

## Program No:01

Develop a Django App that displays current date and time in server.

### views.py

```
from django.shortcuts import render
from django.http import HttpResponse
```

# create your views here

```
import datetime
```

```
def current_datetime(request):
```

```
now = datetime.datetime.now()
```

```
html = "<html><body><h1>It is now " + str(now) + "</h1></body>
```

```
</html>" % now
```

```
return HttpResponse(html)
```

### urls.py

```
from django.contrib import admin
```

```
from django.urls import path
```

```
from lab1.views import current_datetime
```

```
urlpatterns = [
```

```
path('admin1', admin.site.urls)
```

```
path('dt1', current_datetime),
```

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## Program No:02

Develop a Django app that displays date and time four hours ahead and four hours before as an offset of current date and time in server.

### views.py

```
from django.shortcuts import render
from django.http import HttpResponse

# Create your views here
import datetime

def four_hours_ahead(request):
    dt = datetime.datetime.now() + datetime.timedelta(
        hours=4)
    html = "<html><body> <h1> After 4 hour(s), it will
    be <h1>" % (dt)
    return HttpResponse(html)
```

### urls.py

```
from django.contrib import admin
from django.urls import path
from api.views import four_hours_ahead, four_hours
before

urlpatterns = [
```



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path('fhrls1'), four\_hours\_ahead),

path('fhrls1'), four\_hours\_before),

J

### Program No: 03

Develop a simple Django App that displays an unordered list of fruits and ordered list of selected students for an event.

#### views.py

```
from django.http import HttpResponse
from django.shortcuts import render
from django.template import Context, Template

# create your views here
def showlist(request):
    fruits = ["mango", "Apple", "Banana", "Jackfruits"]
    student_names = ["Tony", "mony", "Sony", "Bob"]
    return render(request, "showlist.html", {"fruits": fruits,
                                              "student_names": student_names})
```

#### urls.py

```
from django.contrib import admin
from django.urls import path
from ap2.views import showlist

urlpatterns = [
    path('admin/', admin.site.urls),
    path('showlist/', showlist),
```

showlist.html

```
<!DOCTYPE html>
```

```
<html>
```

```
<style type="text/css">
```

```
#i1 { background-color: lightgreen;  
      color: brown; display: table;  
      }
```

```
#i2 {
```

```
      background-color: black;  
      color: yellow;
```

```
}
```

```
</style>
```

```
<body>
```

```
<h1 id="i1"> Unordered list of fruits </h1>
```

```
<ul>
```

```
{ % for fruit in fruits % } 
```

```
<li> &#34; fruit &#34; </li>
```

```
 % endfor % } 
```

```
</ul>
```

```
<h1 id="i2"> Ordered list of student_names </h1>
```

```
<ol>
```

```
{ % for student in student_names % } 
```

<li>& student &lt; /li>

{ 'i'.endfor + '}'

</ol>

</body>

</html>

## Program No: 04

Develop a layout.html with a suitable header (containing navigation menu) and footer with copyright and developer information. Inherit this layout.html and create 3 additional pages: contactus, About us and Home page of any website.

### views.py

```
from django.http import HttpResponse
from django.shortcuts import render
from django.template import Context, Template
```

```
def home(request):
```

```
    return render(request, 'home.html')
```

```
def aboutus(request):
```

```
    return render(request, 'aboutus.html')
```

```
def contactus(request):
```

```
    return render(request, 'contactus.html')
```

### urls.py

```
from django.contrib import admin
from django.urls import path
```

```
from app.views import aboutus, home, contactus
urlpatterns = [
    path('admin/', admin.site.urls),
    path('aboutus/', aboutus),
    path('home/', home),
    path('contactus/', contactus),
]
```

### Template files:

#### layout.html

```
<!DOCTYPE html>
<html>
<title>{{ blocktitle }}</title>
<style type="text/css">
nav { background-color: lightblue;
      padding: 10px;
}
```

g

#### <style>

#### <body>

#### <nav>

```
<a href="/home/">Home</a>|
```

```
<a href="/aboutus"> About Us</a>|
```

```
<a href="/contactus"> Contact Us</a>|
```

#### </nav>

< section >

{ %block content % } { %endblock % }

< /sections >

< footer >

< hr>&copy; ISE, developed by SK, Inc.

< /footer >

< /body >

< /html >

home.html

{ % extends 'layout.html' % }

{ % block title % }

Home

{ % endblock % }

{ % block content % }

< h2 > This is the Home Page < /h2 >

{ % endblock % }

aboutus.html

{ % extends 'layout.html' % }

{ % block title % }

About Us

{ % endblock % }

{ % block content % }

<h2> We are Django developers </h2>

{% endblock %}

Contactus.html

{% extends 'layout.html' %}

{% block title %}

Contact us

{% endblock %}

{% block content %}

<h2> Our phone : 9900993050 <br> Address : K R

Puram, Bangalore </h2>

{% endblock %}

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### Program No: 05

Develop a Django 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 enrollment as ManyToMany field.

#### 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_credit = models.IntegerField()

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

#### views.py

```
from django.shortcuts import render, HttpResponseRedirect
from .models import Student, Course
def reg(request):
```



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```
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.enrollment.filter(id=cid)  
  
    if res:  
        return HttpResponse("<h1>Student already  
        enrolled </h1>")  
        student.enrollment.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, "course": courses})  
  
def enrollment.list(request):  
    students = student.objects.all()  
    enrollment_data = []  
    for student in students:
```

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```
courses = student.enrollment.all()
enrollment_data.append({
    'student_name': student.student.name,
    'courses': courses,
})
return render(request, "enrollment-list.html",
    {'enrollment_data': enrollment_data})
```

Application folder → forms.py

```
from django import forms
from .models import Student
class StudentForm(forms.ModelForm):
    class Meta:
        model = Student
        exclude = ['enrolment']
```

reg.html

```
<!DOCTYPE html>
<html>
<body>
<form method="Post" action=" ">
    <% csrf_token %>
```

Student Name

```
<select name="sname">
{ % for student in students %}
<option value="<% student.id %>">% course.course_name%
</option>
{ % endfor %
</select><br>
<input type="submit" value="enroll">
</form>
</body>
</html>
```

enrollment\_list.html

```
<!DOCTYPE html>
<html>
<head>
<title>Enrollment List</title>
</head>
<body>
```

```
<h1>Enrollment List</h1>
```

```
<table border="1">
```

```
<thead>
```

```
<tr>
```



D	D	M	M	Y	Y	Y	Y
---	---	---	---	---	---	---	---

<th> Student Name </th>

<th> Enrolled Courses </th>

<tr>

<thead>

<tbody>

{- for enrollment in enrollment\_data %}

<tr>

<td> {{ enrollment.student\_name }} </td>

<td>

<ul>

{- for course in enrollment.course\_set %}

<li> {{ course.course\_name }} {{ course.course\_code }}

{- endfor -}

</ul>

</td>

</tr>

{- endfor -}

</tbody>

</table>

</html>

admin.py

from django.contrib import admin

```
from .models import Student, Course
```

```
from .forms import StudentForm
```

```
class StudentAdmin(admin.ModelAdmin):
```

```
    form = StudentForm
```

```
admin.site.register(Student, StudentAdmin)
```

```
admin.site.register(Course)
```

### urls.py

```
from django.contrib import admin
```

```
from django.urls import path
```

```
from api.views import enrollment_list, reg
```

```
urlpatterns = [
```

```
    path('admin/', admin.site.urls),
```

```
    path('reg1', reg),
```

```
    path('enrollment-list1', enrollment_list, name='enrollment-list'),
```

```
]
```