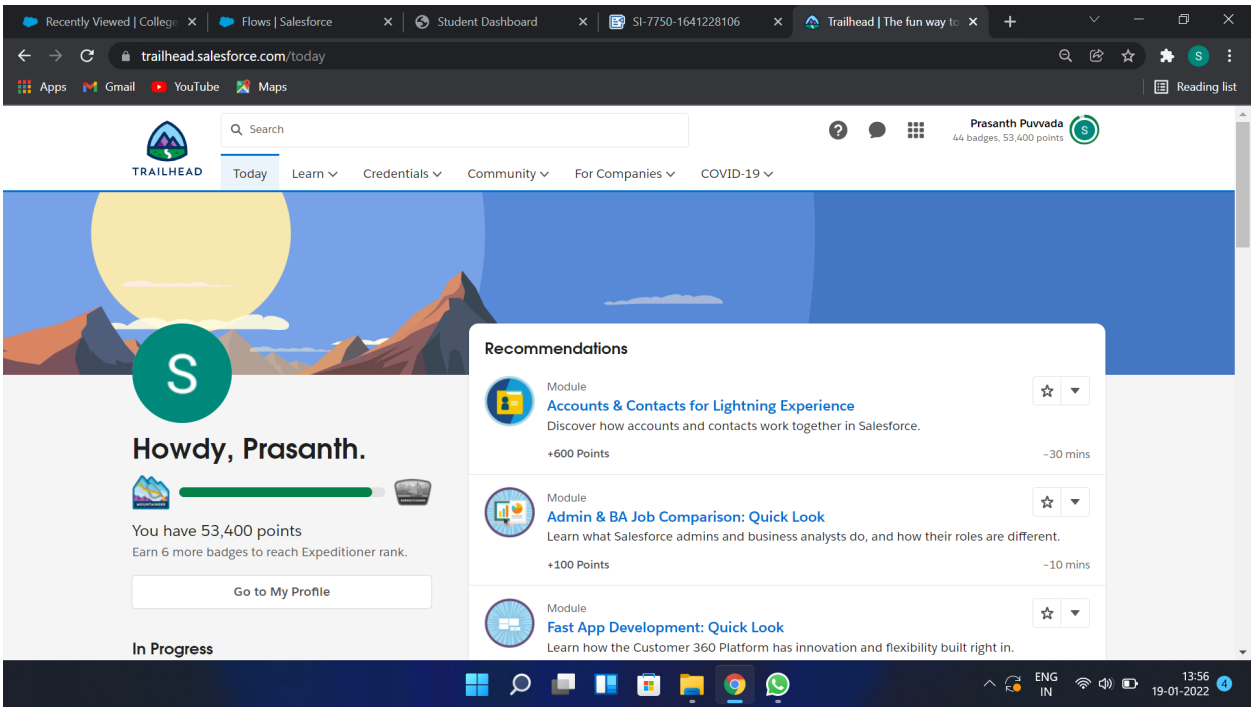
COLLEGE MANAGEMENT APPLICATION

Day1: Activities

1. Created my Salesforce Devolopment org account
2. Activated my account
3. Logged into my account

Upload the Screenshot of Milestone:



Day2: Activities

Topic: Setting up First App, Custom Object and Fields Creation

Milestone: Custom Object Creation and Fields Creation

Detailed Description:

In this, Firstly Create an Application called College Management Application and then create the Objects which are required for the Application.

Create the Objects named

1. College
2. Application Form
3. Subjects
4. Students

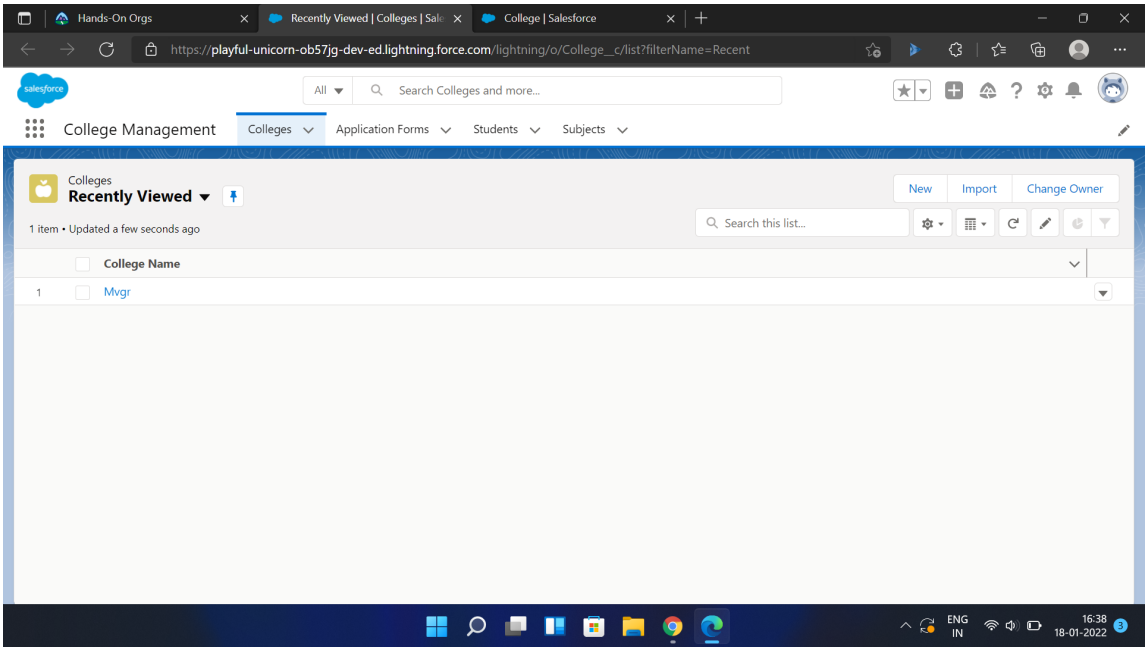
1. Create the fields for College Object like Record Info, College Fees, Hostel Fees, College Name, EMail, Capacity of Students.

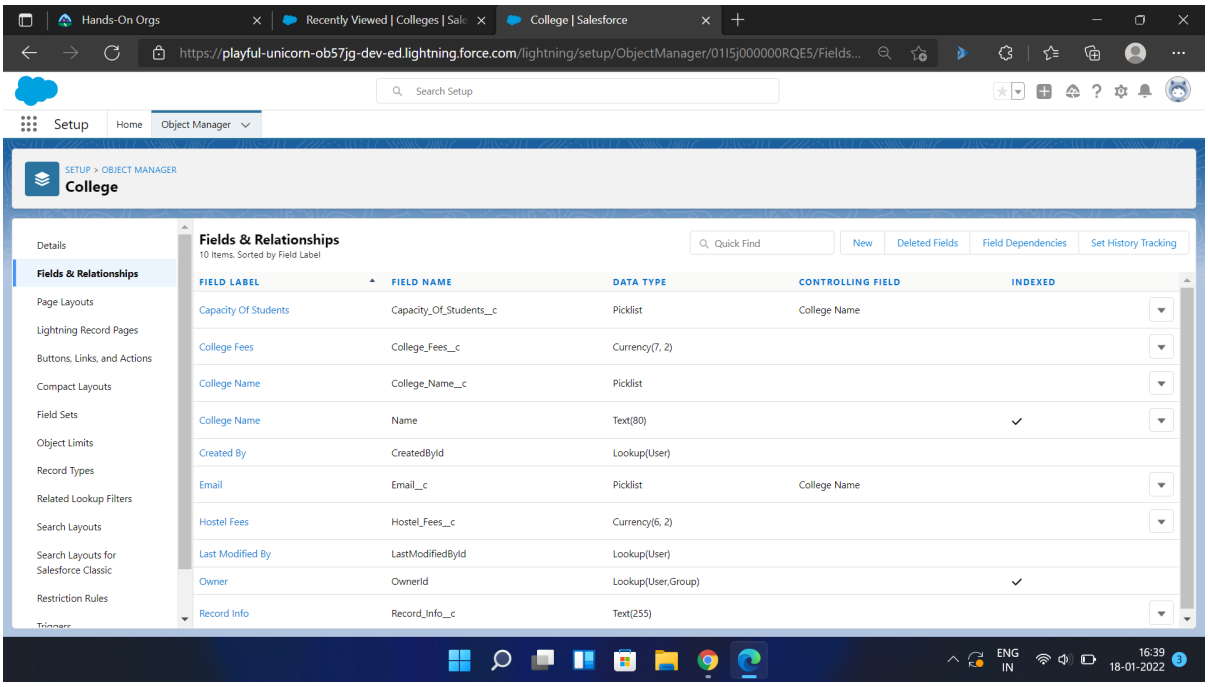
2. Create the fields for Application Form like Application Form ID, Address, College, College Fees, Hostel Fees, date of Birth, Email, Guardian Name, Looking For Hostel Stay, Ready To Join, Student Name.

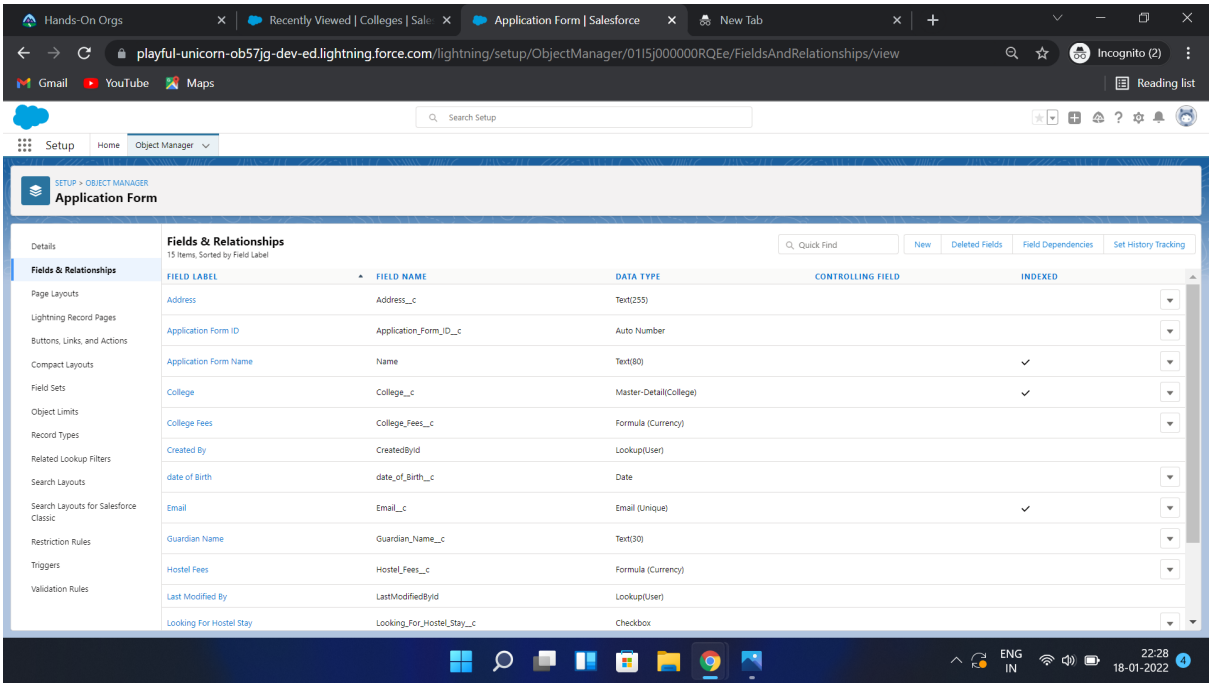
3. Create the Fields for Student Object like Student Name, Address, Application Form, College Name, Date Of Birth, Guardian Name, Phone.

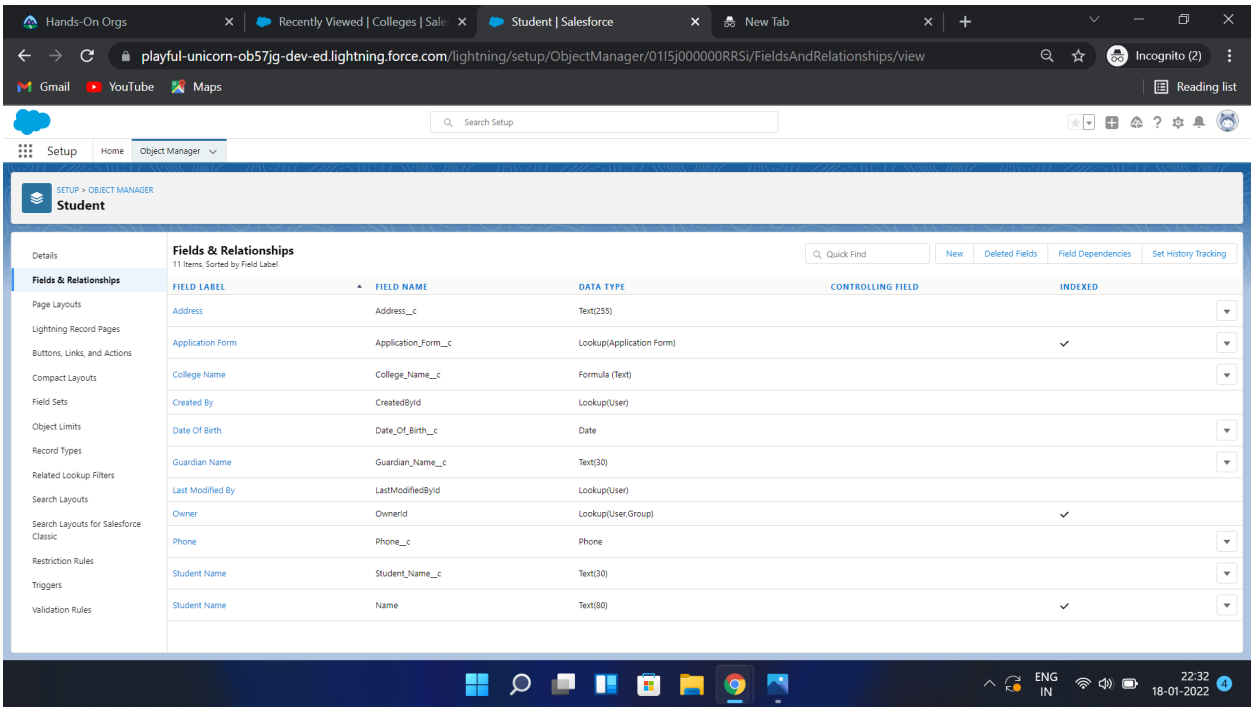
4. Create the Fields for Subject Object like Subject Id, Paper 1, Paper2, Student.

Upload the Screenshot of Milestone:




Hands-On Orgs
Recently Viewed | Colleges | Sale
College | Salesforce
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5j000000RQE5/Fields...
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
College
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
Restriction Rules
Triggers
Fields & Relationships
10 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Capacity Of Students
Capacity_Of_Students__c
Picklist
College Name
College Fees
College_Fees__c
Currency(7, 2)
College Name
College_Name__c
Picklist
College Name
Name
Text(80)
Created By
CreatedById
Lookup(User)
Email
Email__c
Picklist
College Name
Hostel Fees
Hostel_Fees__c
Currency(6, 2)
Last Modified By
LastModifiedById
Lookup(User)
Owner
OwnerId
Lookup(User,Group)
Record Info
Record_Info__c
Text(255)
ENG
IN
16:39
18-01-2022


Hands-On Orgs
Recently Viewed | Colleges | Sale
Application Form | Salesforce
New Tab
playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5j000000RQEe/FieldsAndRelationships/view
Incognito (2)
Gmail
YouTube
Maps
Reading list
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Application Form
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
Restriction Rules
Triggers
Validation Rules
Fields & Relationships
15 Items, Sorted by Field Label
Quick Find
New
Deleted Fields
Field Dependencies
Set History Tracking
FIELD LABEL
FIELD NAME
DATA TYPE
CONTROLLING FIELD
INDEXED
Address
Address__c
Text(255)
Application Form ID
Application_Form_ID__c
Auto Number
Application Form Name
Name
Text(80)
College
College__c
Master-Detail(College)
College Fees
College_Fees__c
Formula (Currency)
Created By
CreatedById
Lookup(User)
date of Birth
date_of_Birth__c
Date
Email
Email__c
Email (Unique)
Guardian Name
Guardian_Name__c
Text(30)
Hostel Fees
Hostel_Fees__c
Formula (Currency)
Last Modified By
LastModifiedById
Lookup(User)
Looking For Hostel Stay
Looking_For_Hostel_Stay__c
Checkbox
ENG
IN
22:28
18-01-2022



Day 3:Activities

Topic: Adding Bussiness Logic to Application

MileStone: Creating Global Picklist Values, Field Dependencies, Validation Rules, Process Automation and Student Record using Flow.

Detailed Description:

Firstly, Create the Global Picklist Values for the Application.

a.) College:-

Picklist Value Name:- College

Values:- MIT-HYD

MIT-BLR

MIT-MUM
MIT-MAA
MIT-DEL
MIT-CCU

b.) Paper 1:-

Picklist Value Name:- Paper1

Values:- APEX
JAVA
C
C++

c.) Paper 2:-

Picklist Value Name:- Paper2

Values:- MATHEMATICS
ENGLISH
STATISTICS

Now, Create the Field Dependencies.

1.) Create Field Dependency for College Object where Controlling Field is college Name and Dependent Field is E-Mail. Select E-Mail Ids according to Colleges.

2.)Create Field Dependency for College Object where Controlling Field is college Name and Dependent Field is Capacity of Students. Select values according to your wish.

Now, Create Validarion Rules.

1.) Create a validation rule on the college object such that the college name and record info should have the same name.

2.) Create a Validation Rule on the Application Form object to stop any modification on the application form once a student record is created.

Now, Process Automation.

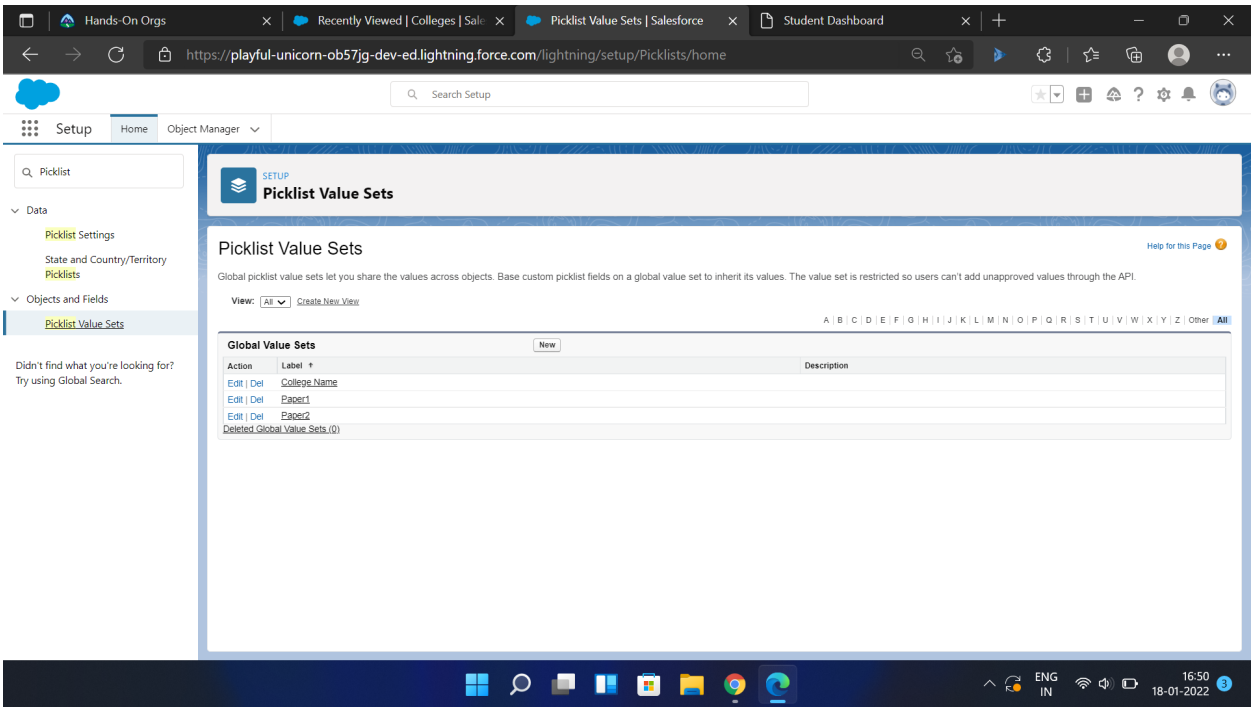
1.)Create an automation process such that when the "ready to join" field is checked on the application form obj we need to create the student record automatically with the info specified in the application form record.
2.)Go to Setup-> select "Process Builder" from quick find.
Create a Process Builder on the "Application Form" object with a condition as "When a record change". And select "When a record is selected or edited".

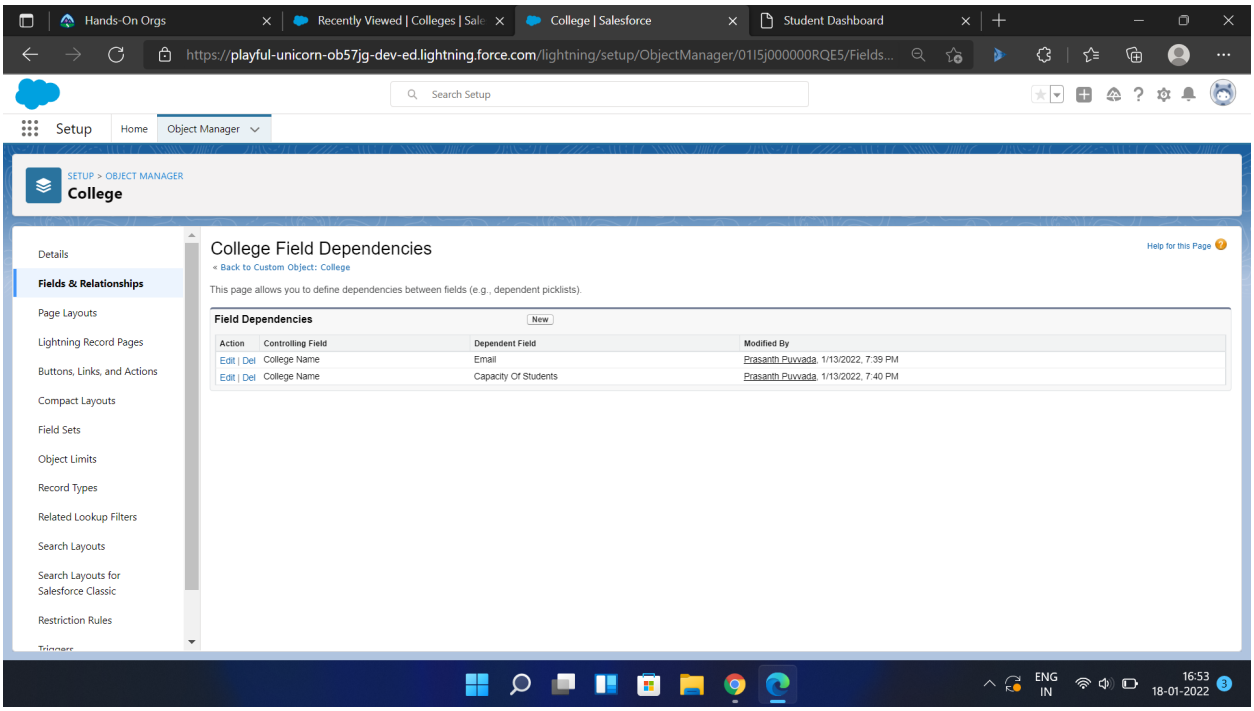
a.) In the diamond shape box, select the criteria which trigger the process builder to fire. In our example, it is "When Ready to Join field is checked."

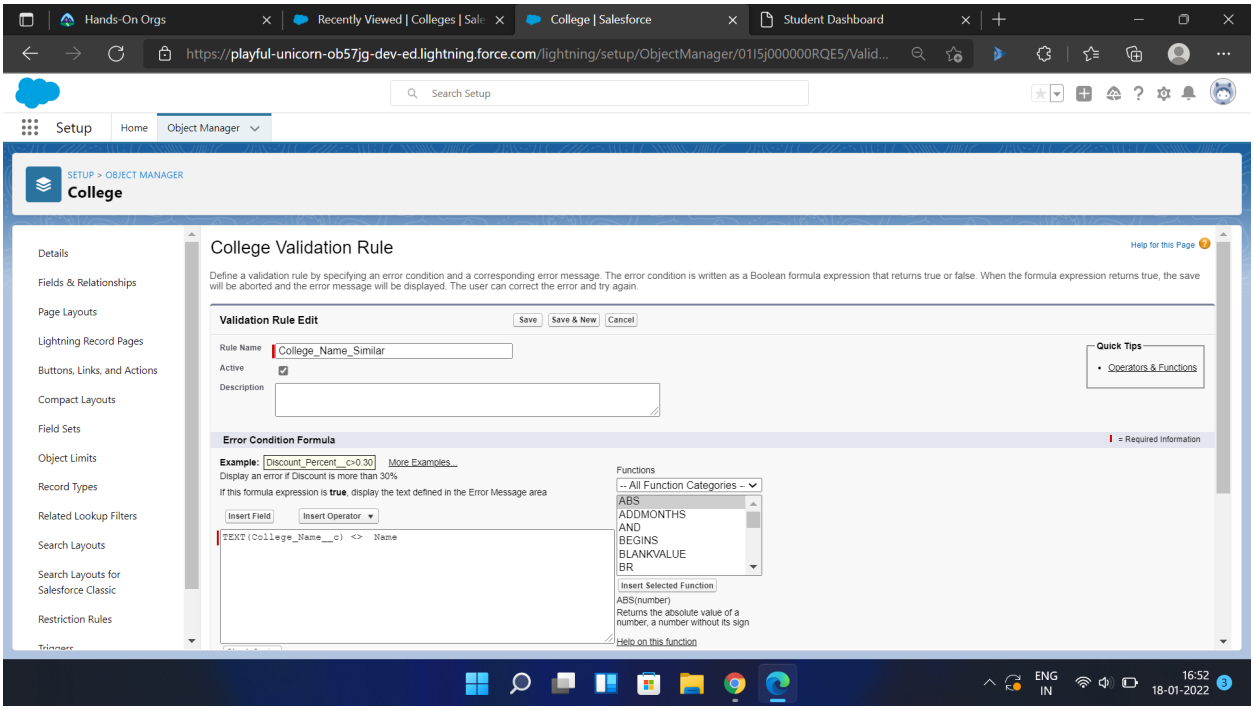
b.) Once the node is setup, click on the adjacent box called "Immediate Action". And select create a record on the student object.

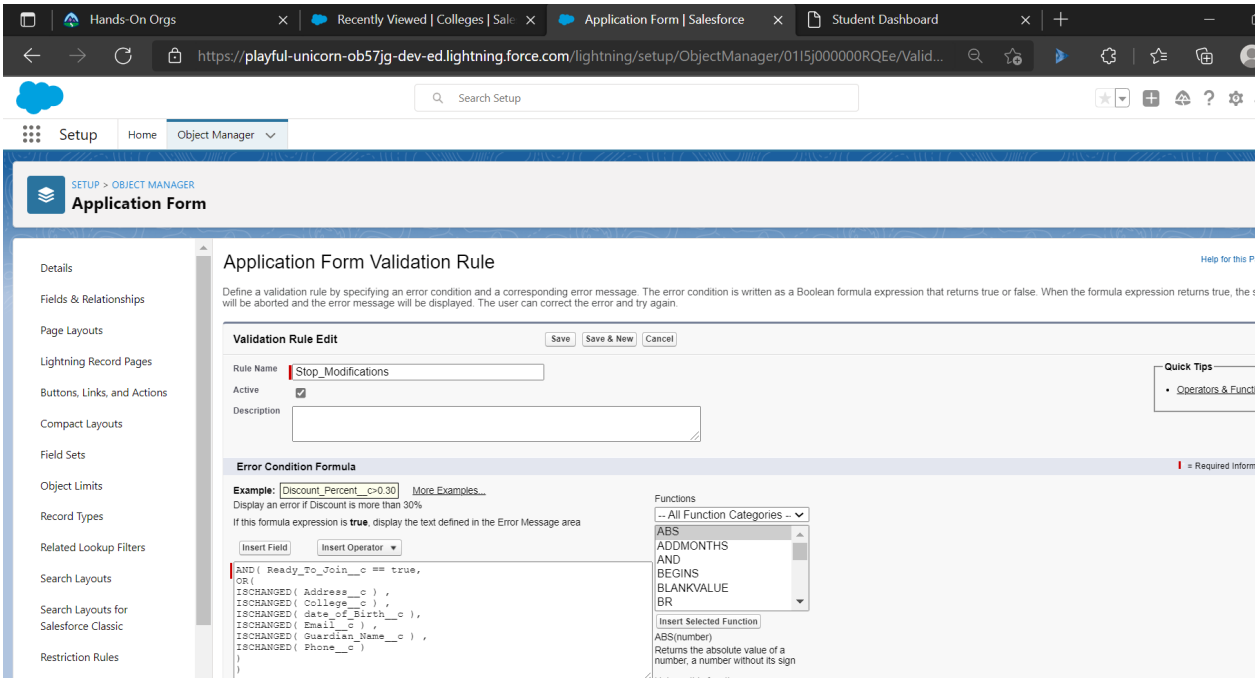
Now, Student Record Using Flow.

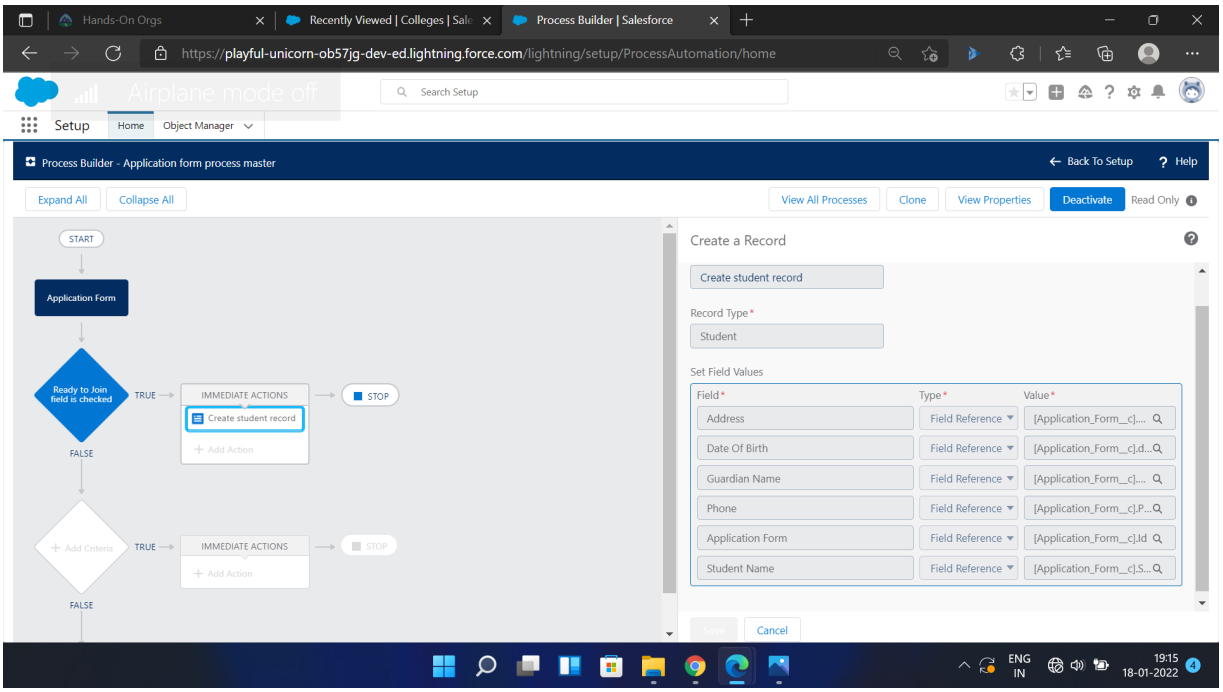
1. First deactivate the process builder which we created earlier.
2. Now search for flos and select new flow->record riggered flow.
3. For object select application form, in configure trigger select when the record is updated for entry criteria select as ready to join equals to true.
4. Now create a variable named student in the resource section.
5. Now add the ssignment.
6. Now add Create Records.

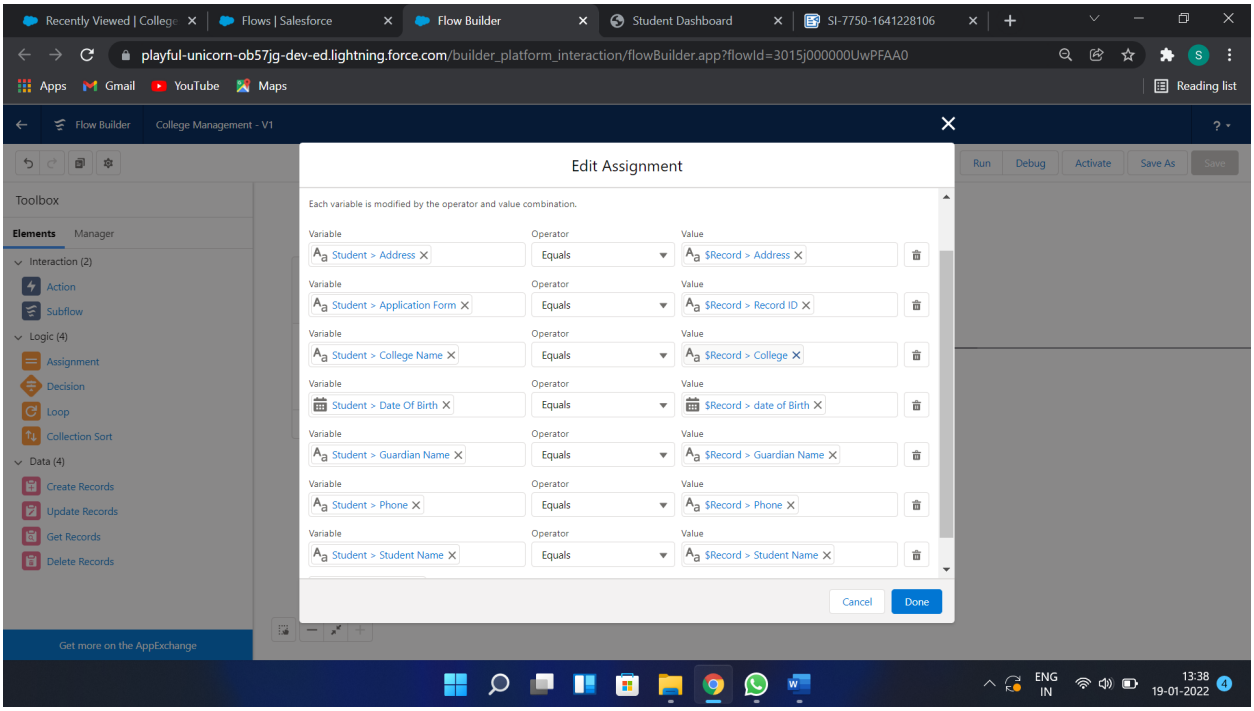

Hands-On Orgs
Recently Viewed | Colleges | Sale
Picklist Value Sets | Salesforce
Student Dashboard
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/Picklists/home
Search Setup
Setup
Home
Object Manager
Picklist
Data
Picklist Settings
State and Country/Territory Picklists
Objects and Fields
Picklist Value Sets
Didn't find what you're looking for? Try using Global Search.
SETUP
Picklist Value Sets
Picklist Value Sets
Help for this Page
Global picklist value sets let you share the values across objects. Base custom picklist fields on a global value set to inherit its values. The value set is restricted so users can't add unapproved values through the API.
View: All
Create New View
A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | Other | All
Global Value Sets
New
Action
Label
Description
Edit | Del
College Name
Edit | Del
Paper1
Edit | Del
Paper2
Deleted Global Value Sets (0)
ENG
IN
16:50
18-01-2022

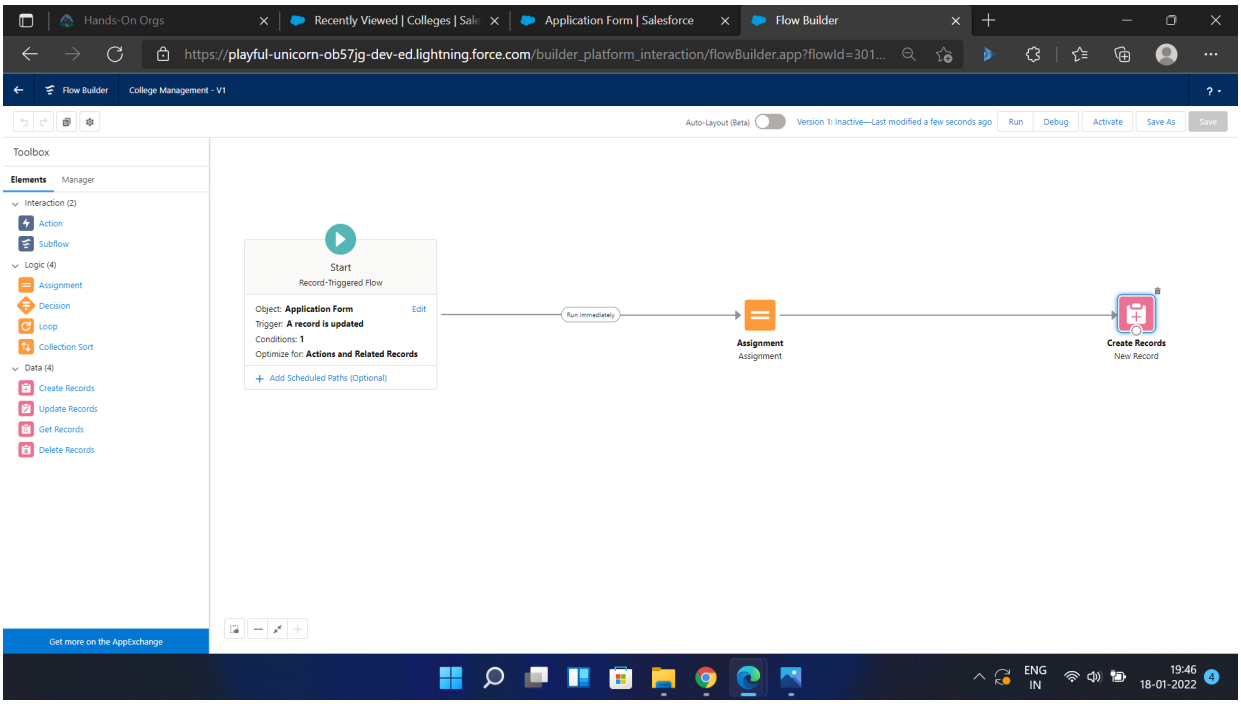

Hands-On Orgs
Recently Viewed | Colleges | Sale
College | Salesforce
Student Dashboard
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5j000000RQE5/Fields...
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
College
Details
Fields & Relationships
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
Restriction Rules
College Field Dependencies
Help for this Page
« Back to Custom Object: College
This page allows you to define dependencies between fields (e.g., dependent picklists).
Field Dependencies
New
Action
Controlling Field
Dependent Field
Modified By
Edit | Del
College Name
Email
Prasanth Puvvada, 1/13/2022, 7:39 PM
Edit | Del
College Name
Capacity Of Students
Prasanth Puvvada, 1/13/2022, 7:40 PM
ENG
IN
16:53
18-01-2022


Hands-On Orgs
Recently Viewed | Colleges | Sale
College | Salesforce
Student Dashboard
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5j000000RQE5/Valid...
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
College
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
Restriction Rules
College Validation Rule
Help for this Page
Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the save will be aborted and the error message will be displayed. The user can correct the error and try again.
Validation Rule Edit
Save
Save & New
Cancel
Rule Name
College_Name_Similar
Active
Description
Quick Tips
Operators & Functions
Error Condition Formula
= Required Information
Example:
Discount_Percent__c>0.30
More Examples...
Display an error if Discount is more than 30%
If this formula expression is true, display the text defined in the Error Message area
Insert Field
Insert Operator
TEXT(College_Name__c) <> Name
Functions
-- All Function Categories --
ABS
ADDMONTHS
AND
BEGINS
BLANKVALUE
BR
Insert Selected Function
ABS(number)
Returns the absolute value of a number, a number without its sign
Help on this function
ENG
IN
16:52
18-01-2022


Hands-On Orgs
Recently Viewed | Colleges | Sale
Application Form | Salesforce
Student Dashboard
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ObjectManager/01I5j000000RQEe/Valid...
Search Setup
Setup
Home
Object Manager
SETUP > OBJECT MANAGER
Application Form
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
Restriction Rules
Application Form Validation Rule
Define a validation rule by specifying an error condition and a corresponding error message. The error condition is written as a Boolean formula expression that returns true or false. When the formula expression returns true, the
will be aborted and the error message will be displayed. The user can correct the error and try again.
Validation Rule Edit
Save
Save & New
Cancel
Rule Name
Stop_Modifications
Active
Description
Quick Tips
Error Condition Formula
Example:
Discount_Percent__c>0.30
More Examples...
Display an error if Discount is more than 30%
If this formula expression is true, display the text defined in the Error Message area
Insert Field
Insert Operator
AND(Ready_To_Join__c == true,
OR(
ISCHANGED(Address__c) ,
ISCHANGED(College__c) ,
ISCHANGED(date_of_Birth__c),
ISCHANGED(Email__c) ,
ISCHANGED(Guardian_Name__c) ,
ISCHANGED(Phone__c)
)
)
Functions
-- All Function Categories --
ABS
ADDMONTHS
AND
BEGINS
BLANKVALUE
BR
Insert Selected Function
ABS(number)
Returns the absolute value of a number, a number without its sign


Process Builder | Salesforce
https://playful-unicorn-ob57jg-dev-ed.lightning.force.com/lightning/setup/ProcessAutomation/home
Setup
Home
Object Manager
Process Builder - Application form process master
Back To Setup
Help
Expand All
Collapse All
View All Processes
Clone
View Properties
Deactivate
Read Only
START
Application Form
Ready to Join field is checked
TRUE
FALSE
IMMEDIATE ACTIONS
Create student record
Add Action
STOP
Add Criteria
Create a Record
Create student record
Record Type *
Student
Set Field Values
Field *
Type *
Value *
Address
Date Of Birth
Guardian Name
Phone
Application Form
Student Name
Field Reference
Cancel
ENG
IN
19:15
18-01-2022


Flow Builder
playful-unicorn-ob57jg-dev-ed.lightning.force.com/builder_platform_interaction/flowBuilder.app?flowId=3015j000000UwPFAA0
Flow Builder
College Management - V1
Run
Debug
Activate
Save As
Save
Toolbox
Elements
Manager
Interaction (2)
Action
Subflow
Logic (4)
Assignment
Decision
Loop
Collection Sort
Data (4)
Create Records
Update Records
Get Records
Delete Records
Get more on the AppExchange
Edit Assignment
Each variable is modified by the operator and value combination.
Variable
Operator
Value
Student > Address
Equals
$Record > Address
Student > Application Form
$Record > Record ID
Student > College Name
$Record > College
Student > Date Of Birth
$Record > date of Birth
Student > Guardian Name
$Record > Guardian Name
Student > Phone
$Record > Phone
Student > Student Name
$Record > Student Name
Cancel
Done
ENG
IN
13:38
19-01-2022



Day 4:Activities

Topic: Batch Apex

Milestone: Create a Batchapex for Application Form

Detailed Description:

Firstly, Create a new Apex Class in Developer Console and enter the following code:

Now, change the Application Form API name to the name which we got while we have created the Application Form Object in College Management Application.

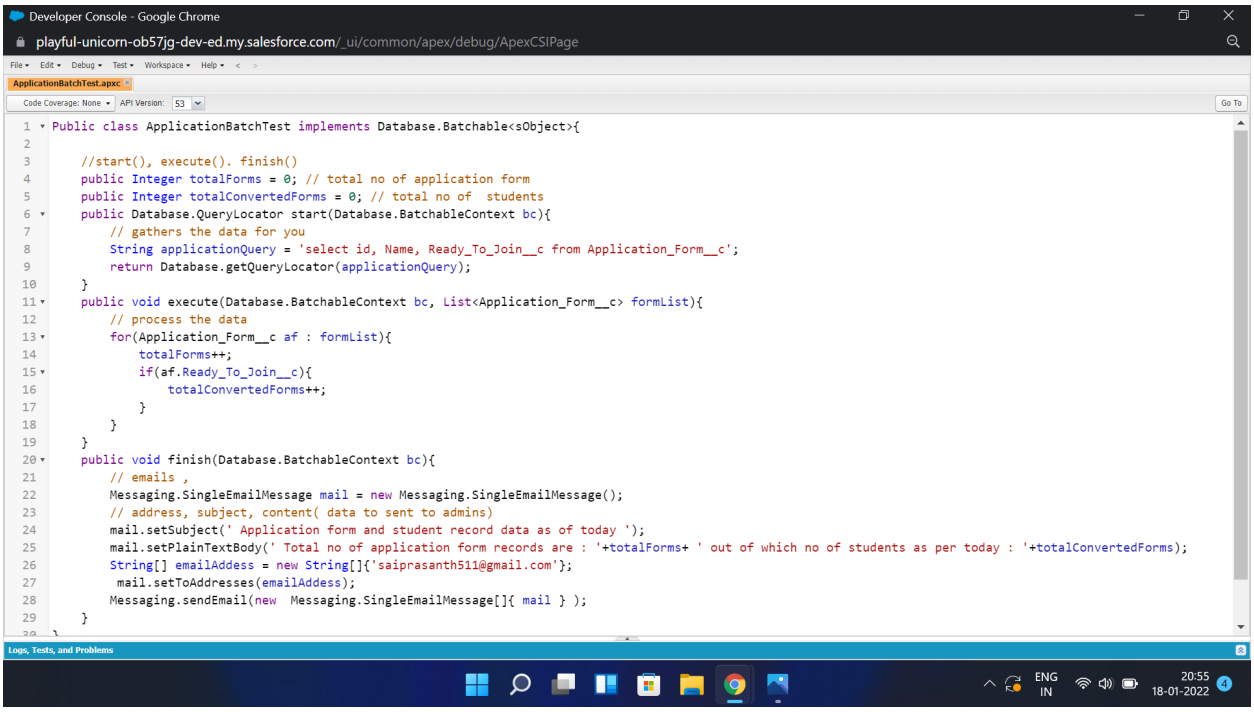
Save the File Name as ApplicationBatchTest and press Ctrl+E.

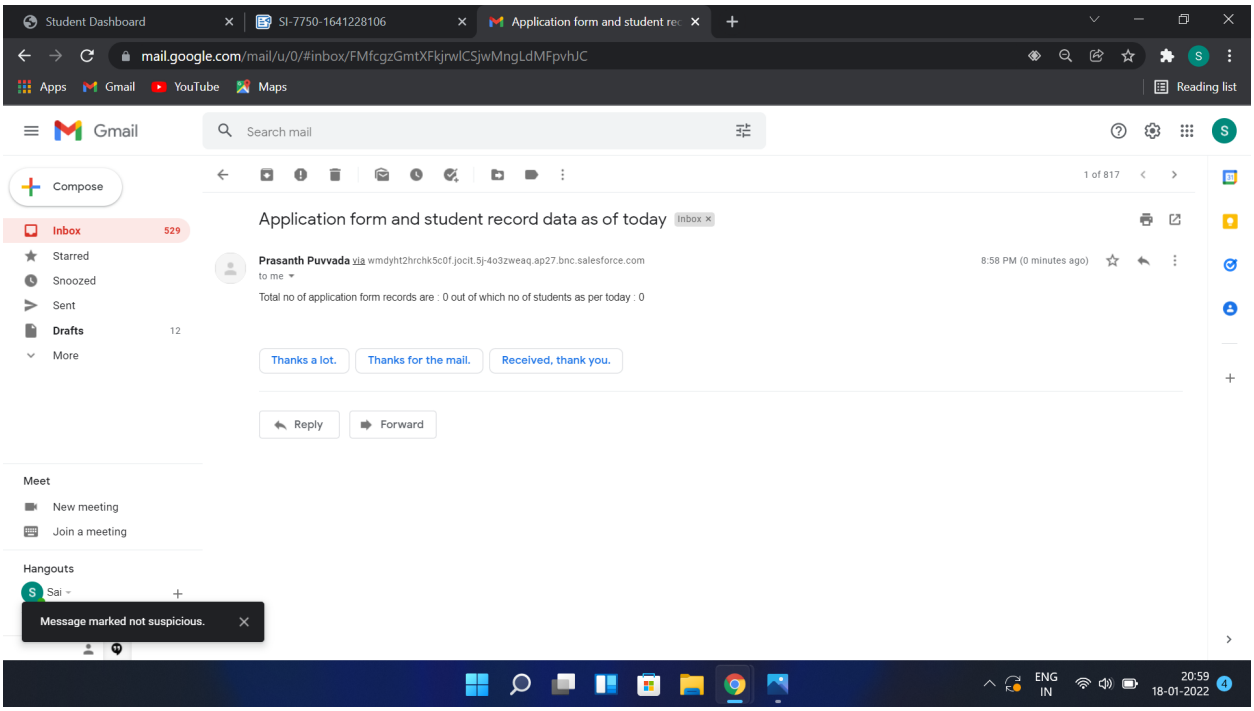
Then we get a Console. In it enter the Apex Code and execute it.

Now, remove "your E-Mail Address" text and put your personal Mail ID.

Press Execute.
Then we get a Mail regarding the number of records which we have created in Application Form Object till date.

Upload the Screenshot:

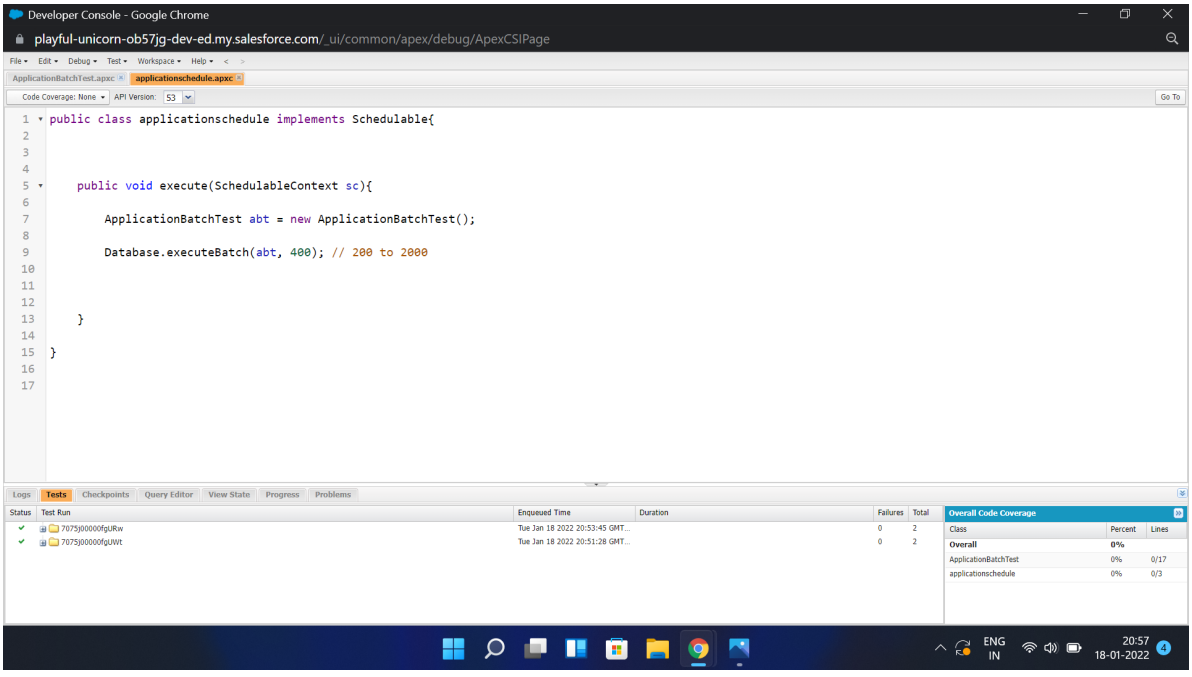




Milestone: Create a Scheduler Class

Detiled Description:

From the Developer Console create a new Apex Class :



Day5:Activities

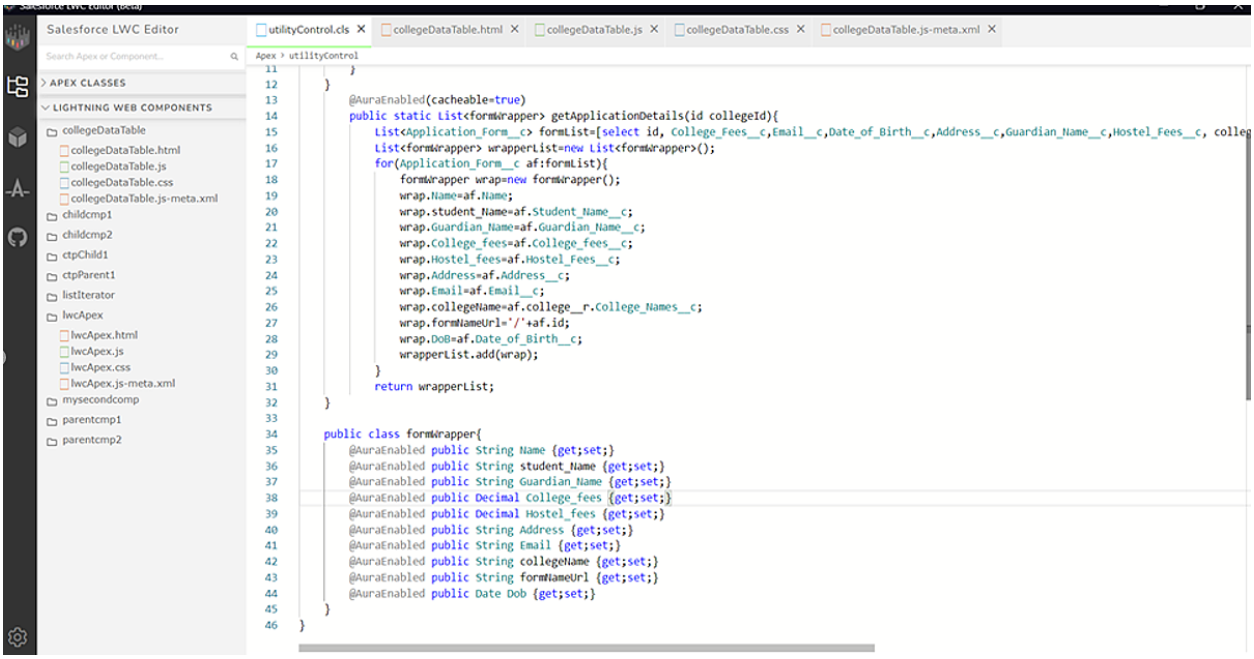
Topic: Lightening web components

Here we are going to create the college data table, for this we need to create an apex class, from which we are going to retrieve the data and Html, javascript files for UI .

Task1: Create college data table component(APEX CLASS)

Create an Apex Class With The Required Functionality

```
public class GetapplicationDetails
{
   @AuraEnabled(cache able=true)
public static List<ApplicationForm__c> oversimplification(id CollegeId)
   {
List<ApplicationForm__c> formlist = [SELECT ID, College_Fees__c,Name,
Date_Of_Birth__c,Email__c,Hostel_Fees__c, Student_Name__c FROM
ApplicationForm__c WHERE College__c =:CollegeId];
return formList;
   }
}
```

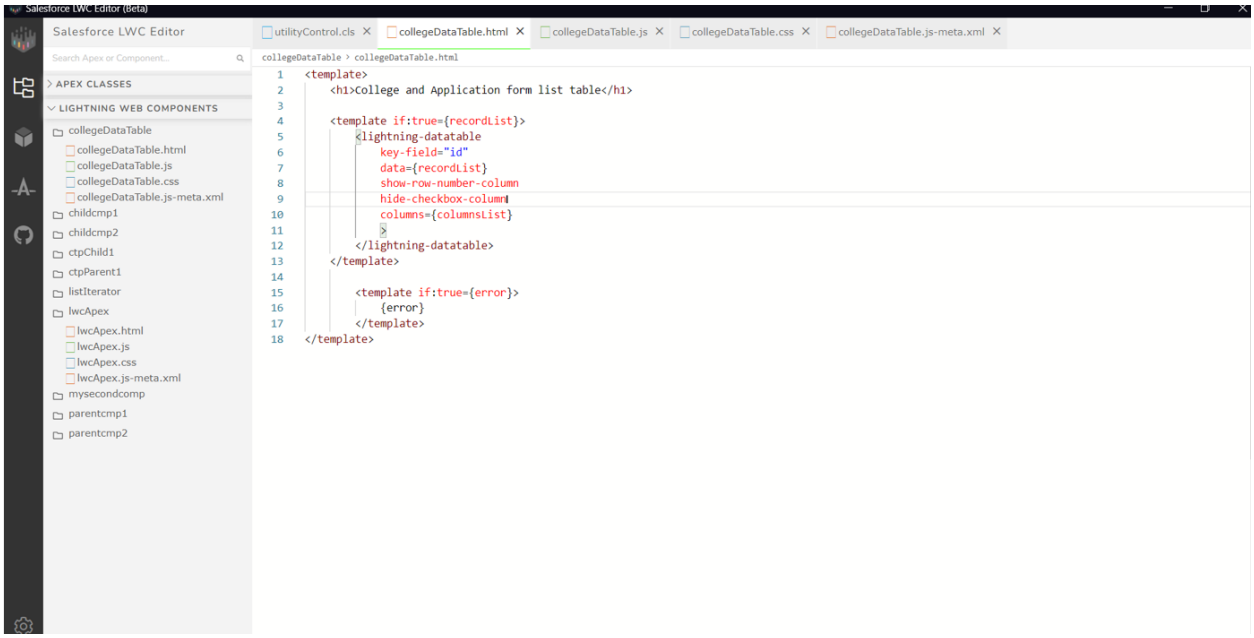


Topic: Create college data table component(HTML CLASS)

HTML:

```
<template>

    <h1> College and Application form list table </h1>

    <template if:true={recordList}>
    <lightning-datatable
        key-field="id"
        data={recordList}
        show-row-number-column
        hide-checkbox-column
        columns={columnsList}
        >
```

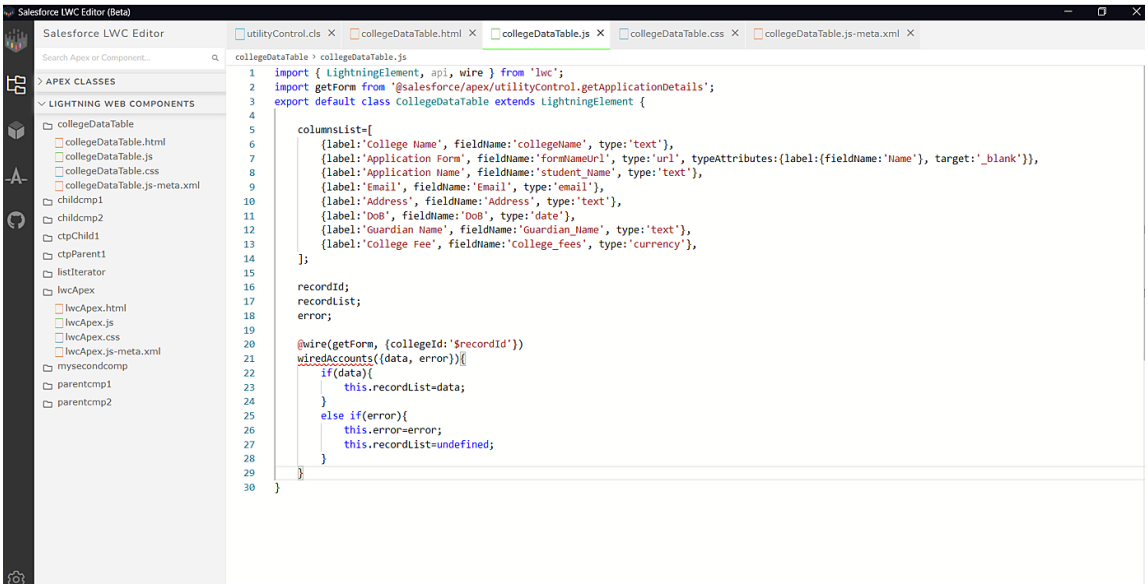
```
    </lightning-datatable>
    </template>

    <template if:true={error}>
    {error}
    </template>
</template>
```

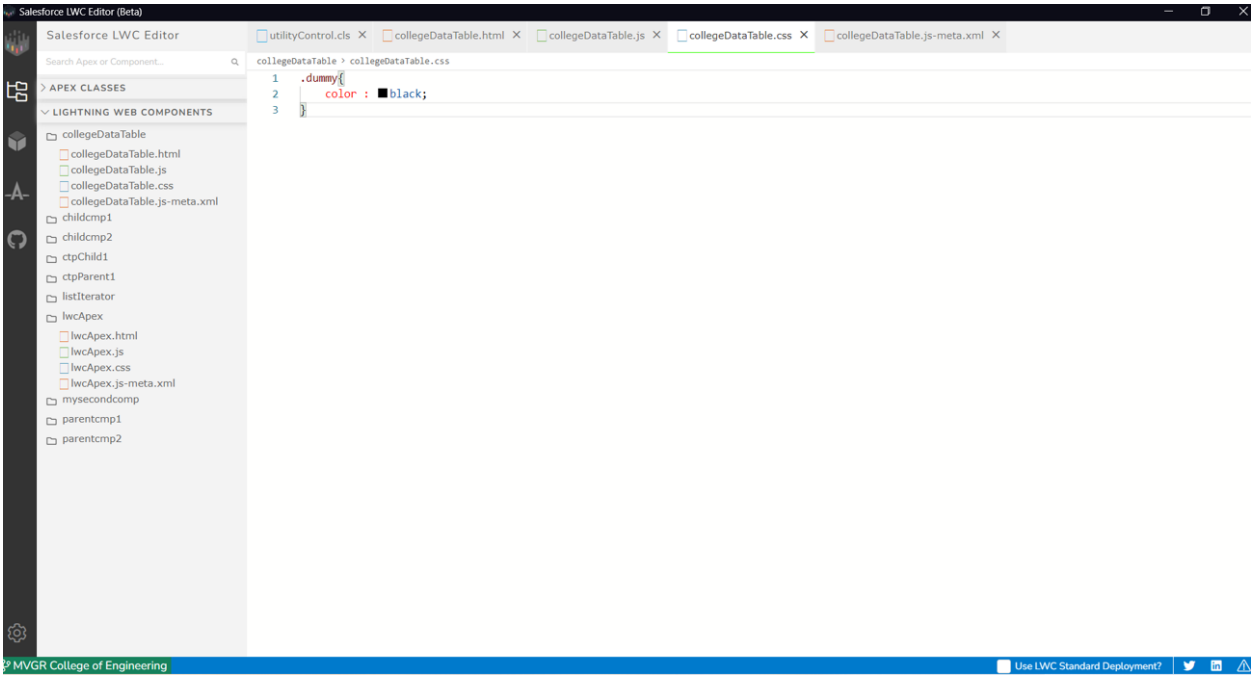


Topic: Create college data table component(SCRIPT CLASS)
After the creation of the Html file create the following js file

```
import { LightningElement, api, wire } from 'lwc';
import getapplicationvalues
from'@salesforce/apex/GetapplicationDetails.getapplicationvalues';
export default class CollegeDataTable extends LightningElement {
columnsList = [
{label : 'Application Form' , fieldName : 'Name', type:'text' },
{label : 'College Fees' , fieldName : 'College_Fees__c', type:'currency' },
{label : 'Date Of Birth' , fieldName : 'Date_Of_Birth__c', type:'date' },
```

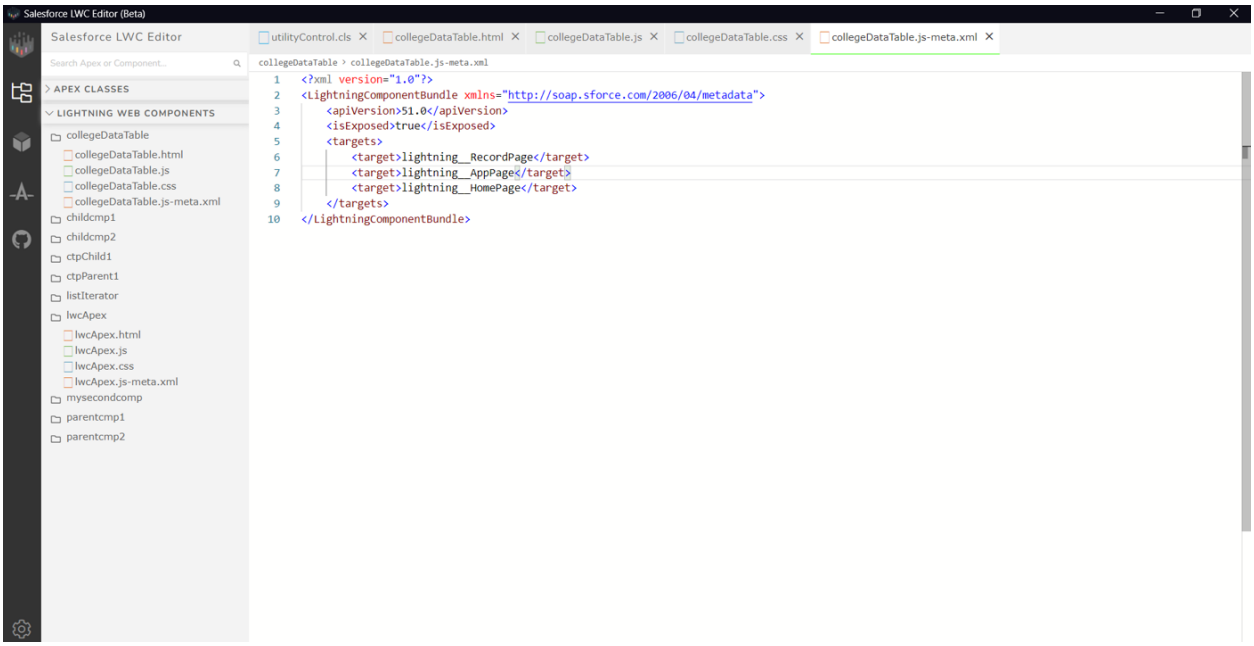
```
{label : 'Email' , fieldName : 'Email__c', type:'email' },
{label : 'Hostel Fees' , fieldName : 'Hostel_Fees__c', type:'Currency' },
{label : 'StudentName' , fieldName : 'Student_Name__c', type:'text' }
    ];
    @api recordId;
   recordList;
   error;
   @wire(getapplicationvalues, {CollegeId : '$recordId'})
   wiredCollegeData({data, error}){
      if(data){
         this.recordList = data;
      }
      else if(error){
         this.error = error;
         this.recordList = undefined;
      }
   }
}
```





Topic: Create college data table component(META CLASS)
Change the Meta File as follows:

```
<?xml version="1.0"?>
<LightningComponentBundle
xmlns="http://soap.sforce.com/2006/04/metadata">
    <apiVersion>51.0</apiVersion>
    <isExposed>true</isExposed>
    <targets>
        <target>lightning__RecordPage</target>
        <target>lightning__AppPage</target>
        <target>lightning__HomePage</target>
    </targets>
</LightningComponentBundle>
```



CONCLUSION:

In this project we have learned the various stepd of a college management application development with the help of milestones like creating object creating fields for the objects, defining the dependencies between the fields, creating validation rules,Custom object creation, adding business logic to the application,creating apex class the lightening wed compoments.