

Online Training Management - developer



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INDEX:

SALESFORCE PROJECT READY - ONLINE TRAINING MANAGEMENT DEVELOPER.

> Create Your Salesforce Developer Org To Get Started.

>Custom Object Creation.

>Create Validation Rules.

>Process Automation.

>Creating Custom Pages Using Visualforce.

>Triggers.

Online Training Management - Developer

PROJECT INTRODUCTION:-

In this project we will be creating an online training management application that will store all the details of the training from courses offered, trainers, students enrolled, Meeting/training information, and many more. In the project, we will be creating objects to store these records and will also create various fields to store the values of these records. We will establish relationships between various objects and create custom pages using visualforce and also about the triggers.

> Create Your Salesforce Developer Org To Get Started:-

Creating a developer org in salesforce.

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.

> Custom Object Creation:-

Creating The Custom Objects For The Application.

The required custom objects are:

- a) Courses.
- b) Trainer.
- c) Student.
- d) Meeting.
- e) Batch/Class Scheduling.

Course Object:-

We need to add these fields in the object.

Field Name	DataType	Values
Course ID	Auto Number(Change the data type to AutoNumber While creating course object and changing record Type to course id)	Format(C-000001) Starting number=1
Course Name	Text	
Course Duration	Picklist	1month,2 months,3 months
Course Fees	Currency	
Course Description	Text(Long)	
Course Category	Picklist	Data science, cloud computing, AI, ML
Course Trainer	Master-Detail(Trainer)	

Trainer Object:-

We need to add these fields in the object.

Field Name	Data Type	Values
Trainer ID	Autonumber	Format=T-00001,Starting number=1
Full Name	Text	
Email	Email	
PhoneNumber	Phone	
Whatsapp Number	Phone	
DateofBirth	Date	
Age	Formula	TODAY()-Date_of_Birth__c
Experience	Picklist	1year,2years,3years,.....
LinkedIN Profile	URL	
Expertise	Text	

Student Object:-

We need to add these fields in the object.

Field Name	Data Type	Values
Student ID	Autonumber	Format=S-00001,Starting Number=1
First Name	Text	
Last Name	Text	
Email	Email	
PhoneNumber	Phone	
Date Of Birth	Date	
Whatsapp Number	Phone	
Enrollment Date Student Enrollment	Formula Master Detail(Batch)	TODAY()

Meeting Object:-

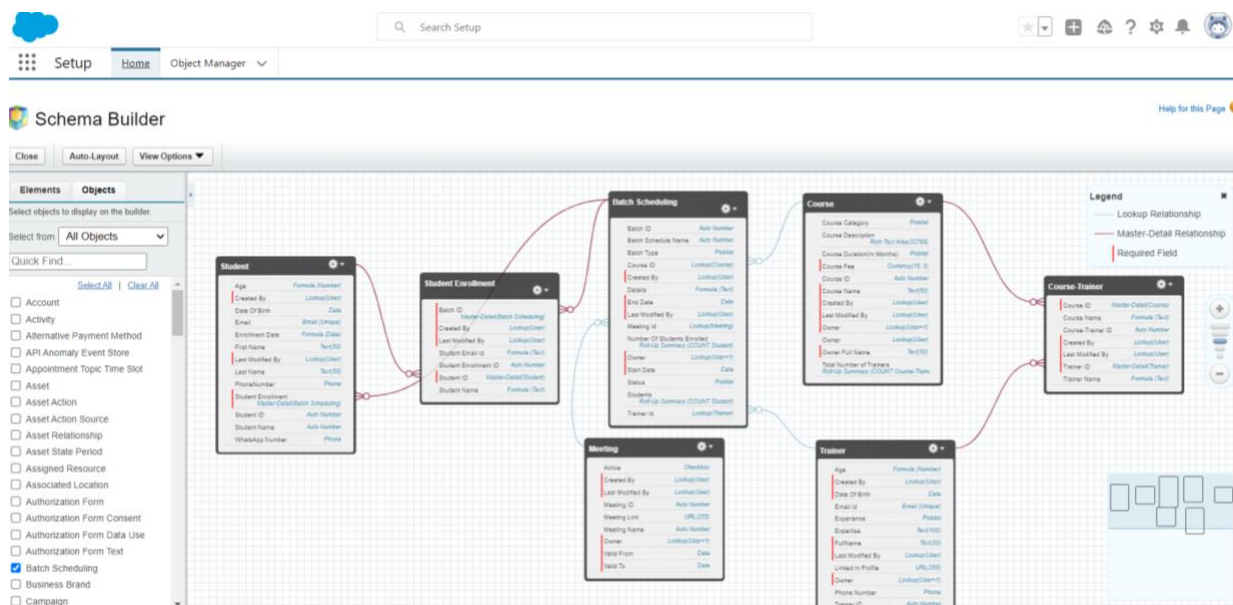
We need to add these fields in the object.

Field Name	Data Type	Values
Meeting ID	Autonumber	Format=M-00001, Starting Number=1
Valid From	Date	
Valid To	Date	
Active	Checkbox	
Meeting Link	URL	

Batch Scheduling Object:-

Field Name	Data Type	Values
Meeting ID	Autonumber	Format=M-00001, Starting Number=1
Valid From	Date	
Valid To	Date	
Active	Checkbox	
Meeting Link	URL	

The data model of the above Custom objects is,



> Create Validation Rules:-

> For the Course object the validation rules we need to had is,

1.Course Fees Cannot be Negative: From Object Manager select the course object and click on validation rules, give your rule a name and in error condition formula enter "Course_Fee__c<0", give error message according to the condition.

1. Course Fees Should Be Less than 3000\$: From Object Manager select the course object and click on validation rules, give your rule a name and in error condition formula enter "Course_Fee__c>=3000",give error message according to the condition.

> For the Trainer object the validation rules we need to had is,

1.Full Name, Phone Number, Dateof Birth , Experience fields on the trainer object should not be blank: Search for Trainer Object from the object manager ,click on validation rules, click new and give your rule a name, in error condition formula enter "ISBLANK(Field Name)" and enter the error message according to the validation rule.

2. Age Should Not Be Less than 25 years: Enter "age__c<25" in error condition formula and enter the error message according to the rule.

1. Phone Number and Whatsapp Number should accept minimum 10 digits and maximum 15 digits: In error condition formula enter"NOT(REGEX(FIELDNAME, "[0-9]{10,15}"))" and error message according to the validation rule.

> For the Student object the validation rules we need to had is,

1. Lastname should not be Blank: enter the following error condition formula "ISBLANK(Field name)" and give the error message according to the rule.

2. Minimum 16 years of age: student should be minimum 16 years of age, in error condition formula enter "age__c<16" and give the error message according to the rule.

3.Phone and whatsappNumber should be minimum 10 digits : in error condition formula enter "NOT(REGEX(Fieldname, "[0-9]{10}"))" and give the error message accoding to the validation rule.

> For the Meeting object the validation rules we need to had is,

1. Valid From should not be less than current date: Click on validation rules from meeting object, give your rule a name and in error condition formula enter "Valid_from__c < TODAY()" and enter the error message according to the rule.
2. Valid To Cannot be less than Valid from : Click on validation rules from meeting object, give your rule a name and in error condition formula enter "Valid_to__c < Valid_from__c " and enter the error message according to the rule.
3. Minimum 14 days difference should be in between valid from and valid to : Click on validation rules from meeting object, give your rule a name and in error condition formula enter "Valid_to__c - Valid_from__c < 14 " and enter the error message according to the rule

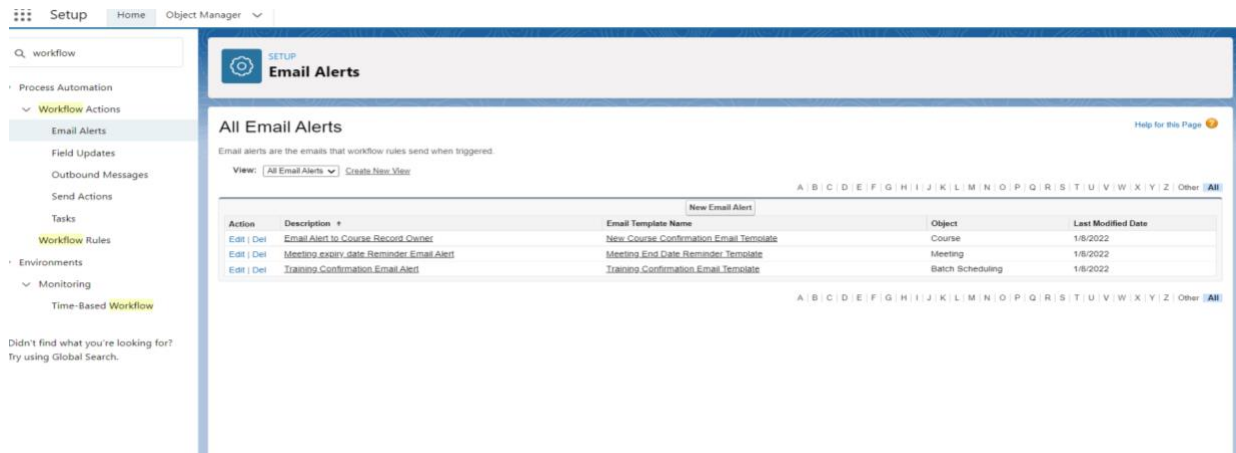
> Process Automation:-

There are four automation tools in salesforce:

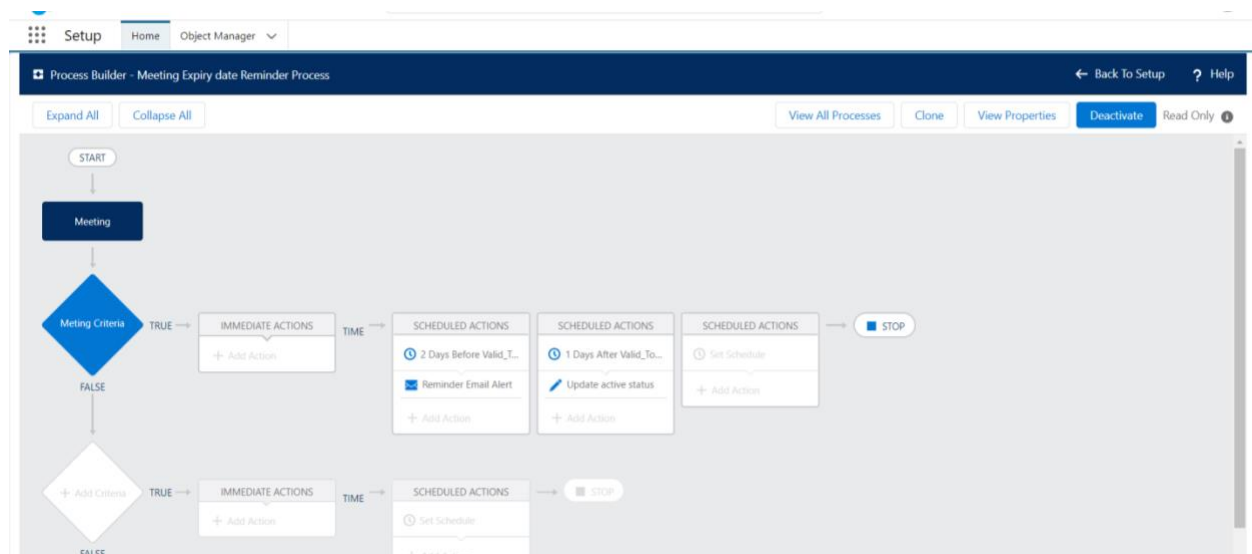
1. Approval Process
2. Process builder
3. Flows
4. Workflows

For Creating an automation first we need to add the email alerts. We added email alerts for,

- 1) Email Alert to Course Record owner
- 2) Meeting Expiry Date Reminder Alert
- 3) Training Confirmation Email Alert



Creating Work Flow Rules On Meeting Object:-



>Creating Custom Pages Using Visualforce:-

Save

New Batch

Batch Type ▾	Start Date * <input type="text"/> [1/11/2022]
End Date * <input type="text"/> 2/25/2022 [1/11/2022]	Course ID <input type="text"/> Q
Meeting Id <input type="text"/> Q	Trainer Id <input type="text"/> Q
Status ▾	

Save

New Meeting

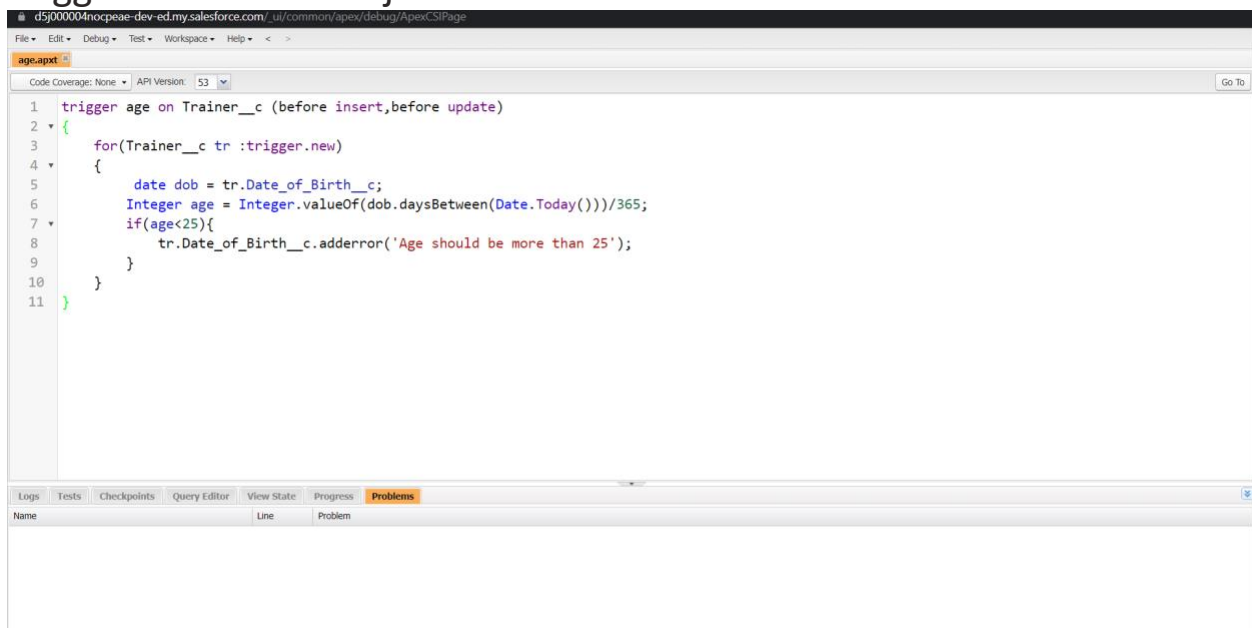
Valid From * <input type="text"/> [1/11/2022]	Valid To * <input type="text"/> 2/10/2022 [1/11/2022]
Meeting Link <input type="text"/>	Active <input type="checkbox"/>

Save

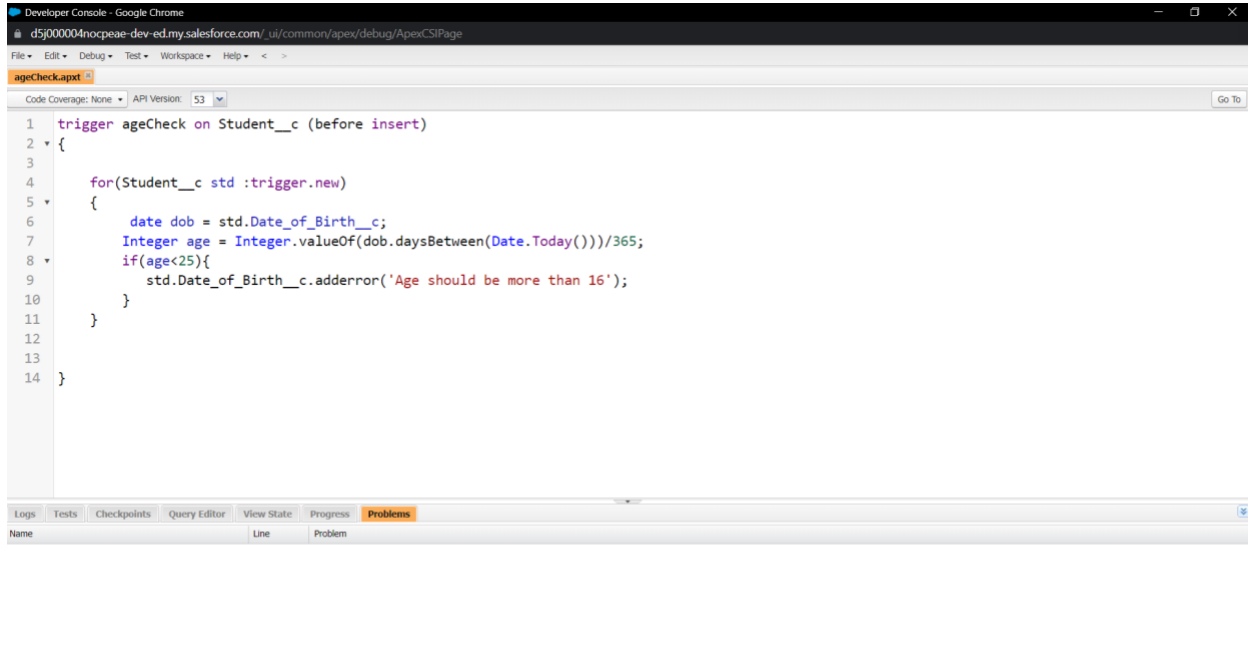
> Triggers:-

A trigger is an Apex script that executes before or after data manipulation language (DML) events occur. Apex triggers enable you to perform custom actions before or after events to record in Salesforce, such as insertions, updates, or deletions. Just like database systems support triggers, Apex provides trigger support for managing records.

Trigger On Trainer Object:- :-



Trigger On Student Object:-

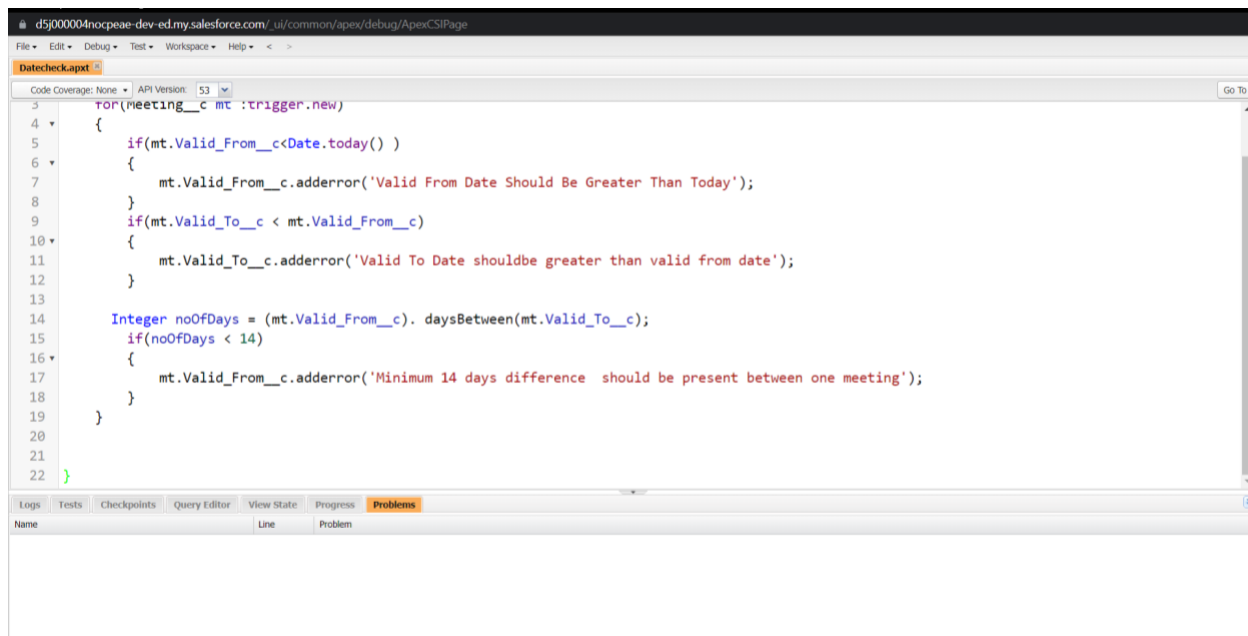


The screenshot shows the Salesforce Developer Console with an Apex trigger named 'ageCheck.apxt' for the 'Student__c' object, triggered 'before insert'. The trigger code is as follows:

```
1 trigger ageCheck on Student__c (before insert)
2 {
3
4     for(Student__c std :trigger.new)
5     {
6         date dob = std.Date_of_Birth__c;
7         Integer age = Integer.valueOf(dob.daysBetween(Date.Today()))/365;
8         if(age<25){
9             std.Date_of_Birth__c.adderror('Age should be more than 16');
10        }
11    }
12 }
13
14 }
```

The interface includes a 'Problems' tab at the bottom, which is currently empty.

Trigger On Meeting Object:-



The screenshot shows the Salesforce Developer Console with an Apex trigger named 'Datecheck.apxt' for the 'Meeting__c' object, triggered 'before insert'. The trigger code is as follows:

```
3 trigger Datecheck on Meeting__c (before insert)
4 {
5     if(mt.Valid_From__c < Date.today() )
6     {
7         mt.Valid_From__c.adderror('Valid From Date Should Be Greater Than Today');
8     }
9     if(mt.Valid_To__c < mt.Valid_From__c)
10    {
11        mt.Valid_To__c.adderror('Valid To Date shouldbe greater than valid from date');
12    }
13
14    Integer noOfDays = (mt.Valid_From__c). daysBetween(mt.Valid_To__c);
15    if(noOfDays < 14)
16    {
17        mt.Valid_From__c.adderror('Minimum 14 days difference should be present between one meeting');
18    }
19 }
20
21
22 }
```

The interface includes a 'Problems' tab at the bottom, which is currently empty.

Conclusion of the Project:-

In this Project I have learnt many things like how to create an application, how to create the custom objects and also the various types to create custom objects like by using schema builder, creating validation rules for the custom objects, process automations in the salesforce, Creating custom pages in the visual force by using standard and custom controllers and also the triggers. Now I have got experience to perform in the various projects without any errors.