

`09 Summer SPARCS Seminar

Introduction to Django #2

SPARCS `08

서우석(pipoket)

▶ Last Homework

- Download the file

http://pipoket.kaist.ac.kr/sp_seminar/django_hw1.tar.gz

- Extract the downloaded file to any path you want
(Refer the Python101, Python102 pdf about extraction)
- You have to make a simple web application does...
 - Get the input from the form
 - Save the input to the file
 - Show the entry of the file

▶ Last Homework

- Form and getting input is already implemented
- What you have to do is...
 - Implement the "TODO" part on
 - "input" and "show" functions
 - They are in "spseminar/studentinfo/views.py"
 - Read the comment carefully (hey, it`s in Korean 😊)
 - Implement the function as you wish
- You should need Dev. Server.

USE THE PORT RANGE BETWEEN 20000-30000

If some port is already taken, use the other port

▶ Last Time

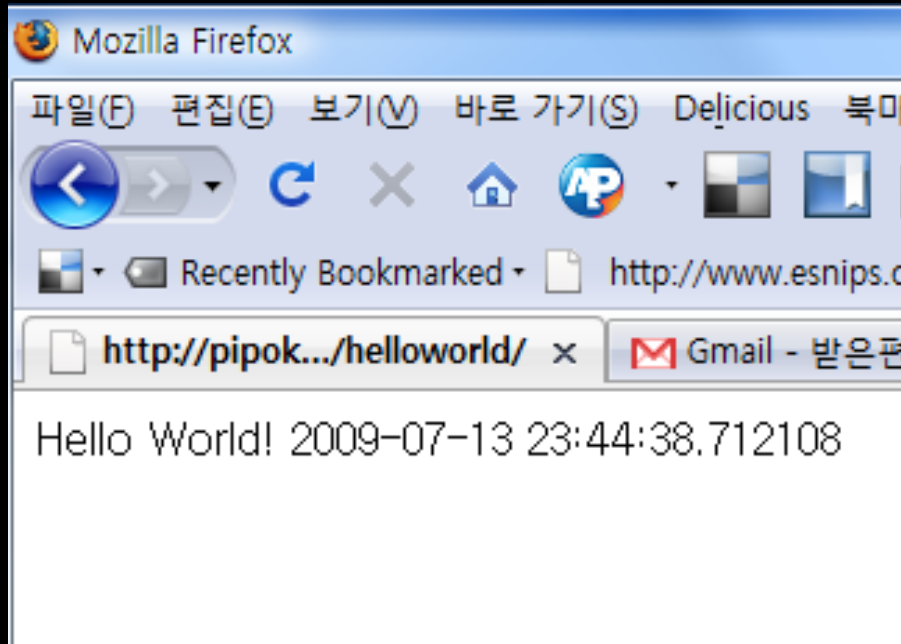
Simple Concept of HTTP

Why Django is necessary

How to Install Django

Basic Dev. Flow in Django

▶ Helloworld – Timestamp ver.



Django
+
Python

처리결과 출력!

► What we have learned...

Django Framework

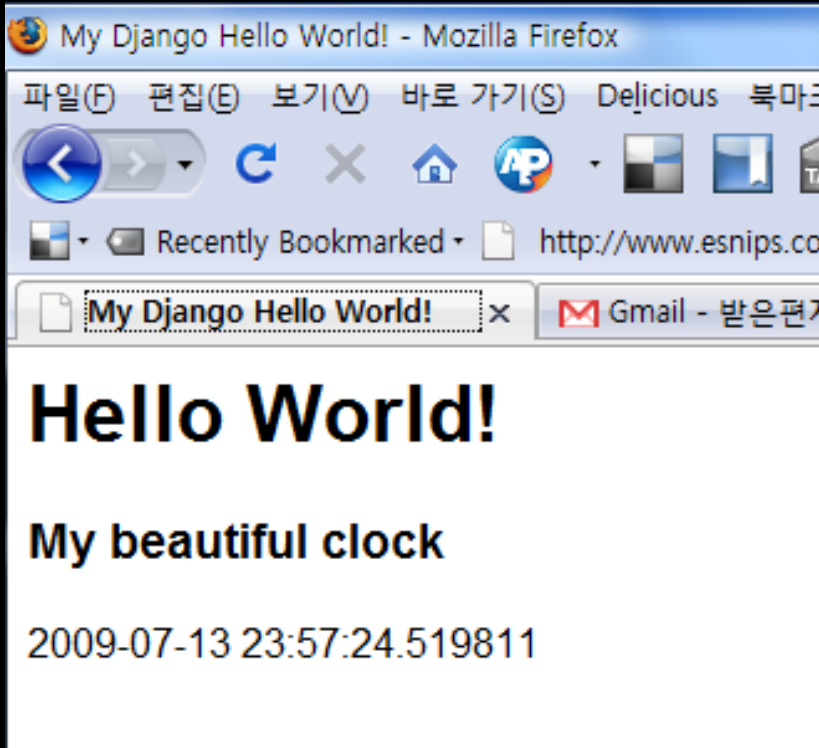
Model
(DB)

Controller
(Code)

View
(html)

views.py

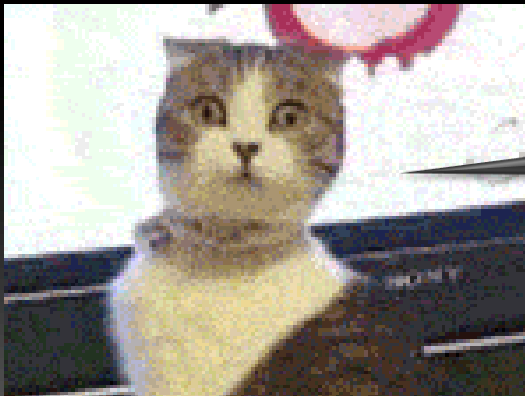
▶ Helloworld – Stylish ver.



```
# Create your views here.
import datetime

from django.http import HttpResponse

def helloworld(request):
    date = datetime.datetime.now()
    html = """<html>
<head>
    <title>My Django Hello World!</title>
</head>
<body style="font-family:Arial"
    <h1>Hello World!</h1>
    <h3>My beautiful clock</h3>
    <p>%s</p>
</body>
</html>""" % date
    return HttpResponse(html)
```



CGI???

▶ Django is NOT CGI

Django Framework

Model
(DB)

Controller
(Code)

View
(html)

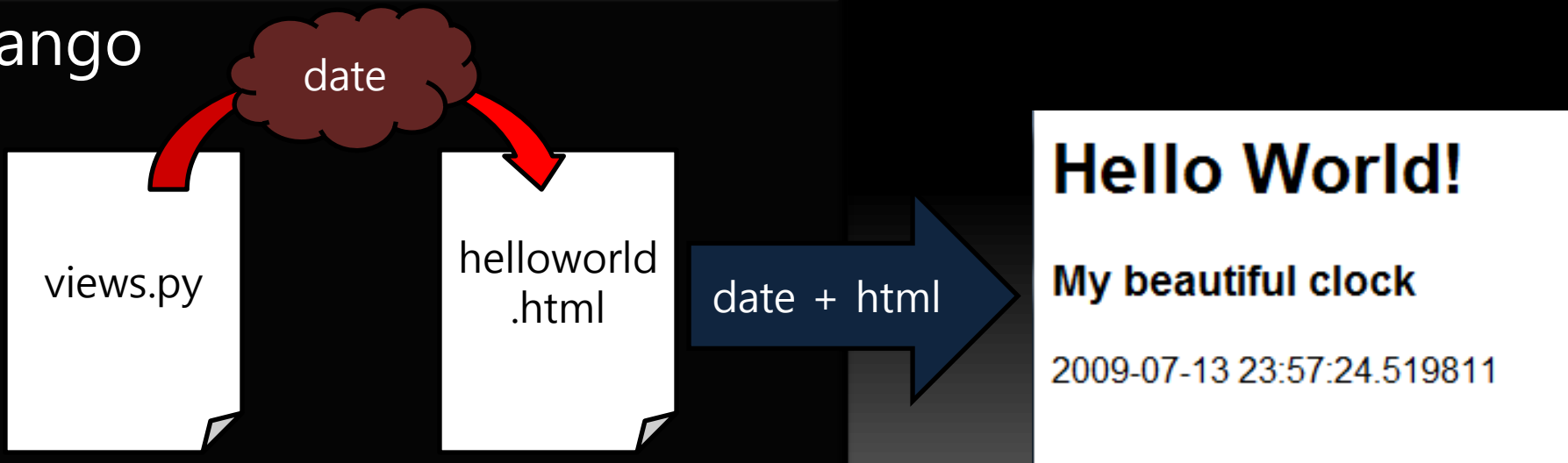
HOW?

► Template

Only HTML

Django does...
Data + HTML

Django



▶ Making Template

Template를
[어디]에 저장할건가?

`mkdir templates`

Django에게...

“Template가
[어디]에 저장되어있다”

Edit `settings.py`

▶ Making Template – Edit settings.py

```
$ vim settings.py
```

```
64 MIDDLEWARE_CLASSES = (  
65     'django.middleware.common.CommonMiddleware',  
66     'django.contrib.sessions.middleware.SessionMiddleware',  
67     'django.contrib.auth.middleware.AuthenticationMiddleware',  
68 )  
69  
70 ROOT_URLCONF = 'spseminar.urls'  
71  
72 TEMPLATE_DIRS = (  
73     "/home/pipoket/templates",  
74     # Put strings here, like "/home/html/django_templates" or  
75     # Always use forward slashes, even on Windows.  
76     # Don't forget to use absolute paths, not relative paths.  
77 )  
78  
79 INSTALLED_APPS = (  
80     'django.contrib.auth'
```

이렇게 세팅하고

▶ Making Template – Make helloworld.html

```
pipoket@pipoket:~/project/spseminar$ cd templates
pipoket@pipoket:~/project/spseminar/templates$ vim helloworld.html
```

```
news.py ../t/helloworld.html
1 <html>
2     <head>
3         <title>My Django Hello World!</title>
4     </head>
5     <body>
6         <h1>{{ message }}</h1>
7         <h3>My beautiful clock</h3>
8         <p>{{ clock }}</p>
9     </body>
10 </html>
```

html에서의 변수선언

▶ Using Template – Edit helloworld.py

```
views.py ../s/views.py ../t/helloworld.html
```

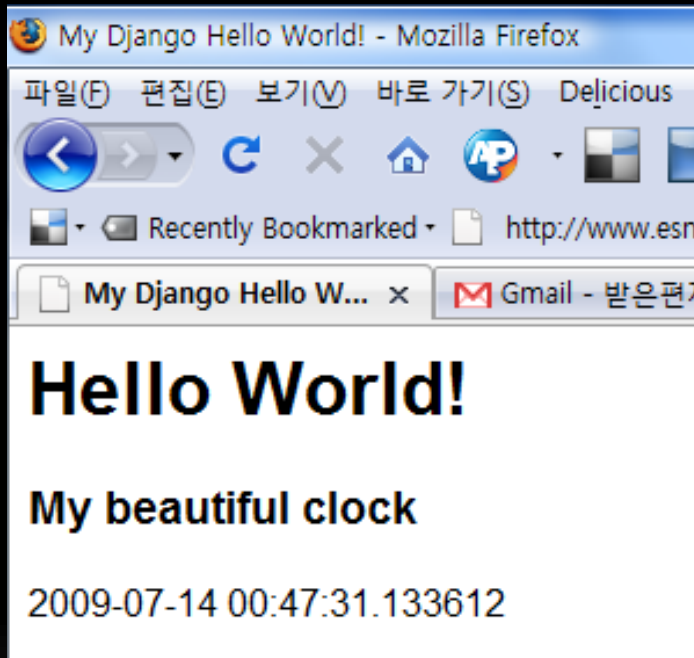
```
1 # Create your views here.  
2 import datetime  
3  
4 from django.http import HttpResponse  
5 from django.template.loader import render_to_string  
6  
7 def helloworld(request):  
8     date = datetime.datetime.now()  
9     rendered = render_to_string("helloworld.html",  
10                               {"message": "Hello World!",  
11                               "clock" : date})  
12     return HttpResponse(rendered)
```

Template Renderer

html 변수 사용하기

```
render_to_string ( Template File, { var_dictionary } )
```

▶ Template Done!



```
<html>
  <head>
    <title>My Django Hello World!</title>
  </head>
  <body>
    <h1>{{ message }}</h1>
    <h3>My beautiful clock</h3>
    <p>{{ clock }}</p>
  </body>
</html>
```

```
<html>
  <head>
    <title>My Django Hello World!</title>
  </head>
  <body>
    <h1>Hello World!</h1>
    <h3>My beautiful clock</h3>
    <p>2009-07-14 00:47:31.133612</p>
  </body>
</html>
```

► More about Templates

views.py ../s/views.py ../t/helloworld.html + ../t/advanced.html

```
1 <html>
2   <head>
3     <title>Advanced Template</title>
4   </head>
5   <body>
6     <ul>
7       {% for item in names %}
8       <li>{{ item }}</li>
9       {% endfor %}
10    </ul>
11    <ul>
12      {% for name, score in result.items %}
13      <li {% ifequal score 100 %}style="background:green"{% endifequal %}>
14        {{ name }} got score {{ score }} points
15      </li>
16      {% endfor %}
17    </ul>
18  </body>
19 </html>
20
21
22   {% ifnotequal %} ... {% endifnotequal %}
23   {% if item.is_true %} ... {% endif %}
```

for loop

Calling func.

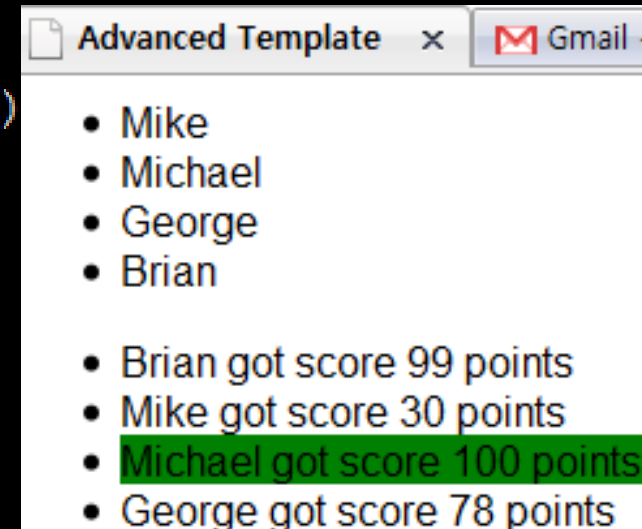
if statement

Other if statements

► More about Templates

```
14 def advanced(request):
15     names = ["Mike", "Michael", "George", "Brian"]
16     result = {"Mike" : 30,
17              "Michael" : 100,
18              "George" : 78,
19              "Brian" : 99}
20     rendered = render_to_string("advanced.html",
21                                {"names": names,
22                                "result" : result})
23     return HttpResponse(rendered)
```

```
<html>
  <head>
    <title>Advanced Template</title>
  </head>
  <body>
    <ul>
      {% for item in names %}
      <li>{{ item }}</li>
      {% endfor %}
    </ul>
    <ul>
      {% for name, score in result.items %}
      <li {% ifequal score 100 %}style="background:green"{% endifequal %}>
        {{ name }} got score {{ score }} points
      </li>
      {% endfor %}
    </ul>
  </body>
</html>
```



▶ Getting Input

로그인 게시판 검색 블로깅
뉴스 댓글 싸이월드 방명록

사용자의 입력

입력 -> 처리 -> 결과

▶ Form

이름 학번 하고싶은말 Saver☆

이름

학번

하고싶은 말

```
<form action="/input/" method="POST">
  <table>
    <thead>
      <caption>이름 학번 하고싶은말 Saver☆</caption>
    </thead>
    <tbody>
      <tr>
        <th><label for="name">이름</label></th>
        <td><input id="name" type="text" name="name" /></td>
      </tr>
      <tr>
        <th><label for="studentid">학번</label></th>
        <td><input id="studentid" type="text" name="studentid" /></td>
      </tr>
      <tr>
        <th><label for="talks">하고싶은 말</label></th>
        <td><textarea id="talks" type="text" name="talks" /></td>
      </tr>
    </tbody>
  </table>
  <p><input type="submit" value="Submit" /></p>
</form>
```

▶ Form

Template로 Form을!

views.py에 Form을 보여주도록 추가!

그럼 입력값의 처리는?

▶ Request

```
14 def advanced(request):
15     names = ["Mike", "Michael", "George", "Brian"]
16     result = {"Mike": 30,
17              "Michael": 100,
18              "George": 78,
19              "Brian": 10}
20     rendered = render_to_response("names.html",
21                                   names,
22                                   context_instance=RequestContext(request),
23                                   extra_context={"result": result})
    return HttpResponse(rendered)
```

무엇에 쓰는 놈인고?

▶ Request

Form으로부터의 입력 값 GET, POST

Django의 Session 값
로그인 정보

기타 저장해두고 싶은 값

▶ Using Request

```
<th><label for="name">이름</label></th>
<td><input id="name" type="text" name="name" /></td>
</tr>
<tr>
<th><label for="studentid">학번</label></th>
<td><input id="studentid" type="text" name="studentid" /></td>
</tr>
<tr>
<th><label for="talks">하고 싶은 말</label></th>
<td><textarea id="talks" type="text" name="talks"></td>
```

```
5 def input(request):
6     if request.method == 'POST':
7         name = request.POST.get("name", None)
8         studentid = request.POST.get("studentid", None)
9         talks = request.POST.get("talks", None)
```

request.POST.get(Name at form, Default Value)
request.GET.get(Name at form, Default Value)
Request.GET.get(Name at URL, Default Value)

► Using Request

- Current Files
- Dock_.jpg Delete
 - Garden.jpg Delete
 - .gif Delete
 - .jpg Delete

```
2/Dock_.jpg">Dock_.jpg</a><input type="checkbox" name="deleted_check" value="18" />Dele
```

```
2/Garden.jpg">Garden.jpg</a><input type="checkbox" name="deleted_check" value="19" />De
```

```
132 d['title'] = request.POST.get('diary_title', 'Untitled')
133 d['content'] = request.POST.get('diary_content', 'Blank')
134 d['deleted_files'] = request.POST.getlist('deleted_check')
```

▶ Conclusion

Templates

Request

Using Request Form

▶ Homework