

# django

## Cognitive Dimensions Evaluation of Django

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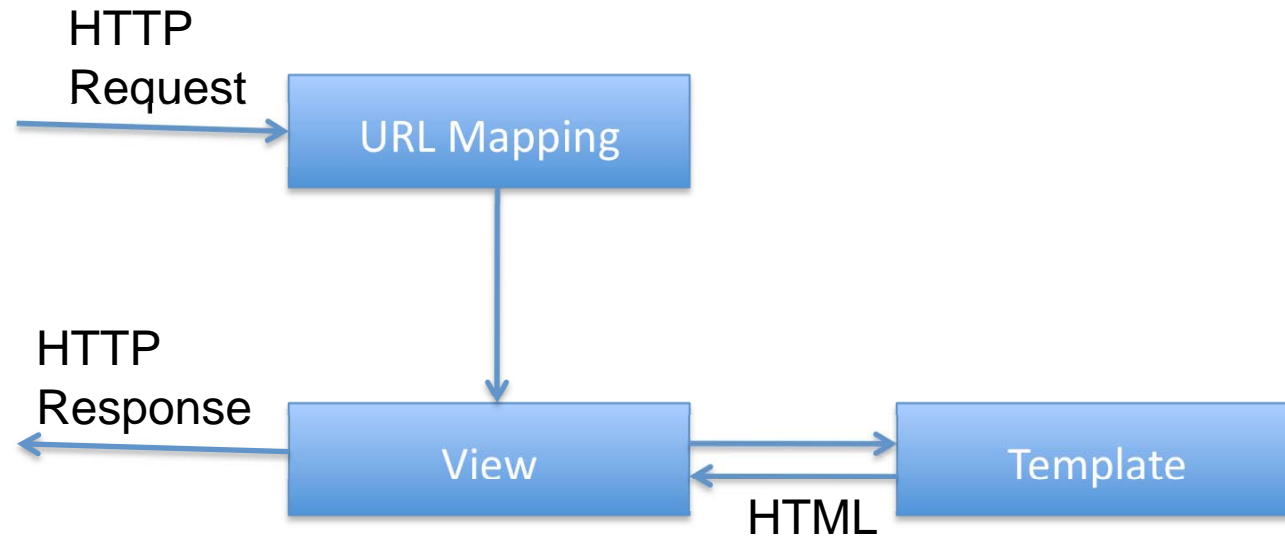
# What is Django?

- A framework for building database-backed web sites
  - Model-View-Controller engine
  - Object-Relational Mapping
  - Template system
- Python!
- Similar stuff in other languages
  - Ruby on Rails
  - Several options in Java (e.g., Struts2 + Hibernate + Freemarker)

# Why did I evaluate Django?

- I've used Ruby on Rails extensively
  - Love the usability
  - Love the Ruby language
  - Hate the Ruby libraries
- Is there an equally usable tool with a better standard library?

# Daddy, where do web pages come from?



- *URL Mapping* maps URLs to *views*
- *Views*: python callbacks that generate responses
- *Views* delegate to *templates* for HTML

# URL Mappings

```
urlpatterns = patterns("",
    (r'^polls/$', 'mysite.polls.views.index'),
    (r'^polls/(?P<poll_id>\d+)/$', 'mysite.polls.views.detail'),
    (r'^polls/(?P<poll_id>\d+)/results/$', 'mysite.polls.views.results'),
    (r'^polls/(?P<poll_id>\d+)/vote/$', 'mysite.polls.views.vote'),
)
```

How does Django handle the URL `/polls/216`?

- callback to `mysite.polls.view.detail(poll_id=216)`

# Views

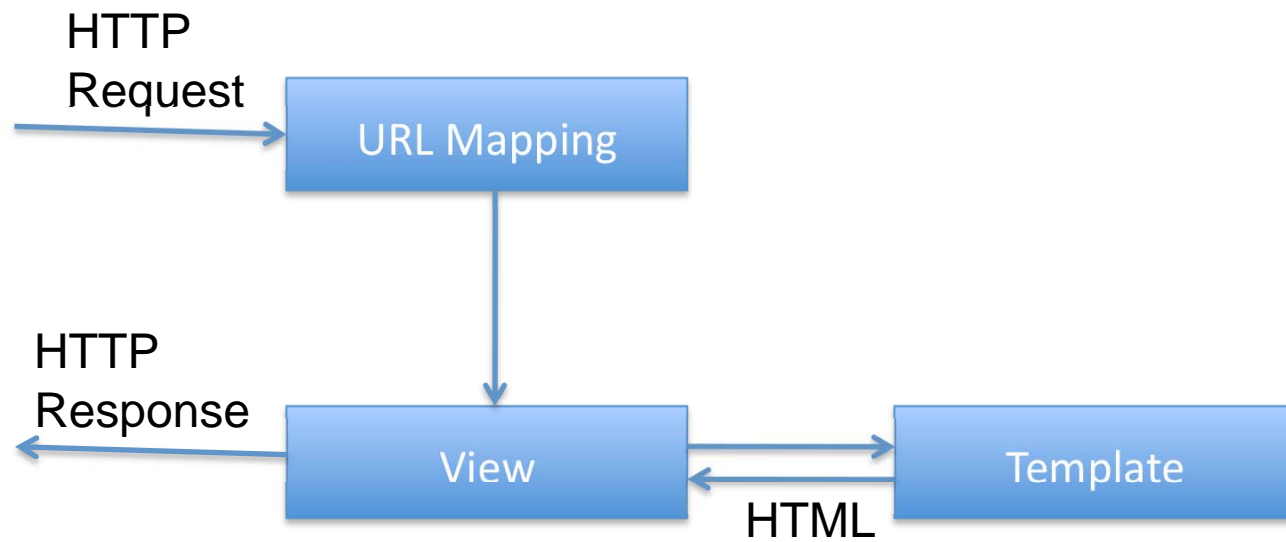
```
def detail(request, poll_id):  
    p = get_object_or_404(Poll, pk=poll_id)  
    return render_to_response('polls/detail.html', {'poll': p})
```

View delegates to “polls/detail.html” template.

# Templates

```
<h1>{{ poll.question }}</h1>  
<ul>  
{% for choice in poll.choice_set.all %}  
  <li>{{ choice.choice }}</li>  
{% endfor %}  
</ul>
```

# Thoughts?





# Cognitive Dimensions Evaluation

- Hard mental operations
- Good *role expressiveness*
- Opportunity for abstraction
- Low *visibility* of common steps
  - Rails eliminates some steps