Project Title:

College Management Application

Day 1:

Topic: Create Salesforce Developer Org To Get Started

Milestone / Activities:1)Creating Developer Account
2)Account Activation
3)Login To Your Salesforce Account

Detailed Description:

1)Creating Developer Account

Creating a developer org in salesforce.

- 1. Go to developers.salesforce.com/
- 2. Click on sign up.
- 3. On the sign up form, enter the following details:
 - 1. First name & Last name
 - 2. Email
 - 3. Role: Developer
 - 4. Company: College Name
 - 5. County: India
 - 6. Postal Code: pin code
 - 7. Username: should be a combination of your name and company
 This need not be an actual email id, you can give anything in the format:
 username@organization.com

Click on sign up after filling these.

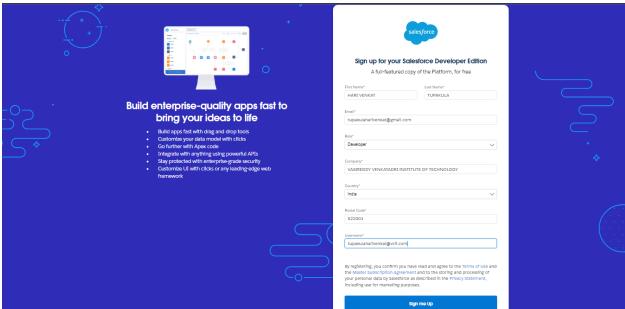
2) Account Activation

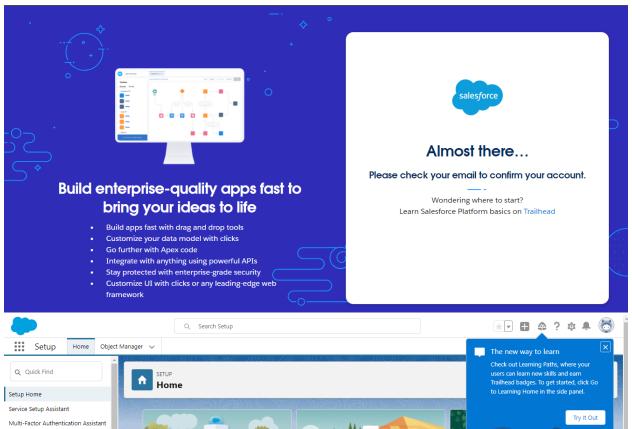
Go to the inbox of the email that you used while signing up. Click on the verify account to activate your account. The email may take 5-10mins, as allocating a developer org will take time.

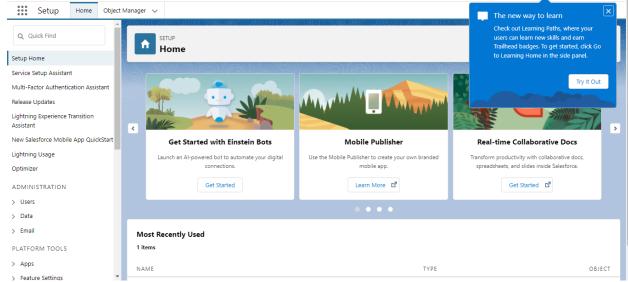
3)Login To Your Salesforce Account

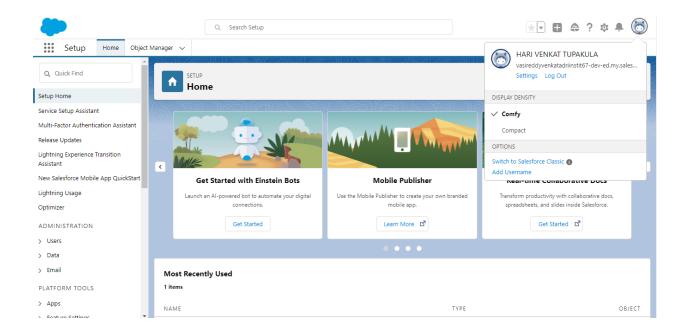
- 1.Go to salesforce.com and click on login.
- 2.Enter the username and password that you just created.
- 3. After login this is the home page which you will see.

Upload the Screenshot the Milestone / Activities :









Day 2:

Topic: Custom Object Creation

Milestone / Activities:

- 1) Create The Custom Objects For The Application
- 2) Create Fields On College Object
- 3) Create Fields On Application Form Object
- 4) Create Fields On Student Object
- 5) Create Fields On Subject Object

Detailed Description:

1)Create The Custom Objects For The Application

Duration: 0.5 Hrs

Skill Tags:

Create the following Custom Objects For the Application.

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

2)Create the following fields on the college object.

Field Name	Data Type	Requir	Values
		ed	
Record Info	Text		
College Fees	Currency(7,2)	Yes	
Hostel Fees	Currency(6,2)	Yes	
College Name	Picklist(Refer Business Logic In	Yes	
	Milestones)		
Email	Picklist		blr@mit.co.in
			hyd@mit.co.in
			mum@mit.co.in
			maa@mit.co.in
			ccu@mit.co.in
			del@mit.co.in
Capacity Of	Picklist		500-1000, 1000-2500, 2500-6000,
Students			6000-10000

3)Create the following fields on the application form object.

Field Name	Data Type	Requir ed	Values
Application Form ID	Auto number		F-{000000}
			Starting
			Number=1
Address	Text(255)	Yes	
College	Master-Detail(College)	Yes	
College Fees	Formula(Currency)		
Hostel Fees	Formula(Currency)		
date of Birth	Date	Yes	
Email	Email(Unique)	Yes	
Guardian Name	Text(30)	Yes	
Looking For Hostel	Checkbox(default=Unchec		
Stay	k)		
Ready To Join	Checkbox(default=Unchec		
	k)		
Student Name	Text(30)	Yes	
Phone	Phone	Yes	

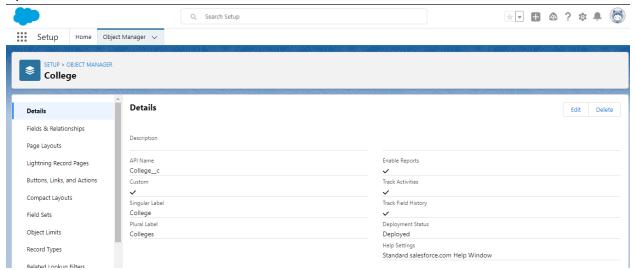
4)Create the following fields on the student object.

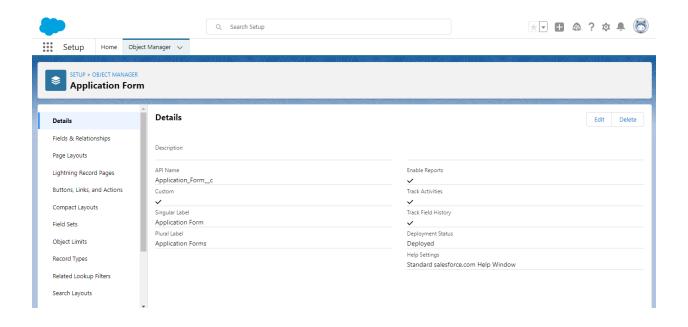
Field Name	Data Type	Requir	Valu
		ed	es
Student Name	Text		
Address	Text(255)	Yes	
Application	Lookup(Application		
Form	Form)		
College Name	Formula(Text)		
Date Of Birth	Date	Yes	
Guardian Name	Text(30)	Yes	
Phone	Phone	Yes	

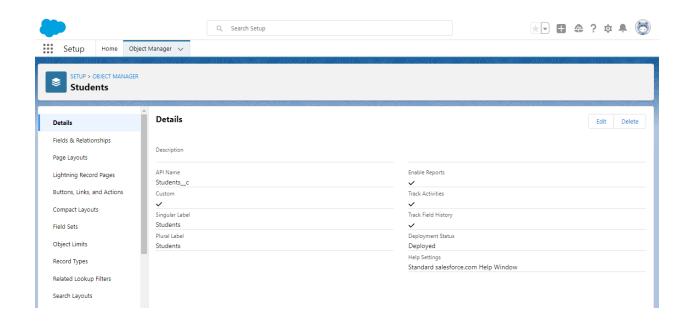
5)Create the following fields On the Subject object.

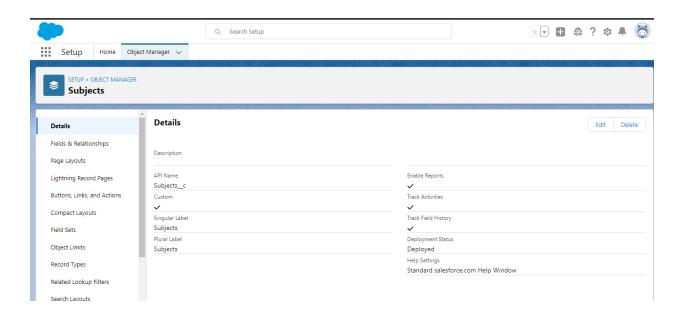
Field	Data Type	Requir	Values
Name		ed	
Subject ID	AutoNumber		S-{000000}
			Starting
			Number=1
Paper 1	Picklist(Refer Business Logic Milestone)		
Paper2	Picklist(Refer Business logic Milestone)		
Student	Lookup(Student)		

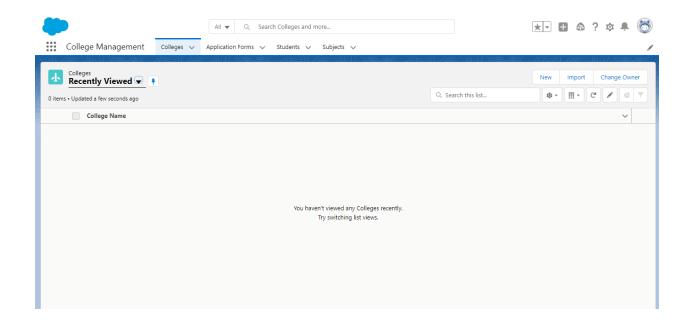
Upload the Screenshot the Milestone / Activities:

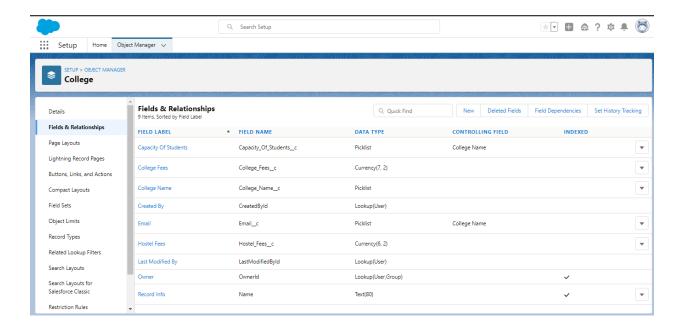


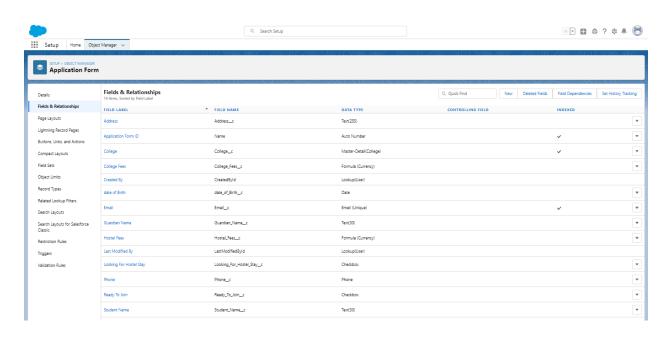


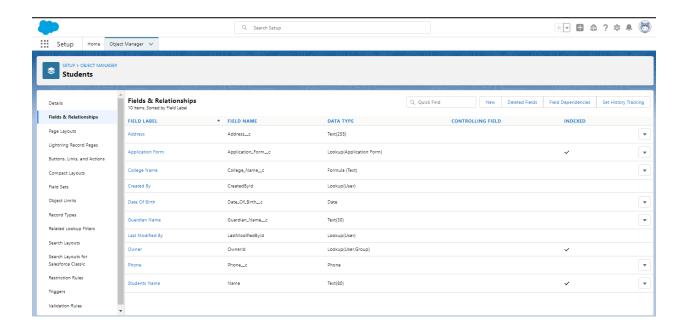


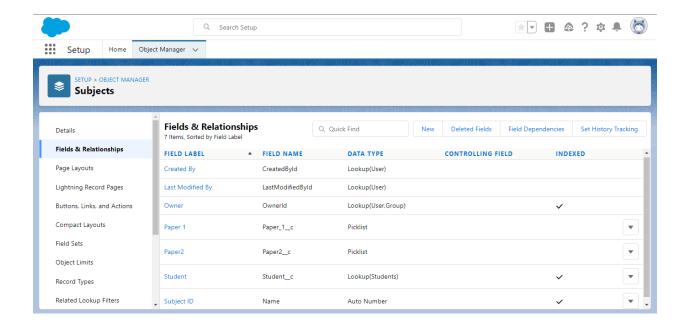












Day 3:

Topic: Adding Business Logic To Application

Milestone / Activities:

- 1) Creating Global Picklist Value Sets
- 2) Creating Field Dependencies
- 3) Creating Validation Rules
- 4) Process Automation
- 5)Create The Student Record Using Flow

Detailed Description:

1)Creating Global Picklist Value Sets

1. Create the following global picklist value sets for the application. a)College

Picklist Value	Values
Name	
College	MIT-HYD
	MIT-BLR
	MIT-
	MUM
	MIT-MAA
	MIT-DEL
	MIT-CCU

b)Paper1

Picklist Value Name	Values
Paper 1	APEX
	JAVA
	С
	C++

Picklist Value Name	Values
Paper2	MATHEMATICS
	ENGLISH
	STATISTICS

2)Creating Field Dependencies

- 1. Create field dependency between college Name and Email, where the controlling field is college Name and dependent field is Email. Select the email ids according to the college names.
- 2. Create field dependency between college Name and capacity of students, where the controlling field is college Name and dependent field is Capacity of Students. Select the values according to your wish.

3)Creating Validation Rules

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

TEXT(College_Name__c) <> 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.

```
AND(
                            Ready_To_Join__c
                                                                    ==
                                                                                              true,
OR(
ISCHANGED(
                                    Address c
                                                                       )
                                    College__c
ISCHANGED(
                                                                       )
ISCHANGED(
                                               Date Of Birth c
                                                                                                 ),
ISCHANGED(
                                     Email c
                                  Guardian Name c
ISCHANGED(
ISCHANGED(
                                                  Phone__c
```

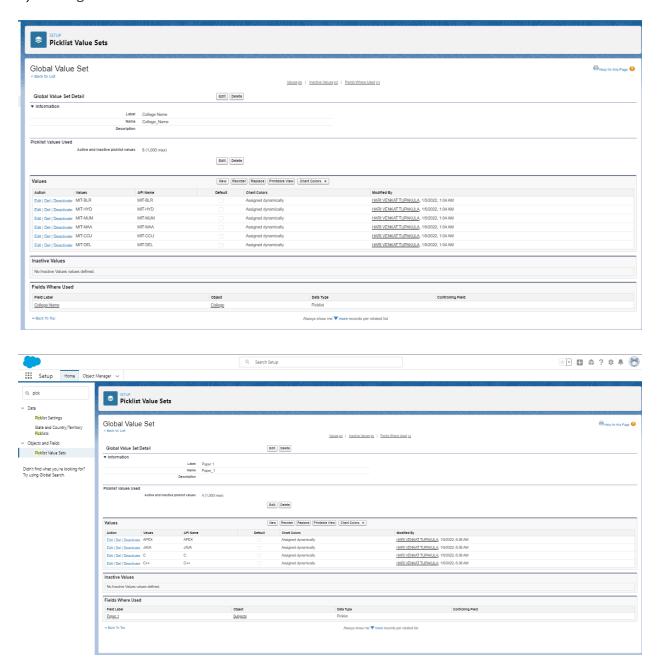
4)Process Automation

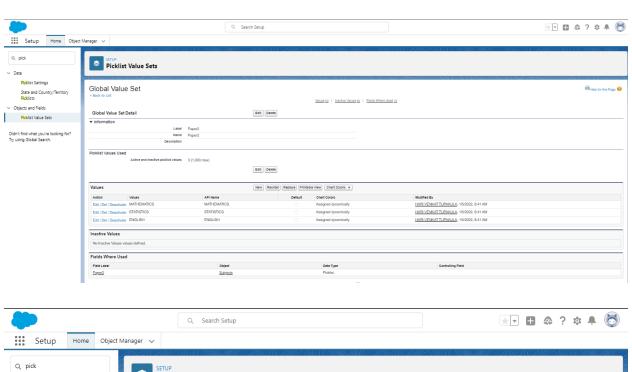
- 1. Create an automation process such that when the "ready to join" field is checked on the application form object we need to create the student record automatically with the information specified in the application form record.
- 2. Go to Setup -> select "Process Builder" from quick find. Create a Process Builder on the "Application Form" object with a condition as "When a record change". And select "When a record is created or edited".
 - a. In the diamond shape box(called nodes), select the criteria which trigger the

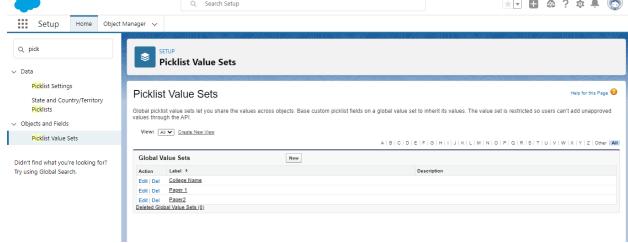
- Process builder to fire. In our example, it is "When Ready to Join field is checked."
- b Once the node is setup, click on the adjacent box called "Immediate action". And select create a record on the student object. Please follow the below screenshot.

Upload the Screenshot the Milestone / Activities:

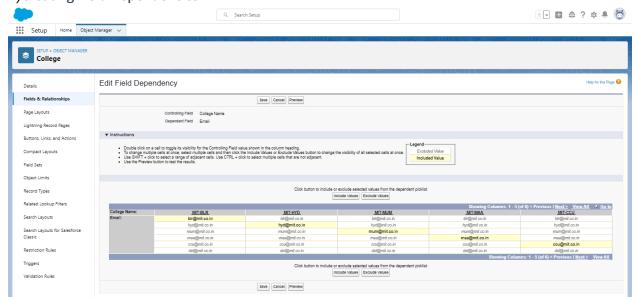
1)Creating Global Picklist Value Sets

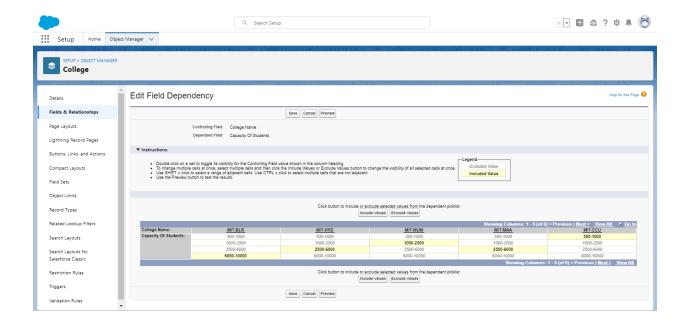




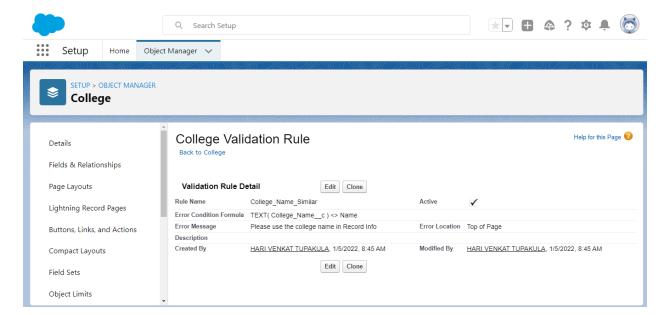


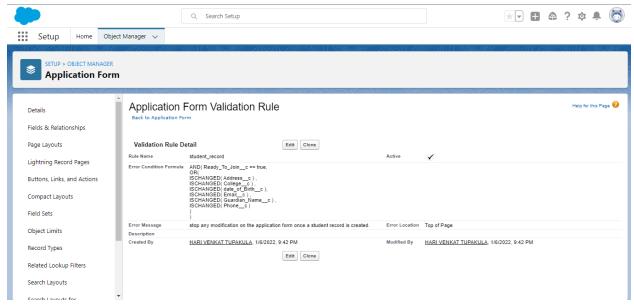
2)Creating Field Dependencies





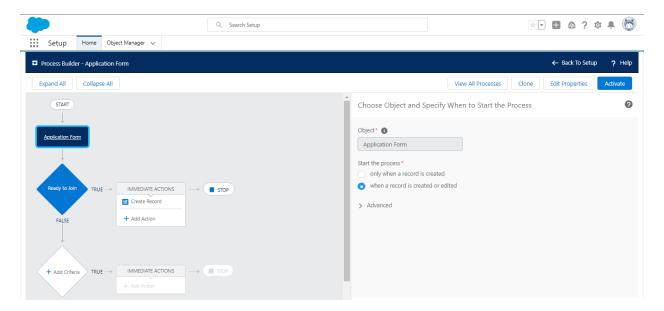
3)Creating Validation Rules

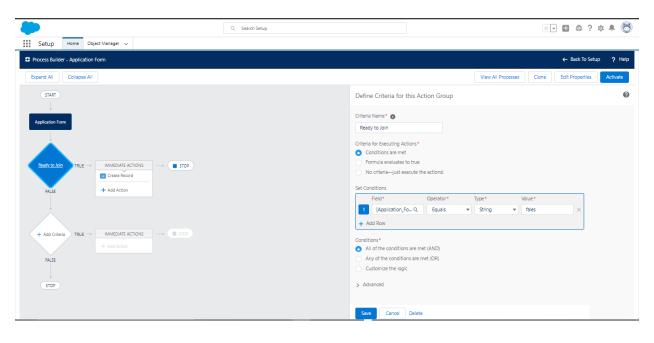


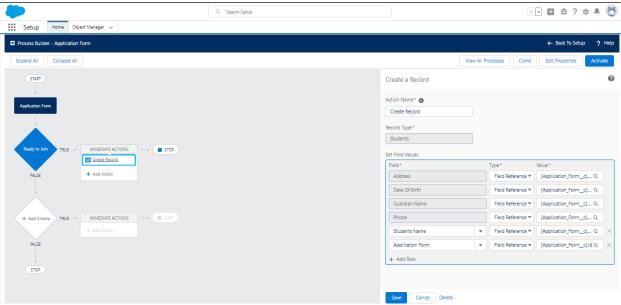


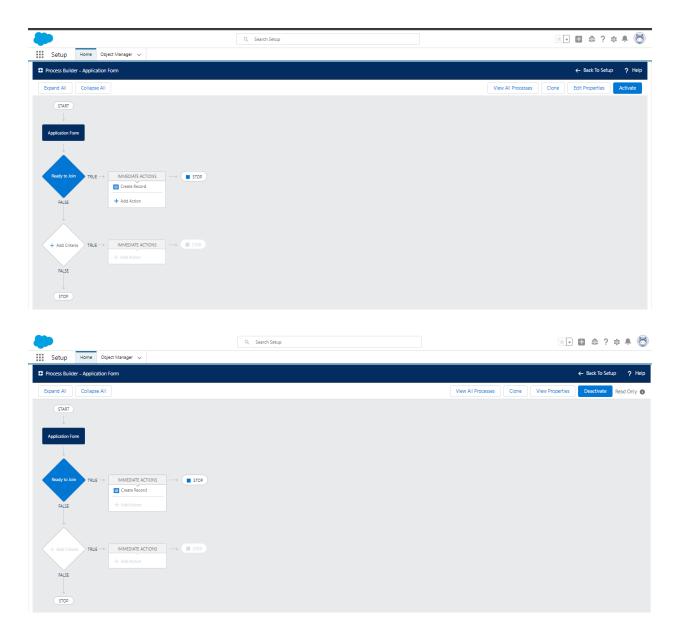
DAY-4

4) Process Automation









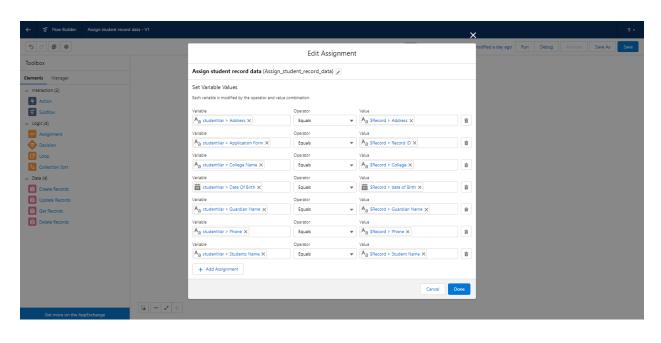
DAY-5

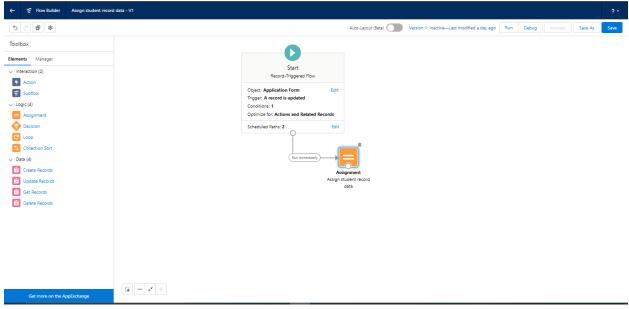
5) Create The Student Record Using Flow

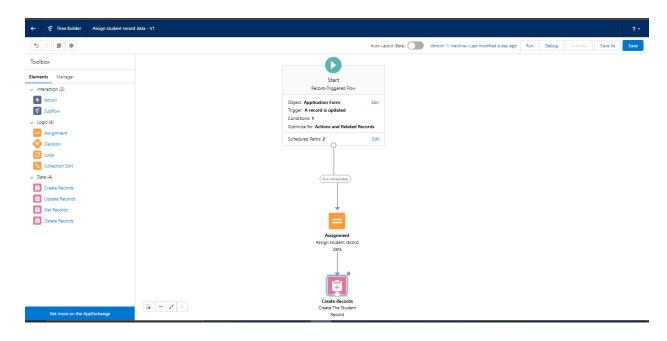
- 1. First deactivate the process builder which we created earlier.
- 2. Now search for flows and select new flow ->record triggered flow
- 3. For object select application form, in configure trigger select when the record is updated for entry criteria select as ready to join equals to true.
- 4. Now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

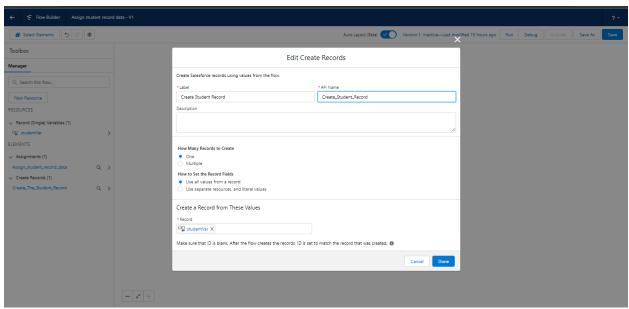
6. Now add create records.

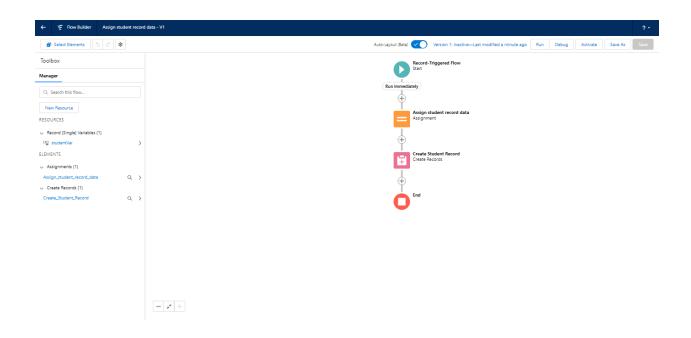
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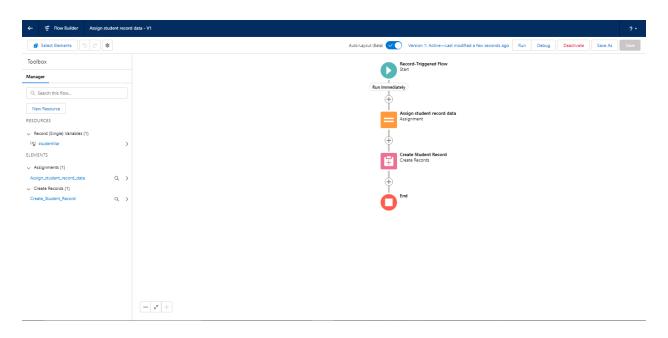












Day 6:

Topic: Batch Apex

Milestone / Activities:

- 1) Create A Batchapex For Application Form
- 2) Create A Schedular Class

Detailed Description:

1) 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. If you have a lot of records to process, for example, data cleansing or archiving, Batch Apex is probably your best solution.

Syntax Of BatchApex

```
public class MyBatchClass implements Database.Batchable<sObject> {
    public (Database.QueryLocator | Iterable<sObject>) start(Database.BatchableContext
bc) {
        // collect the batches of records or objects to be passed to execute
    }
    public void execute(Database.BatchableContext bc, List<P> records){
        // process each batch of records
    }
    public void finish(Database.BatchableContext bc){
        // execute any post-processing operations
    }
}
```

2) Create A Batchapex For Application Form

1. From the developer console create a new apex class and enter the following code.

Public class ApplicationBatchTest implements Database.Batchable<sObject>{

```
//start(), execute(). finish()
  public Integer totalForms = 0; // total no of application form
  public Integer totalConvertedForms = 0; // total no of students
  public Database.QueryLocator start(Database.BatchableContext bc){
    // gathers the data for you
    String applicationQuery = 'select id, Name, Ready_To_Join__c from ApplicationForm__c';
    return Database.getQueryLocator(applicationQuery);
  public void execute(Database.BatchableContext bc, List<ApplicationForm__c> formList){
    // process the data
    for(ApplicationForm__c af : formList){
      totalForms++;
      if(af.Ready_To_Join__c){
        totalConvertedForms++;
      }
    }
  public void finish(Database.BatchableContext bc){
    // emails ,
    Messaging.SingleEmailMessage mail = new Messaging.SingleEmailMessage();
    // address, subject, content( data to sent to admins)
    mail.setSubject(' Application form and student record data as of today ');
    mail.setPlainTextBody(' Total no of application form records are: '+totalForms+' out of
which no of students as per today: '+totalConvertedForms);
    String[] emailAddess = new String[]{'your email address'};
    mail.setToAddresses(emailAddess);
    Messaging.sendEmail(new Messaging.SingleEmailMessage[]{ mail } );
 }
}
```

3) Create A Schedular Class

1. From the developer console create a new apex class and enter the following code.

public class applicationschedule implements Schedulable{

public void execute(SchedulableContext sc){

```
ApplicationBatchTest abt = new ApplicationBatchTest();

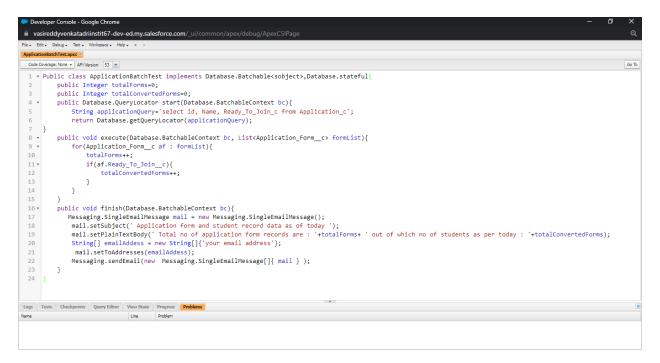
Database.executeBatch(abt, 400); // 200 to 2000

}
```

From setup search for apex class and click on schedule jobs and fill the details as per your requirements.

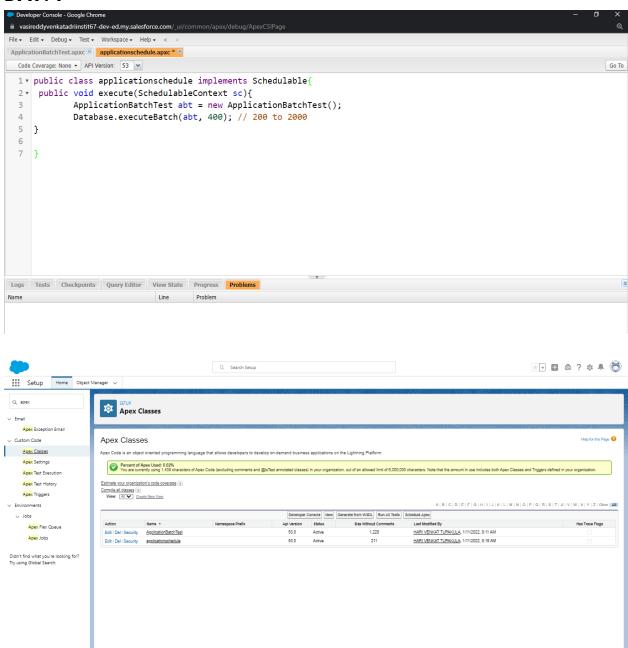
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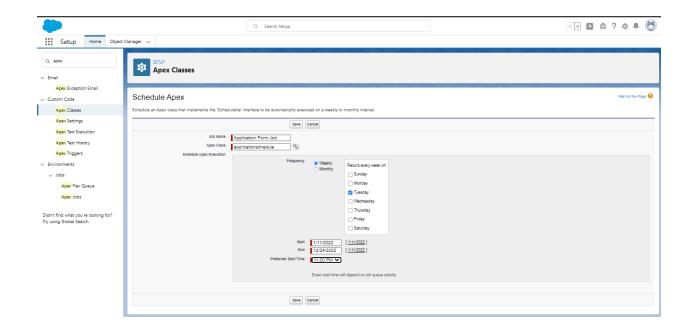
1) Create A Batchapex For Application Form

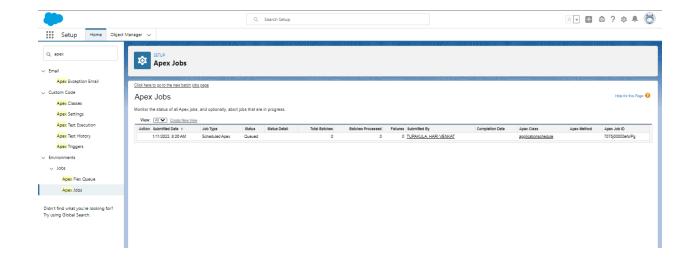


2) Create A Schedular Class

DAY: 7







Day 8:

Topic: Lightning Web Components

Milestone / Activities:

- 1) Create College DataTable Component(APEX CLASS)
- 2) Create College DataTable Component (HTML FILE)
- **3)** Create College DataTable Component(JAVA SCRIPT FILE)
- **4)** Create College DataTable Component(META FILE)

Detailed Description:

1) Create College DataTable Component(APEX CLASS)

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.

Create an Apex Class With The Required Functionality

```
public class GetapplicationDetails
{
    @AuraEnabled(cacheable=true)

public static List<ApplicationForm__c> getapplicationvalues(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;
}
```

2)Create College DataTable Component (HTML FILE)

Create the component with the following files.

```
HTML:
```

3)Create College DataTable Component(JAVA SCRIPT FILE)

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;
}
```

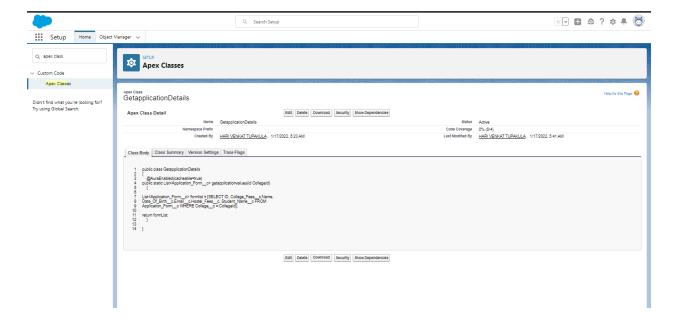
4)Create College DataTable Component(META FILE)

Change the Meta File as follows:

```
<?xml version="1.0"?>
```

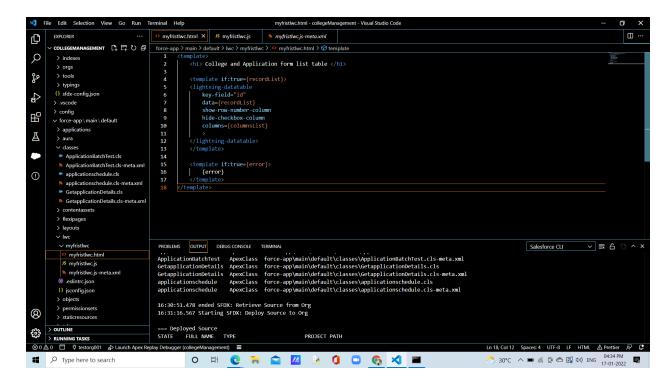
Upload the Screenshot the Milestone / Activities : DAY: 9

1) Create College DataTable Component(APEX CLASS)



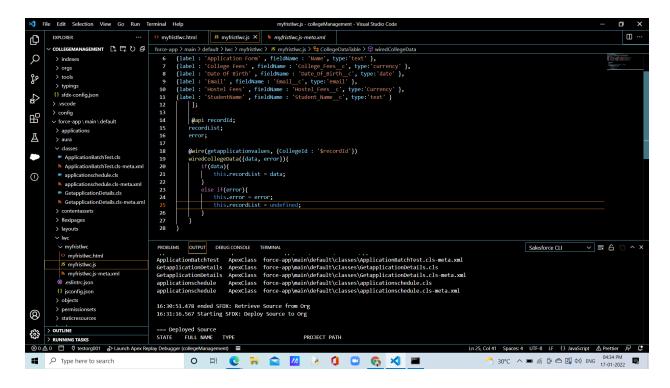
DAY: 10

2) Create College DataTable Component (HTML FILE)



DAY: 11

3) Create College DataTable Component(JAVA SCRIPT FILE)



DAY: 12

 $4) \ {\sf Create \ College \ DataTable \ Component(META \ FILE)}$

