Program-5

5. Develop a Django app that performs student registration to a course. It should also display list of students registered for any selected course. Create students and course as models with enrolment as ManyToMany field.

Create application:

```
>python manage.py startapp lab5
```

In lab5 subfolder, write code in views.py

```
from django.shortcuts import render
from django.http import HttpResponse
from lab5.models import Course, Student
def reg(request):
        if request.method == "POST":
                sid=request.POST.get("sname")
                cid=request.POST.get("cname")
                student=Student.objects.get(id=sid)
                course=Course.objects.get(id=cid)
                res=student.enrolment.filter(id=cid)
                if res:
                    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})
```

In lab5 subfolder, write code in 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()

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)
```

In the lab5 folder, create a subfolder 'templates' and within the templates subfolder create a file 'reg.html'.

```
<html>
    <body>
        <form method="post" action=" ">
            {% csrf_token %}
            Student Name
            <select name="sname">
            {%for student in students %}
                <option value="{{student.id}}">{{student.student_name}}
                </option>
            {% endfor %}
            </select> <br>
            Course Name
            <select name="cname">
            {%for course in courses %}
                <option value="{{course.id}}">{{course.course_name}}
                </option>
            {% endfor %}
            </select><br>
            <input type="submit" value="Enroll">
        </form>
    </body>
</html>
```

In lab5 subfolder, write code in urls.py

```
from django.urls import path
from lab5.views import reg

urlpatterns = [
                path('reg/', reg),
            ]
```

Output:

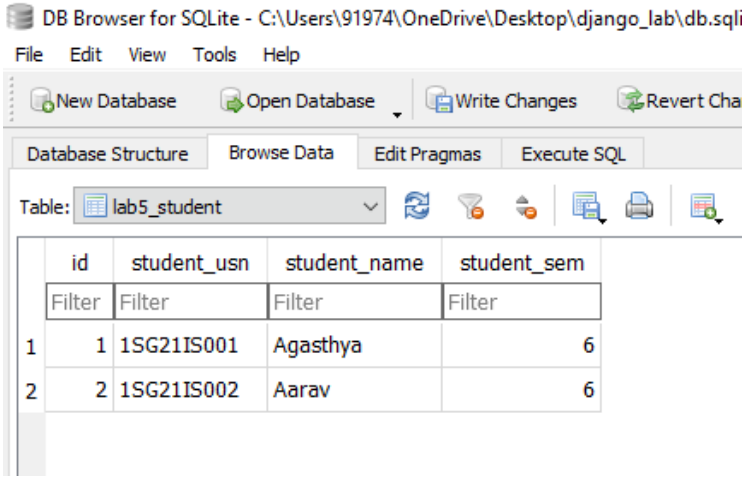
- Activate app by adding app name 'lab5' in the settings.py in the project folder p.
- Install DB browser for Sqlite and sqlite tools(refer sqlite installation page)
- Run command for propagating changes into database schema.

```
>python manage.py makemigrations
>python manage.py migrate
```

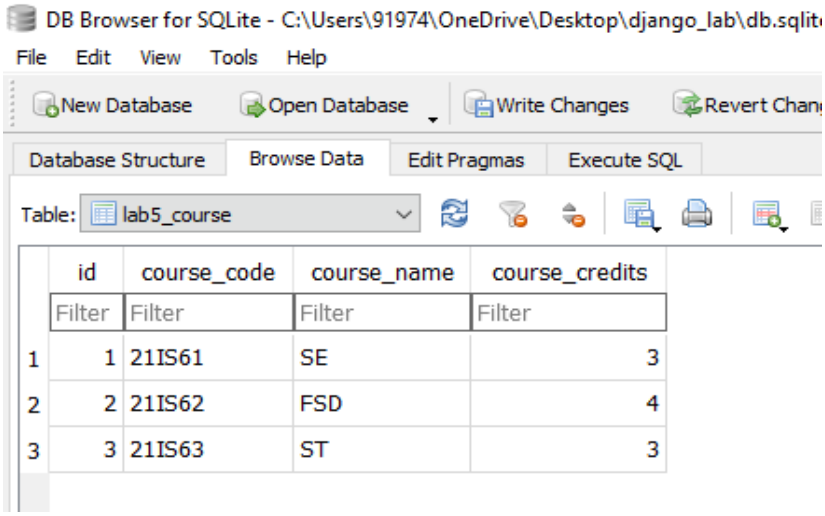
- Save and Run server by executing command:

```
>python manage.py runserver
```

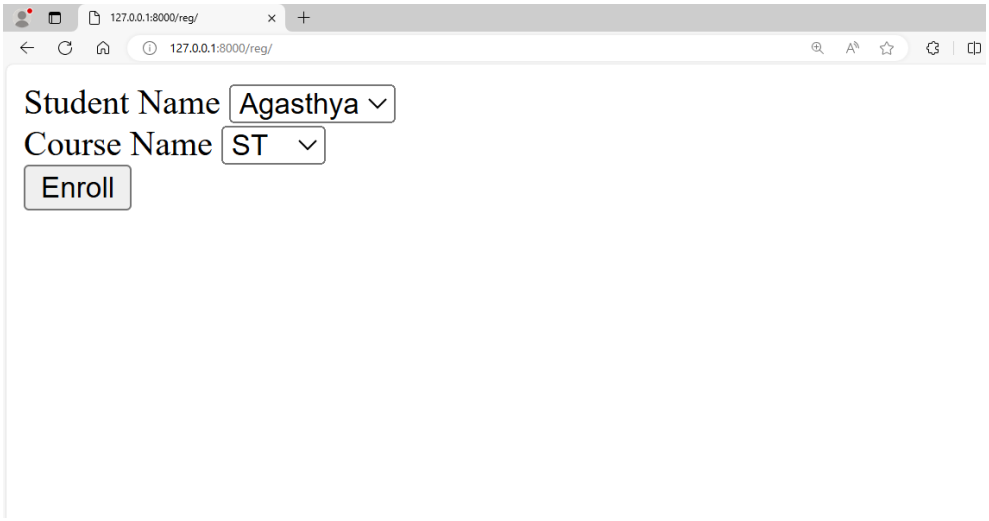
In the database, insert records into the student table:



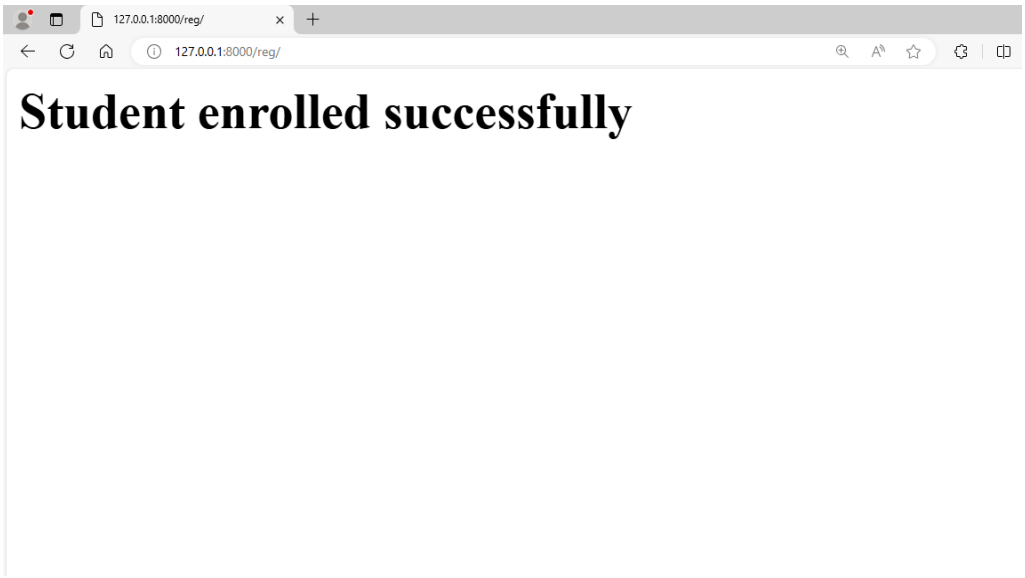
In the database, insert records into the course table:



In the browser, enter the url :127.0.0.1:8000/reg/



Enroll one student to a course, it display:



In the database, it will reflect in the student enrolment table: