
Django Learning Report

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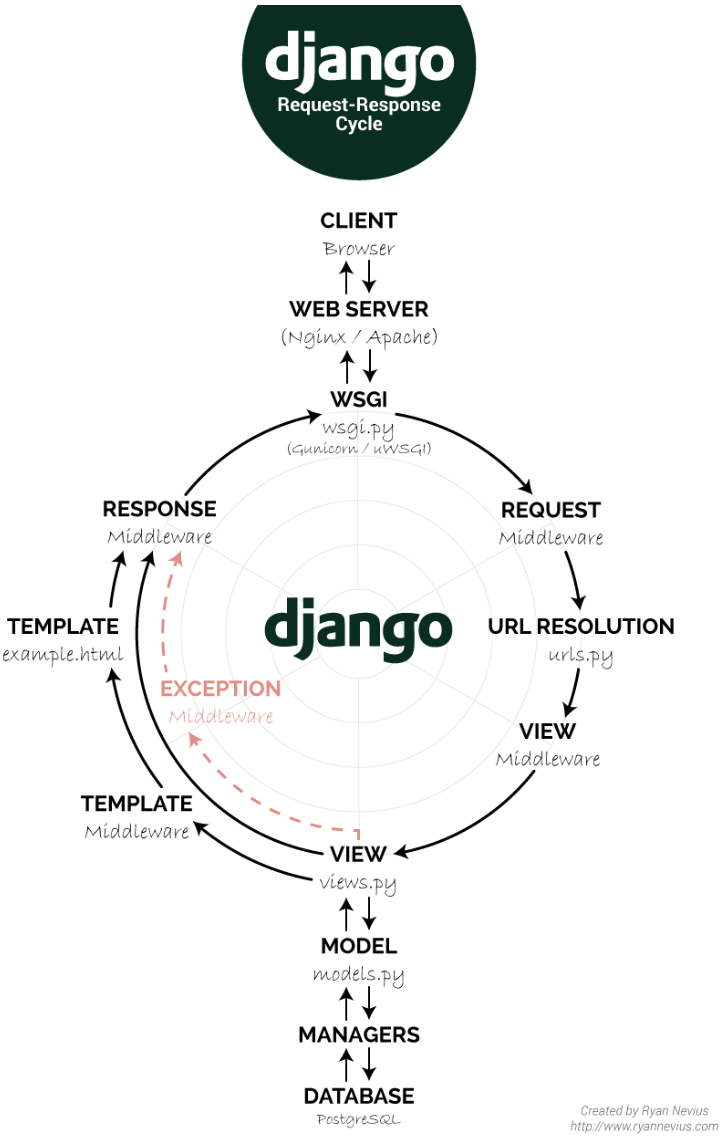
Topic : Django – Request flow

Django Request Flow :

When a user visits a Django website, the request follows this **path**:



source: djangoproject.com

1 User / Browser

- User types a URL or clicks a link
- Browser sends an **HTTP request** to the server

```
Browser → HTTP Request → Web Server
```

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2 Web Server

- Django runs via **development server** (`runserver`) or **production server** (Gunicorn, Nginx)
- Receives request
- Passes it to **Django framework**

```
Web Server → Django
```

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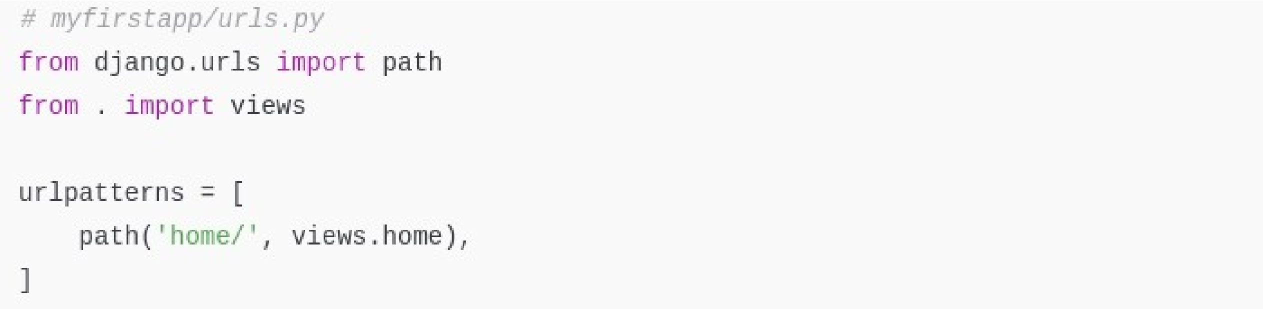
3 URL Routing (`urls.py`)

- Django checks `urls.py` to find a matching URL pattern
- Each URL is mapped to a **view function** or **class-based view**

```
urls.py → view.py
```

Example:

```
# urls.py
```



```python
# myfirstapp/urls.py
from django.urls import path
from . import views

urlpatterns = [
    path('home/', views.home),
]
```

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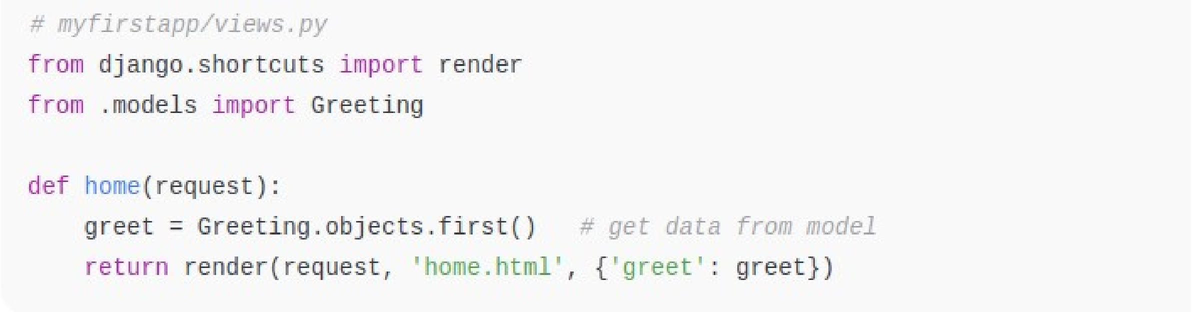
4 Views (`views.py`)

- Views handle the **logic**:
    1. Fetch data from database (via models)
    2. Process data
    3. Return response (HTML, JSON, redirect, etc.)

```
# views.py
```



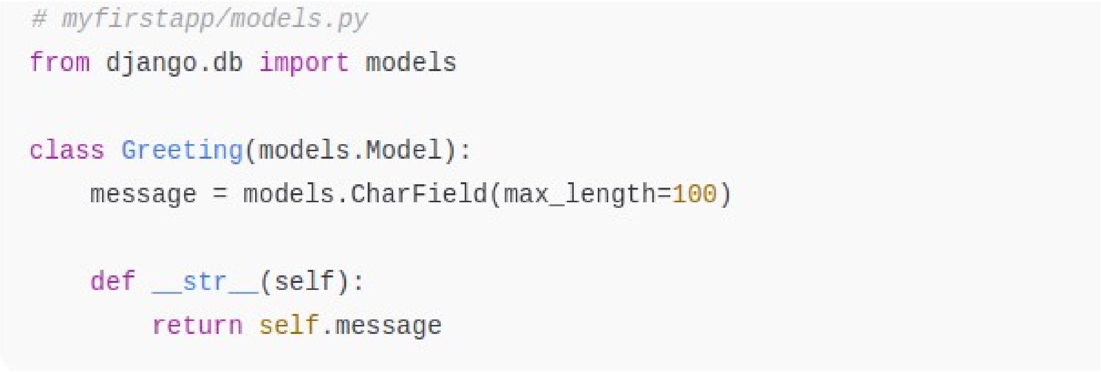
```python
# myfirstapp/views.py
from django.shortcuts import render
from .models import Greeting

def home(request):
    greet = Greeting.objects.first()   # get data from model
    return render(request, 'home.html', {'greet': greet})
```

5 Models (`models.py`)

- Models define **database structure**
- View queries models to get data

```
# models.py
```



```python
# myfirstapp/models.py
from django.db import models

class Greeting(models.Model):
    message = models.CharField(max_length=100)

    def __str__(self):
        return self.message
```

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6 Templates (`templates/`)

- Templates are **HTML files** that display data
- Data from view is passed as **context dictionary**
  The template receives this data and displays it using Django template (Jinja-like) syntax.

```
views.py → templates → rendered HTML
```

Example template:

```html
<!-- templates/home.html -->
<h1>{{ greet.message }}</h1>
```

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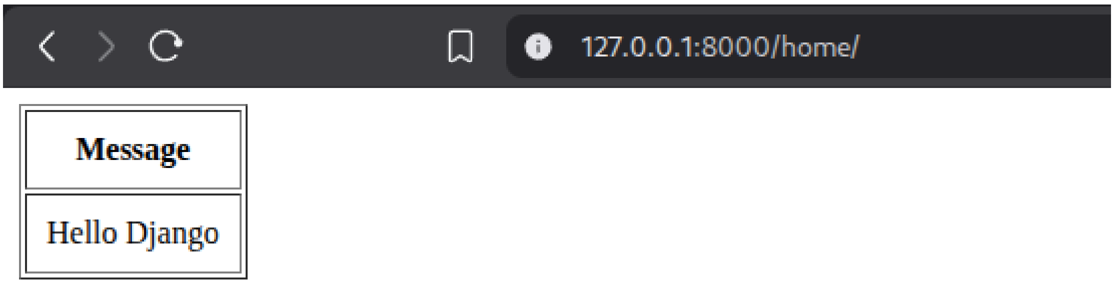
7 Response to Browser

- Django **renders template** with data
- Sends **HTTP Response** back to browser
- Browser displays the page

```
views.py → rendered HTML → Browser
```



Message
Hello Django