

Django Workshop Introduction

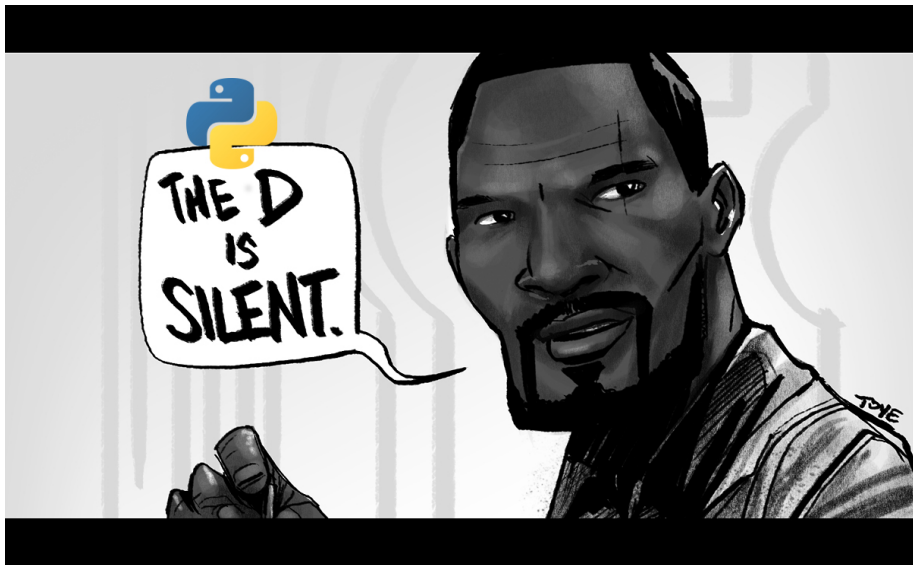
Advanced Programming

Amirkabir University of Technology

Spring 2019

Overview

- 1 What is Django
- 2 Python
 - Virtual environment
 - Package manager
- 3 MTV
- 4 Django in real world



What is Django

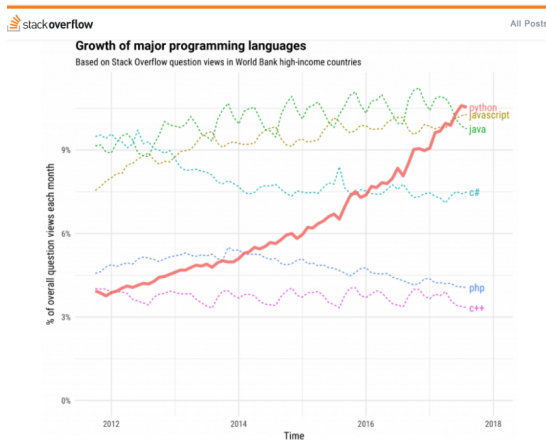
free and open-source web framework

Once upon a time :)

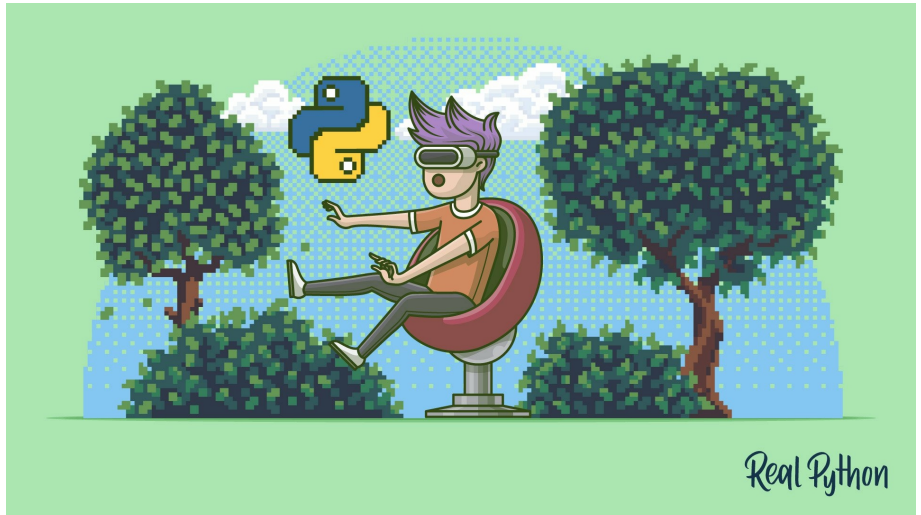
Python encourages everyone to code.
Even **journalists**.

Why coding in python?

- large community
- less code



Virtual environment



install Django on venv

```
$ pip install django
```

```
$ django-admin startproject <name>
```




Project files

- `__init__.py`
- `settings.py`
- `urls.py`
- `wsgi.py`
- `manage.py`

Django application

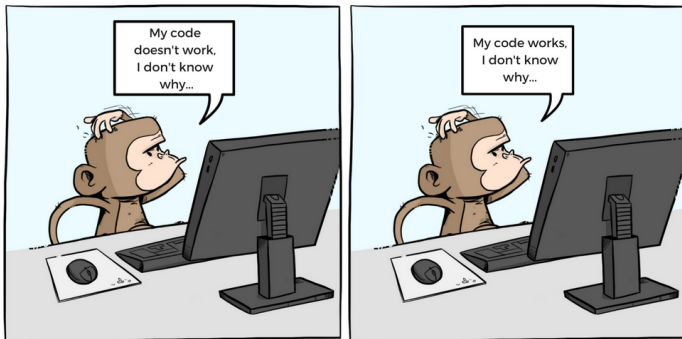
```
$ python manage.py runserver  
$ python manage.py startapp <name>
```

Application files

- migrations
- `__init__.py`
- `admin.py`
- `apps.py`
- `models.py`
- `tests.py`
- `views.py`
- `urls.py`

Templates

- templates directory
- add it in settings



What about static files

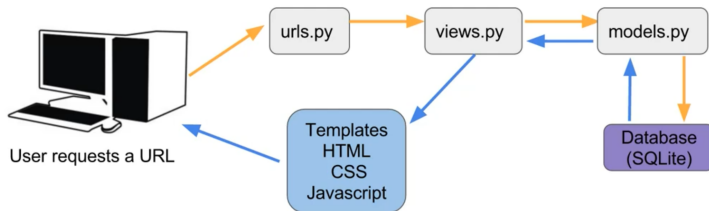


Database

- classes for tables
- attributes for columns
- instances for records

What is MTV?

(Very) High Level Overview of Django



What is MTV?

- "M"odel : data layer. → models.py
- "T"emplate : presentation layer. → templates/
- "V"iew : business logic layer. → views.py

Forms: user inputs

- forms.py
- similar to models

Simpler urls

- `app_name` in `urls.py`
 - relative url in href

Inheritance in templates

- create base.html
- make blocks in base file
- use extend in child file



(a) instagram



(b) spotify



(c) mozilla



(d) dropbox



(e) youtube



(f) pinterest

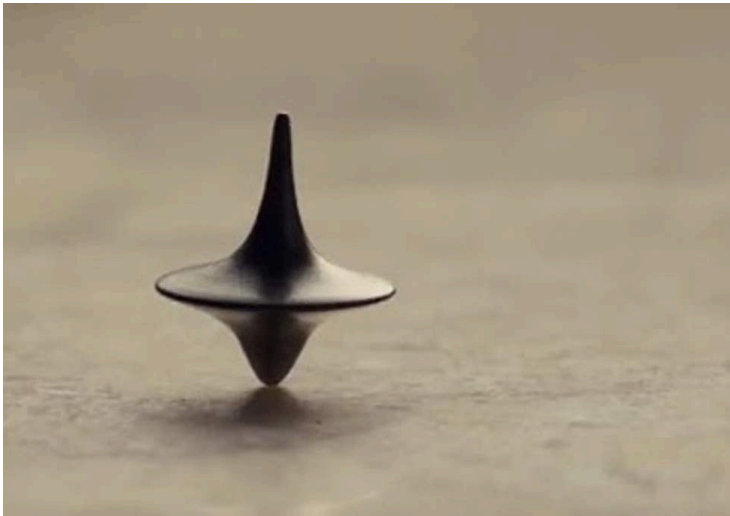
What next?

- Blog project
- Social network project

References

[https://en.wikipedia.org/wiki/Django-\(web-framework\)](https://en.wikipedia.org/wiki/Django-(web-framework))

<https://www.djangoproject.com/>



The End