# College Management Application

**Day-1:**

Create Your Salesforce Developer Org To Get Started
Creating a developer org in salesforce.
Go to developers.salesforce.com/
Click on sign up.
On the sign up form, enter the following details :
First name & Last name
Email
Role : Developer
Company : College Name
County : India
Postal Code : pin code
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.
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.
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.

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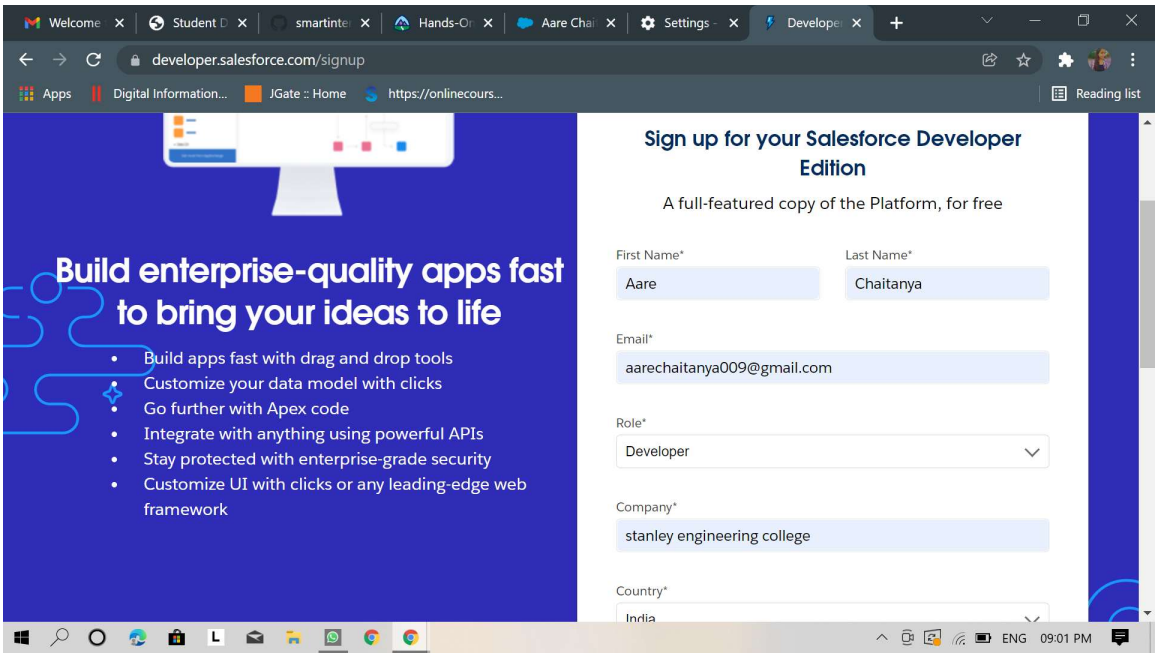



**Day 2:**

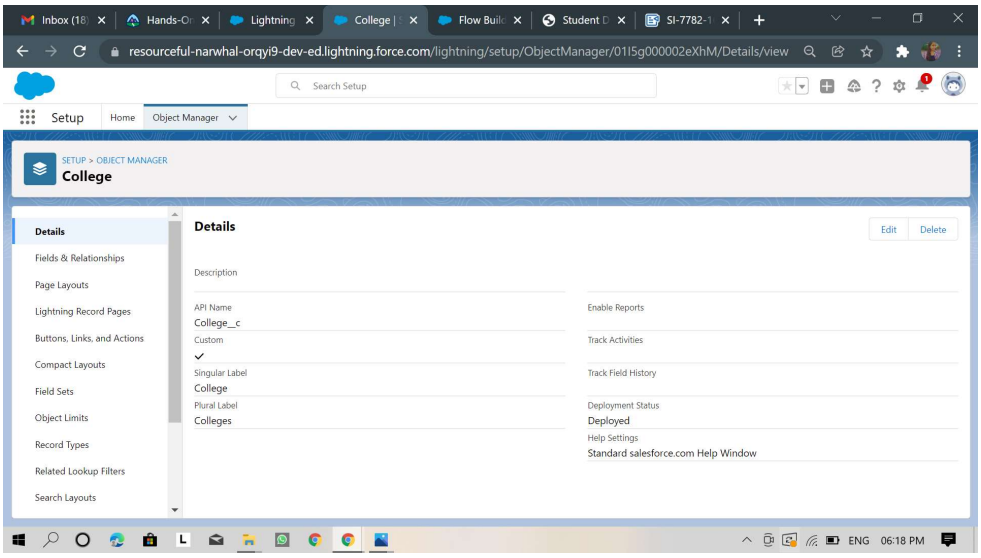
1. (i)Custom Object Creation:

Custom Objects: Custom objects are the objects which are created manually by the users.

Create The Custom Objects For The Application

Create the following Custom Objects For the Application.

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

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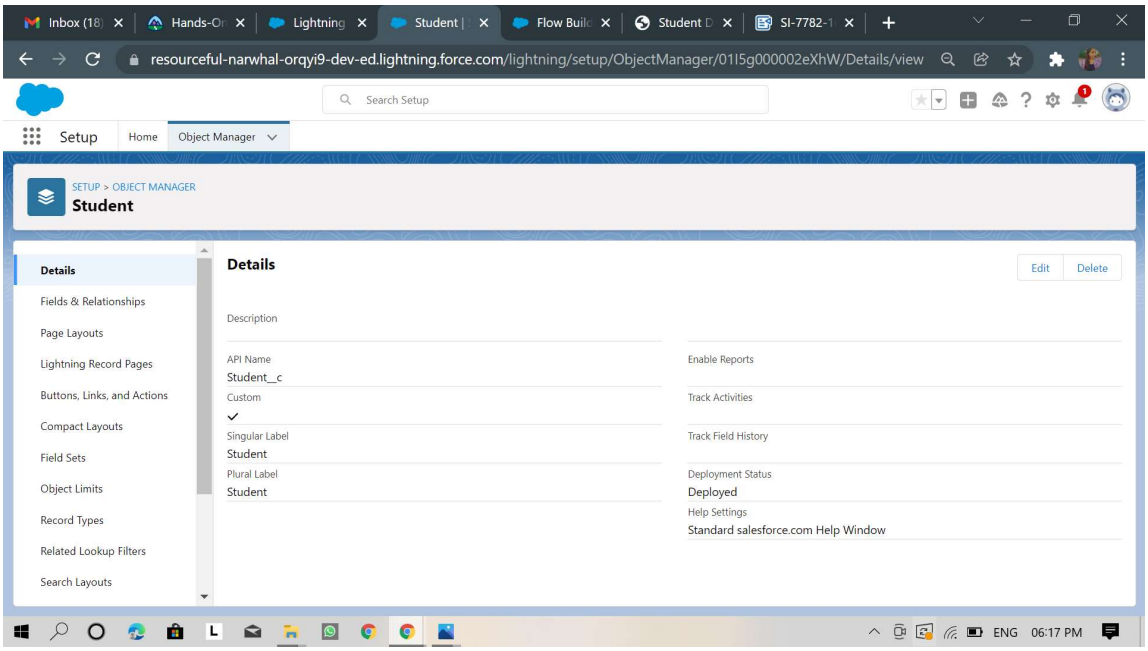
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Search Setup
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SETUP > OBJECT MANAGER
Student
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Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
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Track Field History
Deployment Status
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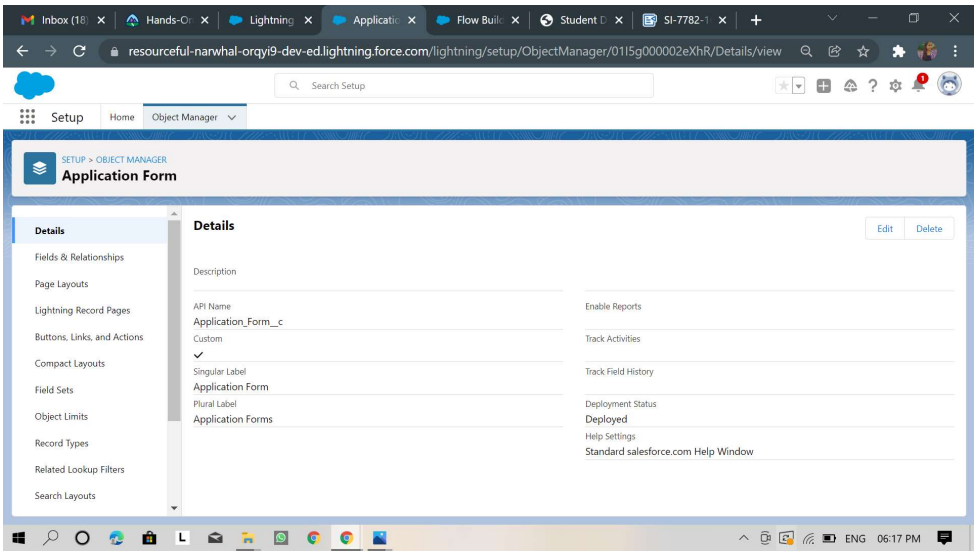
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Search Setup
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Buttons, Links, and Actions
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Object Limits
Record Types
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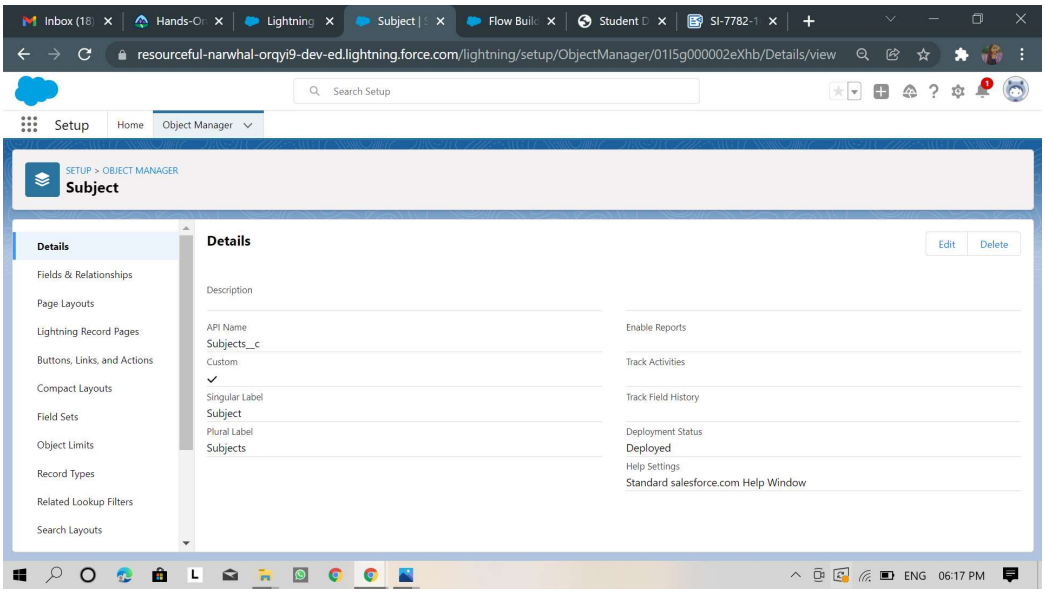



(ii)Create Fields On College Object
Create the following fields on the college object.

Field Name
Data Type
Required
Values
Record Info
Text

College Fees
Currency(7,2)
Yes

Hostel Fees
Currency(6,2)
Yes

College Name
Picklist(Refer Business Logic In Milestones)
Yes

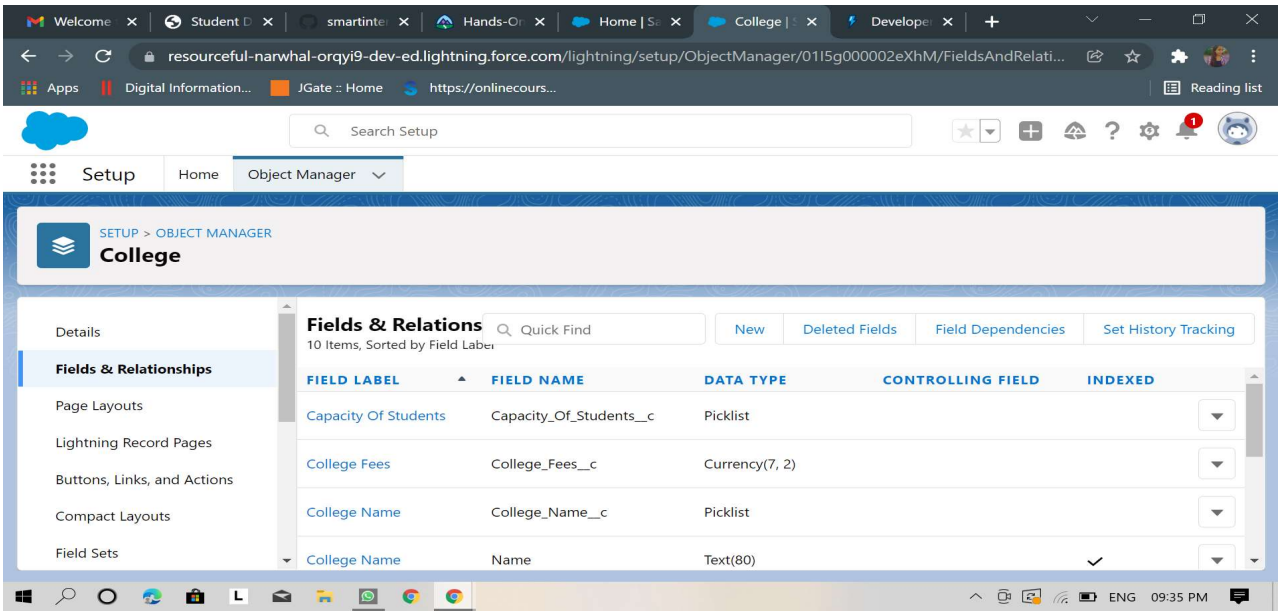
Email
Picklist

.

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 Students
Picklist

500-1000, 1000-2500, 2500-6000, 6000-10000




(iii)Create Fields On Application Form Object
Create the following fields on the application form object.

Field Name
Data Type
Required
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

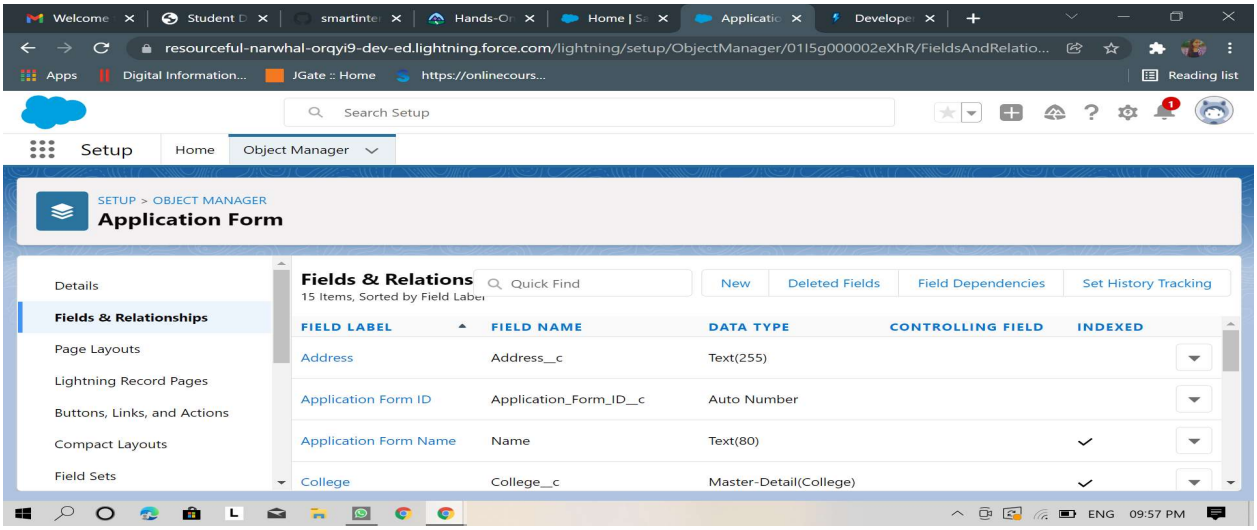
Looking For Hostel Stay
Checkbox(default=Uncheck)

Ready To Join
Checkbox(default=Uncheck)

Student Name
Text(30)
Yes

Phone
Phone
Yes

.




(iv)Create Fields On Student Object
Create the following fields on the student object.

Field Name
Data Type
Required
Values
Student Name
Text

Address
Text(255)
Yes

Application Form
Lookup(Application Form)

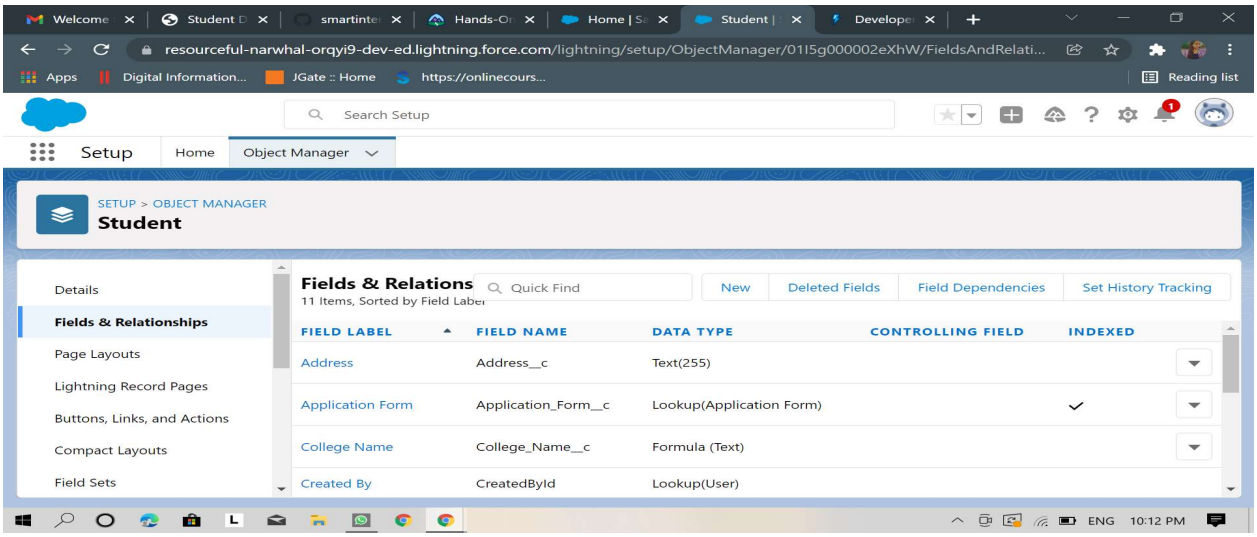
College Name
Formula(Text)

Date Of Birth
Date
Yes

.

Guardian Name
Text(30)
Yes

Phone
Phone
Yes




(v)Create Fields On Subject Object
Create the following fields On the Subject object.

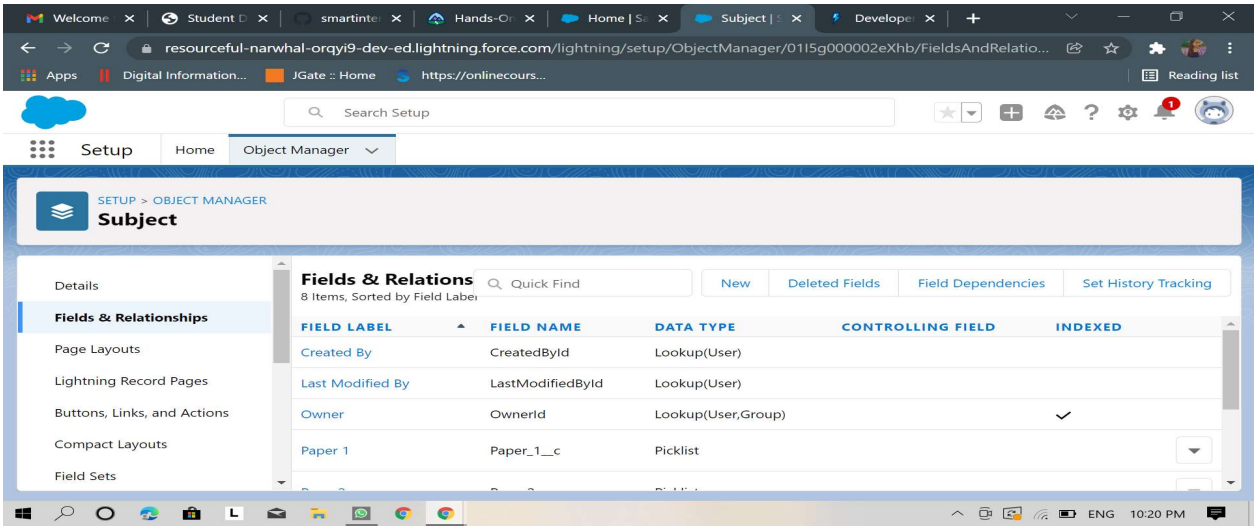
Field Name
Data Type
Required
Values
Subject ID
AutoNumber

S-{000000}
Starting Number=1
Paper 1
Picklist(Refer Business Logic Milestone)

Paper2
Picklist(Refer Business logic Milestone)

.

Student
Lookup(Student)




2.Adding Business Logic To Application
(i)Creating Global Picklist Value Sets
1. Create the following global picklist value sets for the application.
a)College

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

b)Paper1

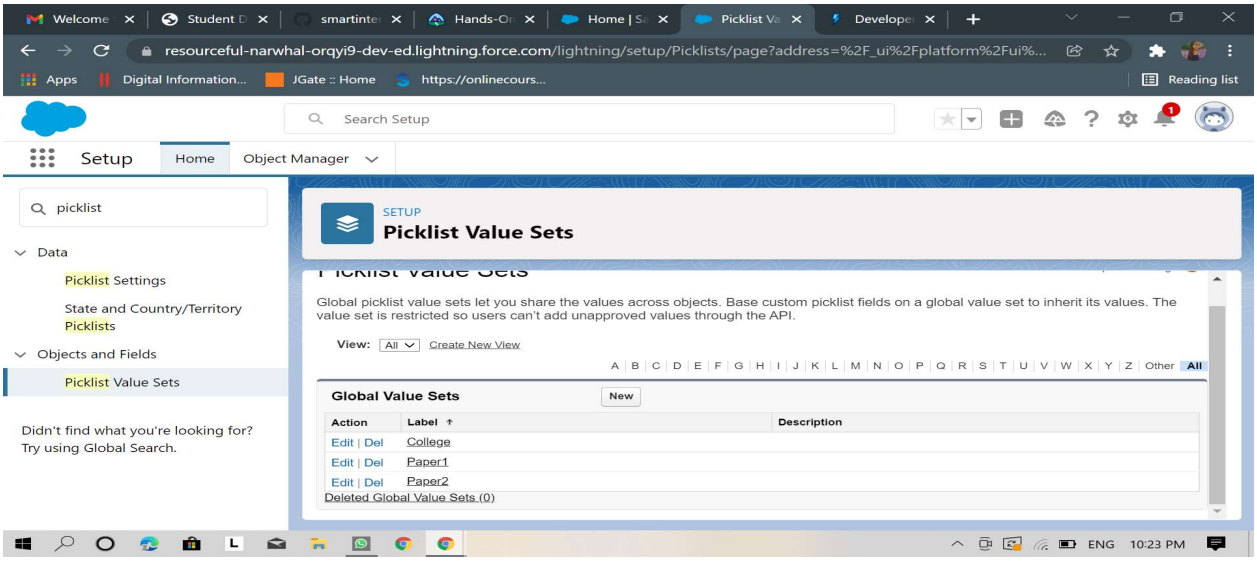
Picklist Value Name
Values
Paper 1
APEX
JAVA
C

.

C++

c)Paper2

Picklist Value Name
Values
Paper2
MATHEMATICS
ENGLISH
STATISTICS




(ii)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.

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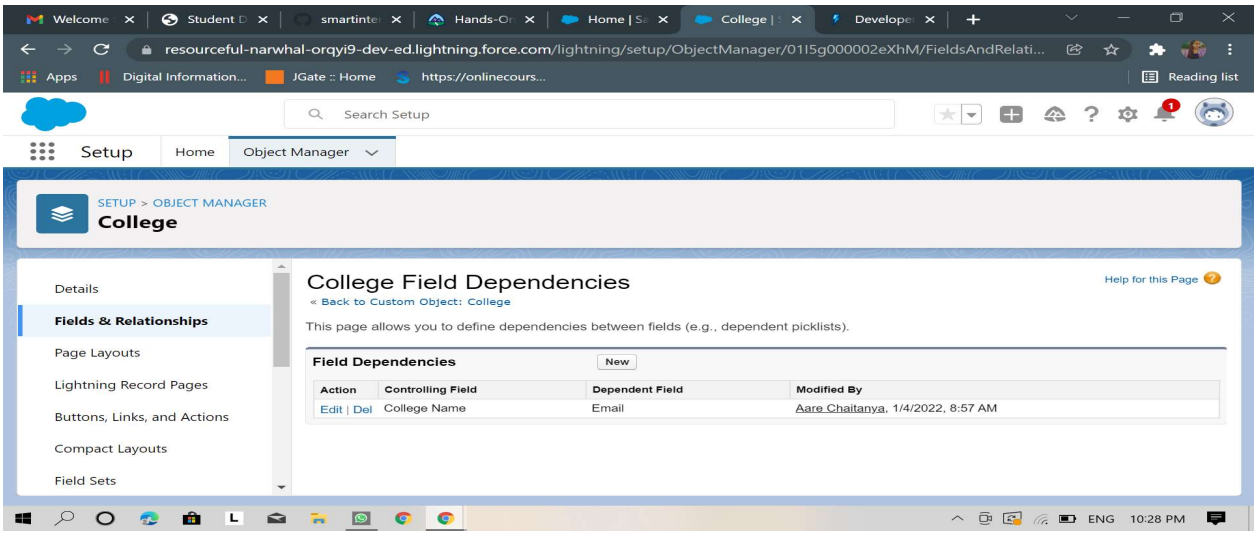
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Reading list
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Setup
Home
Object Manager
SETUP > OBJECT MANAGER
College
Details
Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
College 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
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ENG
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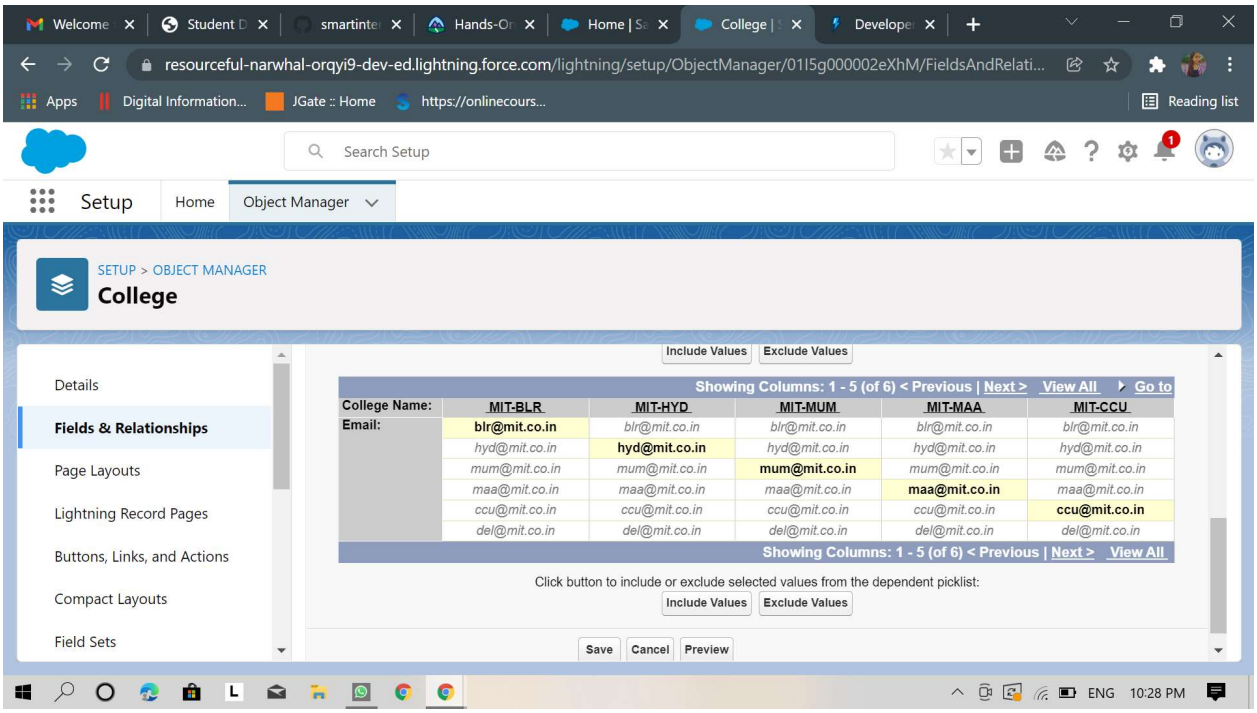
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Fields & Relationships
Page Layouts
Lightning Record Pages
Buttons, Links, and Actions
Compact Layouts
Field Sets
Include Values
Exclude Values
Showing Columns: 1 - 5 (of 6) < Previous | Next > View All Go to
College Name:
MIT-BLR
MIT-HYD
MIT-MUM
MIT-MAA
MIT-CCU
Email:
blr@mit.co.in
hyd@mit.co.in
mum@mit.co.in
maa@mit.co.in
ccu@mit.co.in
del@mit.co.in
Showing Columns: 1 - 5 (of 6) < Previous | Next > View All
Click button to include or exclude selected values from the dependent picklist:
Include Values
Exclude Values
Save
Cancel
Preview
ENG
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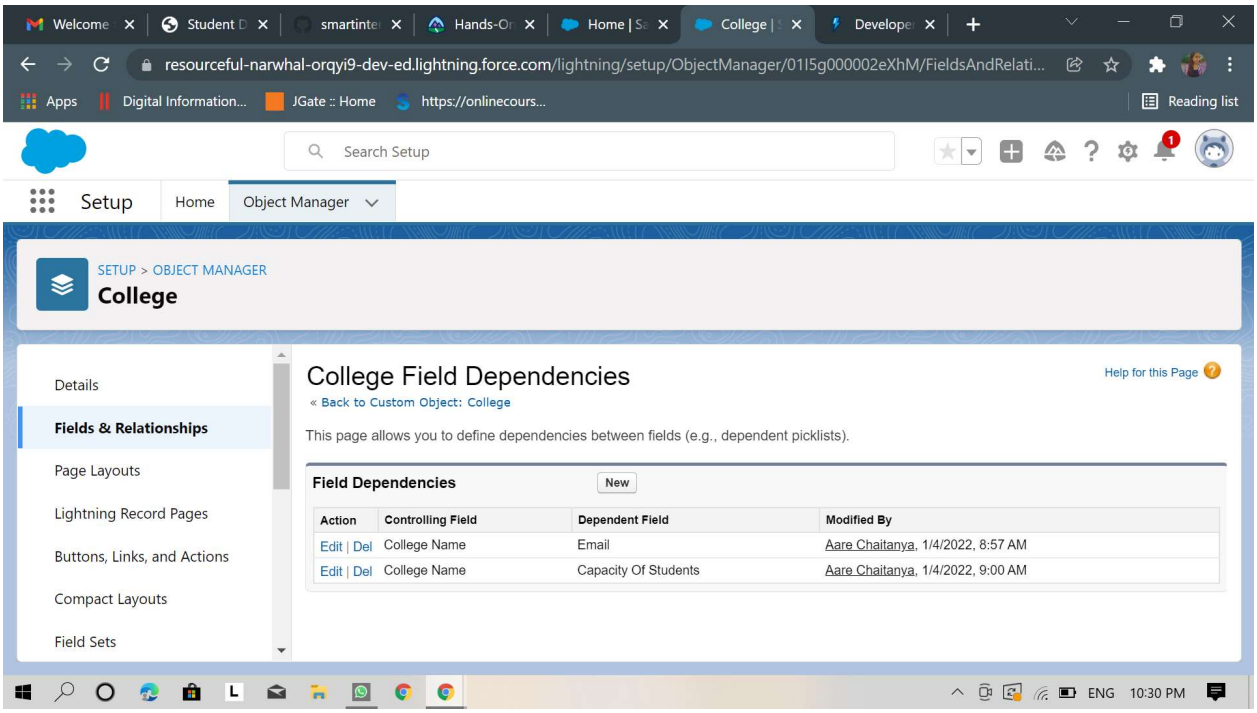


(iii)Create Validation Rule On College Object

1. Create a validation rule 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__==true,
OR(
ISCHANGED(Address__c),
ISCHANGED(College__c),
ISCHANGED(Date_Of_Birth__c),
ISCHANGED(Email__c),
ISCHANGED(Guardian_Name__c),
ISCHANGED(Phone__c)
)
)
```

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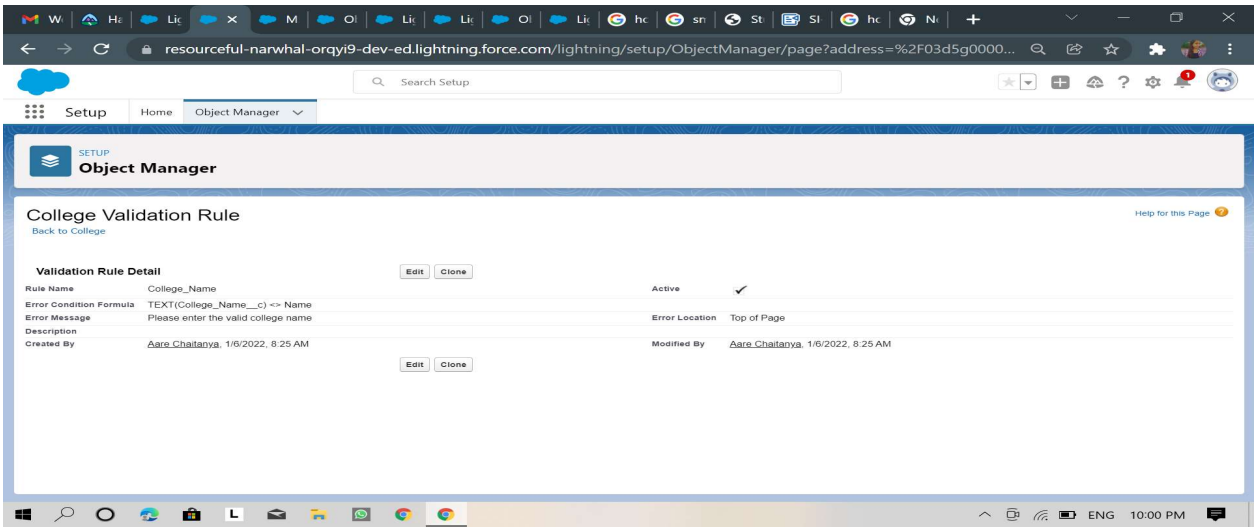


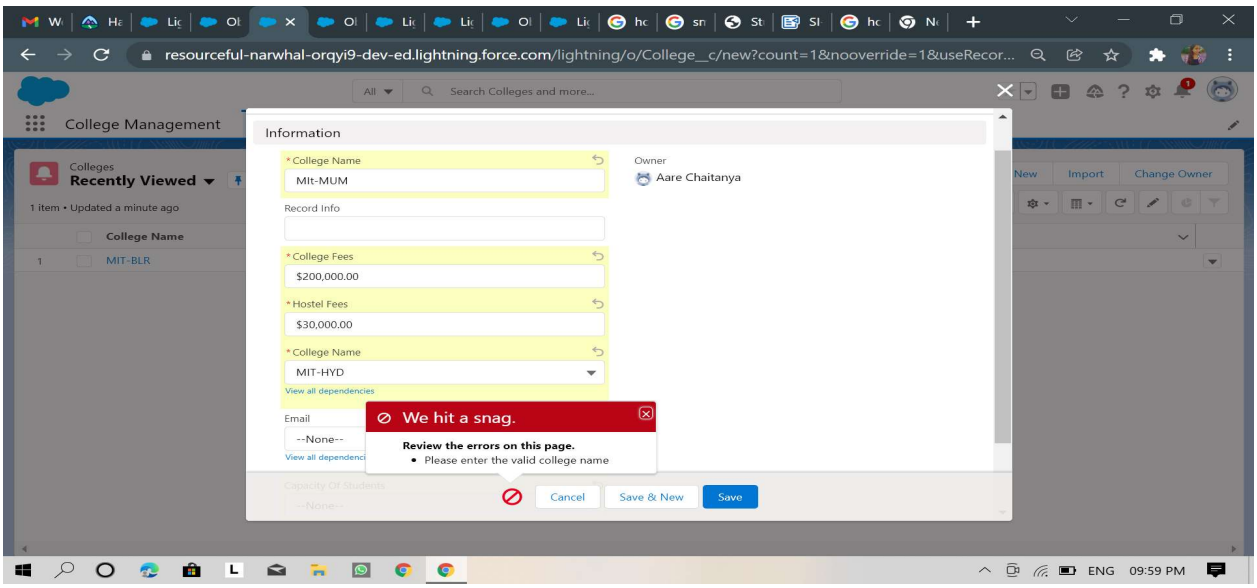


**Day 4:**

(iv)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.

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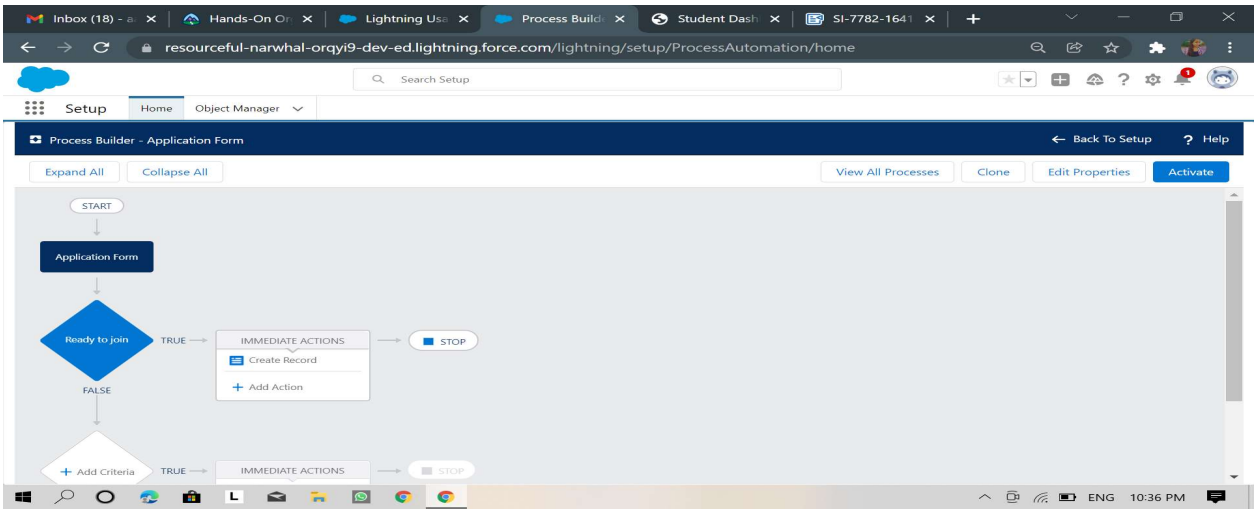
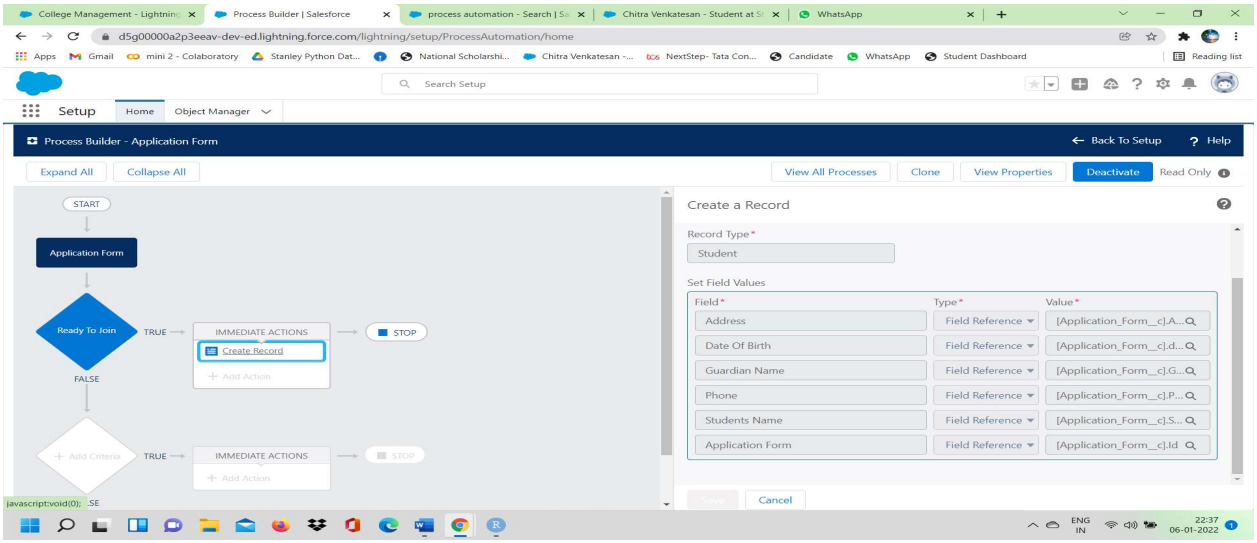


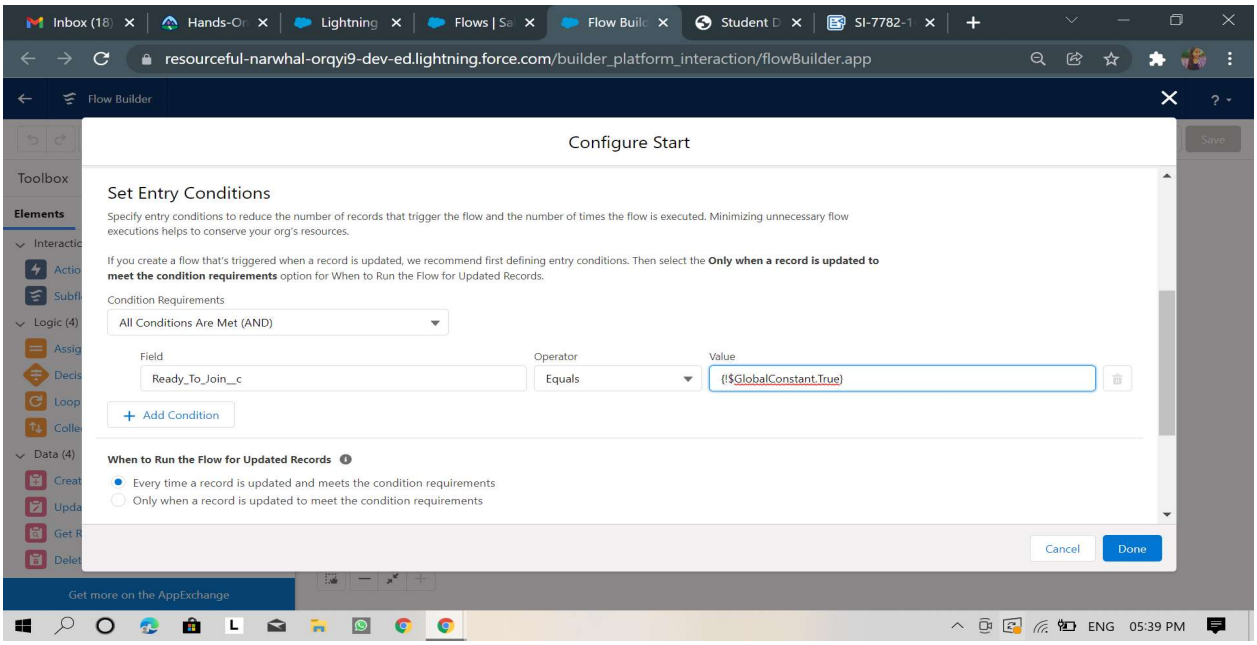




**Day 5:**

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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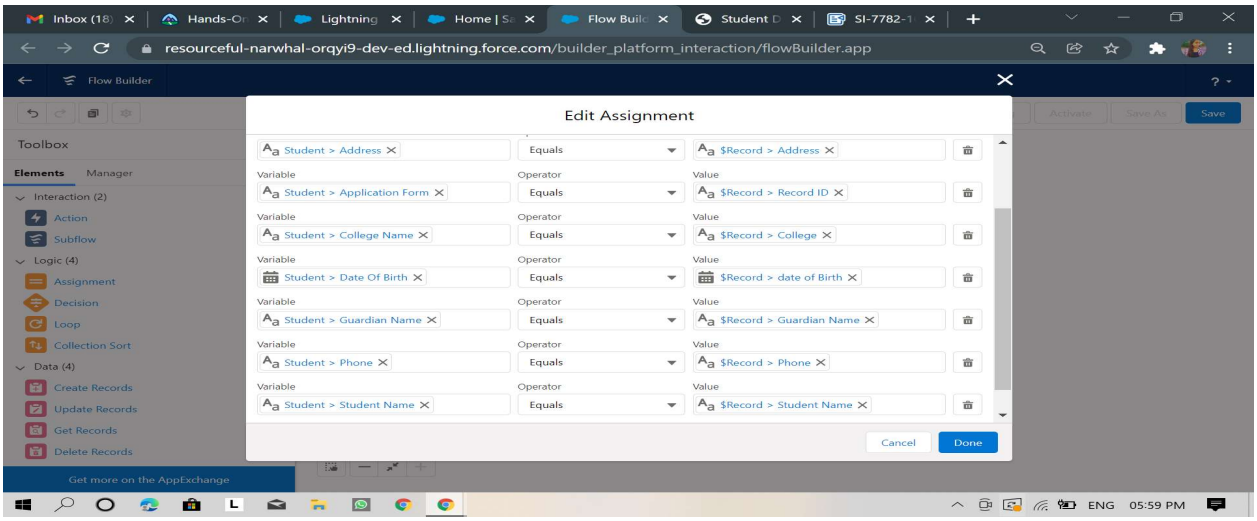
resourceful-narwhal-orqyi9-dev-ed.lightning.force.com/builder_platform_interaction/flowBuilder.app
Flow Builder
Configure Start
Toolbox
Elements
Set Entry Conditions
Specify entry conditions to reduce the number of records that trigger the flow and the number of times the flow is executed. Minimizing unnecessary flow executions helps to conserve your org's resources.
If you create a flow that's triggered when a record is updated, we recommend first defining entry conditions. Then select the Only when a record is updated to meet the condition requirements option for When to Run the Flow for Updated Records.
Condition Requirements
All Conditions Are Met (AND)
Field
Operator
Value
Ready_To_Join__c
Equals
{!$GlobalConstant.True}
Add Condition
When to Run the Flow for Updated Records
Every time a record is updated and meets the condition requirements
Only when a record is updated to meet the condition requirements
Cancel
Done
Get more on the AppExchange
ENG
05:39 PM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Interaction (2)
Action
Subflow
Logic (4)
Assignment
Decision
Loop
Collection Sort
Data (4)
Create Records
Update Records
Get Records
Delete Records
Activate
Save As
Save
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
Get more on the AppExchange
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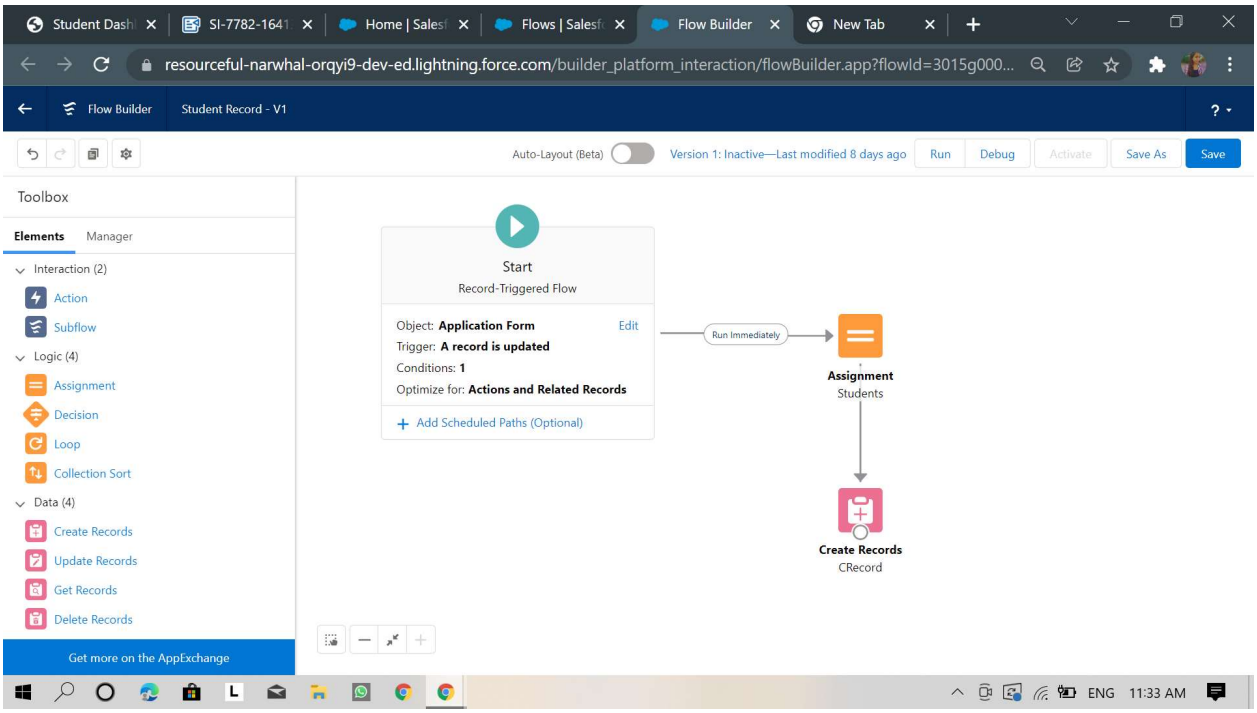



**Day 6:**

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 } );
    }
}
```

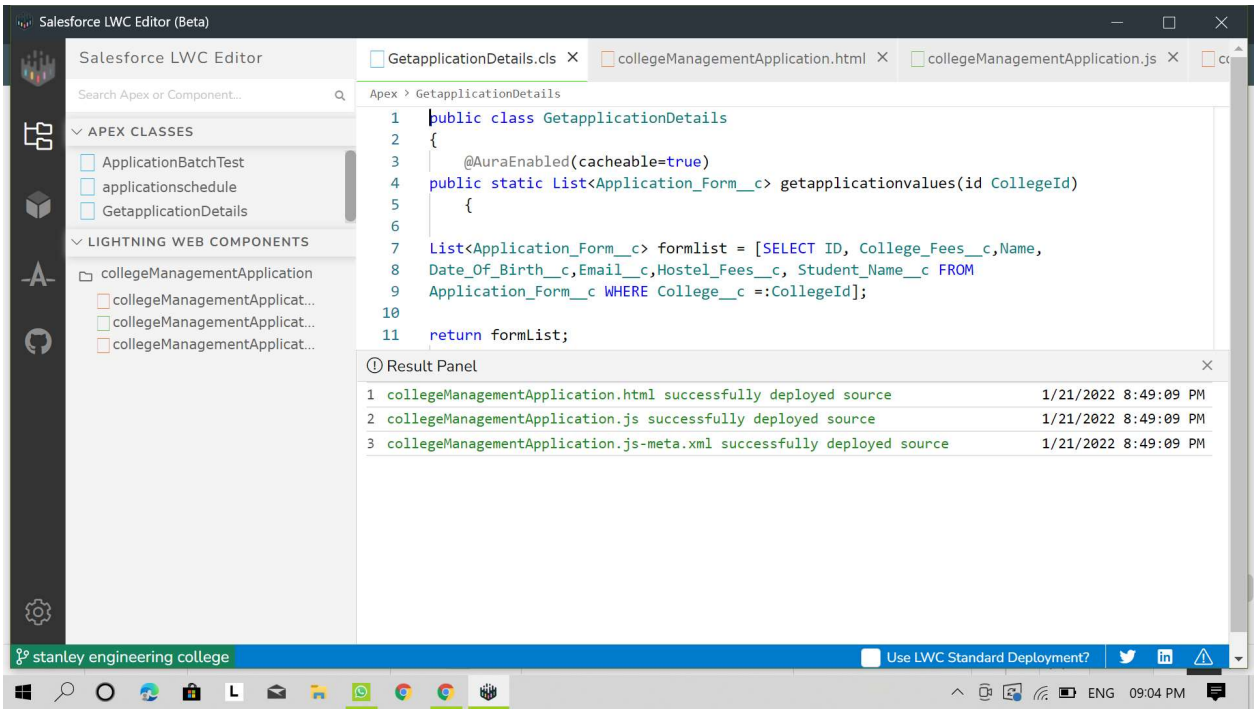
**Day 7:**

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;
    }

}
```

.




**Day 8:**

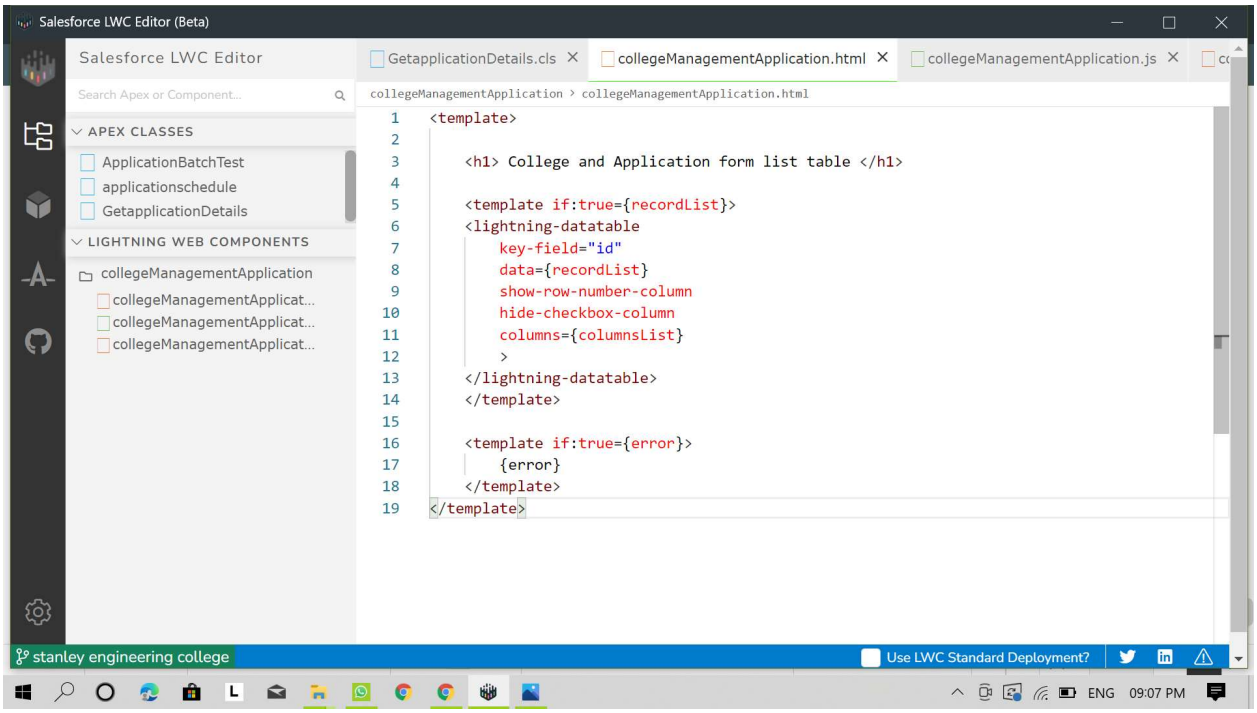
Create the component with the following files.

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>
```




**Day 9:**

```
{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;
        }
    }
}
```

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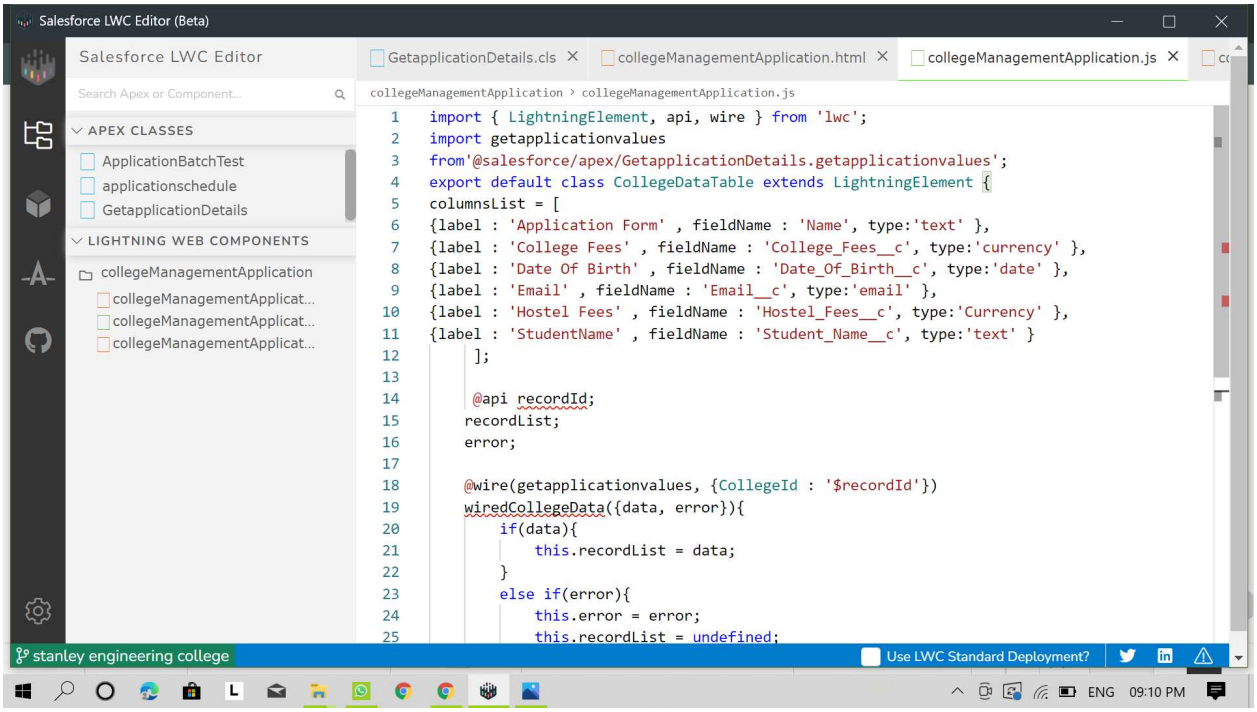
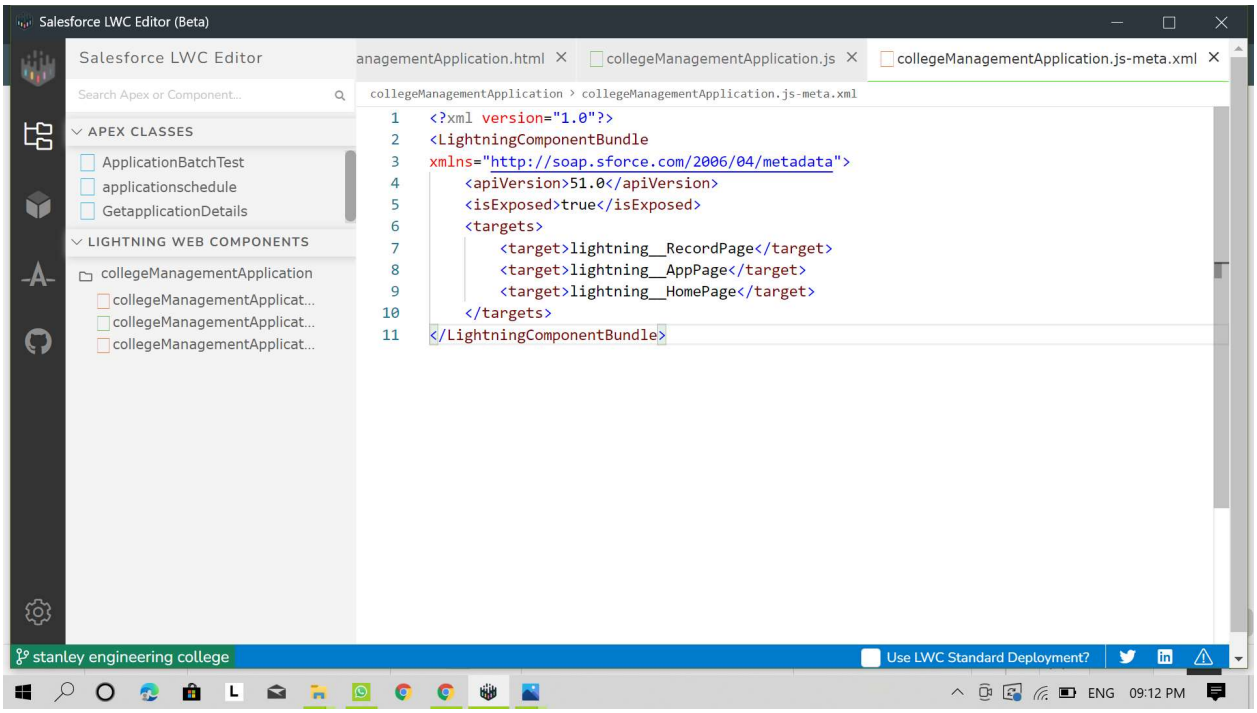



## Day 10:

```
<?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>
```

.


Salesforce LWC Editor (Beta)
Salesforce LWC Editor
collegeManagementApplication.html
collegeManagementApplication.js
collegeManagementApplication.js-meta.xml
Search Apex or Component...
APEX CLASSES
ApplicationBatchTest
applicationschedule
GetapplicationDetails
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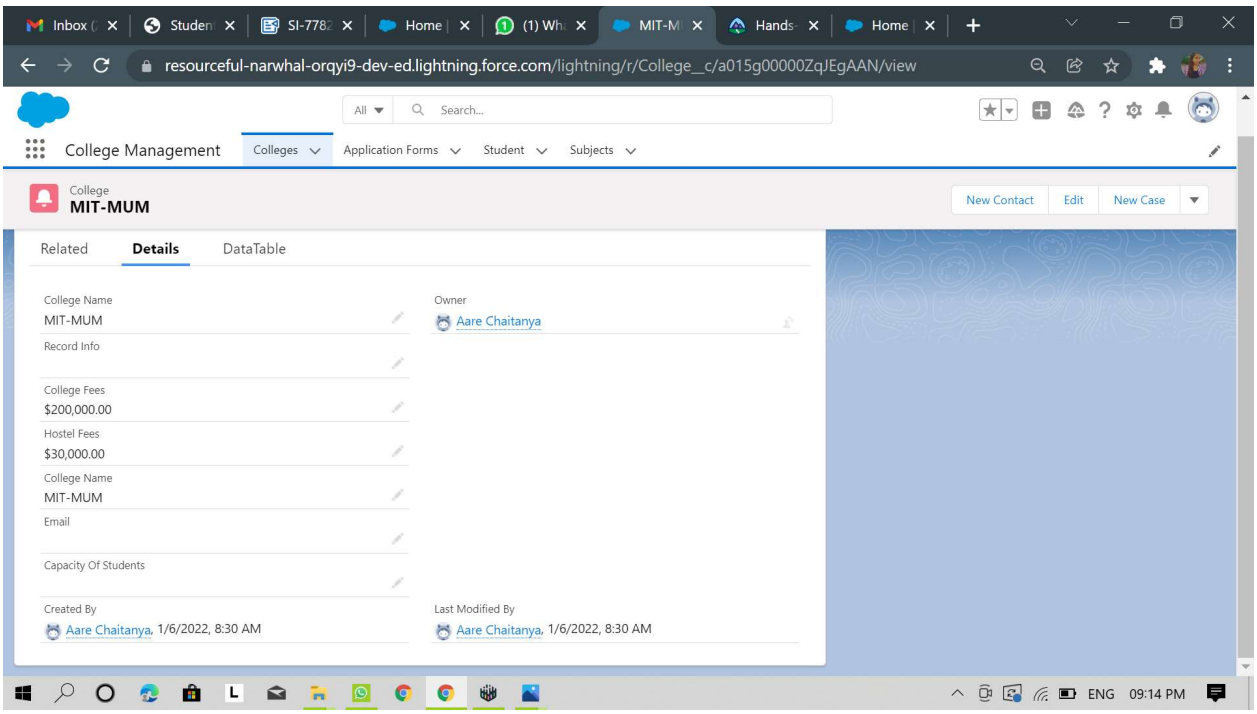
collegeManagementApplicat...
collegeManagementApplicat...
collegeManagementApplicat...
collegeManagementApplication > collegeManagementApplication.js-meta.xml
1 <?xml version="1.0"?>
2 <LightningComponentBundle
3 xmlns="http://soap.sforce.com/2006/04/metadata">
4 <apiVersion>51.0</apiVersion>
5 <isExposed>true</isExposed>
6 <targets>
7 <target>lightning__RecordPage</target>
8 <target>lightning__AppPage</target>
9 <target>lightning__HomePage</target>
10 </targets>
11 </LightningComponentBundle>
stanley engineering college
Use LWC Standard Deployment?
ENG 09:12 PM


resourceful-narwhal-orqyi9-dev-ed.lightning.force.com/lightning/r/College__c/a015g00000ZqJEgAAN/view
College Management
Colleges
Application Forms
Student
Subjects
College
MIT-MUM
New Contact
Edit
New Case
Related
Details
DataTable
College Name
MIT-MUM
Owner
Aare Chaitanya
Record Info
College Fees
$200,000.00
Hostel Fees
$30,000.00
College Name
MIT-MUM
Email
Capacity Of Students
Created By
Aare Chaitanya, 1/6/2022, 8:30 AM
Last Modified By
Aare Chaitanya, 1/6/2022, 8:30 AM
ENG 09:14 PM

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