



Salesforce Project Ready

Entry level Training & Professional Development Program

Project title : College management application



Day 1 :

Topic : Introduction about sandbox and In object manager explained fields and relationships

Milestones / Activities :

About sandbox and fields and relationships

Detailed Description :

About Sandbox :

Sandbox - identical copy of your production, metadata, data.

- production org - live data, -> create sandbox
 - Certain type of sandbox is given below
1. Developer Sandbox
 2. Developer Pro sandbox
 3. Partial copy sandbox
 4. Full copy sandbox

1- Developer sandbox -

Identical copy of production it doesn't hold any live data. data space - 200mB refresh interval 1 time in a day

2- Developer Pro sandbox -

Data size 1GB, it is designed for a group of developers. developer, testing, and interpretation testing as well refresh interval - 1 time in a day

3- Partial copy sandbox -

This is copies your configuration and some (not all) of your data, so you can test new configurations with your own real data. Unlike a Full Sandbox, which copies all of your data and is a complete clone of your production organization, a Partial Copy Sandbox



only copies a selection of your data.

datasets - 5gb each object can hold 10,000 records refresh interval - 1 time in every days. bulk load, UAT environment

4- Full copy sandbox -

exact copy of your production environment

datasets - similar as production. refresh interval - 1 time in every 29 days

Object manager :

In this object manager having some of the objects. The object is named as records and its each record is associated with objects. Like Account, Opportunity, Contact etc..

In the object manager having two types of objects -

- Custom object
- Standard object

The custom object is objects that you create to store information that's specific to your company or industry.

The Standard object is objects already created for you by the Salesforce platform.

In the object manager having some field and relationships :

Fields are an integral part of record creation. They are used to store different attributes of the same object or an entity.

Relationship to explain the relation between objects

The detailed explanation is given below

There are majorly two categories of fields in Salesforce. Firstly we have Standard Fields which are prebuilt in salesforce. Even though we have the privilege of editing this field but in no way it can be delete. Next, let's also have a look at Custom Fields. These fields



are defined by us i.e. the user which can either be used to extend the functionality of a standard object or add fields to our custom objects.

Field Creation :

The first step at field creation involves selection of its data type. It tells us about the kind of information the field stores. Some of the common data types we might run into includes Checkbox, Date, Text, Number etc.

Unique Fields: Fields can be made unique which would impose no duplicate records to be entered. For example an email field.

Required fields: This field makes it mandatory for a value to be added at record creation. It cant be null. For example: Phone number.

External ID: Used to identify the records uniquely from the external system. For example while importing data from excel sheet to salesforce this field comes in handy.

The table below lets us know about the types of fields we will come across in Salesforce.

FIELD TYPE	DESCRIPTION
Identity	Case-sensitive, 15 character field which gets generated for every record. Example: 50130000000014c
System	Read-only fields which give information about a record from the system. Example:CreatedDate, LastModifiedById, LastModifiedDate.
Name	Text names or auto-numbered names which increment upon record creation. This field is required.



Overview of Field level security : Field level security in salesforce controls visibility, accessibility and manipulation for a particular field on an object. It can be applied to multiple fields on a single profile or permission set and can also be applied to a single field on all profiles.

Field Dependencies : They are the filters which allow us to change the contents of a picklist based on the value of another field. City and state is a good example of field dependency where city will be the dependent field and state will be the controlling field.

Relationships : Similar to the concept of relationships that we studied in RDBMS which was introduced to remove data inconsistency and data redundancy, Salesforce also provides us the same concept which can be implemented using Relationship fields.

The certain relationships is given below

1. Lookup relationship
2. Master details relationships
3. Self relationship
4. Many to many relationship
5. Indirect relationship

Lookup relationship : These share weak association among the two associated objects.

Master detail Relationship : It represents a strong relationship between a master and a detail object. Detail records cannot exist without a master record. Detailed objects inherit the security and sharing settings of master objects. Example: Multiple Employees can be associated with a company

Self relationship : When an object has a lookup with itself, it is a self-relationship. A self relationship creates a tree diagram of the objects. For example, the account has a lookup on himself, called Parent Account.



Many to many relationship : Using a custom junction object, you can model a “many-to-many” relationship between two objects. For example, you create a custom object called “Bug” that relates to the standard case object such that a bug could be related to multiple cases and a case could also be related to multiple bugs.

Indirect relationship : It is a new field type introduced with Salesforce Connect. It links an external object to a standard or custom object in the same way that a regular lookup relationship links standard or custom objects.

Overview of Field level security :

Field level security in salesforce controls visibility, accessibility and manipulation for a particular field on an object. It can be applied to multiple fields on a single profile or permission set and can also be applied to a single field on all profiles.

Snapshots of the Milestone and Activities :

sandboxes selection and its environment :

A screenshot of a web browser showing the Salesforce login page and a marketing report. The browser tabs include "Student Dashboard", "SI-7567-1641229715", "Data Integration Specialist | Sale...", "Home | Salesforce", and "Login | Salesforce".

The main content area shows the Salesforce login form with fields for "Username" (udaykumarkadir933@gmail.com) and "Password" (redacted). Below the password field is a "Log In to Sandbox" button. To the right of the login form is a promotional graphic for a marketing report titled "State of Marketing". The graphic features a cartoon character, a globe, and various icons related to marketing and technology. A "READ THE REPORT" button is visible. The bottom of the screen shows a Windows taskbar with various pinned icons and system status indicators.

object manager types :

Custom object:

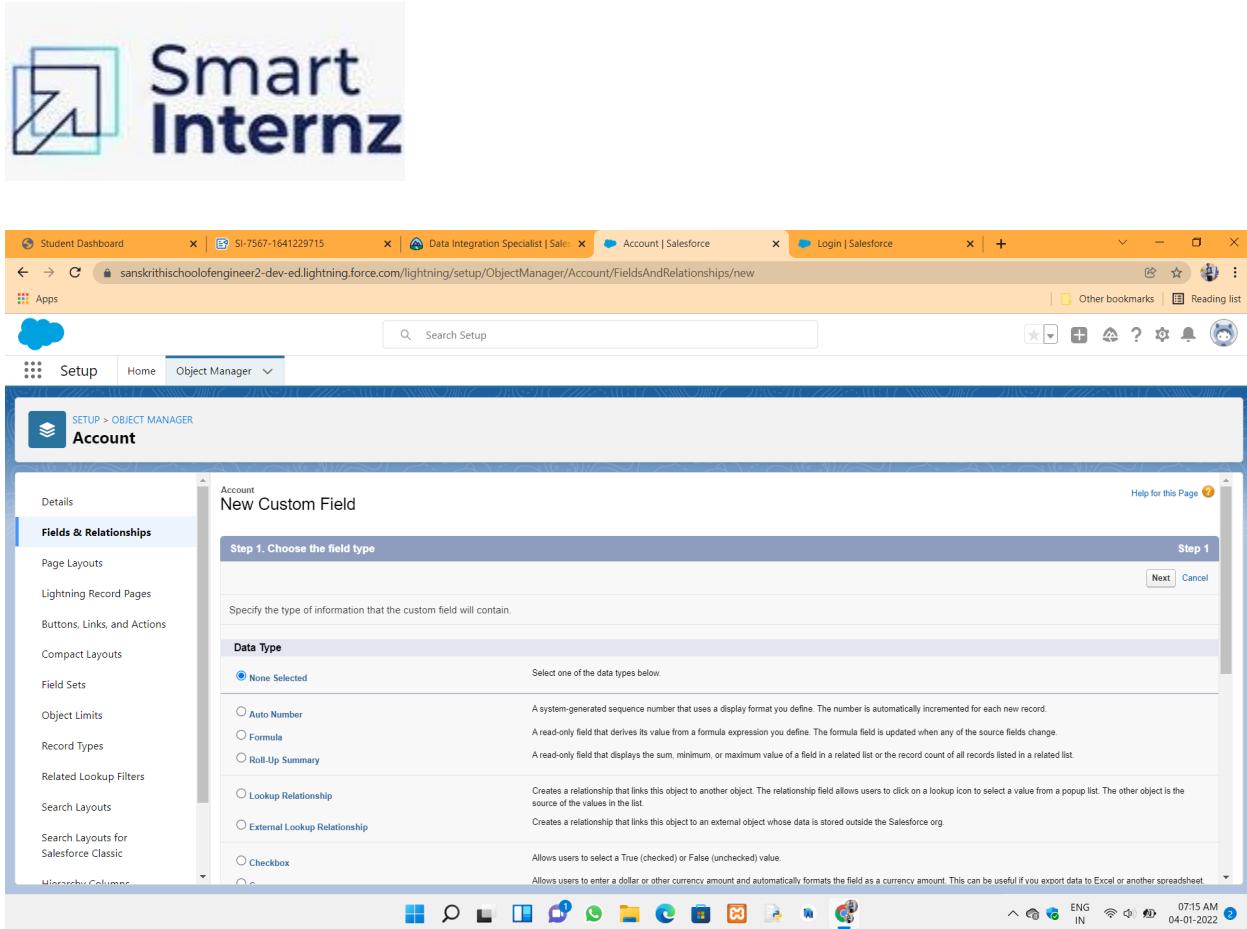
Standard object :



A screenshot of a Microsoft Edge browser window showing the Salesforce Setup Object Manager. The URL is "sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/Account/Details/view". The page title is "Account | Salesforce". The main content area shows the "Account" object details. On the left, there's a sidebar with various tabs like Details, Fields & Relationships, Page Layouts, etc. The main "Details" section contains fields such as API Name (Account), Singular Label (Account), Plural Label (Accounts), Description, Enable Reports, Track Activities, Track Field History, Deployment Status, and Help Settings (Standard salesforce.com Help Window). The status bar at the bottom shows the date and time as 04-01-2022 07:14 AM.

Fields and relationships in salesforce page :

Custom fields :



Relationships :



Screenshot of the Salesforce Setup interface showing the "Fields & Relationships" section for the "Account" object.

The left sidebar shows navigation options: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, Search Layouts for Salesforce Classic, and Hierarchy Columns.

The main content area displays a list of data types:

- None Selected
- Auto Number
- Formula
- Roll Up Summary
- Lookup Relationship
- External Lookup Relationship
- Checkbox
- Currency
- Date
- Date/Time
- Email
- Geolocation
- Number
- Percent
- Phone
- URL

Each data type has a brief description below it. The "Lookup Relationship" and "External Lookup Relationship" options are circled in red.

At the bottom right of the screen, there are system status icons and the date/time: ENG IN 07:16 AM 04-01-2022.



Day 2 :

Topic : Created developer account and log in to the my organization and Create the college management application and its attributes

Milestones / activities : App manager through create the college management application. Object creation and field creation and validation rules and page layouts added into the college management application.

Detailed Description :

App manager:

App manager is used to for managing apps for Lightning Experience. When you edit a Lightning app from the App Manager in Setup, you're brought into the Lightning App Builder to manage the app's settings. Update app branding, navigation, and other options, and manage the Lightning pages assigned to that app all in one place.

Setting First App:

To setup a default app per profile we should follow the instructions that I have given below:

1. From Setup, enter App manager in the Quick Find box, then select App manager
2. Select a New lightning app at the top of the page.
3. An empty new lightning app page is displayed.
4. Enter Corresponding details in that page as per user requirements and click save and next.
5. App options page will displayed and enter corresponding details and click next.
6. Now add navigation items and user profiles as per requirements and click next.
7. click Save.

Custom Object creation:

The custom object is an object that which we create to store an information specific to user requirements.

To create custom object follow the instructions that I have shown below:

1. Click on object manager in setup page.
2. On the top of the page we will see that create menu so that we can create custom object as per requirements
3. click save

Create custom Tabs:

1. From Setup, enter Tabs in the Quick Find box, then select Tabs.
2. A Tabs page is displayed.
3. Now click new button near create custom tab so that custom tab will be created
4. Now create a tab with respective object and select Tab style in requirements
5. click next and save

Now college Tab will be set in College management application. So that you will be create new fields in that college.

Picklist value sets:

Picklist value sets are used to finds all the values in the database for the Industry field or any other object.

To Create picklist value sets follow the instructions given below:

1. From Quick find box, search picklist value sets and click on it
2. Open custom picklist value sets in that page
3. Enter a label for the global value set. This name appears in Setup, and when users create a picklist based on this global value set.
4. To tell users what these values are for, enter a specific description of the global value set. This text appears on the Picklist Value Sets list page in Setup.
5. Enter the values, one per line.
6. Optionally choose to sort the values alphabetically or to use the first value in the list as the default value, or both.
7. Click Save.

Field Creation:

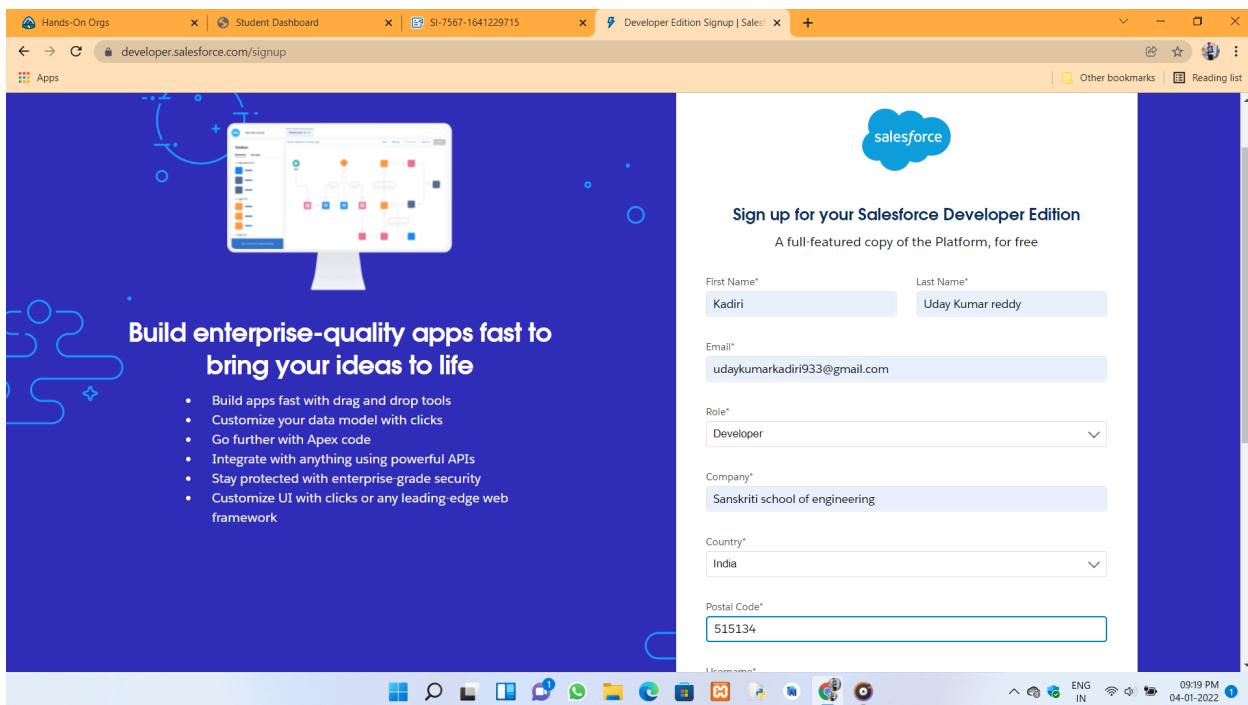
We can create Many fields in every object. To create fields we have to follow the steps given below.

1. Open object manager and click particular object where you have to create fields.
2. Click Fields and relationships in that object.
3. Click on "New" to create new fields
4. Enter corresponding details regarding to that and click next
5. click save

Now that field is successfully created

Snapshots of the Milestone and Activities :

Creating Developer account in salesforce :



My organization :



Screenshot of a web browser showing the Salesforce App Manager interface. The URL is trailhead.salesforce.com/en/users/profiles/orgs. The page displays a list of org profiles:

- Product**
 - Username: brave-unicorn-hthar3.com
 - Type: Trailhead Playground
 - Created: 8/4/2021
 - Last Activity: Create a Hello World Lightning Web Component on 11/16/2021
- Sample data**
 - Username: playful-koala-dh66dl.com
 - Type: Trailhead Playground
 - Created: 8/4/2021
 - Last Activity: Create a Hello World Lightning Web Component on 11/16/2021
- Developer Edition** (LAST USED)
 - Username: udaykumarkadir933@gmail.com
 - Type: Developer Edition
 - Connected: 8/4/2021
 - Last Activity: Create Report and Dashboard Folders on 1/3/2022
- Contact**
 - Username: empathetic-wolf-gn9smn.com
 - Type: Trailhead Playground
 - Created: 8/4/2021
 - Last Activity: Create Report and Dashboard Folders on 1/3/2022

The "Developer Edition" entry is circled in red. The browser taskbar at the bottom shows various pinned icons and the system tray indicates the date and time as 04-01-2022 08:36 PM.

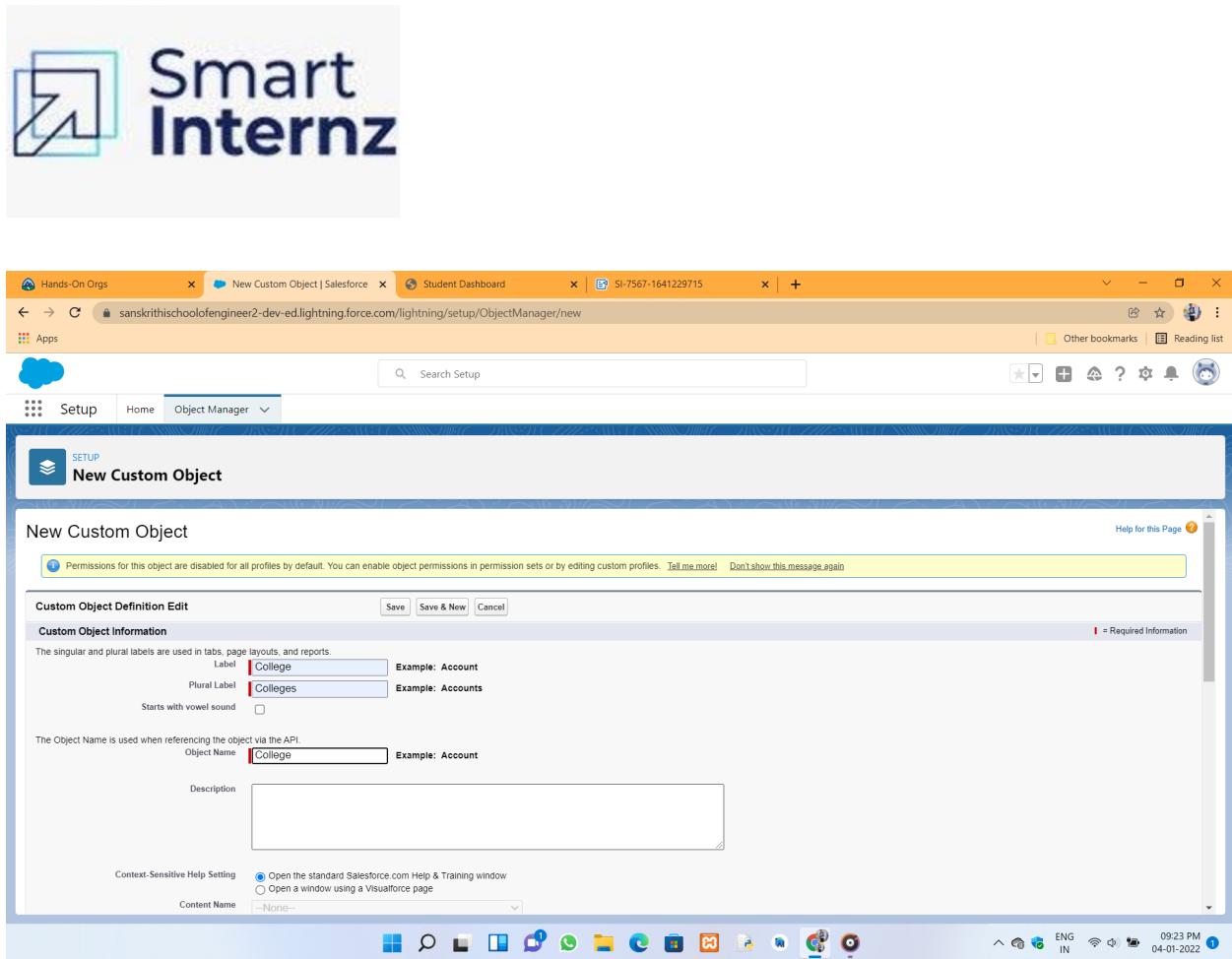
App manager to create College management application :



A screenshot of a web browser window showing the Salesforce App Manager. The title bar indicates the user is setting up a custom object named 'College Management'. The main content area is titled 'New Lightning App' and contains two sections: 'App Details' and 'App Branding'. In 'App Details', the 'App Name' is set to 'College Management' and the 'Developer Name' is also 'College Management'. In 'App Branding', there is a placeholder for an 'Image' with a 'Upload' button, and the 'Primary Color Hex Value' is set to '#0070D2'. Below these sections is an 'Org Theme Options' checkbox. At the bottom of the dialog is a 'Next' button. The background shows the standard Salesforce navigation menu on the left and various tabs at the top of the browser.

Custom objects to create in the College management :

College object



Application form object :



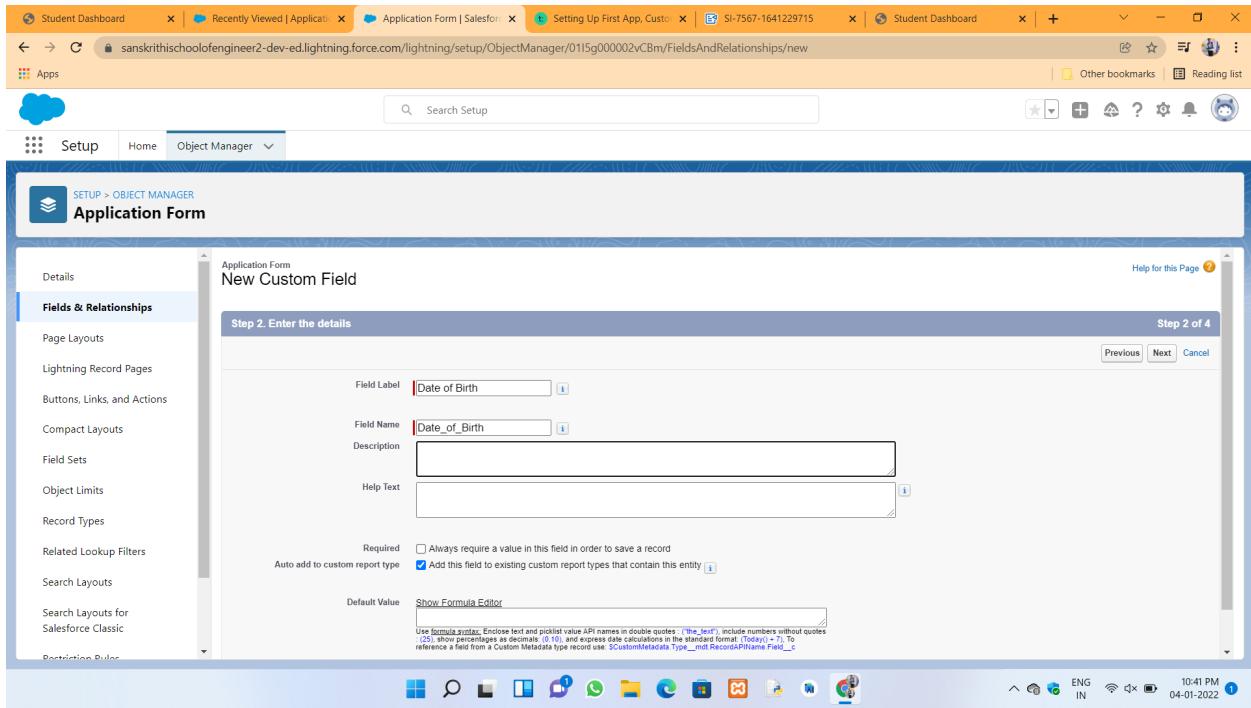
A screenshot of the Salesforce Setup interface. The window title is "New Custom Object". The "Label" field contains "Application Form" and the "Plural Label" field contains "Application Forms". The "Object Name" field contains "Application_Form". The "Description" field is empty. Under "Context-Sensitive Help Setting", the radio button for "Open the standard Salesforce.com Help & Training window" is selected. The status bar at the bottom shows system icons and the date/time: "09:33 PM 04-01-2022".

Student object in application form and application form object:



A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The title bar shows multiple tabs including "Student Dashboard", "Recently Viewed Applications", "Application Form | Salesforce", "Setting Up First App. Customization", and "SI-7567-1641229715". The main content area is titled "Application Form" under "SETUP > OBJECT MANAGER". A sidebar on the left lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The central panel is titled "New Custom Field" and "Step 2. Enter the details". It shows the configuration for a text field named "Student Name" with a length of 30. Other settings include "Description" and "Help Text" fields, and checkboxes for "Required", "Unique", and "External ID". The status bar at the bottom indicates the date and time as "04-01-2022 10:39 PM".

Date of Birth in Application form object :

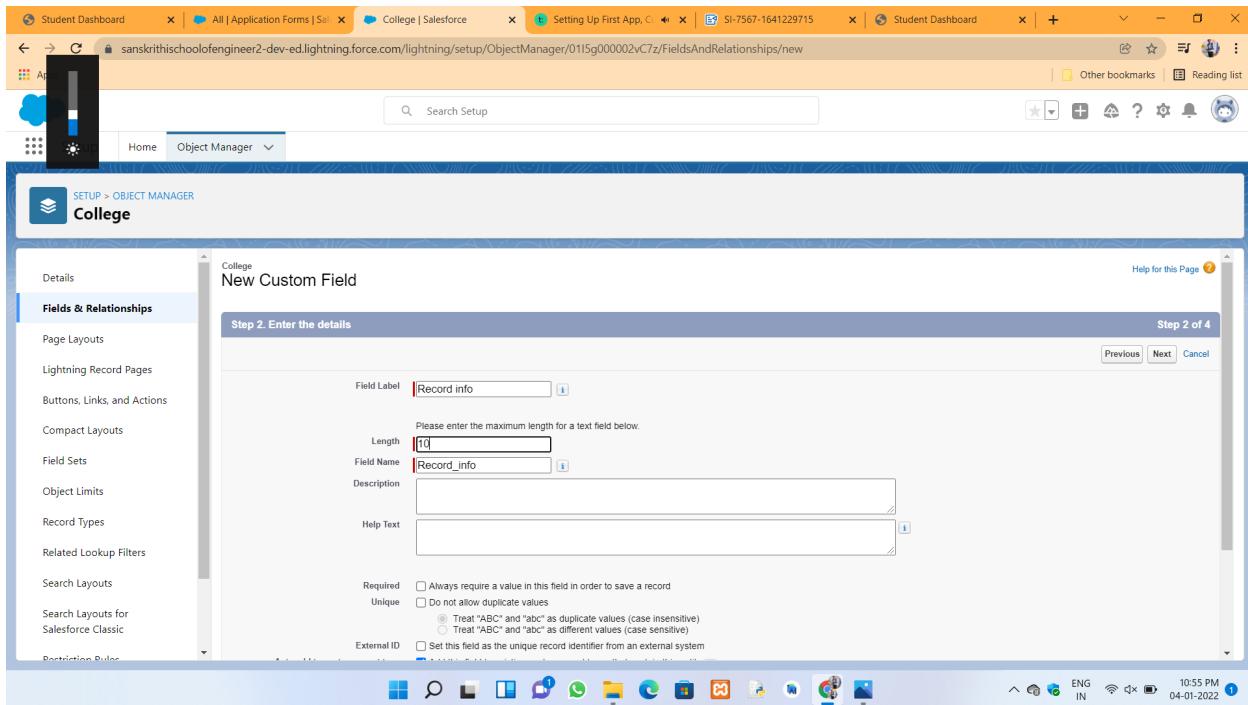


A screenshot of the Salesforce Setup interface, specifically the Application Form section. The title bar shows multiple tabs including "Student Dashboard", "Recently Viewed | Applications", "Application Form | Salesfor...", "Setting Up First App, Cust...", and "SI-7567-1641229715". The main content area is titled "Application Form New Custom Field" and is labeled "Step 2 of 4". The form fields include:

- Field Label: Date of Birth
- Field Name: Date_of_Birth
- Description: (empty)
- Help Text: (empty)
- 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 (with a note about formula syntax)

The left sidebar lists other setup options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, etc. The bottom right corner shows system status and a timestamp: 10:41 PM 04-01-2022.

Record info field in College object and application form object:\



A screenshot of the Salesforce Setup interface, specifically the Object Manager for the 'College' object. The page title is 'College New Custom Field'. This is Step 2 of 4 for creating a new custom field. The field is named 'Record info' with a length of 10. It has a description and a help text section. Under the 'Unique' section, the radio button 'Treat "ABC" and "abc" as duplicate values (case insensitive)' is selected. The status bar at the bottom right shows the date and time as 04-01-2022 10:55 PM.

College fees field in College object and application form object:

A screenshot of the Salesforce Setup interface. The top navigation bar shows tabs like "Student Dashboard", "Recently Viewed | Colleges", "College | Salesforce", "Setting Up First App, Cust...", "Sl-7567-1641229715", and "Student Dashboard". Below the navigation is a toolbar with icons for "Apps", "Search Setup", and various system settings. The main content area is titled "College New Custom Field". It's step 2 of 4 in the process. The form fields include:

- Field Label: "College fee"
- Length: "7" (Number of digits to the left of the decimal point)
- Decimal Places: "7" (Number of digits to the right of the decimal point)
- Field Name: "College_fee"
- Description: (empty text area)
- Help Text: (empty text area)
- Required: (checkbox is unchecked)
- Auto add to custom report type: (checkbox is checked)

The sidebar on the left lists other configuration options for the College object: Details, Fields & Relationships (selected), Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, Search Layouts for Salesforce Classic, and Partition Rules.

Hostel fees field in College object and application form object:



A screenshot of the Salesforce Setup interface. The title bar shows multiple tabs including "Student Dashboard", "Recently Viewed | Colleges", "College | Salesforce", "Setting Up First App, Cust...", "SI-7567-1641229715", and "Student Dashboard". The main area is titled "College New Custom Field" and "Step 2. Enter the details". The left sidebar lists "Fields & Relationships" and other setup categories like "Page Layouts", "Lightning Record Pages", etc. The right panel contains fields for "Field Label" (Hostel fee), "Length" (6), "Decimal Places" (2), "Field Name" (Hostel_fee), "Description", and "Help Text". There are checkboxes for "Required" and "Auto add to custom report type", with the latter checked. Navigation buttons "Previous", "Next", and "Cancel" are at the top right. The bottom of the screen shows the Windows taskbar with various pinned icons.

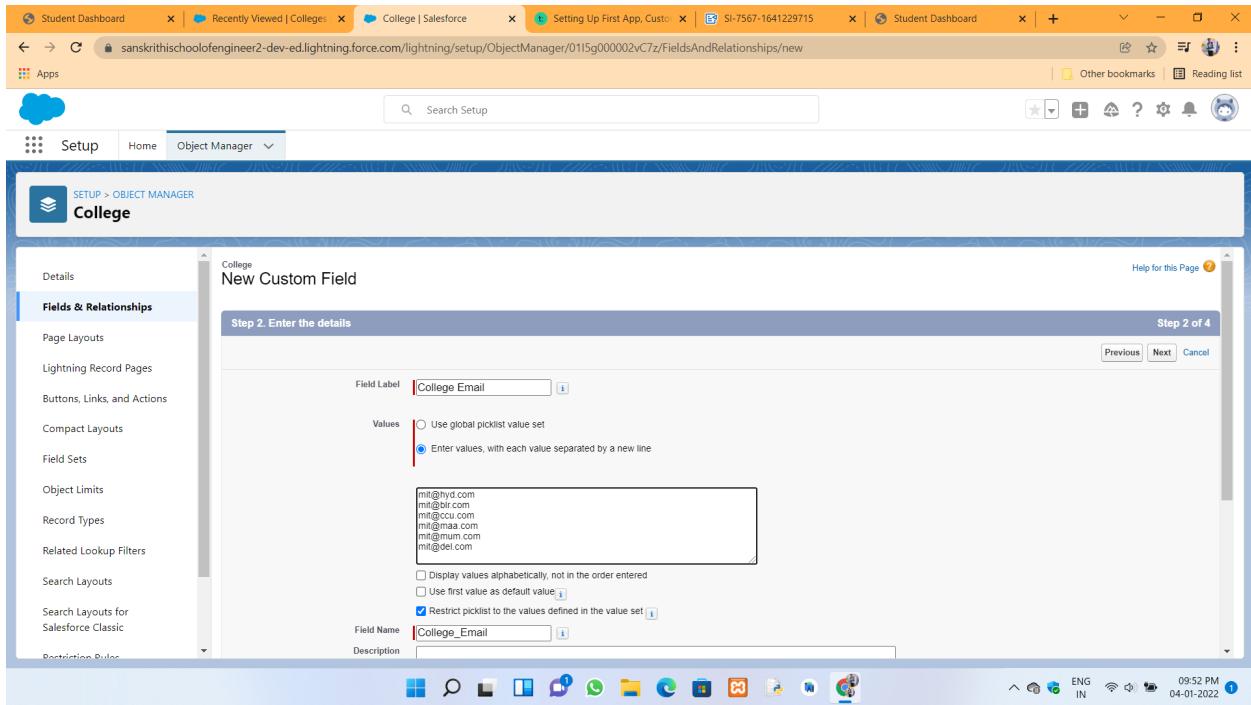
College Name Picklist in College object and application form object :

A screenshot of the Salesforce Setup interface. The left sidebar shows navigation paths like Data, Feature Settings, Topics, and Objects and Fields, with 'Picklist Value Sets' selected. The main content area is titled 'Picklist Value Sets' and shows a 'Global Value Set Edit' screen for 'College Name'. The 'Information' section includes fields for 'Label' (College Name), 'Name' (College_Name), and 'Description'. The 'Values' section contains a text area with the following values:

```
MIT - HYD
MIT - MAA
MIT - BLR
MIT - DEL
MIT - MUM
MIT - CCU
```

Two checkboxes at the bottom are unchecked: 'Display values alphabetically, not in the order entered' and 'Use first value as default value'. The top of the window shows several tabs open in the browser, including 'Student Dashboard', 'Recently Viewed | Colleges', 'Picklist Value Sets | Salesfo...', 'Setting Up First App, Cust...', and 'SI-7567-1641229715'. The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray indicating network status, language (ENG IN), and date/time (09:46 PM 04-01-2022).

College Email picklist in College object and application form object:



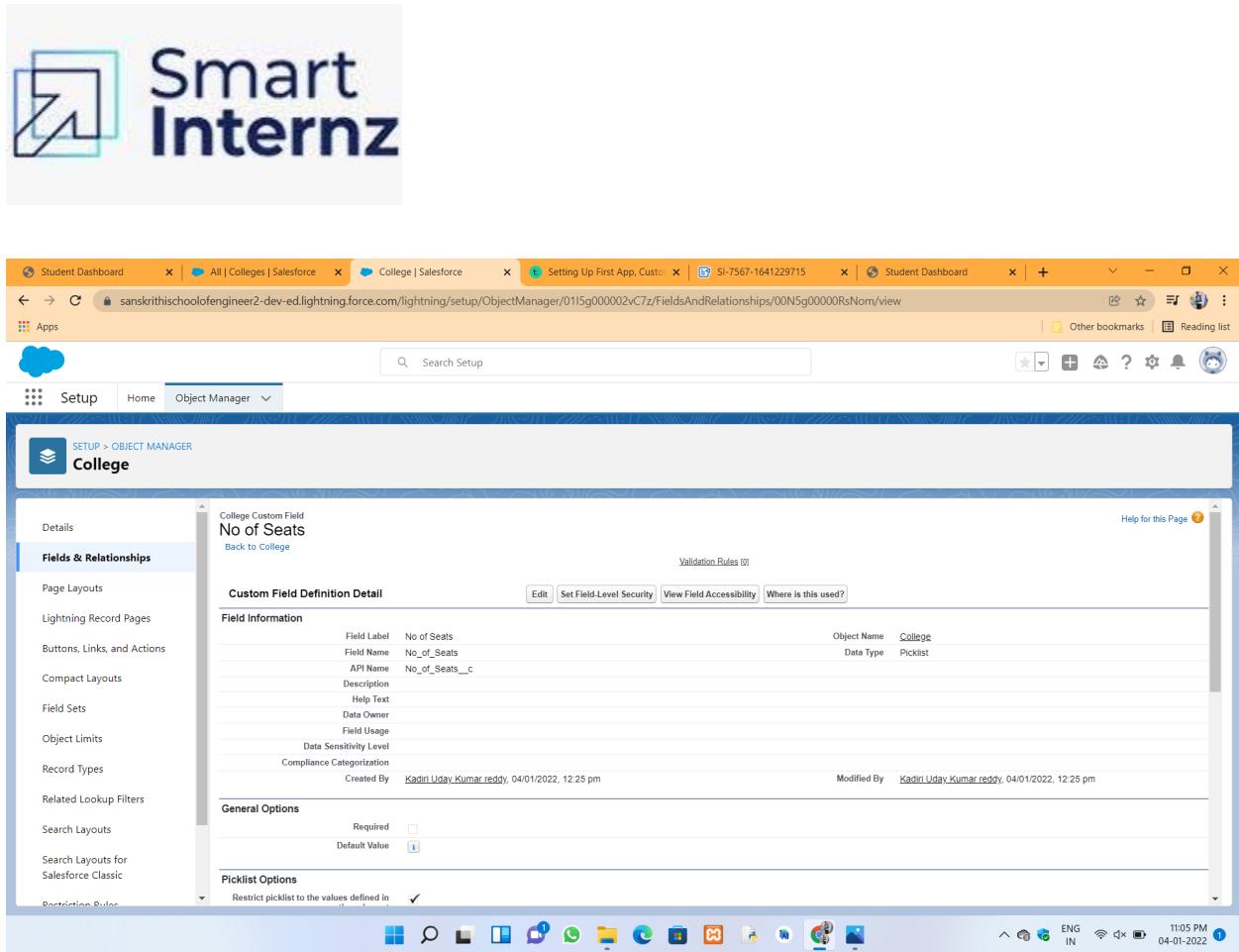
The screenshot shows the Salesforce Setup interface for creating a new custom field. The page title is "College New Custom Field". The left sidebar is titled "Fields & Relationships" and includes links for Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, Search Layouts for Salesforce Classic, and Restriction Rules. The main form is titled "Step 2. Enter the details" and contains the following fields:

- Field Label:** College Email
- Values:** Use global picklist value set
 Enter values, with each value separated by a new line

mit@std.com
mit@std.com
mit@ccu.com
mit@maa.com
mit@mum.com
mit@del.com
- Field Name:** College_Email
- Description:** (empty)

At the bottom right of the form are "Previous", "Next", and "Cancel" buttons. The status bar at the bottom right shows the date and time: 04-01-2022 09:52 PM.

Capacity of students in college picklist in College object :



Field dependencies between College name and college email :

A screenshot of the Salesforce Setup interface. The left sidebar shows navigation options like Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and Search Layouts for Salesforce Classic. The main content area is titled "College Validation Rule". It displays a "Validation Rule Edit" form with the following details:

- Rule Name: College_Name_Similar
- Active: checked
- Description: (empty)

The "Error Condition Formula" field contains the formula "Name <> TEXT(College_Name__c)". A dropdown menu labeled "Functions" is open, showing various formula categories and functions such as ABS, ADDMONTHS, AND, BEGINS, BLANKVALUE, BR, and ABS(number). A "Quick Tips" box is visible on the right, containing a link to "Operators & Functions". The top of the screen shows a browser window with multiple tabs, and the bottom right corner shows system status icons and the date/time (04-01-2022, 10:27 PM).

Field dependencies between college name and capacity of students :



Screenshot of the Salesforce Setup interface showing the Object Manager for the "College" object.

The page title is "SETUP > OBJECT MANAGER College".

Left sidebar (Fields & Relationships):

- Details
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types
- Related Lookup Filters
- Search Layouts
- Search Layouts for Salesforce Classic

Main Content Area:

Controlling Field: College Name
Dependent Field: No of Seats

Instructions:

- Double click on a cell to toggle its visibility for the Controlling Field value shown in the column heading
- To change multiple cells at once, select multiple cells and then click the Include Values or Exclude Values button to change the visibility of all selected cells at once
- Use SHIFT + click to select a range of adjacent cells. Use CTRL + click to select multiple cells that are not adjacent
- Use the Preview button to test the results.

Legend:

- Excluded Value (grey)
- Included Value (yellow)

Table Data:

College Name:	MIT - BLR	MIT - MAA	MIT - HYD	MIT - DEL	MIT - MUM
No of Seats:	500-1500	500-1500	500-1500	500-1500	500-1500
	1500-3000	1500-3000	1500-3000	1500-3000	1500-3000
	3000-5000	3000-5000	3000-5000	3000-5000	3000-5000
	5000-8000	5000-8000	5000-8000	5000-8000	5000-8000
	8000-12000	8000-12000	8000-12000	8000-12000	8000-12000

Buttons at the bottom:

- Save
- Cancel
- Preview

Page URL: https://sanskritischoolofengineering2-dev-ed.my.salesforce.com/one/one.app#/alohaRedirect/p/dependency/EditDependencyU/e/itableEnumOrId=01l5g000002vC7z&controller=00N5g00000RsNoN&dependent=00N5g00000RsNom&retURL=%2fsetup%2fui%2FdependencyList.jsp...

System status bar:

- ENG IN
- 11:08 PM
- 04-01-2022

College object fields and relationships :

A screenshot of the Salesforce Setup interface. The top navigation bar shows tabs for "Hands-On Orgs", "College | Salesforce", "Student Dashboard", "SI-7567-1641229715", and "WhatsApp". Below the navigation is a search bar and a toolbar with various icons. The main content area is titled "SETUP > OBJECT MANAGER" and shows "College". On the left, a sidebar lists "Fields & Relationships" under "College" and provides links to "Page Layouts", "Lightning Record Pages", "Buttons, Links, and Actions", "Compact Layouts", "Field Sets", "Object Limits", "Record Types", "Related Lookup Filters", "Search Layouts", and "Search Layouts for Salesforce Classic". The main table is titled "Fields & Relationships" and contains 10 items, sorted by Field Label. The columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
College Email	College_Email__c	Picklist	College Name	
College fee	College_fee__c	Currency(7, 7)		
College Name	College_Name__c	Picklist		
College Name	Name	Text(80)		
Created By	CreatedById	Lookup(User)		
Hostel fee	Hostel_fee__c	Currency(6, 2)		
Last Modified By	LastModifiedById	Lookup(User)		
No of Seats	No_of_Seats__c	Picklist	College Name	
Owner	OwnerId	Lookup(User,Group)		

The status bar at the bottom shows "javascript:void(0);", "05:19 PM", "ENG IN", and "05-01-2022".

Application form fields and relationships :

The screenshot shows a web browser window with multiple tabs open. The main content is the Salesforce Setup interface, specifically the 'Fields & Relationships' section for the 'Application Form' object. The left sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main table displays eight fields with columns for Field Label, Field Name, Data Type, Controlling Field, and Indexed status. A tooltip 'Windows Security - No actions needed.' is visible near the bottom right of the table. The browser's address bar shows the URL: sanskritischoolengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5g000002vCbM/FieldsAndRelationships/view.

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
College	College__c	Master-Detail(College)		✓
College fee	College_fee__c	Formula (Currency)		▼
Created By	CreatedById	Lookup(User)		▼
Date of Birth	Date_of_Birth__c	Date		▼
Email	Email__c	Email (Unique)		✓
Form Number	Name	Auto Number		▼
Last Modified By	LastModifiedById	Lookup(User)		▼
Student Name	Student_Name__c	Text(30)		▼

College management application overview all things :



Screenshot of a web browser showing the "College Management" section of a Salesforce application. The URL is https://sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/o/College_c/list?filterName=00B5g00000WMKrYEAX.

The browser tabs include: Student Dashboard, All | Colleges | Salesf..., College | Salesforce, Setting Up First App, Si-7567-1641229715, Student Dashboard, Si-7567-1641229715.

The page header shows the "College Management" tab is selected, along with Accounts, Contacts, Colleges (selected), and Application Forms.

The main content area displays a table of college records:

	Record ID	College fee	College Name	Hostel fee
1	a0N5g000000vJ0EAE	\$50,000,000,000	mit	\$70,000.00

Table headers: Record ID ↑, College fee, College Name, Hostel fee.

Table details: 1 item • Sorted by Record ID • Filtered by All colleges • Updated a few seconds ago.

Toolbar buttons: New, Import, Change Owner, Printable View, Search this list, Filter, Sort, Edit, Delete, Print, Copy, Paste, Refresh.

System status bar at the bottom: ENG IN, 11:25 PM, 04-01-2022.



Screenshot of the "New College" form in the "College Management" application.

Information

- *College Name:
- Owner: Kadiri Uday Kumar reddy
- *College Name: --None--
- College fee:
- College Email: --None--
- Hostel fee:
- No of Seats: --None--
- View all dependencies

System Information

- Record info:

Buttons: Cancel, Save & New, Save

Screenshot of the "New Application Form" form in the "College Management" application.

Information

- Form Number:
- *College: Search Colleges...
- Student Name:
- *Email:
- Date of Birth:

Buttons: Cancel, Save & New, Save



Day 3 :

Topic : In college management application to add custom objects and give the permissions to the system administrator and adding the business logic and automation and email templates.

Milestones / Activities : Creating the custom objects and give the permissions to users and add business logic and automation and email templates.

Description :

Student object to create as a custom and in this object to create some fields. This are given below:

Student Name	Text
Address	Text(255)
Application Form	Lookup(Application Form)
College Name	Formula(Text)
Date Of Birth	Date
Guardian Name	Text(30)
Phone	Phone

Subject object to create as a custom and in this object to create some fields. This are given below :



Subject ID : AutoNumber

Student : Lookup(Student)

Paper 1 : Picklist(Refer Business Logic Milestone)

Paper2 : Picklist(Refer Business logic Milestone)

Schema Builder :

Schema Builder is a tool within Salesforce.com that is used to view and manage objects, fields, and relations between objects in a graphical interface. It is available in all Salesforce.com editions. Schema Builder is not the only option to view and manage objects, fields, and relations between objects.

Permission give to the profiles and access to the system administrator :

The Salesforce administrator—or “admin” is a Salesforce user with system administration duties and other super powers. Admins are responsible for setting up Salesforce for their organizations and making sure it runs smoothly. Admins have special permissions.

Account object to create Saving account and Business account and GST Number :

To access this ones in college management application

Email Templates and related information :

Email templates with merge fields let you quickly send emails that include field data from Salesforce records like contacts, leads, or opportunities. You can use email templates when emailing groups of people – with list email or mass email– or just one person.



Snapshots of Milestones / Activities :

College object fields and relationships :

A screenshot of a web browser window showing the Salesforce Setup interface. The address bar shows the URL: sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01l5g000002vC7z/FieldsAndRelationships/view. The main content area displays the 'Fields & Relationships' section for the 'College' object. The table lists ten items, sorted by Field Label. The columns are: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data includes:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
College Email	College_Email__c	Picklist	College Name	
College fee	College_fee__c	Currency(7, 7)		
College Name	College_Name__c	Picklist		
College Name	Name	Text(80)		
Created By	CreatedById	Lookup(User)		
Hostel fee	Hostel_fee__c	Currency(6, 2)		
Last Modified By	LastModifiedById	Lookup(User)		
No of Seats	No_of_Seats__c	Picklist	College Name	
Owner	OwnerId	Lookup(User,Group)		

The left sidebar contains navigation links for Details, Fields & Relationships, Page Layouts, Lightning Record Pages, Buttons, Links, and Actions, Compact Layouts, Field Sets, Object Limits, Record Types, Related Lookup Filters, Search Layouts, and Search Layouts for Salesforce Classic. The bottom right corner shows system status icons and the date/time: 05:19 PM 05-01-2022.

Application form object fields and relationships :

A screenshot of a Windows desktop showing a browser window with multiple tabs open. The active tab is "Object Manager" under "Setup" in the Salesforce interface. The page displays the "Fields & Relationships" section for the "Application Form" object. The table lists eight fields: College, College_fee__c, Created By, Date of Birth, Email, Form Number, Last Modified By, and Student Name. The "College" field is a Master-Detail field for "College". The "Email" field is of type "Email (Unique)". The "Form Number" field is of type "Auto Number". The "Student Name" field is of type "Text(30)".

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
College	College__c	Master-Detail(College)		✓
College fee	College_fee__c	Formula (Currency)		▼
Created By	CreatedById	Lookup(User)		▼
Date of Birth	Date_of_Birth__c	Date		▼
Email	Email__c	Email (Unique)		✓
Form Number	Name	Auto Number		✓
Last Modified By	LastModifiedById	Lookup(User)		▼
Student Name	Student_Name__c	Text(30)		▼

Student object to create as a custom :



A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The title bar shows multiple tabs including "Hands-On Orgs", "Student Dashboard", "Recently Viewed | Students", "New Custom Object | Sales...", "Si-7567-1641229715", and "Profiles, Recordtypes, Automations". The main content area is titled "New Custom Object" under the "SETUP" tab. The "Custom Object Definition Edit" page is shown, with the "Label" field set to "Student" and the "Plural Label" field set to "Students". A note at the top states: "Permissions for this object are disabled for all profiles by default. You can enable object permissions in permission sets or by editing custom profiles." Buttons for "Save", "Save & New", and "Cancel" are visible at the top right. The status bar at the bottom shows system information like battery level, signal strength, and the date/time (05-01-2022, 08:51 PM).

In this custom object to create Student Name field :



A screenshot of a Microsoft Windows desktop showing a browser window with the Salesforce Setup interface. The window title is "Student | Salesforce". The URL is "sanskrithischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/0115g000002vCMf/FieldsAndRelationships/new". The page shows the "New Custom Field" wizard, Step 2 of 4. The object being edited is "Student". The "Field Label" is set to "Address", and the "Length" is set to 255. The "Field Name" is also "Address". There is a note: "Please enter the maximum length for a text field below." The "Description" and "Help Text" fields are empty. Under "Required", there is a checkbox for "Always require a value in this field in order to save a record". Under "Unique", there are two radio button options: "Treat 'ABC' and 'abc' as duplicate values (case insensitive)" (which is selected) and "Treat 'ABC' and 'abc' as different values (case sensitive)". Under "External ID", there is a checkbox for "Set this field as the unique record identifier from an external system". The left sidebar shows navigation links for "Details", "Fields & Relationships" (which is selected), "Page Layouts", "Lightning Record Pages", "Buttons, Links, and Actions", "Compact Layouts", "Field Sets", "Object Limits", "Record Types", "Related Lookup Filters", "Search Layouts", and "Search Layouts for Salesforce Classic". The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray indicating the date and time as 05-01-2022 at 08:52 PM.

In this custom object to create Address field :



A screenshot of the Salesforce Setup interface. The top navigation bar shows tabs like "Hands-On Orgs", "Recently Viewed | Students", "Student Dashboard", "Student | Salesforce", and "SI-7567-1641229715". The main title is "Profiles, Recordtypes, Automations & Fields". The page title is "Student New Custom Field". The left sidebar shows "FIELDS & RELATIONSHIPS" selected, with options like "Details", "Page Layouts", "Lightning Record Pages", etc. The main content area is titled "Step 2: Enter the details" of a "New Custom Field". It has fields for "Field Label" (Address), "Length" (255), "Field Name" (Address), "Description", and "Help Text". Below these are sections for "Required" (checkboxes for "Always require a value" and "Do not allow duplicate values"), "Unique" (radio buttons for "Treat 'ABC' and 'abc' as duplicate values (case insensitive)" and "Treat 'ABC' and 'abc' as different values (case sensitive)"), and "External ID" (checkbox for "Set this field as the unique record identifier from an external system"). A status bar at the bottom shows "08:52 PM 05-01-2022".

In this custom object to create Application Form field :

A screenshot of a web browser displaying the Salesforce Setup interface. The URL in the address bar is <https://sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/015g000002vCMf/FieldsAndRelationships/new>. The page title is "Student | Salesforce". The main content area shows the "New Relationship" step of the "Object Manager" setup. On the left, a sidebar lists various configuration options under "Fields & Relationships". The right panel displays the "Step 2. Choose the related object" screen, where "Application Form" is selected as the related object. The browser's taskbar at the bottom shows various open tabs and system icons.

In this custom object to create College name field :



The screenshot shows the Salesforce Setup interface for creating a new field named "College Name" for the "Student" object. The "Fields & Relationships" tab is selected in the sidebar. The "Field Label" is set to "College Name" and the "Field Name" is set to "College_Name". The "Formula Return Type" section is open, with "Text" selected. The interface includes a sidebar with various configuration options like Page Layouts, Lightning Record Pages, and Buttons, Links, and Actions. The status bar at the bottom right shows the date and time as 05-01-2022 08:55 PM.

In this custom object to create Date of Birth field :



A screenshot of the Salesforce Setup interface. The top navigation bar shows several tabs: Student Dashboard, Recently Viewed, Application Form, Setting Up First App, Custom Object Manager, and another Student Dashboard tab. Below the navigation is a toolbar with icons for Home, Object Manager, and Setup. The main content area is titled "Application Form" under "SETUP > OBJECT MANAGER". A sub-header "New Custom Field" is displayed. On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main form is titled "Step 2. Enter the details" and "New Custom Field". It contains fields for "Field Label" (Date of Birth), "Field Name" (Date_of_Birth), "Description" (empty), and "Help Text" (empty). Under "Required", there are two checkboxes: "Always require a value in this field in order to save a record" (unchecked) and "Add this field to existing custom report types that contain this entity" (checked). A "Default Value" section includes a "Show Formula Editor" button and a note about formula syntax. The bottom right of the screen shows the Windows taskbar with various pinned icons and the system tray indicating the date and time as 04-01-2022 at 10:41 PM.

In this custom object to create Guirdian Name field :



The screenshot shows the Salesforce Setup interface for creating a new custom field. The page title is "Student New Custom Field". The left sidebar is titled "Fields & Relationships" and lists various options like Details, Page Layouts, Lightning Record Pages, etc. The main form is Step 2 of 4, titled "Enter the details". It includes fields for "Field Label" (Guardian Name), "Length" (30), "Field Name" (Guardian_Name), "Description", "Help Text", and "Required" settings (checkboxes for Always require a value, Unique, and External ID). The status bar at the bottom shows system information including the date (05-01-2022) and time (09:04 PM).

In this custom object to create Phone field :



A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The title bar shows multiple tabs including "Hands-On Orgs", "Recently Viewed | Students", "Student Dashboard", "Student | Salesforce", "SI-7567-1641229715", and "Profiles, Recordtypes, Auto...". The main content area is titled "SETUP > OBJECT MANAGER" and shows "Student" selected. On the left, a sidebar lists options like "Details", "Fields & Relationships" (which is currently selected), "Page Layouts", "Lightning Record Pages", "Buttons, Links, and Actions", "Compact Layouts", "Field Sets", "Object Limits", "Record Types", "Related Lookup Filters", "Search Layouts", and "Search Layouts for Salesforce Classic". The main panel is titled "Step 2. Enter the details" and shows "Field Label" set to "Phone", "Field Name" set to "Phone", and "Description" and "Help Text" fields empty. Under "Required", there is a checked checkbox for "Always require a value in this field in order to save a record". Under "Auto add to custom report type", there is a checked checkbox for "Add this field to existing custom report types that contain this entity". A "Default Value" section includes a "Show Formula Editor" button and a note about formula syntax. At the bottom right of the panel are "Previous", "Next", and "Cancel" buttons. The status bar at the bottom of the screen shows the date and time as "09:04 PM 05-01-2022".

Subject object to create as a custom :



A screenshot of a web browser displaying the Salesforce Setup interface. The title bar shows multiple tabs including "Hands-On Orgs", "Recently Viewed | Students", "Student Dashboard", "New Custom Object | Sales:", "SI-7567-1641229715", "Profiles, Recordtypes, Auto...", and "Other bookmarks". The main content area is titled "New Custom Object" under "SETUP". It shows the "Custom Object Definition Edit" screen for creating a new object. The "Label" field is set to "Subject" and the "Plural Label" is set to "Subjects". A note says "Starts with vowel sound" with an unchecked checkbox. The "Object Name" field also contains "Subject". There is a "Description" text area and "Context-Sensitive Help Setting" options. At the bottom, there are "Save", "Save & New", and "Cancel" buttons. The status bar at the bottom right shows "09:15 PM 05-01-2022".

In this custom object to create Student ID field :



The screenshot shows the Salesforce Setup interface for creating a new custom field. The page title is "Subject - New Custom Field". The "Step 2. Enter the details" section is active, showing the following configuration:

- Field Label:** Subject ID
- Display Format:** S-{000000}
- Starting Number:** 1
- Field Name:** Subject_ID
- Description:** (empty)
- Help Text:** (empty)

Below the form, there are two checkboxes:

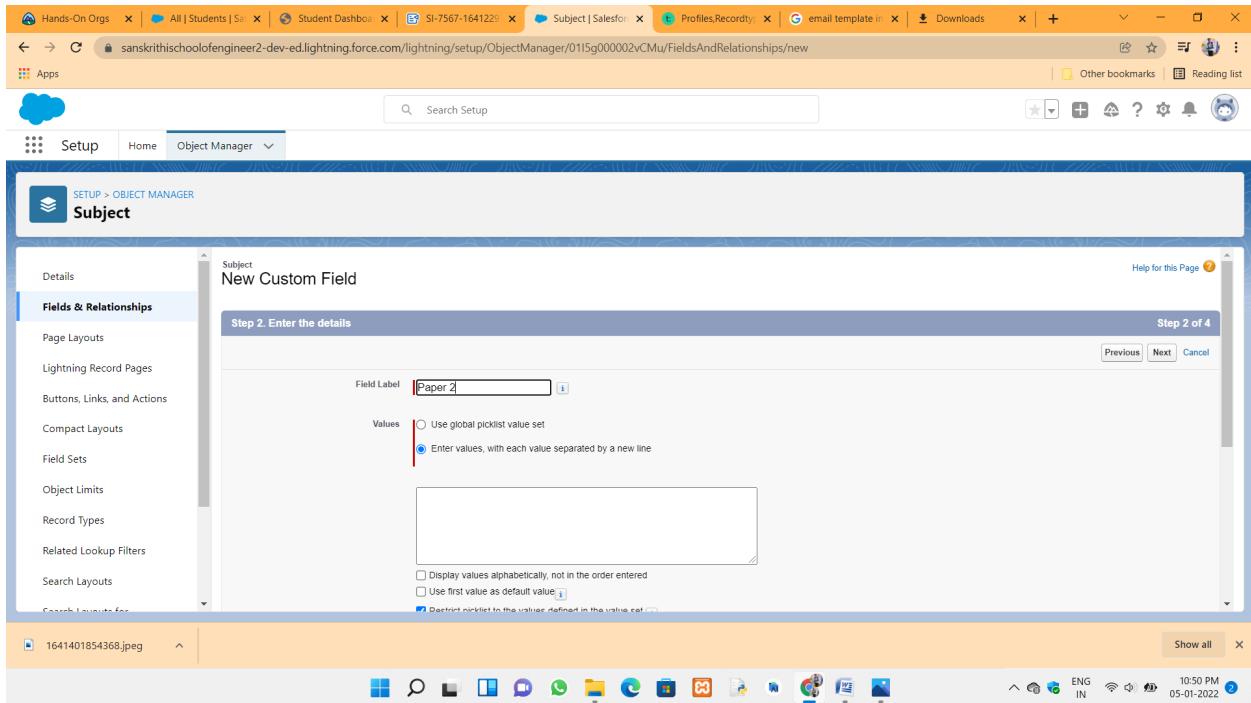
- Set this field as the unique record identifier from an external system
- Add this field to existing custom report types that contain this entity

In this custom object to create Paper1 field :



A screenshot of the Salesforce Setup interface. The title bar shows the URL as sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/015g000002vCMu/FieldsAndRelationships/new. The main window is titled "Subject New Custom Field" and is on "Step 2. Enter the details". The left sidebar lists various setup options under "Fields & Relationships". The right pane contains fields for "Field Label" (set to "Paper 1"), "Values" (radio button selected for "Enter values, with each value separated by a new line"), and other checkboxes for "Display values alphabetically, not in the order entered" and "Use first value as default value". The status bar at the bottom shows the file "1641401854368.jpeg" is open, along with system information like battery level, signal strength, and the date/time "05-01-2022 10:50 PM".

In this custom object to create Paper 2 field :



A screenshot of the Salesforce Setup interface, specifically the Object Manager for the 'Subject' object. The page title is 'New Custom Field'. The 'Fields & Relationships' tab is selected in the sidebar. The 'Field Label' is set to 'Paper 2'. Under 'Values', the 'Enter values, with each value separated by a new line' option is selected. The status bar at the bottom shows the file '1641401854368.jpeg' is open, along with system information like battery level, network, and date/time (10:50 PM, 05-01-2022).

In this custom object to create Student field :



A screenshot of the Salesforce Setup interface. The title bar shows multiple tabs: "Hands-On Orgs", "Recently Viewed | Students", "Student Dashboard", "Subject | Salesforce", "SI-7567-1641229715", and "Profiles, Recordtypes, Automations". The main content area is titled "Subject New Relationship". On the left, a sidebar lists various setup options under "Fields & Relationships", including "Page Layouts", "Lightning Record Pages", "Buttons, Links, and Actions", "Compact Layouts", "Field Sets", "Object Limits", "Record Types", "Related Lookup Filters", "Search Layouts", "Search Layouts for Salesforce Classic", and "Restriction Rules". The main panel is titled "Step 2. Choose the related object" and contains a dropdown menu labeled "Related To" with "Student" selected. Navigation buttons "Previous", "Next", and "Cancel" are visible at the bottom right of the panel. The system status bar at the bottom shows icons for battery, signal, and network, along with the time "09:17 PM" and date "05-01-2022".

Student object under fields :

A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The URL is <https://sanskritischoolofengineering2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/0115g000002vCMp/FieldsAndRelationships/view>. The page title is "Student". On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main content area is titled "Fields & Relationships" and shows a table of fields for the "Student" object. The table includes columns for FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The fields listed are: Address (Address__c, Text(255)), Application Form (Application_Form__c, Lookup(Application Form)), Created By (CreatedBy, Lookup(User)), Date of Birth (Date_of_Birth__c, Date), Guardian Name (Guardian_Name__c, Text(30)), Last Modified By (LastModifiedBy, Lookup(User)), Owner (OwnerId, Lookup(User,Group)), and Phone (Phone__c, Phone).

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Address	Address__c	Text(255)		
Application Form	Application_Form__c	Lookup(Application Form)		
Created By	CreatedBy	Lookup(User)		
Date of Birth	Date_of_Birth__c	Date		
Guardian Name	Guardian_Name__c	Text(30)		
Last Modified By	LastModifiedBy	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)		
Phone	Phone__c	Phone		

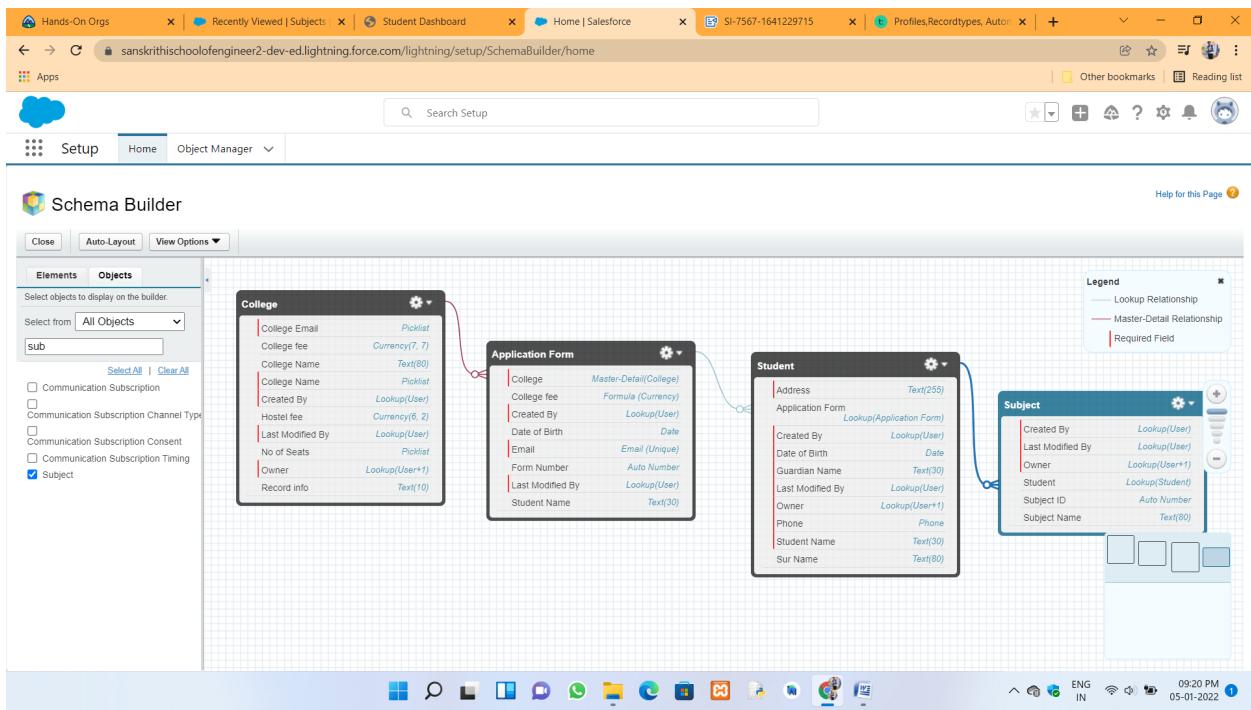
Subject object under fields :

A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The URL is sanskritischoolofengineering2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5g000002vCMu/FieldsAndRelationships/view. The page title is "SETUP > OBJECT MANAGER Subject". On the left, a sidebar lists various setup categories like Details, Fields & Relationships, Page Layouts, etc. The main content area shows a table titled "Fields & Relationships" with 6 items. The table has columns: FIELD LABEL, FIELD NAME, DATA TYPE, CONTROLLING FIELD, and INDEXED. The data is as follows:

FIELD LABEL	FIELD NAME	DATA TYPE	CONTROLLING FIELD	INDEXED
Created By	CreatedById	Lookup(User)		
Last Modified By	LastModifiedById	Lookup(User)		
Owner	OwnerId	Lookup(User,Group)	✓	
Student	Student_c	Lookup(Student)	✓	
Subject ID	Subject_ID__c	Auto Number		
Subject Name	Name	Text(80)	✓	

The browser's address bar shows the full URL. The taskbar at the bottom includes icons for File Explorer, Task View, Start, Search, Taskbar settings, and several pinned application icons. The system tray shows battery level, network status, language (ENG IN), and date/time (05-01-2022, 10:54 PM).

Select relations through Schema builder :



Giving Accessing to the System administrator :

A screenshot of a Microsoft Edge browser window displaying the Salesforce Setup interface. The URL in the address bar is <https://sanskritischoolofengineering2-dev-ed.lightning.force.com/lightning/setup/EnhancedProfiles/page?address=%2Fui%2Fperms%2Fprofile%2FprofileClone%2Fe%3FretURL%3D%252FO0e%253F...>.

The page title is "Profiles". The main content area is titled "Clone Profile". It displays a message: "You must select an existing profile to clone from." Below this, there is a dropdown menu labeled "Existing Profile" set to "System Administrator", a "User License" field set to "Salesforce", and a "Profile Name" input field containing "Test profile". At the bottom of the form are "Save" and "Cancel" buttons. On the left sidebar, under the "Profiles" tab, there is a search bar with "profil" typed into it, and a note: "Didn't find what you're looking for? Try using Global Search." The browser's taskbar at the bottom shows various pinned and open tabs, and the system tray indicates the date and time as 05-01-2022 09:28 PM.

In the account object below record types and reflect into the college management application :



Screenshot of the Salesforce Setup interface showing the creation of a new Record Type for the Account object.

The browser address bar shows the URL: sanskritischoolofengineering2-dev-ed.lightning.force.com/lightning/setup/ObjectManager/Account/RecordTypes/new

The page title is "New Record Type Account".

The left sidebar navigation menu under "Record Types" includes:

- Details
- Fields & Relationships
- Page Layouts
- Lightning Record Pages
- Buttons, Links, and Actions
- Compact Layouts
- Field Sets
- Object Limits
- Record Types** (selected)
- Related Lookup Filters
- Search Layouts
- Search Layouts for Salesforce Classic
- Hierarchy Columns

The main form is titled "Step 1. Enter the details" and contains the following fields:

Existing Record Type	<input type="text" value="--Master--"/>
Record Type Label	<input type="text" value="Saving Account"/>
Record Type Name	<input type="text" value="Saving_Account"/>
Description	<input type="text"/>
Active	<input checked="" type="checkbox"/>

A note below the form states: "Select Make Available to give users assigned to this profile the ability to create and clone records of this record type, or assign this record type to existing records. To make the new record type the default for a profile, select Make Default. Users assigned to this record type can still view and edit records associated with record types not available for their profiles."

The "Profile Name" dropdown shows "Analytics Cloud Integration User". The "Record Types Currently Available" dropdown shows "Account". The "Make Available" checkbox is checked, while "Make Default" is unchecked.

The system status bar at the bottom right shows: ENG IN 09:35 PM 05-01-2022

Screenshot of the Salesforce Setup interface showing the creation of a new Record Type for the Account object.

Record Type Details:

- Existing Record Type:** -Master-
- Record Type Label:** Business Account
- Record Type Name:** Business_Account
- Description:** (empty)
- Active:**

Profile Name: Analytics Cloud Integration User

Record Types Currently Available: Saving Account (Default)

Buttons: Make Available (checked), Make Default (unchecked)

Help Text: Select Make Available to give users assigned to this profile the ability to create and clone records of this record type, or assign this record type to existing records. To make the new record type the default for a profile, select Make Default. Users assigned to this record type can still view and edit records associated with record types not available for their profiles.

Screenshot of the Salesforce Setup interface showing the configuration of a custom field named "GST Number" for the Account object.

Custom Field Definition Detail:

Field Information	Object Name	Data Type
Field Label: GST Number	Account	Text
Field Name: GST_Number		
API Name: GST_Number_c		
Description:		
Help Text:		
Data Owner:		
Field Usage:		
Data Sensitivity Level:		
Compliance Categorization:		
Created By: Kadir Uday Kumar reddy, 05/01/2022, 12:08 pm	Modified By: Kadir Uday Kumar reddy, 05/01/2022, 12:08 pm	

General Options:

- Required:
- Unique:
- Case Sensitive:
- External ID:
- Default Value: (empty)



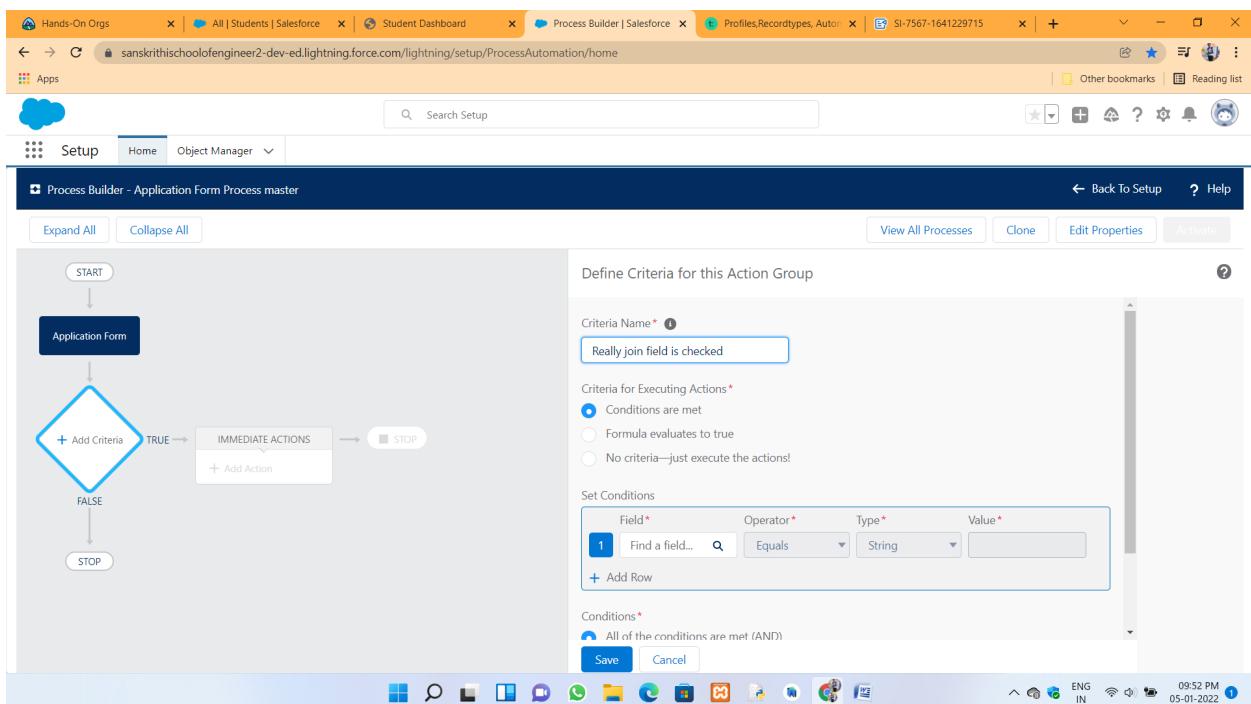
A screenshot of a Microsoft Edge browser window. The address bar shows a URL from a Salesforce instance. The main content area displays a "New Account" dialog box over a "College Management" application interface. The dialog box is titled "New Account" and asks "Select a record type". It contains three radio button options: "Customer Account" (selected), "Business Account", and "Saving Account". Below the dialog are "Cancel" and "Next" buttons. The background application has tabs like "Accounts", "Contacts", "Colleges", etc. The system tray at the bottom shows a file named "1641401854368.jpeg", system icons, and a date/time stamp of "11:06 PM 05-01-2022".

Using Process Builder to Create application form process master :



A screenshot of a web browser displaying the Salesforce Process Builder interface. The title bar shows multiple tabs including "Hands-On Orgs", "All | Students | Salesforce", "Student Dashboard", "Process Builder | Salesforce", "Profiles, Recordtypes, Automations", and "SI-7567-1641229715". The main content area shows a "New Process" dialog box titled "New Process". Inside the dialog, there are fields for "Process Name*" (set to "Application Form Process master") and "API Name*" (set to "Application_Form_Process_master"). Below these are "Description" and "The process starts when*" dropdowns. A status table on the right lists 12 items, all modified in August 2021 and marked as "Active". The bottom of the screen shows a Windows taskbar with various icons and the system tray indicating the date as 05-01-2022 and time as 09:50 PM.

To create the process in Process Builder :



Email templates creation :



Screenshot of the Salesforce Classic Email Templates setup page.

The URL in the browser is: <https://sanskritischoolofengineer2-dev-ed.lightning.force.com/lightning/setup/CommunicationTemplatesEmail/page?address=%2F00X5g000000d1S%2Fe%3Fsetupid%3DCommunicationTemplatesEmail...>

The page title is "Classic Email Templates".

The "Email Template Edit" form is displayed:

- Email Template Information**
 - Folder: Unfiled Public Classic Email Templates
 - Available For Use:
 - Email Template Name: Test Email Templates
 - Template Unique Name: Test_Email_Templates
 - Encoding: Unicode (UTF-8)
 - Description: Testing
 - Subject: Hi Dear
 - Email Body:

```
Hi Dear

I am from Salesforce
```
- Buttons: Save, Save & New, Cancel

The left sidebar shows the navigation path: Setup > Email > Classic Email Templates.

The taskbar at the bottom shows various application icons and the system status bar indicates the date and time as 05-01-2022 11:13 PM.



Day 4 :

Topic : Process automation for Application form in the college management application Workflow and flow builder

Milestones / Activities : Workflow, Flowbuilder, Security model, overview of apex

Description :

Workflow : Workflow in Salesforce is basically a container or business logic engine which automates certain actions based on particular criteria. If the criteria are met, the actions get executed. When they are not met, records will get saved but no action will get executed. ... Workflow Rules.

The certain points to create

1. record type
2. email creation
3. task creation
4. outbound messages

Flow builder : In Salesforce, a flow is an application that automates complex business processes. Simply put, it collects data and then does something with that data. Flow Builder is the declarative interface used to build individual flows. Flow Builder can be used to build code-like logic without using a programming language.

some of the explanation about the flow builder working :



In this flow builder have a 5 different flows. You have to use screen flow and record triggered flows.

In this one two separate flows are there, This are free form and auto compete form. You have to work on both flows.

flow builder (Lightning Flow)

the different settings is get records and update records etc.

```
for (i=100) {  
    collection variables set, map, list  
    select id, Name from student where lame not empty limit 1,  
    for( i = 100 )  
        form clase date current day 30:  
        when readyto join as true (application form object), then only create a student record.  
        Stringm, id, date, list, set  
        in term of record trigger flows,  
        we have a variable called $Record. application form cord 40 SRecord prior holds old  
        data of application form
```

some important things you will see :

1. flow builder outbound message
2. Security model in salesforce :
 - object level security
 - field level security
 - record level security



a record that you are creating has to be private. only you will be able to record.

profile - test profile

college --> Application form both are in MD

you want the record to be private

Sharing Rule opens up when DWD is private or public read only

Overview of apex and some settings and datatypes discussed in this developer console :

It is programming language. it is similar to java and its developed in the vs editor and lwc editor

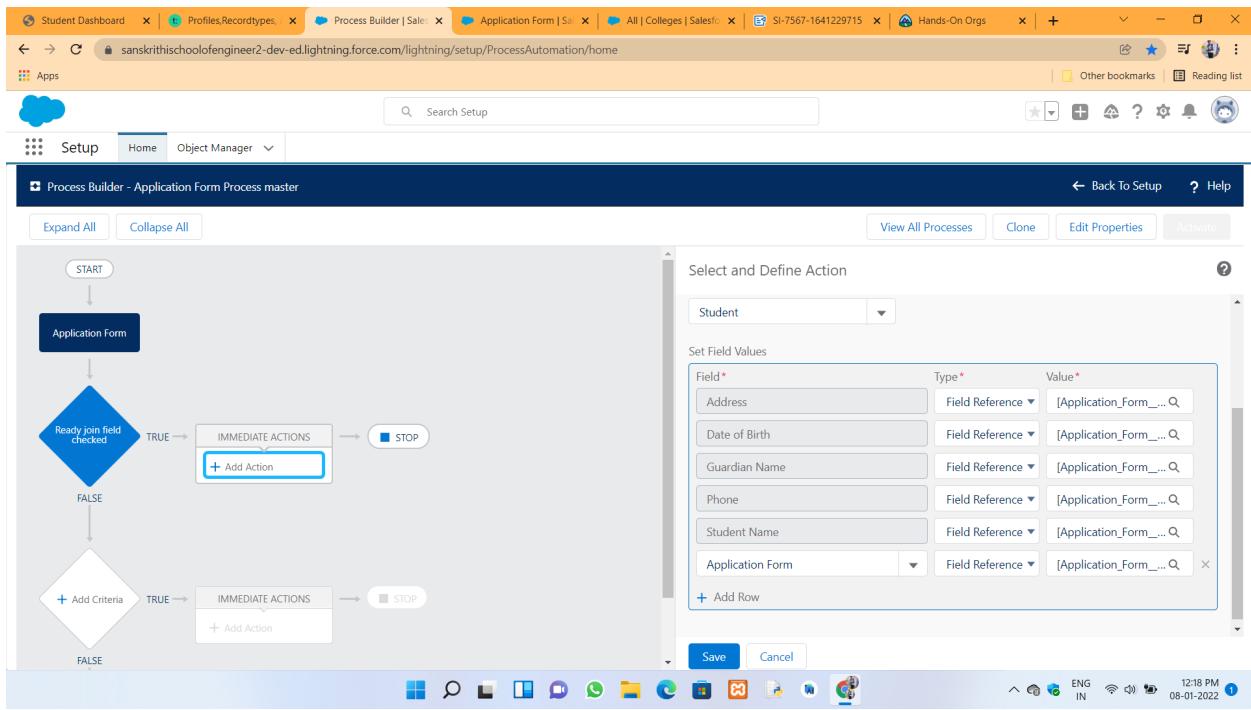
Screenshots of milestones / Activities :

Process automation for application form and it creates the process name is Application form process master :



Screenshot of a web browser showing the Salesforce Process Builder interface. The title bar includes tabs for Hands-On Orgs, All Students, Student Dashboard, Process Builder, Profiles/Recordtypes, Auto, and SL-7567-1641229715. The main content shows the 'New Process' dialog box with fields for Process Name (Application Form Process master), API Name (Application_Form_Process_master), Description (empty), and Start When (Select One). The background shows a list of existing processes with columns for Modified, Status, and Actions. The system status bar at the bottom indicates ENG IN, 09:50 PM, and 05-01-2022.

Create The Student Record Using Flow :



The action of the ready to join in the student object :



A screenshot of a Salesforce application form page. The URL in the browser is "sanskritischoolofengineering2-dev-ed.lightning.force.com/lightning/r/Application_Form__c/a005g000000dMB4EAM/view". The page header shows "College Management" and various navigation links like Accounts, Contacts, Colleges, Application Forms (which is selected), Students, and Subjects. The main content area displays an "Application Form" titled "Form-0000000002". It includes sections for "Notes & Attachments" (with a file upload button) and "Students (1)" (listing a student with ID "a0R5g0000000VoLS"). On the right side, there is an "Activity" section with tabs for New Event, New Task, Log a Call, and Email, and a button to "Add". Below this, there are sections for "Upcoming & Overdue" activities and a note about past activity. The bottom of the screen shows the Windows taskbar with various pinned icons and the system tray indicating the date and time as 08-01-2022 at 12:51 PM.

FLow builder Creating and actions in to be explained :



A screenshot of the Salesforce Flow Builder interface. The top navigation bar shows multiple tabs like "Student Dash", "Automation", "Flow Builder", and "Flows | Sales". The main area is titled "Flow Builder" with a sub-section "Screen Flow". On the left, a "Toolbox" sidebar lists categories: Interaction (3), Logic (4), and Data (5). Under "Interaction", there are icons for Screen, Action, and Subflow. Under "Logic", there are Assignment, Decision, Loop, and Collection Sort. Under "Data", there are Create Records, Update Records, Get Records, Delete Records, and Roll Back Records. A "Start" screen flow element is visible in the center workspace. The bottom of the screen shows the Windows taskbar and system tray.

Get Records and loop and new assignment and update records :

Screenshot of the Salesforce Flow Builder interface showing the "Edit Get Records" configuration.

Toolbox Elements:

- Interaction (3): Screen, Action, Subflow
- Logic (4): Assignment, Decision, Loop, Collection Sort
- Data (5): Create Records, Update Records, Get Records, Delete Records, Roll Back Records

Get student record (get_student_record) Configuration:

- Object:** Student
- Filter Student Records:** Condition Requirements: All Conditions Are Met (AND)
 - Field: Date_of_Birth_c, Operator: Is Null, Value: False
- Sort Student Records:** Sort Order: Last Created

Toolbar Buttons: Debug, Activate, Save As, Save

Screenshot of the Salesforce Flow Builder interface showing the "Edit Loop" configuration.

Toolbox Elements:

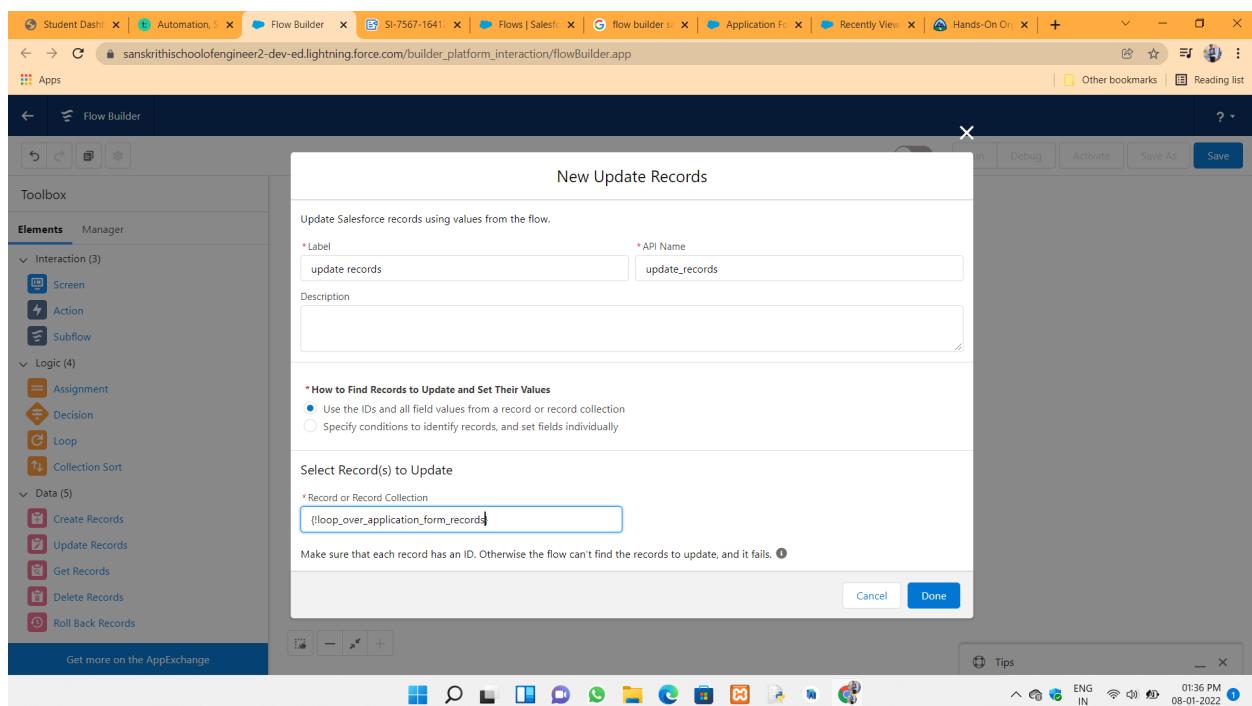
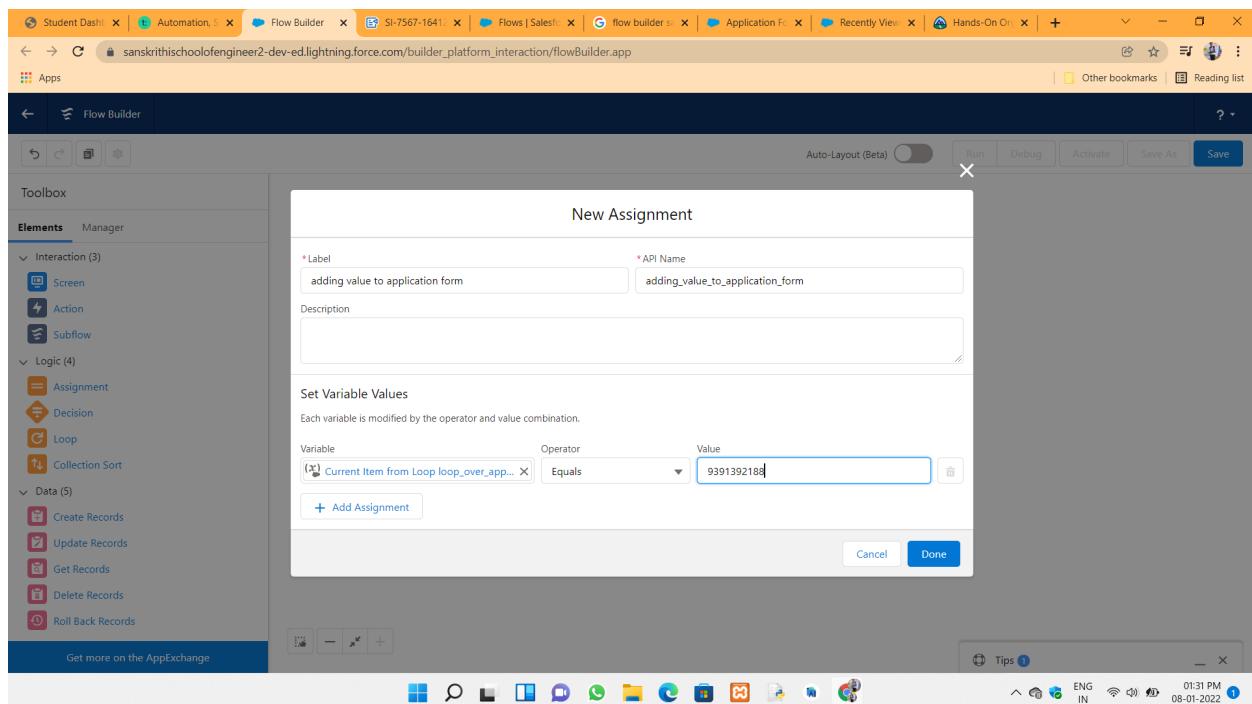
- Interaction (3): Screen, Action, Subflow
- Logic (4): Assignment, Decision, Loop, Collection Sort
- Data (5): Create Records, Update Records, Get Records, Delete Records, Roll Back Records

loop over application form records (loop_over_application_form_records) Configuration:

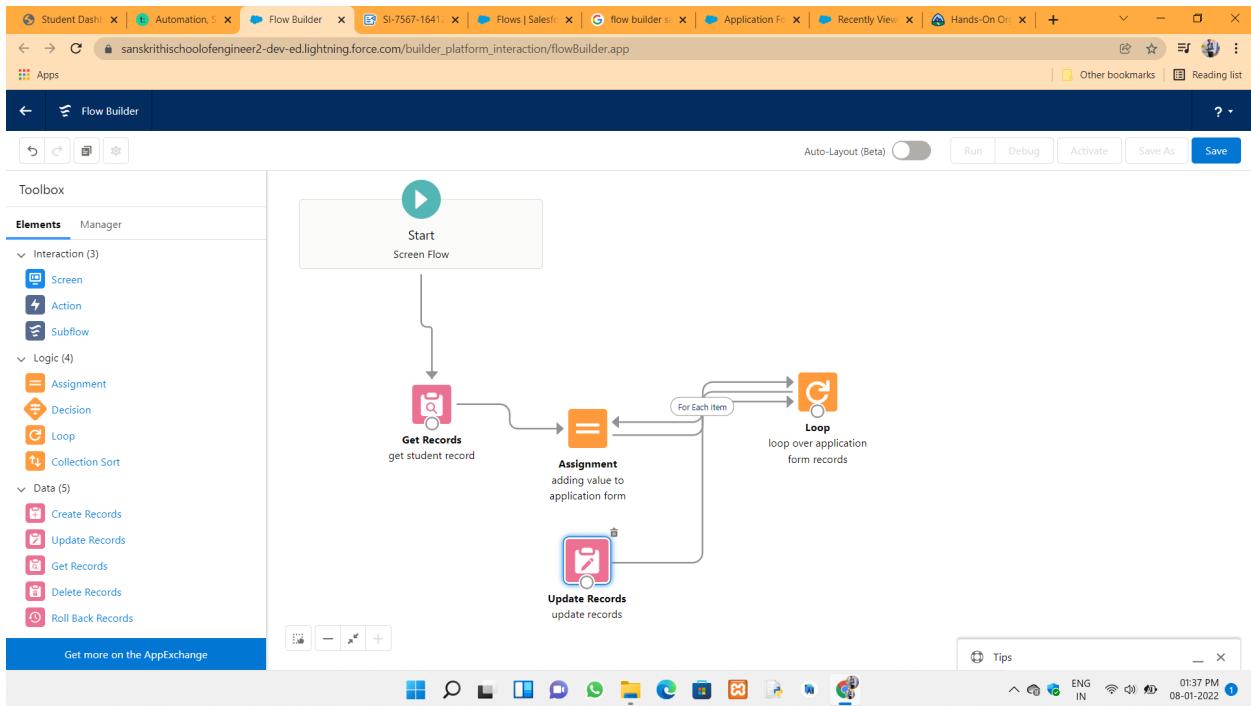
- Select Collection Variable:** Collection Variable: \${get_student_record}
- Specify Direction for Iterating Over Collection:** Direction:
 - First item to last item (selected)
 - Last item to first item

Info Message: To use the current item in other elements in the loop, use the API name of the Loop element. Example: if your flow iterates over accounts with a Loop element named "My_Account_Loop" you can reference the current item from that loop element. Just start typing "My_Account_Loop" and select "Current Item from Loop My_Account_Loop".

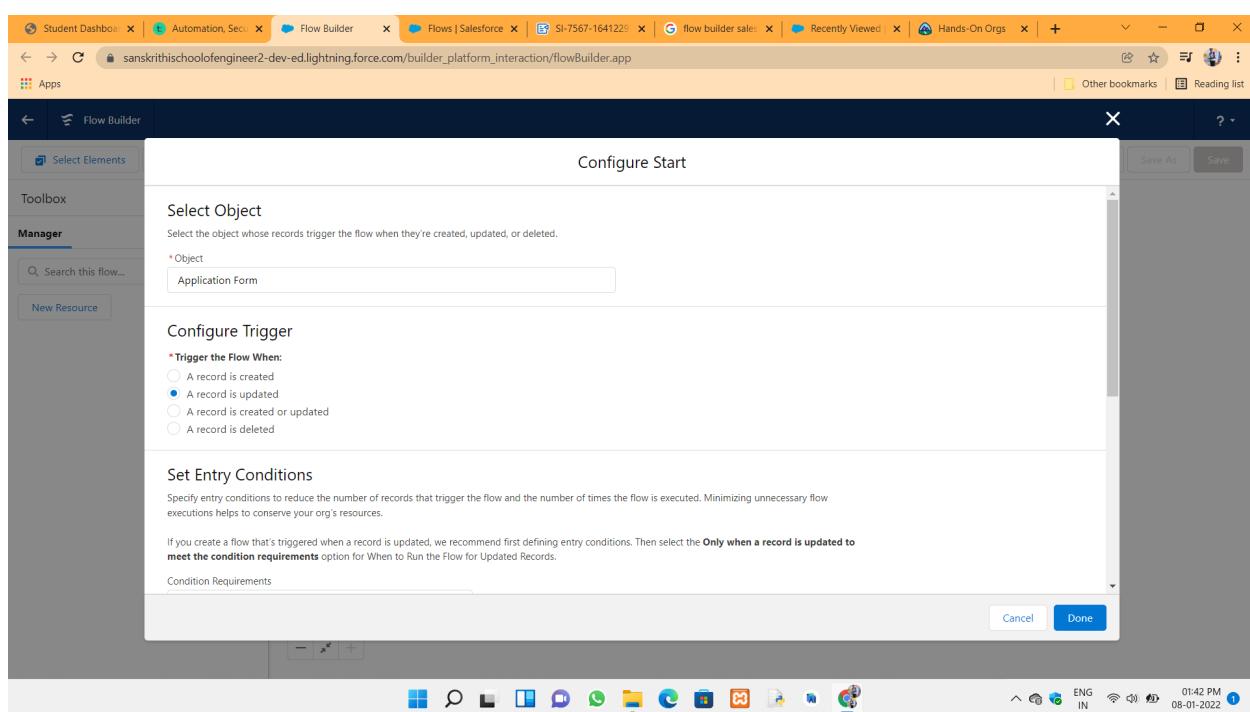
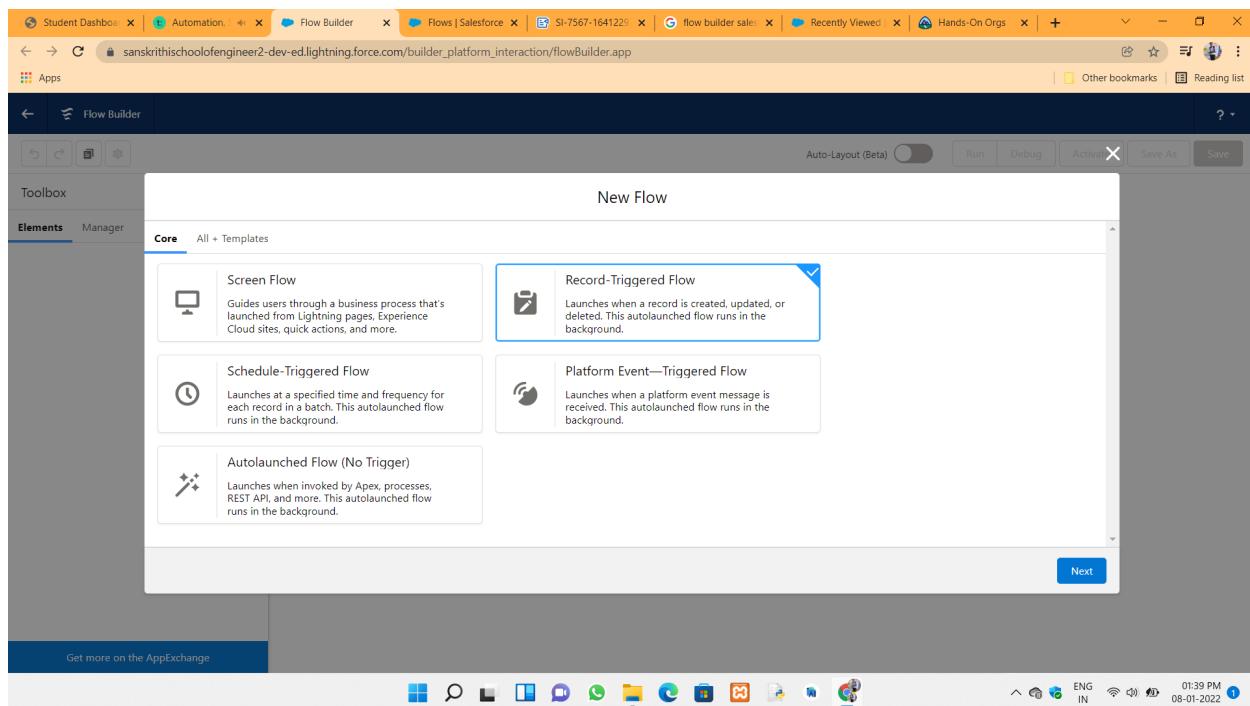
Toolbar Buttons: Auto-Layout (Beta), Debug, Activate, Save As, Save

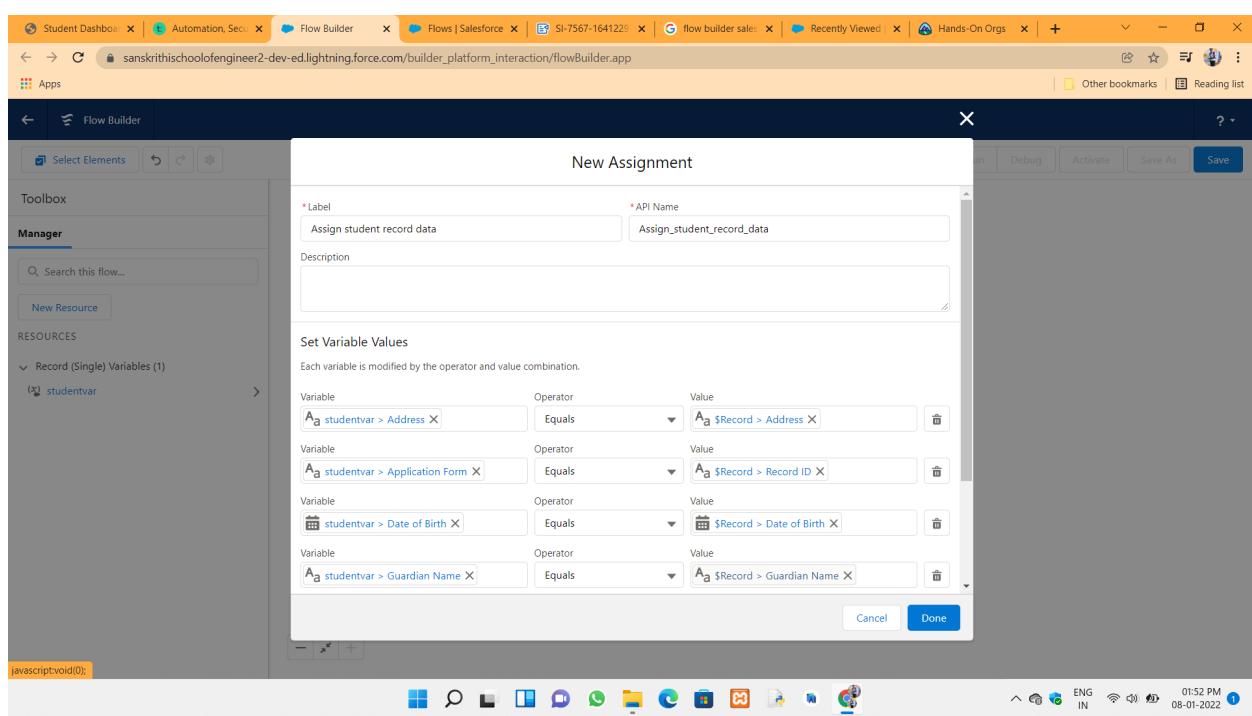
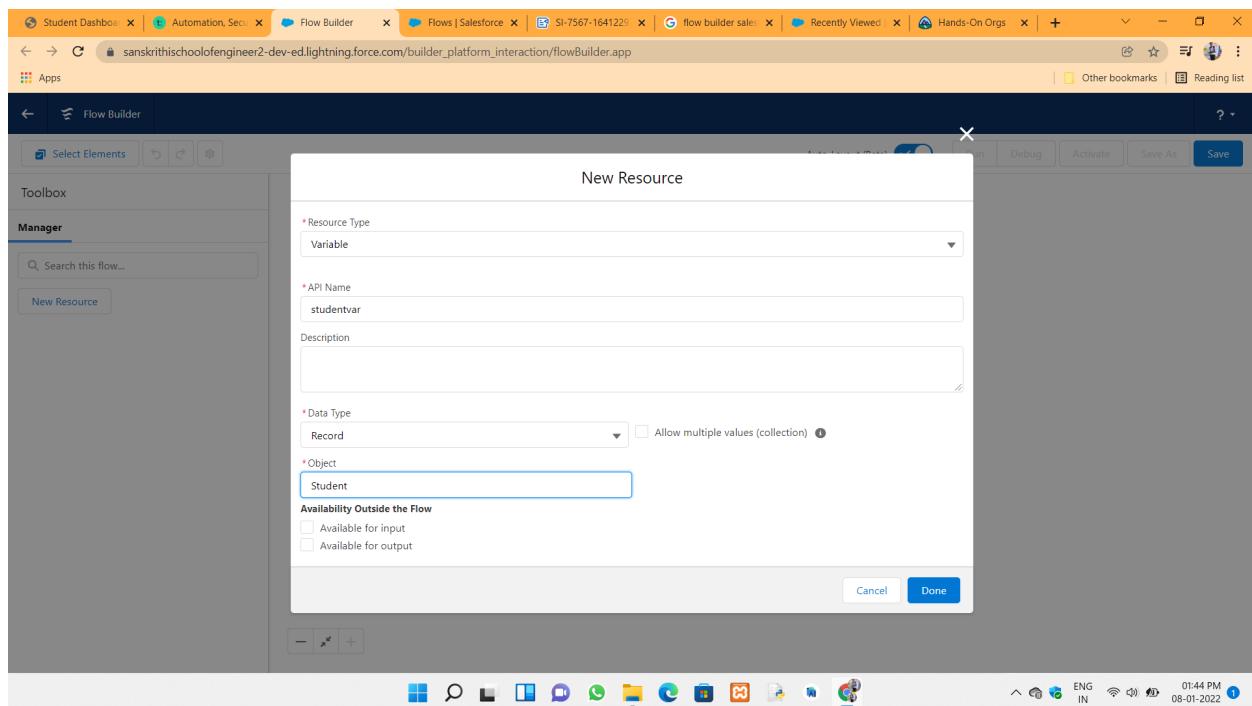


The total flow is below shown all :

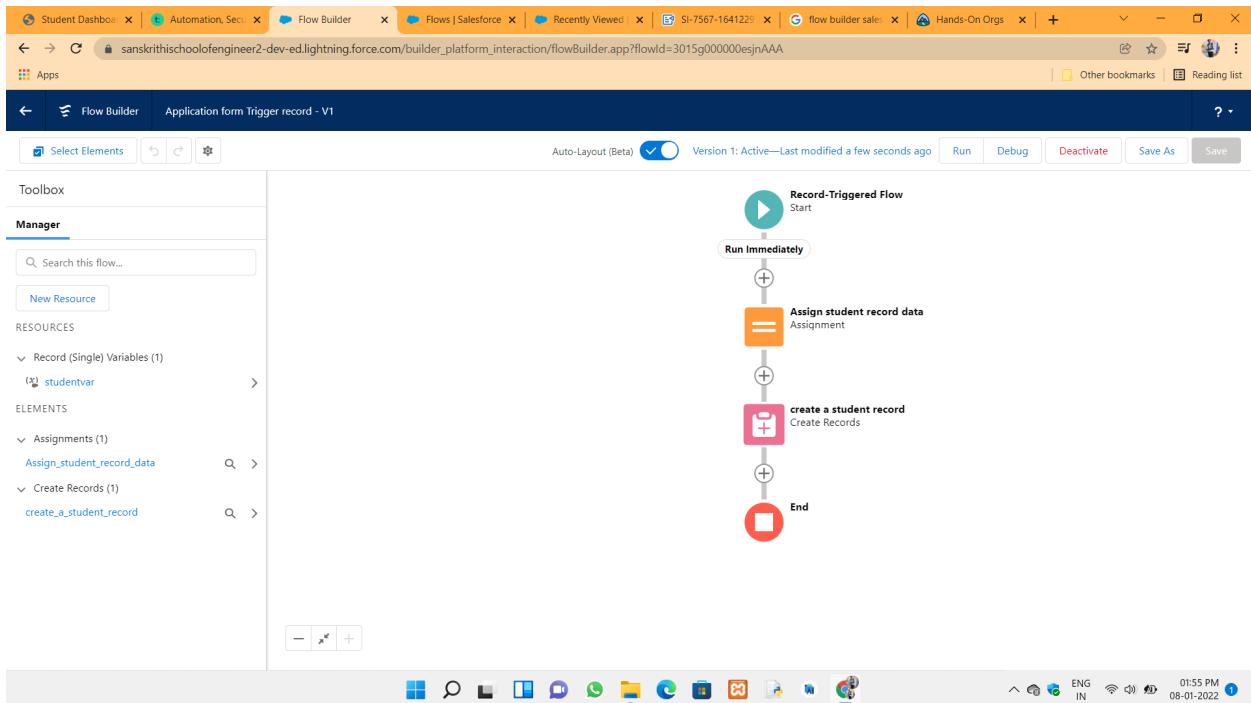


Record triggered flow selection and some process in that :

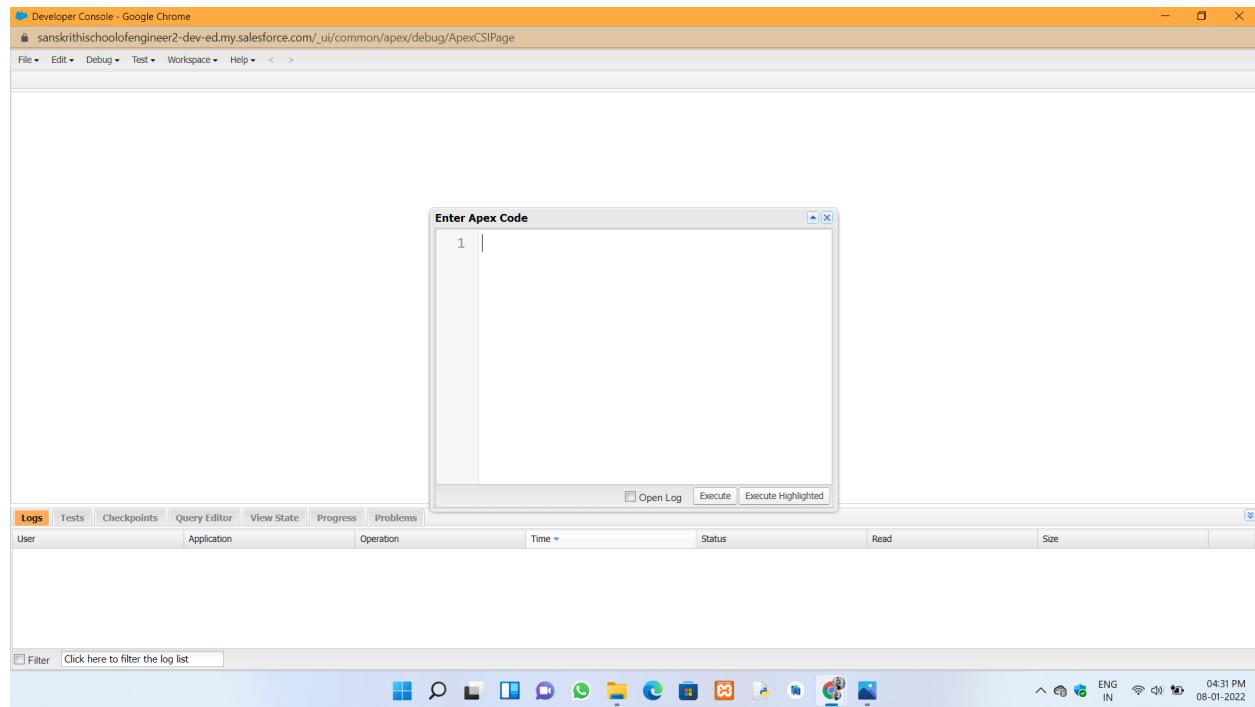




The overview of Record triggered flow is :



Overview of apex and some settings and datatypes discussed in this developer console :





Day 5 :

Topic : Apex programming concepts

of

Milestones / Activities : Apex class and synchronous and asynchronous apex and soql

Description :

Apex class :

1. primitive datatypes
2. collections

Soql : SOQL stands for Salesforce Object Query Language. You can use SOQL to read information stored in your org's database. SOQL is syntactically similar to SQL (Structured Query Language). You can write and execute a SOQL query in Apex code or in the Developer Console's Query Editor

1. select fields from sobject
 - a.query related records 2 objs related to each other)
child to parent
 - b.parent to child



list of application form :

(Application_rom_c: (student Name_c-Romak, Guardian_Name_c=eroumak, Date_of_Birth_c-1999-01-26 00:00:00, 1d-a0151000008658jAAI). Application Forno: (Student=NamecLikitha. Guardian_Name_c-Guardian, Date_of_Birth_c-2002-12-29 00:00:00, 1d-a01510000085cibAAA), 00:00:00, Id-a01510000086GpKAAU), Application Forn_c: (Student Name Nanaz, Guardian Name namaz, Date of Birth_c-2008-01-15 17 Application_form_c:1student Name_c=Yashwant, Guardian_Name_c-Yash, Date_o

Governer limits : Simply put, Salesforce Governor Limits are usage caps enforced by Salesforce to ensure efficient processing. They allow for multiple users of the platform without impeding performance.

Salesforce run in a multi tenant architecture.

In this governor limits applicable for synchronous and asynchronous apex modes.

Asynchronous apex mode : Asynchronous Apex is used to run process in a separate thread at later time. It is process or function that executes a task “in the back ground” without the user having to wait for the task to finish. ... Benefits of Asynchronous process are User efficiency, Scalability and higher limits.

synchronous apex : In Synchronous process the thread waits for the task to be completed and then moves to the next task Sequentially. All the tasks are completed in a single thread.

SOQL : 100 query in a transaction

NO of dml sexceptions : 150



To return the account records in the account object with apex code : To write the query and return the records

Account: (Id-0015100000Mo5iVAAR, Name Sample Account for Entitlements),35
0015500000RdlhPAAV-Account: (Id-0015500000RdlhPAAV, Name-Edge
Communications), 22 0015100000MdIhQAAV-Account: (Id-0015100000RdInQAAV,
Name-Burlington Textiles Corp of America), 0015100000RathRAAV-Account: (Id-
0015500000RdInRAAV, Name-Pyramid construction Inc.), 0015100000RdthSAAV-
Account: [Id-0015j00000RdlhSAAV, Name Dickenson pic), 0015100000RdInTAAV-
Account: (Id-0015500000RdINTAAV, Same-Grand Hotels & Resorts

Object explanation : Two types of object involved in salesforce

1. Set up objects
2. Non setup objects

soo, sost, collections, 2 types of apex classes

1. sync
2. async

Add we get more governor limits

SOQL sync 100, async 200 OPIL - 150

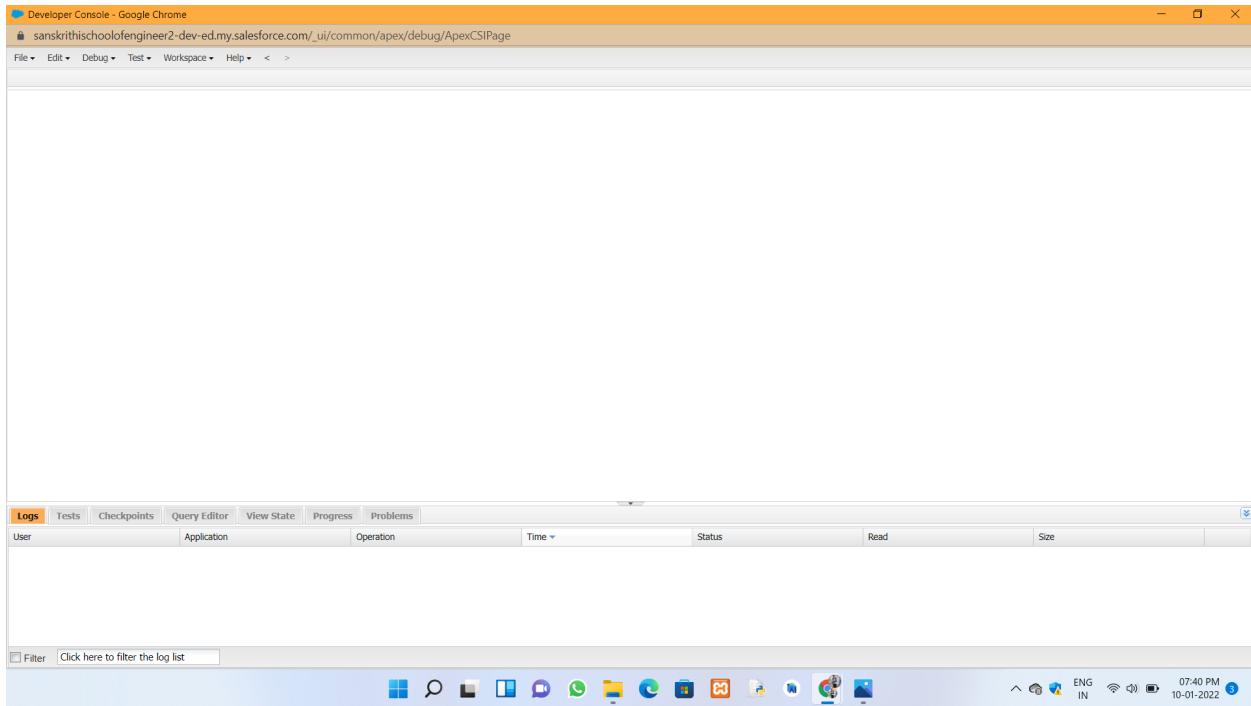
type of async apex :-

1. Future method callout to external systems, to avoid mixed DHL operation
2. Batch class
3. Queueable class
4. Schedulable class



Screenshots of Milestones / Activities :

Developer console interface:



Primitive collections and datatypes :

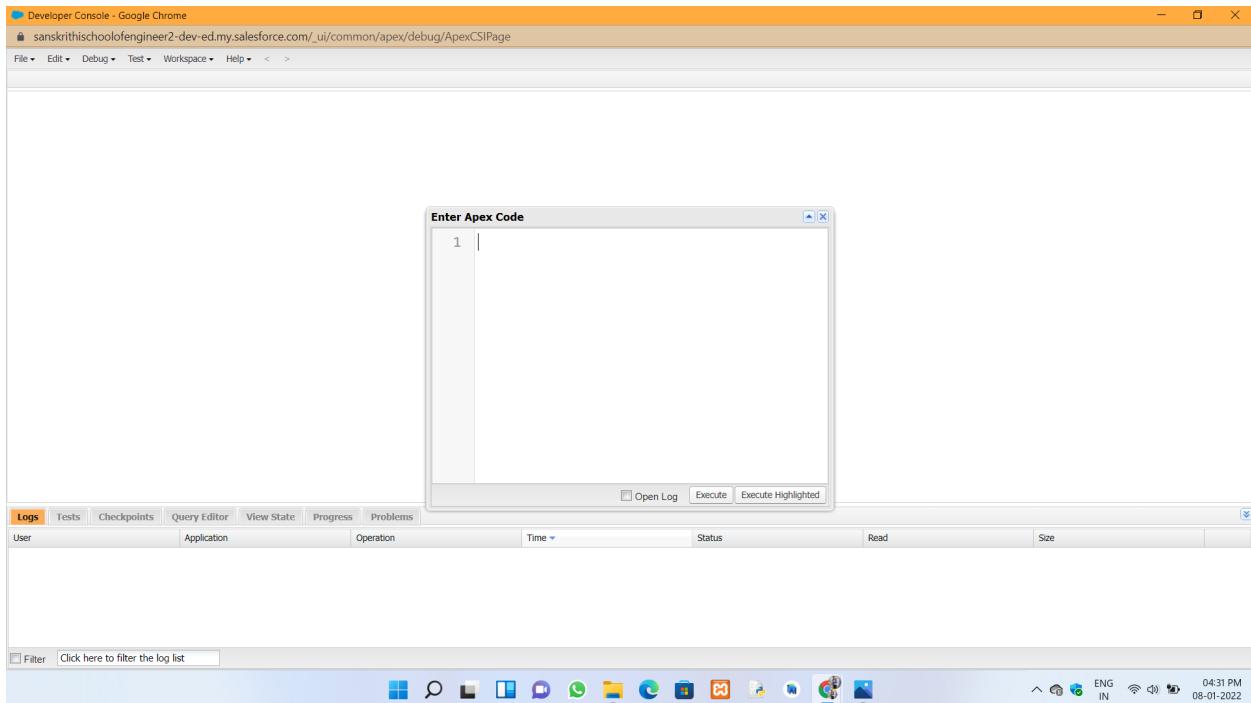


The screenshot shows the Salesforce Developer Console interface in Google Chrome. The top navigation bar includes links for File, Edit, Debug, Test, Workspace, Help, and tabs for HelloWorldTrigger.apxt and AccountAddressTrigger.apxt. Below the tabs is a toolbar for Code Coverage and API Version (52). The main area displays the following Apex code:

```
1 public class ContactInsertion {
2     List<Contact> contactList = new List<Contact>();
3     public void methodName() {
4         for(Integer i=0; i<100 ; i++ ) {
5             Contact cont = new Contact(lastname = 'contact' + i);
6             contactList .add(cont);
7         }
8         insert contactList ;
9     }
10 }
```

Below the code editor is a logs panel tabbed to "Logs". It contains a table with columns: User, Application, Operation, Time, Status, Read, and Size. A "Filter" button and a "Click here to filter the log list" link are at the bottom of the logs section. The system tray at the bottom right shows icons for network, battery, and date/time (10-01-2022, 07:30 PM).

Anonymous console in developer console :



Application return values query in Developer console :



Developer Console - Google Chrome
sanskritischoolengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

College__c@11:35 PM

```
select id, College_Name__c, College_Email__c from College__c
```

Query Results - Total Rows: 3

Id	College_Name__c	College_Email__c
a0Ns5g000000vYKHEAU	MIT - MAA	mit@maa.com
a0Ns5g000000vYyZEAU	MIT - HYD	mit@hyd.com
a0Ns5g000000vYyj0EAE	MIT - BLR	mit@blr.com

Query Grid: Save Rows | Insert Row | Delete Row | Refresh Grid | Access in Salesforce | Create New | Open Detail Page | Edit Page

Logs Tests Checkpoints **Query Editor** View State | Progress | Problems

```
select id , College_Name__c, College_Email__c from College__c
```

Any query errors will appear here...

History
Executed
select id , College_Name__c, College_Email__c from College__c

Execute Use Tooling API

11:35 PM 09-01-2022

list of application form :



Developer Console - Google Chrome
sanskrithischoolofengineering2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

Log executeAnonymous @1/11/2022, 5:22:05 PM Log executeAnonymous @1/11/2022, 5:24:24 PM Log executeAnonymous @1/11/2022, 5:25:57 PM

Execution Log

Timestamp	Event	Details
17:25:57:008	USER_DEBUG	[4]DEBUG Application_Form__c:{Student_Name__c=k uday kumar reddy, Date_of_Birth__c=2001-05-19 00:00:00, Id=a005g000000dM27EAE}
17:25:57:008	USER_DEBUG	[4]DEBUG Application_Form__c:{Student_Name__c=Usha, Guardian_Name__c=praneeth, Date_of_Birth__c=2022-01-13 00:00:00, Id=a005g000000dMBfEA2}
17:25:57:008	USER_DEBUG	[4]DEBUG
17:25:57:008	USER_DEBUG	[4]DEBUG Enter Apex Code
17:25:57:008	USER_DEBUG	[4]DEBUG <pre>1 List<Application_form__c> afList=[select Student_Name__c, Guardian_Name__c, Date_of_birth__c from Application_form__c]; 2 3 for(Application_form__c afp : afList){ 4 System.debug(afp); 5 } 6 7 8 </pre>

This Frame Executable Debug Only Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:25:57 PM	Success		6.34 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:24:24 PM	Success		6.4 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:22:05 PM	Success		3.14 KB

Filter Click here to filter the log list

Open Log Execute Execute Highlighted

05:27 PM 11-01-2022 ENG IN



Developer Console - Google Chrome

sanskritthischoolengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < >

Log executeAnonymous @1/11/2022, 5:22:05 PM Log executeAnonymous @1/11/2022, 5:24:24 PM Log executeAnonymous @1/11/2022, 5:25:57 PM

Execution Log

Timestamp	Event	Details
17:25:57:008	USER_DEBUG	[4] DEBUG Application_Form__c:{Student_Name__c=k udhay kumar reddy, Date_of_Birth__c=2001-05-19 00:00:00, Id=a0O5g0000000M27EA}
17:25:57:008	USER_DEBUG	[4] DEBUG Application_Form__c:{Student_Name__c=Usha, Guardian_Name__c=praneeth, Date_of_Birth__c=2022-01-13 00:00:00, Id=a0O5g000000dMBJE2}
17:25:57:008	USER_DEBUG	[4] DEBUG Application_Form__c:{Student_Name__c=Fgadsjk, Guardian_Name__c=adfs, Date_of_Birth__c=2022-01-25 00:00:00, Id=a0O5g000000JMBKEA2}
17:25:57:008	USER_DEBUG	[4] DEBUG Application_Form__c:{Student_Name__c=kadiri, Guardian_Name__c=pranay, Date_of_Birth__c=2022-01-18 00:00:00, Id=a0O5g000000MBE4AM}
17:25:57:008	USER_DEBUG	[4] DEBUG Application_Form__c:{Student_Name__c=manish, Guardian_Name__c=pandey, Date_of_Birth__c=2022-01-10 00:00:00, Id=a0O5g000000dMBEEA2}

This Frame Executable Debug Only Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:25:57 PM	Success		6.34 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:24:24 PM	Success		6.4 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:22:05 PM	Success		3.14 KB

Filter Click here to filter the log list

Google Chrome window interface: Address bar, tabs, toolbar, status bar showing 05:26 PM, 11-01-2022, and system icons.

To return the account records in the account object with apex code :



Developer Console - Google Chrome
sanskritischoolengineering2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < ▾ >
Log executeAnonymous @1/11/2022, 5:22:05 PM ▾

Timestamp	Event	Details
17:22:05:002	HEAP_ALLOCATE	[1]Bytes:4
17:22:05:002	HEAP_ALLOCATE	[52]Bytes:5
17:22:05:002	HEAP_ALLOCATE	[58]Bytes:
17:22:05:002	HEAP_ALLOCATE	[66]Bytes:
17:22:05:002	SOQL_EXECUTE...	[1]Aggregat
17:22:05:016	SOQL_EXECUTE...	[1]Row:5
17:22:05:016	HEAP_ALLOCATE	[1]Bytes:2
17:22:05:016	HEAP_ALLOCATE	[1]Bytes:2
17:22:05:016	VARIABLE_ASSIGN...	[1]afList[[
17:22:05:016	CUMULATIVE_L...	(default)
17:22:05:009	LIMIT_USAGE_...	Number of
17:22:05:009	LIMIT_USAGE_...	Maximum C

Enter Apex Code

```
7 System.debug(' all values: '+mm);
8
9 System.debug('all key values means left side of the map : ' + mm.keySet());
10 System.debug('all rights side values: '+mm.values());
11
12 Map<id, Account> accMap = new Map<id, Account>();
13 List<Account> acctlist = [select id, name from Account];
14 for (Account aa: acctlist){
15     accMap.put(aa.id, aa);
16 }
17 System.debug(accMap);
18
19
```

Open Log Execute Execute Highlighted

This screenshot shows the Salesforce Developer Console interface. The top navigation bar includes 'File', 'Edit', 'Debug', 'Test', 'Workspace', 'Help', and back/forward buttons. A message bar at the top right indicates a log entry for 'executeAnonymous' at 1/11/2022, 5:22:05 PM. The main area is divided into several sections: 'Execution Log' (listing memory allocations and system events), an 'Enter Apex Code' editor containing a block of Apex code that performs a debug dump of a map, and a 'Logs' table showing recent API calls made by the user. The bottom of the screen features the Windows taskbar with various pinned icons and the system tray showing the date and time as 11-01-2022 05:55 PM.



Developer Console - Google Chrome
sanskrithischoolofengineering2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage
File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < ▾ Log executeAnonymous @1/11/2022, 5:22:05 PM ▾

Execution Log

Timestamp	Event	Details
17:22:05:002	HEAP_ALLOCATE	[1] [Bytes:4]
17:22:05:002	HEAP_ALLOCATE	[52] [Bytes:5]
17:22:05:002	HEAP_ALLOCATE	[58] [Bytes:5]
17:22:05:002	HEAP_ALLOCATE	[66] [Bytes:7]
17:22:05:002	SOQL_EXECUTE_...	[1] [Aggregations:0] [SELECT Student__Name__c, Guardian__Name__c, Date_of_Birth__c FROM Application_form__c]
17:22:05:016	SOQL_EXECUTE_...	[1] [Rows:5]
17:22:05:016	HEAP_ALLOCATE	[1] [Bytes:24]
17:22:05:016	HEAP_ALLOCATE	[1] [Bytes:56]
17:22:05:016	HEAP_ALLOCATE	[1] [Bytes:24]
17:22:05:016	VARIABLE_ASSIGN...	[1] [aList][{"Student__Name__c": "k udhay kumar reddy", "Date_of_Birth__c": "2001-09-19T00:00:00.000Z", "Id": "a05g00000dM27EAE"}]
17:22:05:016	CUMULATIVE_L...	(default)
17:22:05:000	LIMIT_USAGE_...	Number of SOQL queries: 1 out of 100
17:22:05:000	LIMIT_USAGE_...	Number of query rows: 5 out of 50000
17:22:05:000	LIMIT_USAGE_...	Number of SOSL queries: 0 out of 20
17:22:05:000	LIMIT_USAGE_...	Number of DML statements: 0 out of 150
17:22:05:000	LIMIT_USAGE_...	Number of Publish Immediate DML: 0 out of 150
17:22:05:000	LIMIT_USAGE_...	Number of DML rows: 0 out of 10000
17:22:05:000	LIMIT_USAGE_...	Maximum CPU time: 0 out of 10000
17:22:05:000	LIMIT_USAGE_...	Minimum page size: 0 out of 6000000

Log line #23 details

17:22:05:016 VARIABLE_ASSIGNMENT [1] [aList][{"Student__Name__c": "k udhay kumar reddy", "Date_of_Birth__c": "2001-09-19T00:00:00.000Z", "Id": "a05g00000dM27EAE"}, {"Student__Name__c": "Usha", "Guardian__Name__c": "praneeth", "Date_of_Birth__c": "2022-01-13T00:00:00.000Z", "Id": "a05g00000dMBjEA2"},]

OK

This Frame Executable Debug Only Filter Click here to filter the log

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:22:05 PM	Success		3.14 KB
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:24:24 PM	Success		6.4 KB
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:25:57 PM	Success		6.34 KB
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:46:18 PM	Success		3.9 KB
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:52:33 PM	Success		14.63 KB
Kadir Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:55:06 PM	Success		14.63 KB

Filter

Windows taskbar icons and system status bar showing ENG IN, 05:55 PM, 11-01-2022.

In Asynchronous Apex types :

Future method :



Developer Console - Google Chrome
sanskritischoolengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File • Edit • Debug • Test • Workspace • Help • < >
Log executeAnonymous @1/11/2022, 5:22:05 PM | Asynfuture.apxc *
Code Coverage: None • API Version: 53 Go To

```
1 public class myFirstClass {  
2  
! 3 public static void getAccount Details(){  
! 4 Map<id, Account> accMap new Map<id, Account> (); List<Account> acclist [select id, name from Account]; for(Account aa : acclist){  
5 accMap.put(aa.id, aa);  
6  
System.debug(accmap.keySet());  
7  
// 2nd job is // to get all contacts  
8  
! 11 List<contact> conlist [select id from Contact];  
12  
m1();  
13  
}  
14  
}  
17 @future  
! 18 public static void mi(){|  
19  
20 insert USFR.  
Logs Tests Checkpoints Query Editor View State Progress problems 23
```

User	Application	Operation	Time	Status	Read	Size
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:22:05 PM	Success		3.14 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:24:24 PM	Success		6.4 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:25:57 PM	Success		6.34 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:46:18 PM	Success	Unread	3.9 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:52:33 PM	Success		14.63 KB
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 5:55:06 PM	Success	Unread	14.63 KB

Filter ENG IN 06:08 PM 11-01-2022



Day 6 :

Topic : Apex programming concepts

Milestones / Activities : Apex class and synchronous and asynchronous apex

Description :

Asynchronous apex types :

- 1.future method
- 2.Batch apex
- 3.Schedule apex UI and apex(cros expression)

Future method : A future method runs in the background, asynchronously. You can call a future method for executing long-running operations, such as callouts to external Web services or any operation you'd like to run in its own thread, on its own time.

Batch apex : Batch Apex is used to run large jobs (think thousands or millions of records!) that would exceed normal processing limits. Using Batch Apex, you can process records asynchronously in batches (hence the name, "Batch Apex") to stay within platform limits.

Schedule apex : In this schedulable apex having two types.

1. one is ui based schedulable apex and apex cros expression



Explanation : The Apex Scheduler lets you delay execution so that you can run Apex classes at a specified time. ... To take advantage of the scheduler, write an Apex class that implements the Schedulable interface, and then schedule it for execution on a specific schedule.

Screenshots of milestones / activities :

Batch apex in creating in application form :

The screenshot shows the Salesforce Developer Console in Google Chrome. The title bar reads "Developer Console - Google Chrome" and the address bar shows the URL "sanskrithischoolofengineering2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage". The main area displays the code for the "ApplicationBatchTest" class:

```
!• 1 Public class ApplicationBatchTest implements Database.Batchable<sObject> {
 2
 3   //start(), execute() . finish()
 4
 5   public Database.QueryLocator start(Database.BatchableContext bc){
 6
 7     // gathers the data for you
 8
 9     String applicationQuery= 'select id, name, Ready_to_Join__c from Application_Form__c';
10    return Database.getQueryLocator(applicationQuery);
11  }
12  Public void execute(Database.BatchableContext bc, List<sObjects> listObj){
13    // process the data
14  }
15  Public void finish(Database.BatchableContext bc){
16
17    // emails,
18  }
19 }
```

Below the code, there is a "Query Editor" tab with the following SQL query:

```
select id, name, Ready_to_Join__c from Application_Form__c
```

The "History" section shows the query was executed successfully:

```
Executed
select id, name, Ready_to_Join__c from Application_Form__c
```

At the bottom, there are "Logs", "Tests", "Checkpoints", "Query Editor" (which is selected), "View State", "Progress", and "problems" tabs. The status bar at the bottom right shows "06:51 PM 11-01-2022".



Developer Console - Google Chrome
sanskritischoolofengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File • Edit • Debug • Test • Workspace • Help • < >
ApplicationBatchTest.apxc * [4] Application_Form_c @6:50 PM

```
select id, name, Ready_to_Join__c from Application_Form__c
```

Query Results - Total Rows: 5

Id	Name	Ready_to_join__c
a0O5g0000000dM27EA	Form-000000001	false
a0O5g0000000dM4BEEA2	Form-000000004	false
a0O5g0000000dM4KEA2	Form-000000005	true
a0O5g0000000dMB4EAM	Form-000000002	true
a0O5g0000000dMBEEA2	Form-000000003	true

Query Grid: Save Rows | Insert Row | Delete Row | Refresh Grid | Access in Salesforce: Create New | Open Detail Page | Edit Page | Logs | Tests | Checkpoints | **Query Editor** | View State | Progress | problems 1 | History | Executed | select id, name, Ready_to_Join__c from Application_Form__c | Any query errors will appear here... | Execute | Use Tooling API | 06:50 PM 11-01-2022

one is ui based schedulable apex and apex cros expression :



A screenshot of a Windows desktop showing a browser window with multiple tabs open. The active tab is titled "Apex Classes | Salesforce" and shows the "Apex Classes" setup page. The page is titled "Apex Classes" and says "Schedule an Apex class that implements the 'Schedulable' interface to be automatically executed on a weekly or monthly interval." It has fields for "Job Name" (Application form Job) and "Apex Class" (ApplicationSchedule). Under "Schedule Apex Execution", the "Frequency" is set to "Weekly". The "Recurs every week on" section has "Friday" checked. Below that, there are fields for "Start" (11/01/2022), "End" (11/02/2022), and "Preferred Start Time" (7:00 am). On the left sidebar, under "SETUP", there are sections for "Quick Find", "Setup Home", "Service Setup Assistant", "Multi-Factor Authentication Assistant", "Release Updates", "Lightning Experience Transition Assistant", "New Salesforce Mobile App QuickStart", "Lightning Usage", "Optimizer", "ADMINISTRATION" (with sub-options for Users, Data, Email), and "PLATFORM TOOLS" (with sub-options for Apps, Feature Settings, Einstein). The taskbar at the bottom shows various pinned icons and the date/time as 08:50 PM 11-01-2022.

In Apex SChedulable class for application form and emails :



Developer Console - Google Chrome
sanskrithischoolofengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File ▾ Edit ▾ Debug ▾ Test ▾ Workspace ▾ Help ▾ < ▾ >

ApplicationBatchTest.apxc

Code Coverage: None ▾ API Version: 53 ▾ Go To

```
1 public class ApplicationBatchTest implements Database.Batchable<sobject> {
2     public Integer totalForms = 0;
3     public Integer totalConvertedForms = 0;
4     public Database.QueryLocator start(Database.BatchableContext bc){
5
6         // gathers the data for you
7         String applicationQuery= 'select id, name, Ready_to_join_c from Application_Form_c';
8         return Database.getQueryLocator(applicationQuery);
9     }
10    public void execute(Database.BatchableContext bc, List<Application_Form__c> formList){
11        // process the data
12        for(Application_Form__c af : formList) {
13            totalForms++;
14            if(af.Ready_to_Join__c){
15                totalConvertedForms++;
16            }
17        }
18    }
19    public void finish(Database.BatchableContext bc){
20
}
Logs Tests Checkpoints Query Editor View State Progress Problems
Name Line Problem ▾
10:35 PM ENG IN 11-01-2022
```

Successfull excution of a scheduler classes in apex program :



Developer Console - Google Chrome
 sanskrithischoolofengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help < >

ApplicationBatchTest.apxc

Code Coverage: None API Version: 53

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8         return Database.getQueryLocator(applicationQuery);
9     }
10    public void execute(Database.BatchableContext bc) {
11        // process the data
12        for(Application_Form__c af : formList){
13            totalForms++;
14            if(af.Ready_to_Join__c){
15                totalConvertedForms++;
16            }
17        }
18    }
19    public void finish(Database.BatchableContext bc)
  
```

Enter Apex Code

```

1 ApplicationBatchTest abt = new ApplicationBatchTest();
2         Database.executeBatch(abt, 400); //200 to 2000 |
  
```

Open Log Execute Execute Highlighted

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 10:36:12 PM	Success	Unread	3.44 KB
Kadri Uday Kumar reddy	Unknown	Batch Apex	1/11/2022, 10:36:12 PM	sObject type 'Application' is not suppo...	Unread	4.08 KB
Kadri Uday Kumar reddy	Browser	/aura	1/11/2022, 9:13:50 PM	Success	Unread	2.9 KB
Kadri Uday Kumar reddy	Unknown	common.api.soap.DirectSoap	1/11/2022, 9:13:50 PM	Success	Unread	494 bytes
Kadri Uday Kumar reddy	Browser	/setup/build/editApexClass.apexp	1/11/2022, 9:13:34 PM	Success	Unread	1.32 KB
Kadri Uday Kumar reddy	Browser	/setup/build/editApexClass.apexp	1/11/2022, 9:13:27 PM	Success	Unread	1.32 KB

Filter Click here to filter the log list

10:38 PM 11-01-2022

ApplicationSchedule Successfull working in apex program :



Developer Console - Google Chrome
sanskrithischoolofengineer2-dev-ed.my.salesforce.com/_ui/common/apex/debug/ApexCSIPage

File Edit Debug Test Workspace Help < >
ApplicationBatchTest.apxc ApplicationSchedule.apxc
Code Coverage: None API Version: 53 Go To

```
1 public class ApplicationSchedule implements Schedulable {
2
3     public void execute(SchedulableContext sc){
4         ApplicationBatchTest abt = new ApplicationBatchTest();
5         Database.executeBatch(abt, 400); //200 to 2000
6     }
7 }
```

Logs Tests Checkpoints Query Editor View State Progress Problems

User	Application	Operation	Time	Status	Read	Size
Kadri Uday Kumar reddy	Browser	/setup/build/listApexClass.apexp	1/11/2022, 10:39:30 PM	Success	Unread	656 bytes
Kadri Uday Kumar reddy	Unknown	/services/data/v53.0/tooling/executeA...	1/11/2022, 10:36:12 PM	Success	Unread	3.44 KB
Kadri Uday Kumar reddy	Unknown	Batch Apex	1/11/2022, 10:36:12 PM	sObject type 'Application' is not supp...	Unread	4.08 KB
Kadri Uday Kumar reddy	Browser	/aura	1/11/2022, 9:13:50 PM	Success	Unread	2.9 kB
Kadri Uday Kumar reddy	Unknown	common.api.soap.DirectSoap	1/11/2022, 9:13:50 PM	Success	Unread	494 bytes
Kadri Uday Kumar reddy	Browser	/setup/build/editApexClass.apexp	1/11/2022, 9:13:34 PM	Success	Unread	1.32 KB

Filter Click here to filter the log list

10:49 PM 11-01-2022



Day 7 :

Topic : Apex programming concepts

Milestones / Activities :

Description :

