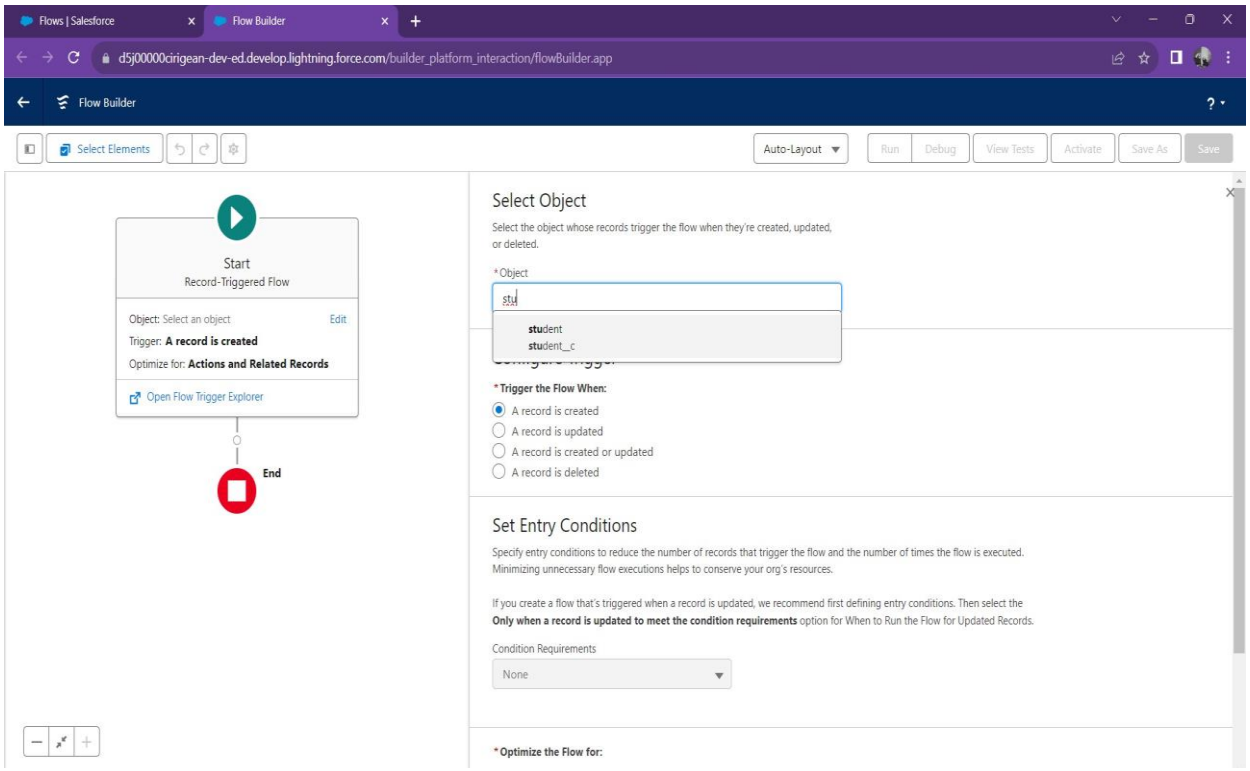
Record-triggered flows are a powerful automation tool in Salesforce that can streamline business processes, reduce manual work, and improve productivity. They can be used to automate a wide range of tasks, from simple to complex, and can be tailored to meet the unique needs of your organization.

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 the Gear icon and select setup the search icon for the Quick find Box enter flow and select the flows
Click on New flow and Select Record triggered Flows.

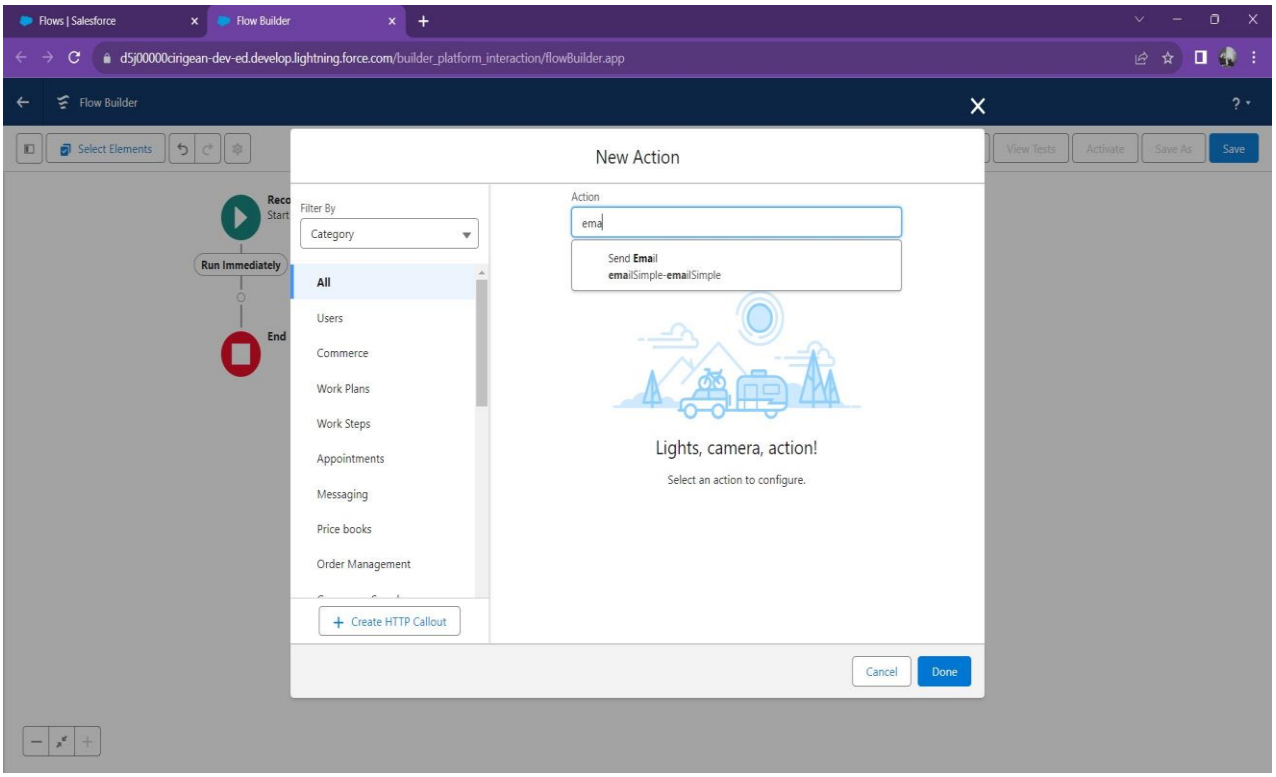

Flows | Salesforce
Flows | Salesforce
Student flow
d5j00000cirigean-dev-ed.develop.lightning.force.com/lightning/setup/Flows/home
Search Setup
Setup
Home
Object Manager
Quick Find
Setup Home
Service Setup Assistant
Commerce Setup Center
Multi-Factor Authentication Assistant
Hyperforce Assistant
Release Updates
Lightning Experience Transition Assistant
Salesforce Mobile App
Lightning Usage
Optimizer
ADMINISTRATION
Users
Data
Email
PLATFORM TOOLS
Subscription Management
Apps
SETUP
Flows
Flow Trigger Explorer
New Flow
Flow Definitions
All Flows
37 items • Sorted by Flow Label • Filtered by All flow definitions • Updated a few seconds ago
Flow Label
Process Type
Active
Tem...
Package State
Pack...
Last M...
Last Modified Date
Basic Approval Request
Flow Orchestration for CMS
Managed-Installed
Book Appointment from Invitation
Salesforce Scheduler Flow
Managed-Installed
Cancel Item Flow
Screen Flow
Managed-Installed
Change Case Owner to Incident Owner
Screen Flow
Managed-Installed
Close Change Request & Related Issues
Screen Flow
Managed-Installed
CMS: Check Whether Any Step is Completed
Evaluation Flow
Managed-Installed
CMS: Notify Content Author
Screen Flow
Managed-Installed
CMS: Review Content
Screen Flow
Managed-Installed
CMS: Submit Content for Review
Screen Flow
Managed-Installed
CMS: Withdraw Review Request
Screen Flow
Managed-Installed
Contact Form
Screen Flow
Unmanaged
Dinesh M
01/10/2023, 11:29 am
Create a Case
Screen Flow
Managed-Installed
Create Order Summary Flow
Autolaunched Flow
Managed-Installed

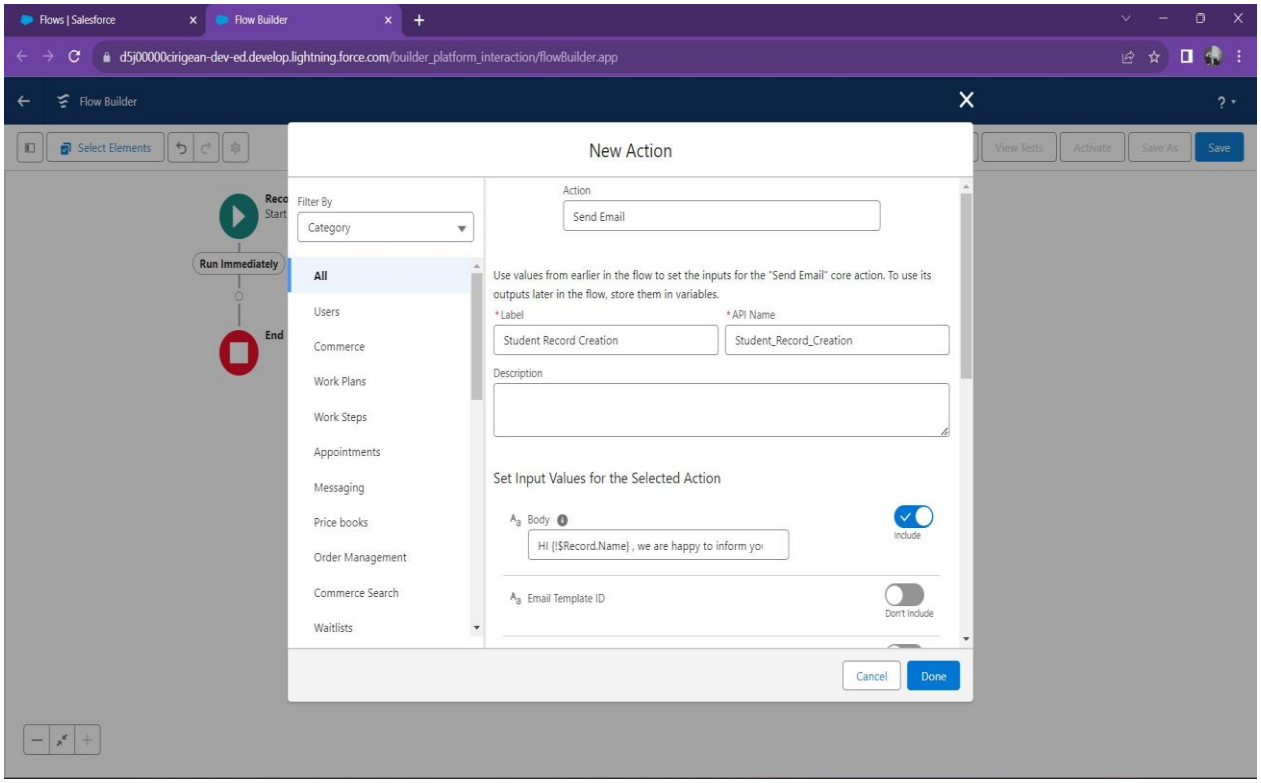

Flows | Salesforce
Flow Builder
d5j00000cirigean-dev-ed.develop.lightning.force.com/builder_platform_interaction/flowBuilder.app
Flow Builder
Free-Form
Run
Debug
Activate
Save As
Save
Toolbox
Elements
Manager
New Flow
Core
All + Templates
Screen Flow
Guides users through a business process that's launched from Lightning pages, Experience Cloud sites, quick actions, and ...
Record-Triggered Flow
Launches when a record is created, updated, or deleted. This autolaunched flow runs in the background.
Schedule-Triggered Flow
Launches at a specified time and frequency for each record in a batch. This autolaunched flow runs in the background.
Platform Event—Triggered Flow
Launches when a platform event message is received. This autolaunched flow runs in the background.
Autolaunched Flow (No Trigger)
Launches when invoked by Apex, processes, REST API, and more. This autolaunched flow runs in the background.
Record-Triggered Orchestration
Launches when a record is created or updated. An orchestration lets you create a multi-step, multi-user process.
Create
Get more on the AppExchange



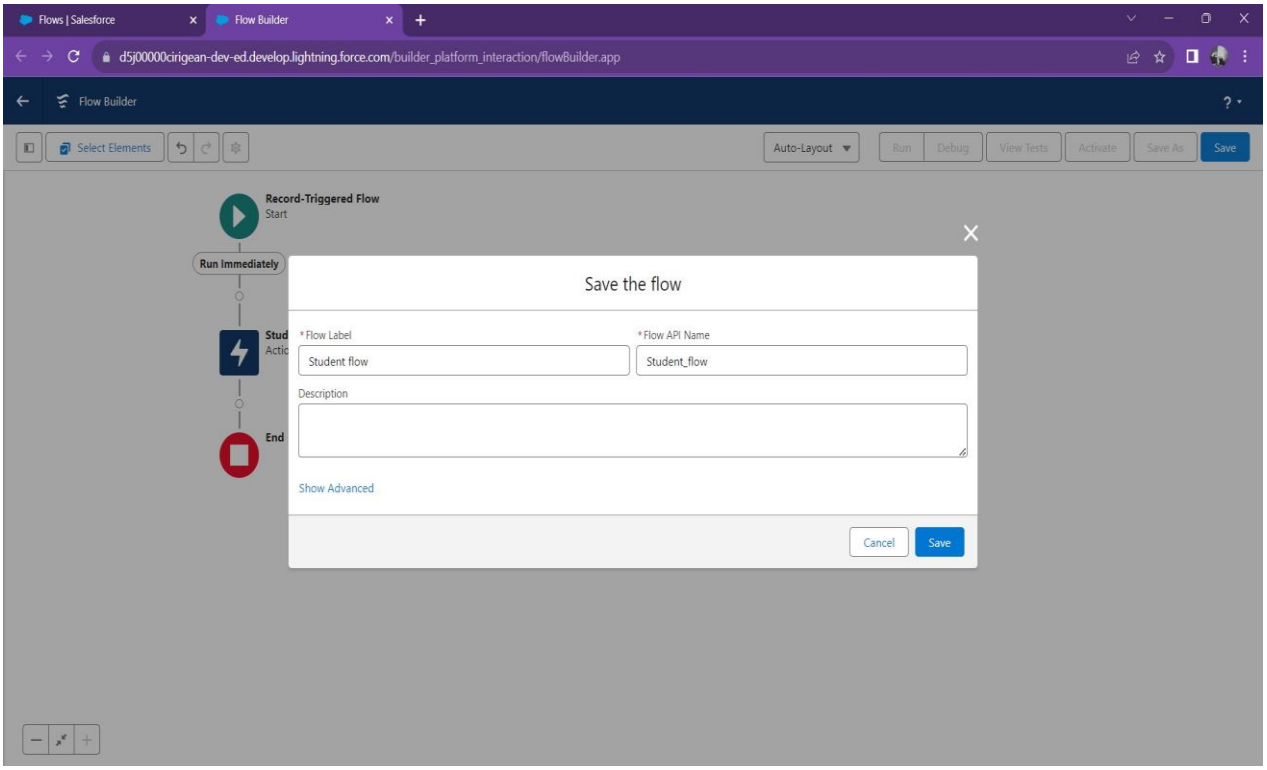
Enter the following details:

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}


Flows | Salesforce
Flow Builder
d5j00000cirigean-dev-ed.develop.lightning.force.com/builder_platform_interaction/flowBuilder.app
Flow Builder
Select Elements
View Tests
Activate
Save As
Save
New Action
Filter By
Category
All
Users
Commerce
Work Plans
Work Steps
Appointments
Messaging
Price books
Order Management
Create HTTP Callout
Action
ema
Send Email
emailSimple-emailSimple
Lights, camera, action!
Select an action to configure.
Cancel
Done
Run Immediately
End


Flows | Salesforce
Flow Builder
d5j00000cirigean-dev-ed.develop.lightning.force.com/builder_platform_interaction/flowBuilder.app
Flow Builder
Select Elements
View Tests
Activate
Save As
Save
New Action
Filter By
Category
All
Users
Commerce
Work Plans
Work Steps
Appointments
Messaging
Price books
Order Management
Commerce Search
Waitlists
Action
Send Email
Use values from earlier in the flow to set the inputs for the "Send Email" core action. To use its outputs later in the flow, store them in variables.
*Label
Student Record Creation
*API Name
Student_Record_Creation
Description
Set Input Values for the Selected Action
Body
Include
Hi {!$Record.Name} , we are happy to inform yo
Email Template ID
Don't Include
Cancel
Done
Run Immediately
End

Click on done and Click on save
Flow label: Student flow
Flow API Name: Student_flow and then click Activate.



CHAPTER - 13
GITHUB & PROJECT VIDEO DEMO LINK

GitHub: https://github.com/DineshMohan0/naanmudhalvan-salesforce-NM2023TMID02149-kiot

Video Demo Link: https://drive.google.com/file/d/1FV21H3xyMpuks2-NmBhTGar1TXsfg7Hi/view?usp=drive_link