

Django: The Web Framework

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What is a web framework?

- ◉ a collection of libraries
- ◉ programming web applications in your preferred language
- ◉ rapid development
- ◉ prevention of reinventing the wheel
- ◉ use of recent technologies

A brief history of Django

- 2003: replacement of a PHP CMS at the Lawrence Journal-World newspaper (complete rewrite to Python)
- 2005: released under the BSD license
- target audience – perfectionists with deadlines
- today: thousands of websites

A brief history of Django (2)

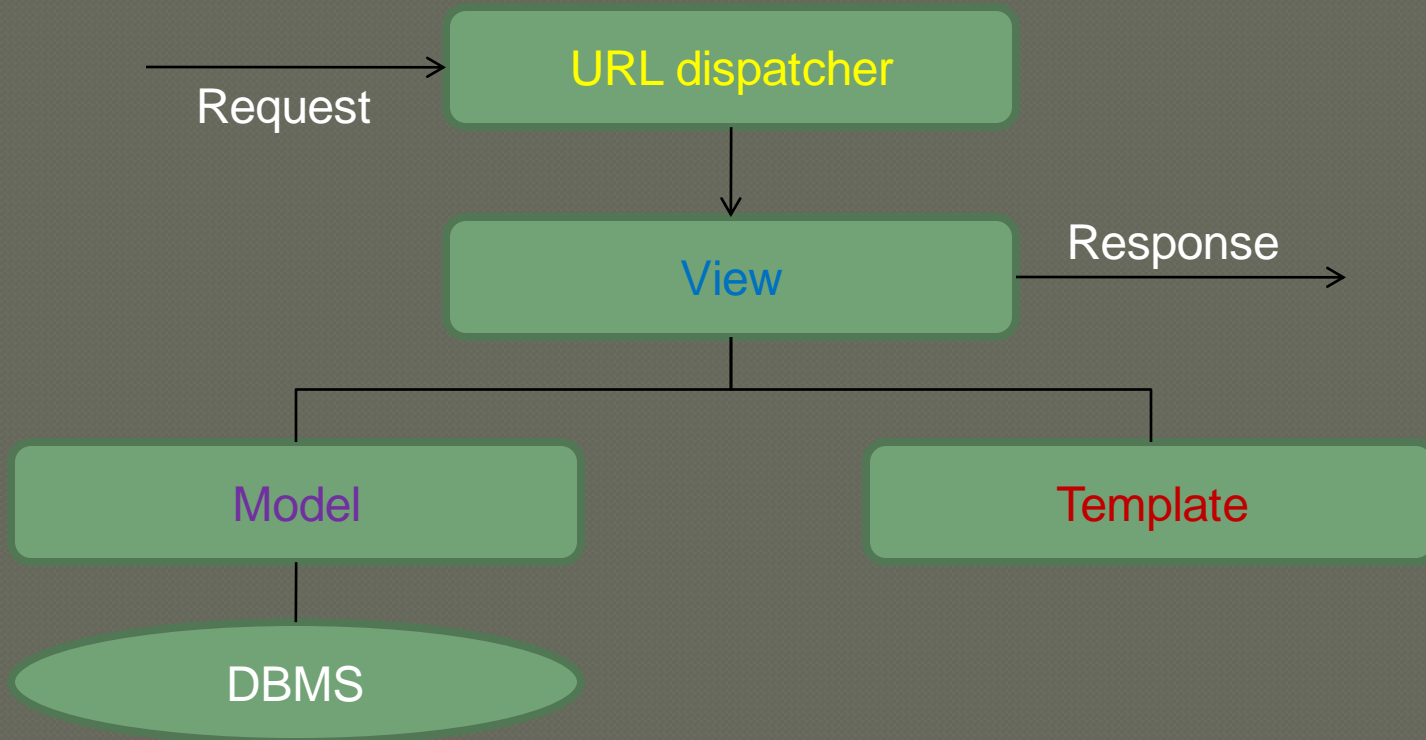
Django Reinhardt
(1910-1953)



Features

- ◉ automatically generated admin interface
- ◉ “pretty” URLs
- ◉ powerful template system
- ◉ lightweight web server for development
- ◉ scalable architecture
- ◉ internalization using gettext
- ◉ several built-in single-purpose applications

The MTV architecture



An example: URLs

- a weblog full of articles
- e.g. the URL <http://example.com/article/10/> should display an article with id 10

```
from django.conf.urls.defaults import *

urlpatterns = patterns('weblog',
    (r'^article/(\d+)/$', 'app.views.display_article'),
    ...
)
```

An example: views

○ file `app/views.py`

```
from models import Article
from django.shortcuts import get_object_or_404, render_to_response

def display_article(request, article_id):
    article = get_object_or_404(Article,
                                id=article_id, draft=False)

    return render_to_response('article.html',
                              {'article': article})
```


An example: models

- file `app/models.py`

```
from django.db import models
from django.contrib.auth.models import User

class Article(models.Model):
    author = models.ForeignKey(User)
    title = models.CharField(max_length=100)
    text = models.TextField()
    added = models.DateTimeField(auto_now_add=True)
    draft = models.BooleanField(blank=True, default=True)
```

An example: templates

- ◉ file templates/**article.html**

```
{% extends "base.html" %}

{% block content %}
<h1>{% block title %}{{ article.title }}{% endblock %}</h1>

<div class="author">Author: {{ article.author }}</div>
<div class="date">Published: {{ article.added|date }}</div>

{{ article.text|linebreaks }}
{% endblock %}
```

django

THE END

Thanks for your attention!