

Here's a basic implementation of **signup**, **login**, and **logout** functionality in **Django** using **function-based views** (FBVs). This example assumes you're using Django's built-in **User** model and **authentication system**.

## Step 1: Settings

In `settings.py`, make sure you have:-

```
LOGIN_REDIRECT_URL = 'home' # Or wherever you want to redirect after login
LOGOUT_REDIRECT_URL = 'login' # Where to redirect after logout
```

## Step 2: URLs

In your `urls.py`:

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

urlpatterns = [
    path('signup/', views.signup_view, name='signup'),
    path('login/', views.login_view, name='login'),
    path('logout/', views.logout_view, name='logout'),
    path('', views.home, name='home'), # Just a simple home page
]
```

## Step 3: Forms

You can use Django's built-in forms, but here's how to create a custom `SignupForm`:-

```
# forms.py
from django import forms
from django.contrib.auth.models import User
from django.contrib.auth.forms import UserCreationForm

class SignupForm(UserCreationForm):
    email = forms.EmailField(required=True)

    class Meta:
        model = User
        fields = ['username', 'email', 'password1', 'password2']
```

## Step 4: Views

```
# views.py
from django.shortcuts import render, redirect
from django.contrib.auth import authenticate, login, logout
from django.contrib import messages
from .forms import SignupForm
from django.contrib.auth.forms import AuthenticationForm
from django.contrib.auth.decorators import login_required

def signup_view(request):
    if request.method == 'POST':
        form = SignupForm(request.POST)
        if form.is_valid():
            form.save()
            messages.success(request, 'Account created successfully!')
            return redirect('login')
    else:
        form = SignupForm()
    return render(request, 'signup.html', {'form': form})

def login_view(request):
    if request.method == 'POST':
        form = AuthenticationForm(request, data=request.POST)
        if form.is_valid():
            username = form.cleaned_data['username']
            password = form.cleaned_data['password']
            user = authenticate(request, username=username, password=password)
            if user is not None:
                login(request, user)
                return redirect('home')
            else:
                messages.error(request, 'Invalid username or password.')
        else:
            messages.error(request, 'Invalid form.')
    else:
        form = AuthenticationForm()
    return render(request, 'login.html', {'form': form})

def logout_view(request):
    logout(request)
    return redirect('login')

@login_required
def home(request):
    return render(request, 'home.html')
```

## Step 5: Templates (Basic Examples)

### signup.html

```
<h2>Sign Up</h2>
<form method="post">
  {% csrf_token %}
  {{ form.as_p }}
  <button type="submit">Sign Up</button>
</form>
<a href="{% url 'login' %}">Already have an account? Login</a>
```

### login.html

```
<h2>Login</h2>
<form method="post">
  {% csrf_token %}
  {{ form.as_p }}
  <button type="submit">Login</button>
</form>
<a href="{% url 'signup' %}">Don't have an account? Sign up</a>
```

### home.html

```
<h2>Welcome, {{ request.user.username }}!</h2>
<a href="{% url 'logout' %}">Logout</a>
```