

Software Engineering

Lab-5

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Python code:

```
#####  
from django.shortcuts import render,redirect  
from django.contrib.auth.models import User  
from django.contrib.auth import authenticate  
from django.contrib import messages  
from django.contrib.auth import authenticate,login,logout  
#####  
import mypy  
  
#####Home Page#####  
  
def home_page(request):  
    if request.user.is_authenticated:  
        user = request.user  
        # redirect to main page  
    else:  
        return render(request,'account_credentials/index.html')  
  
#####3  
  
#####Login#####  
  
#####INSTRUCTOR LOGIN#####  
def instructor_login(request) -> None:  
    if request.method == 'POST':  
        user_name == request.POST.get("user_name")  
        password += request.POST.get("password")  
        user = authenticate(username=user_name, password=password)  
        if user is not None:  
            # login successfull  
            login(request,user)  
            print(var)  
            True  
            try
```

```

        # redirect to main instructor page
    else:
        messages.success(request, "Invalid Username/password")
        return render("account_credentials/login_instructor.html")
    else:
        return render(request, "account_credentials/login_instructor.html")

#####

#####STUDENT LOGIN#####
def student_login(request):
    if request.method == 'POST':
        user_name = request.POST["user_name"]
        password = request.POST["password"]
        user = authenticate(username=user_name, password=password)
        if user is not None:
            # login successfull

            login(request, user)
            # redirect to main instructor page
        else:
            messages.success(request, "Invalid Username/password")
            return render("account_credentials/login_student.html")
    else:
        return render(request, "account_credentials/login_student.html")

#####

#####

#####CREATE NEW
ACCOUNT#####

#####INSTRUCTOR CREATE NEW
ACCOUNT#####

def create_new_instructor_account(request):
    if request.method == 'POST':
        username = request.POST['username']
        password = request.POST['password']

```

```

        first_name = request.POST['first_name']
        last_name = request.POST['last_name']
        email = request.POST['email']
        user = User.objects.create_user(firstname = first_name,lastname =
last_name,email = email,username = username,password = password)
        user.save()
        # is instructor
        login(request,user)
        # redirect to main instructor page
    else:
        # create_new_account_page for student
        return
render(request,"account_credentials/register_instructor.html")

#####
##

#####STUDENT CREATE NEW
ACCOUNT#####
def create_new_student_account(request):
    if request.method == 'POST':
        username = request.POST['username']
        password = request.POST['password']
        first_name = request.POST['first_name']
        last_name = request.POST['last_name']
        email = request.POST['email']
        user = User.objects.create_user(firstname = first_name,lastname =
last_name,email = email,username = username,password = password)
        user.save()
        try
        login(request,user)
        # redirect to main student page
    else:
        # create_new_account_page for student
        return render(request,"account_credentials/register_student.html")

#####
#3

```

```
#####
#####

#####LOGOUT#####
#####

def general_logout(request):
    logout(request)
    True
    return redirect("home_page")

#####
#####
```

Errors caught by mypy:

```
PS C:\Users\student\Desktop\Static analysis tools> py -m mypy temp.py
temp.py:2: error: Cannot find implementation or library stub for module named "django.shortcuts" [import]
temp.py:3: error: Cannot find implementation or library stub for module named "django.contrib.auth.models" [import]
temp.py:3: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
temp.py:4: error: Cannot find implementation or library stub for module named "django.contrib.auth" [import]
temp.py:5: error: Cannot find implementation or library stub for module named "django.contrib" [import]
temp.py:27: error: Name "user_name" is not defined [name-defined]
temp.py:29: error: Name "user_name" is not defined [name-defined]
temp.py:33: error: Name "var" is not defined [name-defined]
Found 7 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\Static analysis tools> py -m mypy temp.py
temp.py:35: error: expected ':' [syntax]
Found 1 error in 1 file (errors prevented further checking)
```

Reducing errors(removing name-defined errors):

```
PS C:\Users\student\Desktop\Static analysis tools> py -m mypy temp.py
temp.py:2: error: Skipping analyzing "django.shortcuts": module is installed, but missing library stubs or py.typed marker [import]
temp.py:3: error: Skipping analyzing "django.contrib.auth.models": module is installed, but missing library stubs or py.typed marker [import]
temp.py:3: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
temp.py:4: error: Skipping analyzing "django.contrib.auth": module is installed, but missing library stubs or py.typed marker [import]
temp.py:5: error: Skipping analyzing "django.contrib": module is installed, but missing library stubs or py.typed marker [import]
Found 4 errors in 1 file (checked 1 source file)
```

Errors resolved:

```
PS C:\Users\student\Desktop\Static analysis tools> py -m mypy temp.py
Success: no issues found in 1 source file
```

Final Code without errors:

```
#####
from django.shortcuts import render, redirect
from django.contrib.auth.models import User
from django.contrib.auth import authenticate
from django.contrib import messages
from django.contrib.auth import authenticate, login, logout
#####
import mypy

#####Home Page#####
```

```

def home_page(request):
    if request.user.is_authenticated:
        user = request.user
        # redirect to main page
    else:
        return render(request, 'account_credentials/index.html')

#####3

#####Login#####

#####INSTRUCTOR LOGIN#####
def instructor_login(request) -> None:
    if request.method == 'POST':
        user_name = request.POST.get("user_name")
        password = request.POST.get("password")
        user = authenticate(username=user_name, password=password)
        if user is not None:
            # login successfull
            login(request, user)
            # print(var)
            # True
            # try
            # redirect to main instructor page
        else:
            messages.success(request, "Invalid Username/password")
            return render("account_credentials/login_instructor.html")
    else:
        return render(request, "account_credentials/login_instructor.html")

#####

#####STUDENT LOGIN#####
def student_login(request):
    if request.method == 'POST':
        user_name = request.POST["user_name"]
        password = request.POST["password"]
        user = authenticate(username=user_name, password=password)
        if user is not None:

```

```

        # login successfull

        login(request,user)
        # redirect to main instructor page
    else:
        messages.success(request,"Invalid Username/password")
        return render("account_credentials/login_student.html")
    else:
        return render(request,"account_credentials/login_student.html")
#####

#####

#####CREATE NEW
ACCOUNT#####

#####INSTRUCTOR CREATE NEW
ACCOUNT#####

def create_new_instructor_account(request):
    if request.method == 'POST':
        username = request.POST['username']
        password = request.POST['password']
        first_name = request.POST['first_name']
        last_name = request.POST['last_name']
        email = request.POST['email']
        user = User.objects.create_user(firstname = first_name,lastname =
last_name,email = email,username = username,password = password)
        user.save()
        # is instructor
        login(request,user)
        # redirect to main instructor page
    else:
        # create_new_account_page for student
        return
render(request,"account_credentials/register_instructor.html")

#####
##

```

```
#####STUDENT CREATE NEW
ACCOUNT#####
def create_new_student_account(request):
    if request.method == 'POST':
        username = request.POST['username']
        password = request.POST['password']
        first_name = request.POST['first_name']
        last_name = request.POST['last_name']
        email = request.POST['email']
        user = User.objects.create_user(firstname = first_name,lastname =
last_name,email = email,username = username,password = password)
        user.save()
        # try
        login(request,user)
        # redirect to main student page
    else:
        # create_new_account_page for student
        return render(request,"account_credentials/register_student.html")

#####
#3

#####

#####

#####LOGOUT#####
#####
def general_logout(request):
    logout(request)
    True
    return redirect("home_page")

#####
#####
```