

Here is a complete example of **Django login, logout, and signup** using **function-based views**.

1. Project Setup

Ensure your Django project and app are set up:

```
django-admin startproject myproject
cd myproject
python manage.py startapp accounts
```

Add accounts to `INSTALLED_APPS` in `settings.py`:

```
INSTALLED_APPS = [
    ...
    'accounts',
    'django.contrib.messages',
]
```

1. `views.py` – Function-Based Authentication

```
from django.shortcuts import render, redirect
from django.contrib.auth.forms import UserCreationForm, AuthenticationForm
from django.contrib.auth import authenticate, login, logout
from django.contrib.auth.decorators import login_required

# Signup View
def signup_view(request):
    if request.method == 'POST':
        form = UserCreationForm(request.POST)
        if form.is_valid():
            user = form.save()
            login(request, user) # Auto login after signup
            return redirect('home')
    else:
        form = UserCreationForm()
        return render(request, 'registration/signup.html', {'form': form})

# Login View
def login_view(request):
    if request.method == 'POST':
```

```

    form = AuthenticationForm(request, data=request.POST)
    if form.is_valid():
        user = form.get_user()
        login(request, user)
        return redirect('home')
    else:
        form = AuthenticationForm()
        return render(request, 'registration/login.html', {'form': form})

# Logout View
def logout_view(request):
    logout(request)
    return redirect('login')

# Protected Home View
@login_required
def home_view(request):
    return render(request, 'home.html')

```

2. urls.py (inside your app, e.g. accounts/urls.py)

```

from django.urls import path

from .views import signup_view, login_view, logout_view, home_view

urlpatterns = [
    path('signup/', signup_view, name='signup'),
    path('login/', login_view, name='login'),
    path('logout/', logout_view, name='logout'),
    path('', home_view, name='home'),
]

```

Include this in your project's main urls.py:

```

from django.urls import path, include

urlpatterns = [
    path('accounts/', include('accounts.urls')),
]

```

3. Templates Folder

templates/base.html

```
<!DOCTYPE html>
<html>
<head>
  <title>Auth Demo</title>
  <link
href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.3/dist/css/bootstrap.min.css"
rel="stylesheet">
</head>
<body class="p-4">
  {% if user.is_authenticated %}
    <p>Welcome, {{ user.username }} | <a href="{% url 'logout' %}">Logout</a></p>
  {% endif %}
  {% block content %}{% endblock %}
</body>
</html>
```

templates/registration/signup.html

```
{% extends "base.html" %}
{% block content %}
<h2>Sign Up</h2>
<form method="post">
  {% csrf_token %}
  {{ form.as_p }}
  <button class="btn btn-success" type="submit">Register</button>
</form>
<p>Already have an account? <a href="{% url 'login' %}">Login</a></p>
{% endblock %}
```

templates/registration/login.html

```
{% extends "base.html" %}
{% block content %}
<h2>Login</h2>
<form method="post">
  {% csrf_token %}
```

```
    {{ form.as_p }}
    <button class="btn btn-primary" type="submit">Login</button>
</form>
<p>Don't have an account? <a href="{% url 'signup' %}">Sign up</a></p>
{% endblock %}
```

`templates/home.html`

```
{% extends "base.html" %}
{% block content %}
<h2>Home Page</h2>
<p>You are logged in as <strong>{{ user.username }}</strong></p>
{% endblock %}
```

4. Django Settings Required

```
LOGIN_URL = 'login'
LOGIN_REDIRECT_URL = 'home'
LOGOUT_REDIRECT_URL = 'login'
```

5. Migrations & Run

`python manage.py makemigrations`

`python manage.py migrate`

`python manage.py runserver`