

1. Develop a registration page for student enrolment as done in Module 2 but without page refresh using AJAX.

models.py

```
from django.db import models

# Create your models here.
from django.db import models
class Course(models.Model):
    course_code = models.CharField(max_length=40)
    course_name = models.CharField(max_length=100)
    course_credits = models.IntegerField()

    def __str__(self):
        return self.course_name

class Student(models.Model):
    student_usn = models.CharField(max_length=20)
    student_name = models.CharField(max_length=100)
    student_sem = models.IntegerField()
    enrolment = models.ManyToManyField(Course)

    def __str__(self):
        return self.student_name
```

admin.py

```
from django.contrib import admin

from ap1.models import Course, Student

# Register your models here.
admin.site.register(Student)
admin.site.register(Course)
```

Run Migration Commands , Create Super User and Insert Values Through Admin Interface

views.py

```
from django.shortcuts import render
from django.http import HttpResponse
from .models import Student, Course

def reg(request):
    if request.method == "POST":
        sid = request.POST.get("sname")
        cid = request.POST.get("cname")

        try:
```

```

        student = Student.objects.get(id=sid)
        course = Course.objects.get(id=cid)
    except Student.DoesNotExist:
        return HttpResponse("<h1>Student does not exist</h1>")
    except Course.DoesNotExist:
        return HttpResponse("<h1>Course does not exist</h1>")

    if student.enrolment.filter(id=cid).exists():
        return HttpResponse("<h1>Student already enrolled</h1>")

    student.enrolment.add(course)
    return HttpResponse("<h1>Student enrolled successfully</h1>")
else:
    students = Student.objects.all()
    courses = Course.objects.all()
    return render(request, "reg.html", {"students": students, "courses": courses})

```

templates/reg.html

```

<!DOCTYPE html>
<html>
<head>
    <title>Enroll Student</title>
    <script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
</head>
<body>
    <form method="post" action="">
        {% csrf_token %}
        <label for="sname">Student Name</label>
        <select name="sname" id="sname">
            {% for student in students %}
                <option value="{{ student.id }}">{{ student.student_name }}</option>
            {% endfor %}
        </select><br>

        <label for="cname">Course Name</label>
        <select name="cname" id="cname">
            {% for course in courses %}
                <option value="{{ course.id }}">{{ course.course_name }}</option>
            {% endfor %}
        </select><br>

        <span id="ans"></span>
        <input type="button" value="Enroll" id="ebtn">
    </form>

    <script>
        $(document).ready(function(){
            $("#ebtn").click(function(){

```

```

var sname = $("#sname").val();
var cname = $("#cname").val();
$.ajax({
  type: "POST",
  url: "{% url 'register' %}",
  data: {
    sname: sname,
    cname: cname,
    csrfmiddlewaretoken: "{{ csrf_token }}"
  },
  success: function(response){
    $("#ans").html(response);
  },
  error: function(xhr, status, error) {
    $("#ans").html("<h1>An error occurred: " + xhr.status + " " + xhr.statusText + "</h1>");
  }
});
});
</script>
</body>
</html>

```

urls.py

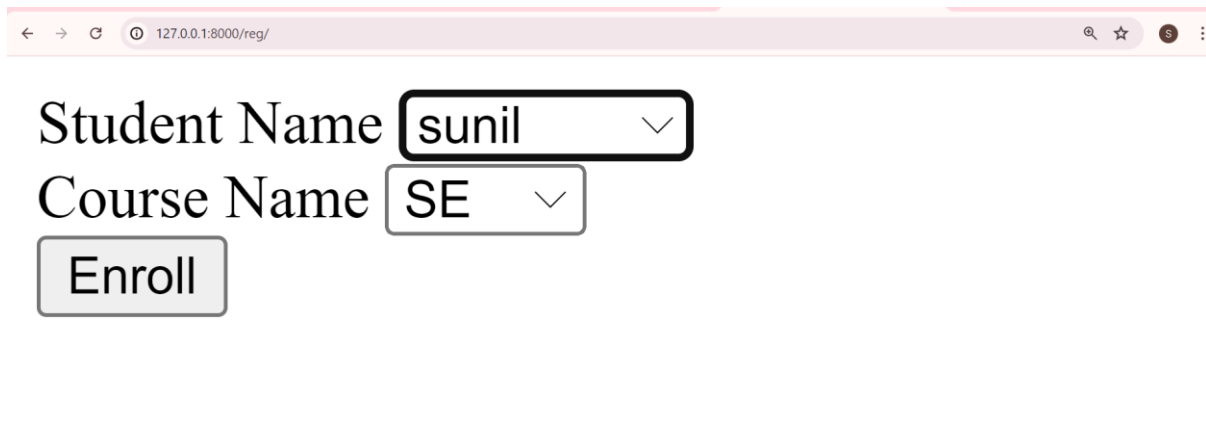
```

from django.contrib import admin
from django.urls import path
from ap1.views import reg

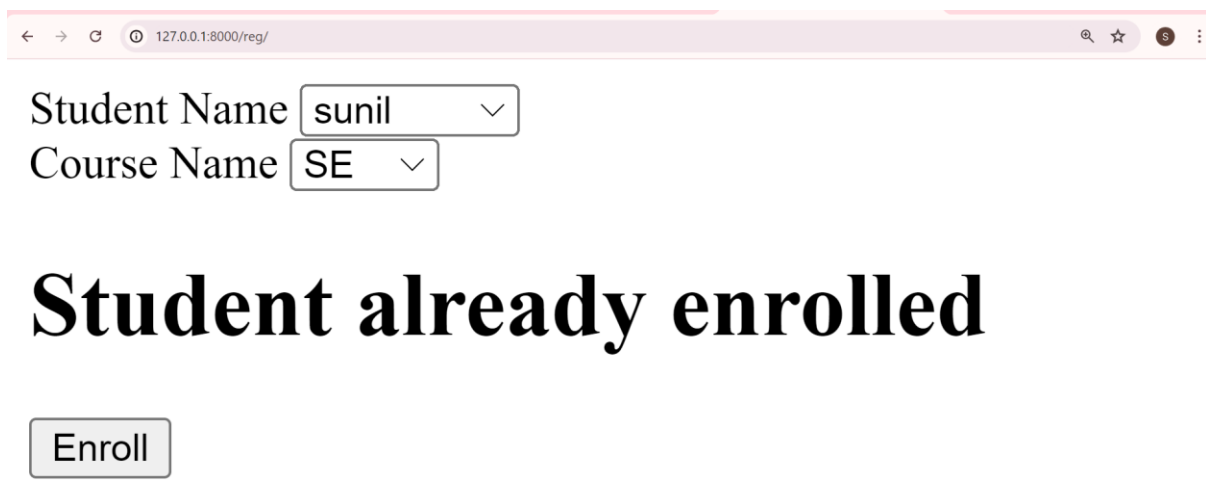
urlpatterns = [
    path('admin/', admin.site.urls),
    path('reg/', reg, name='register'),
]

```

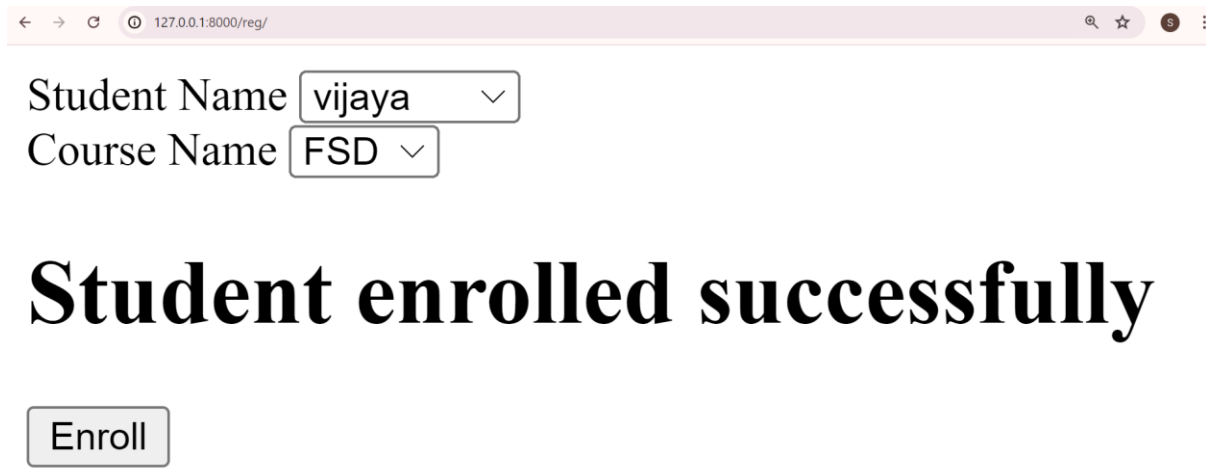
Output :



A screenshot of a web browser window with the address bar showing '127.0.0.1:8000/reg/'. The page contains a registration form with two dropdown menus. The first dropdown, labeled 'Student Name', has 'sunil' selected. The second dropdown, labeled 'Course Name', has 'SE' selected. Below the dropdowns is a button labeled 'Enroll'.



A screenshot of a web browser window with the address bar showing '127.0.0.1:8000/reg/'. The page displays a message 'Student already enrolled' in a large, bold font. Above the message are two dropdown menus: 'Student Name' with 'sunil' selected and 'Course Name' with 'SE' selected. Below the message is a button labeled 'Enroll'.



A screenshot of a web browser window with the address bar showing '127.0.0.1:8000/reg/'. The page displays a message 'Student enrolled successfully' in a large, bold font. Above the message are two dropdown menus: 'Student Name' with 'vijaya' selected and 'Course Name' with 'FSD' selected. Below the message is a button labeled 'Enroll'.

2. Develop a search application in Django using AJAX that displays courses enrolled by a student being searched.

models.py

```
from django.db import models
class Course(models.Model):
    course_code = models.CharField(max_length=40)
    course_name = models.CharField(max_length=100)
    course_credits = models.IntegerField()

    def __str__(self):
        return self.course_name

class Student(models.Model):
    student_usn = models.CharField(max_length=20)
    student_name = models.CharField(max_length=100)
    student_sem = models.IntegerField()
    enrolment = models.ManyToManyField(Course)

    def __str__(self):
        return self.student_name
```

admin.py

```
from django.contrib import admin

from ap1.models import Course, Student

# Register your models here.
admin.site.register(Student)
admin.site.register(Course)
```

Run Migration Commands , Create Super User and Insert Values Through Admin Interface

Views.py

```
from django.http import HttpResponse
from django.shortcuts import render
from ap1.models import Course, Student

def course_search_ajax(request):
    if request.method=="POST":
        cid=request.POST.get("cname")
        s=Student.objects.all()
        student_list=list()
        for student in s:
            if student.enrolment.filter(id=cid):
                student_list.append(student)
```

```

if len(student_list)==0:
    return HttpResponse("<h1>No Students enrolled</h1>")
return render(request,"selected_students.html",{ "student_list":student_list})
else:
    courses=Course.objects.all()
    return render(request,"course_search_ajax.html",{ "courses":courses})

```

templates

course_search_ajax.html

```

{% load static %}
<html>
<body>
<form method="POST" action="">
    Courses
    {% csrf_token %}
    <select name="cname" id="cname">
        {% for course in courses %}
            <option value="{{ course.id }}">{{ course.course_name }}</option>
        {% endfor %}
    </select>
    <input type="button" value="Search" id="serbtn">
    <span id="result"></span>
</form>
</body>
<script src="https://code.jquery.com/jquery-3.6.0.min.js"></script>
<script>
    $(document).ready(function(){
        $("#serbtn").click(function(){
            var cname = $("#cname").val();
            $.ajax({
                url: "/course_search_ajax/",
                type: "POST",
                data: { cname:cname,csrfmiddlewaretoken:"{{ csrf_token }}" },
                success: function(response){
                    $("#result").html(response);
                }
            });
        });
    });
</script>
</html>

```

selected_students.html

```

<!DOCTYPE html>
<html>

```

```

<head>
  <title>Selected Students</title>
</head>
<body>
  <h1>Selected Students</h1>
  <table border="1">
    <thead>
      <tr>
        <th>Student Name</th>
        <th>USN</th>
        <th>Semester</th>
      </tr>
    </thead>
    <tbody>
      {% for student in student_list %}
      <tr>
        <td>{{ student.student_name }}</td>
        <td>{{ student.student_usn }}</td>
        <td>{{ student.student_sem }}</td>
      </tr>
      {% endfor %}
    </tbody>
  </table>
</body>
</html>

```

Urls.py

```

from django.contrib import admin
from django.urls import path
from ap1.views import course_search_ajax

```

```

urlpatterns = [
    path('admin/', admin.site.urls),
    path('course_search_ajax/', course_search_ajax, name='course_search_ajax'),
]

```

Output:



Courses Search

Selected Students

| Student Name | USN | Semester |
|--------------|------------|----------|
| sunil | 1CD21IS002 | 6 |

Courses Search

No Students enrolled