



Django

What is it?

- Web framework written in Python
- Focuses on fast development, with clean code
- Provides large amounts of tools to help with common tasks



*With Django, you can take Web
applications from concept to launch in
a matter of hours*

Who uses it?

- Instagram
- Disqus
- The Onion
- The Washington Post
- NASA
- Mozilla

Getting started

```
cd ~/Projects; mkdir django-test; cd django-test
```

```
virtualenv env
```

```
source env/bin/activate
```

```
pip install django
```

```
django-admin startproject foobar
```

```
cd foobar
```

```
python manage.py runserver
```

Database setup

- ◆ PostgreSQL
- ◆ MySQL
- ◆ OracleDB
- ◆ SQLite3
- ◆ [3rd Party Plugins](#)

```
python manage.py migrate
```

Starting news application

```
python manage.py startapp articles
```

Add 'articles' to INSTALLED_APPS array in settings.py

articles/models.py

```
from django.db import models
```

```
class Article(models.Model):
```

```
    title = models.CharField(max_length=200)
```

```
    body = models.TextField()
```

```
    def __str__(self):
```

```
        return self.title
```


Update database

Model field reference page - <https://docs.djangoproject.com/en/dev/topics/db/models/>

```
python manage.py makemigrations
```

```
python manage.py migrate
```

Enable admin interface

```
python manage.py createsuperuser
```

In `articles/admin.py` add:

```
from django.contrib import admin  
from articles.models import Article  
  
admin.site.register(Article)
```

View admin interface

<http://127.0.0.1:8000/admin>

Templates setup

Add to `TEMPLATES['DIRS']` in settings:

```
os.path.join(BASE_DIR, 'templates'),
```

Create 'templates' directory to put templates in

Templates info

- ◆ Django Template Language (DTL) used by default
- ◆ Supports Jinja2
- ◆ <https://docs.djangoproject.com/es/1.9/topics/templates/>

Views

Views control the backend logic and pass in variables to templates.

Let's create one..

Router

Django routes to different views using a regex based URL router

These are in the `urls.py` file

The background is an abstract composition of overlapping geometric shapes. At the top, a dark teal triangle points downwards. Below it, a large teal trapezoid dominates the center. The bottom features a dark teal shape pointing upwards, with a light green trapezoid partially visible beneath it. The entire design is set against a light green background.

What else is there?

Included modules

- ◆ Create RSS feed
- ◆ Implement caching (memcache, redis...)
- ◆ Site messages (session based)
- ◆ Sitemaps
- ◆ Flatpages

Community contributed modules

- ◆ Search integration (whoosh, solr, elastic...)
- ◆ WYSIWYG (ckeditor, tinymce...)
- ◆ REST API creation
- ◆ Image creation/manipulation
- ◆ More field types

And many, many more..

Resources

- Django documentation - <https://docs.djangoproject.com/en/dev/>
- Django packages - <https://www.djangopackages.com/>
- Python package index - <https://pypi.python.org/pypi>