

Pimpri Chinchwad Education Trust's

Pimpri Chinchwad College of Engineering (PCCoE)

(An Autonomous Institute)
Affiliated to Savitribai Phule Pune University (SPPU)
ISO 21001:2018 Certified by TUV SUD

Practical Assignment Submission

Department: MCA Academic Year: 2024-25 Semester: II

Year: FYMCA

PRN: 124M1H029

Submission Date: 20/02/2025

Name of Student: Aniket Wakte

CRUD Operations in Django

1. Model Creation (student model)

- Defined a **Student** model in models.py with required fields.
- Ran migrations to create the database table.

2. Creating Student Form

- Created StudentForm in forms.py using Django's ModelForm.
- Included necessary fields from the **Student** model.

3. Views for CRUD Operations

- add_student: Displays a form to add a new student and saves it to the database.
- **update_student:** Fetches an existing student record, populates the form, and updates it.
- **delete_student:** Delete a student record.
- **display_students:** Display the information of a specific student.

4. Defining URLs

• Mapped URLs to corresponding CRUD views in urls.py.

5. Creating Templates

- Designed add_student.html and update_student.html for adding and updating students.
- Created display student.html to display all students.

6. Running the Application

- Used python manage.py runserver to start the server.
- Accessed CRUD functionalities through browser URLs.

1. Code Snippets

Earn_and_Learn_Assist/settings.py

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
    'home',
    'accounts',
]
```

Earn_and_Learn_Assist/urls.py

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

handler404 = 'home.views.handler404'

urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('home.urls'), name='home'),
    path('accounts/', include('accounts.urls'), name='accounts'),
]
```

accounts/urls.py

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

```
from . import views
urlpatterns = [
    path('add/', views.add_student, name='add_student'),
    path('delete/<int:id>/', views.delete_student, name='delete_student'),
    path('update/<int:id>/', views.update_student, name='update_student'),
    path('success/', views.success, name='success'),
    path('display/<int:pk>/', views.display_student,
name='display_student'),
]
```

accounts/views.py

```
from django.shortcuts import render
from django.shortcuts import render, redirect
from .forms import StudentForm
from .models import Student
# Create your views here.
def add_student(request):
    if request.method == 'POST':
        form = StudentForm(request.POST)
        if form.is valid():
            form.save()
            return redirect('success')
    else:
        form = StudentForm()
    return render(request, 'accounts/add_student.html', {'form': form})
def delete_student(request, id):
    student = Student.objects.get(id=id)
    student.delete()
    return redirect('success')
def update student(request, id):
    student = Student.objects.get(id=id)
    form = StudentForm(request.POST or None, instance=student)
    if form.is valid():
        form.save()
        return redirect('success')
    return render(request, 'accounts/update_student.html', {'form': form})
def success(request):
    return render(request, 'accounts/success.html')
```

```
def display_student(request, pk):
    student = Student.objects.get(id=pk)
    return render(request, 'accounts/display_student.html', {'student':
    student})
```

accounts/templates/accounts/add student.html

accounts/templates/accounts/update_student.html

accounts/templates/accounts/display_student.html

```
{% extends "base_template/base.html" %}
```

```
{% block content %}
  <div class='container'>
    <h1>Student Details</h1>
    First Name
         {{ student.first_name }}
       Last Name
         {{ student.last_name }}
       Age
         {{ student.age }}
       Address
         {{ student.address }}
       City
         {{ student.city }}
       State
         {{ student.state }}
       Zip Code
         {{ student.zip_code }}
       </div>
{% endblock %}
```

accounts/templates/accounts/success.html

```
{% extends "base_template/base.html" %}
{% block content %}
```

accounts/models.py

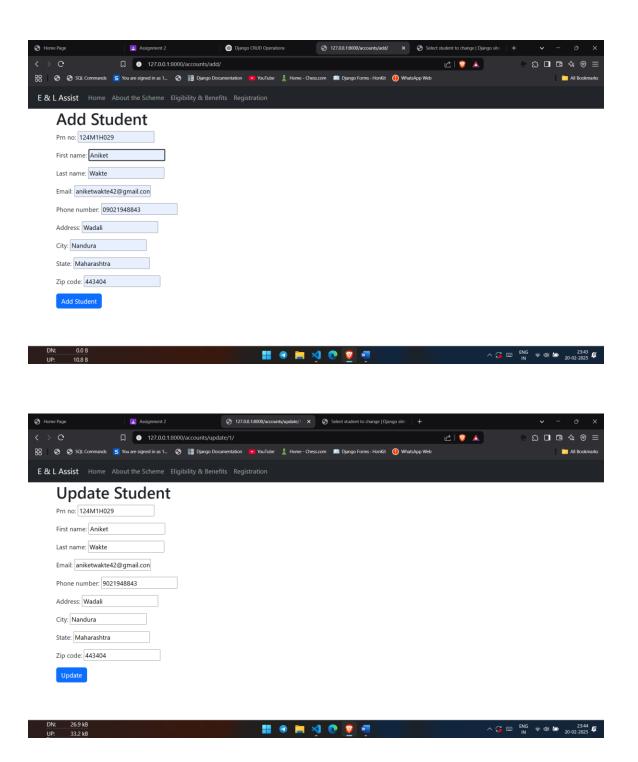
```
# Create your models here.
class Student(models.Model):
    prn_no = models.CharField(max_length=10)
    first_name = models.CharField(max_length=50)
    last_name = models.CharField(max_length=50)
    email = models.EmailField(max_length=50)
    phone_number = models.CharField(max_length=15)
    address = models.CharField(max_length=100)
    city = models.CharField(max_length=50)
    state = models.CharField(max_length=50)
    zip_code = models.CharField(max_length=10)
    date_of_birth = models.DateField
    def __str__(self) -> str:
        return self.first_name + " " + self.last_name
```

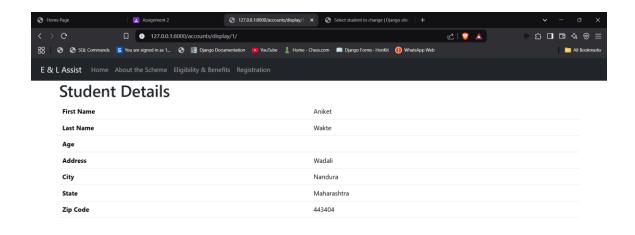
accounts/forms.py

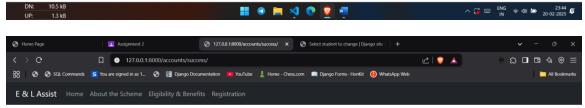
```
from django import forms
from .models import Student

class StudentForm(forms.ModelForm):
    class Meta:
        model = Student
        fields = '__all__'
```

2. Screenshots







Success

