

# Software Engineering

## Lab-5

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Python code:

```
from django.shortcuts import render

# Create your views here.
from django.http import HttpResponse
from .models import Item, Transaction, Client
from django.shortcuts import render, get_object_or_404
from django import forms

def index(request):
    items_list=Item.objects.all()
    context={
        'items_list':items_list,
    }
    return render(request, 'index.html', context)

def details(request, item_id):
    item=get_object_or_404(Item, pk=item_id)
    clients=Client.objects.all()
    return render(request, 'details.html', {'item':item, 'clients':clients})

def transferitm(request, item_id)->None:
    client==Client.objects.get(place=request.POST.get("client"))
    item=Item.objects.get(pk=item_id)
    quantiti=request.POST.get("quantity")
    transaction=Transaction(quantity=quantity, item=item, client=client)
    transaction.save()
    item.quantity=item.quantity-int(quantity)
    item.save()
    return
render(request, 'transferitm.html', {'transaction':transaction, 'quantity':quantity, 'item':item, 'client':client})
```

```
def returnitm(request, item_id):
    client=Client.objects.get(place=request.POST.get("client"))
    item=Item.objects.get(pk=item_id)
    quantity=request.POST.get("quantity")
    transaction=Transaction(quantity=quantity,item=item,client=client)
    transaction.save()
    item.quantity=item.quantity+int(quantity)
    item.save()
    return

render(request, 'returnitm.html', {'transaction':transaction, 'quantity':quantity, 'item':item, 'client':client})
```

## Errors caught by mypy:

```
PS C:\Users\student\Desktop\student-management-system-main> py -m mypy "Student Management System.py"
Student Management System.py:1: error: Skipping analyzing "django.shortcuts": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:1: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Student Management System.py:4: error: Skipping analyzing "django.http": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:5: error: Skipping analyzing ".models": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:7: error: Skipping analyzing "django": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:23: error: Name "client" is not defined [name-defined]
Student Management System.py:26: error: Name "quantity" is not defined [name-defined]
Student Management System.py:26: error: Name "client" is not defined [name-defined]
Student Management System.py:28: error: Name "quantity" is not defined [name-defined]
Student Management System.py:30: error: Name "quantity" is not defined [name-defined]
Student Management System.py:30: error: Name "client" is not defined [name-defined]
Found 10 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\student-management-system-main>
```

## Reducing errors(removing name-defined errors):

```
PS C:\Users\student\Desktop\student-management-system-main> py -m mypy "Student Management System.py"
Student Management System.py:1: error: Skipping analyzing "django.shortcuts": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:1: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Student Management System.py:4: error: Skipping analyzing "django.http": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:5: error: Skipping analyzing ".models": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:7: error: Skipping analyzing "django": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:23: error: Name "client" is not defined [name-defined]
Student Management System.py:26: error: Name "client" is not defined [name-defined]
Student Management System.py:30: error: Name "client" is not defined [name-defined]
Found 7 errors in 1 file (checked 1 source file)
PS C:\Users\student\Desktop\student-management-system-main>
```

```
PS C:\Users\student\Desktop\student-management-system-main> py -m mypy "Student Management System.py"
Student Management System.py:1: error: Skipping analyzing "django.shortcuts": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:1: note: See https://mypy.readthedocs.io/en/stable/running_mypy.html#missing-imports
Student Management System.py:4: error: Skipping analyzing "django.http": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:5: error: Skipping analyzing ".models": module is installed, but missing library stubs or py.typed marker [import]
Student Management System.py:7: error: Skipping analyzing "django": 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\student-management-system-main> py -m mypy "Student Management System.py"
Success: no issues found in 1 source file
```

## Final Code without errors:

```
from django.shortcuts import render

# Create your views here.
from django.http import HttpResponse
from .models import Item, Transaction, Client
from django.shortcuts import render, get_object_or_404
from django import forms


def index(request):
    items_list=Item.objects.all()
    context={
        'items_list':items_list,
    }
    return render(request, 'index.html', context)


def details(request, item_id):
    item=get_object_or_404(Item,pk=item_id)
    clients=Client.objects.all()
    return render(request, 'details.html', {'item':item, 'clients':clients})


def transferitm(request, item_id):
    client=Client.objects.get(place=request.POST.get("client"))
    item=Item.objects.get(pk=item_id)
    quantity=request.POST.get("quantity")
    transaction=Transaction(quantity=quantity, item=item, client=client)
    transaction.save()
    item.quantity=item.quantity-int(quantity)
    item.save()
    return
render(request, 'transferitm.html', {'transaction':transaction, 'quantity':quantity, 'item':item, 'client':client})


def returnitm(request, item_id):
    client=Client.objects.get(place=request.POST.get("client"))
    item=Item.objects.get(pk=item_id)
    quantity=request.POST.get("quantity")
    transaction=Transaction(quantity=quantity, item=item, client=client)
```

```
transaction.save()
item.quantity=item.quantity+int(quantity)
item.save()
return
render(request,'returnitm.html',{'transaction':transaction,'quantity':quantity,'item':item,'client':client})
```