1st SESSION

What will be covered?

- Introduction
- Model-View-Controller architectural pattern
- Model-Template-View architectural pattern
- Setup Development Environment
- Creating Your First Django Application
- URLs
- Views
- Templates
- Static files/static assets
- Class-based Views
- Working with forms

Introduction

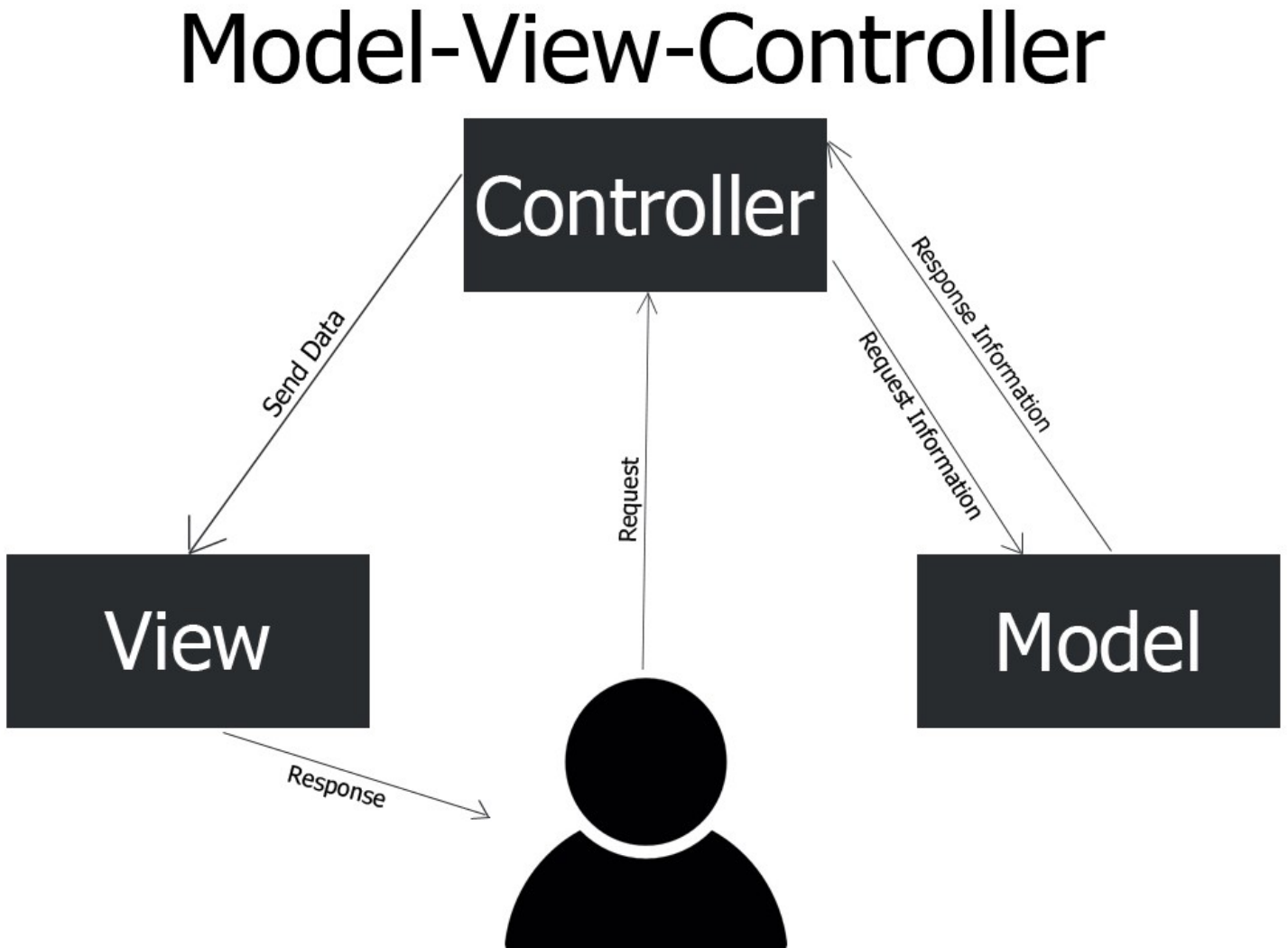
- Django is a Python-based free and open-source web framework that follows the model-template-view architectural pattern.

- Stable release: 3.1.1 / 1 September 2020
- Initial release date: July 15, 2005
- Written in: Python
- Developer:

  Adrian Holovaty, Simon Willison, Django Software Foundation, Jacob Kaplan-Moss
- Who uses Django https://djangosites.org

Source: Wikipedia

Model-View-Controller



Model-Template-View architectural pattern

The Model-View-Template (MVT) Architectural Pattern

You may be asking yourself how Model-View-Template (MVT) and Model-View-Controller (MVC) relate in the world of Django. It's a bit confusing at first, but it is actually very straightforward.

– The Model in MVC is the same as the Model in MVT.

– The View in MVC is the same as the Template in MVT.

– The Controller in MVC is the same as the View in MVT.

I encourage you to read the bullet points above one more time, because it is not a typo. It is just an unfortunate naming decision that was made by Django, and now we are stuck with it. Inconsistent naming aside, Django's MVT is in fact the MVC pattern by another name.

Source: https://www.theturninggear.com/2018/10/22/djangos-architectural-pattern/

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Data Flow Through Django

To give you some context, I want to quickly highlight how the data flows through Django at a high level.

1.) A user makes a request for one of your Django web pages.
2.) A request is received by the web server.
3.) That request is handed off to Django.
4.) Django uses your defined URL paths for picking which view to use.
5.) Your view decides which models are needed and passes them off to the template.
6.) Your template is used to generate the pages HTML.
7.) The generated HTML is passed back to the user's browser.

This flow can be visualized in the diagram below. It is also worth noting that this is a high level overview, so some details were glazed over as they are really not important to understanding how to use Django's MVT pattern.

Source: https://www.theturninggear.com/2018/10/22/djangos-architectural-pattern/

Setup Development Environment

- Python3
- Virtualenv, Pipenv, etc.
- Django
  - Globally
  - Virtual environment
- SQLite (default database type)

Let’s code

- Creating Your First Django Application
- URLs
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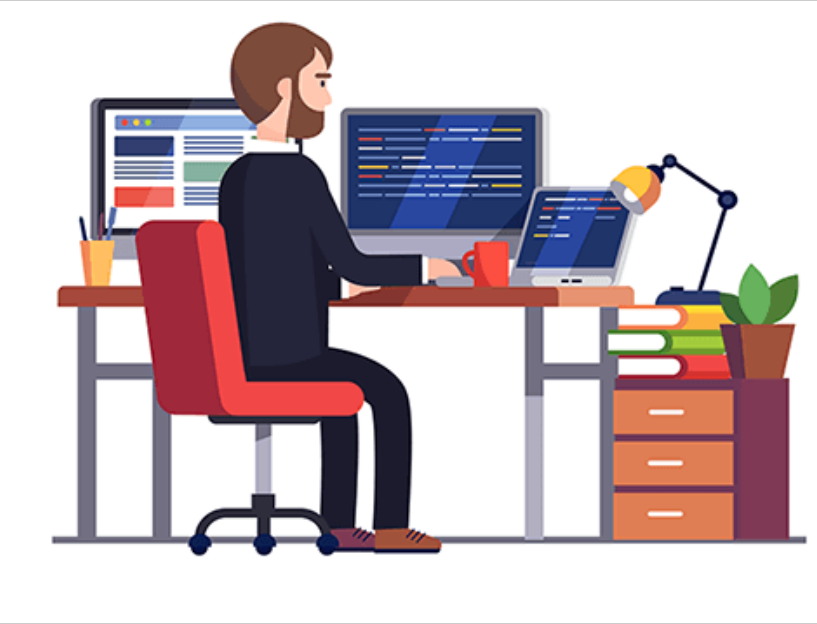

QUESTIONS