PYTHON

Day8

RECAP

- The Chronicles of Web
- Introductions to Web
- Web Scraping with Python

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INDEX

- Web Scraping with Python again!
- Web Programming with Python

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PYTHON

Web Scraping with Python

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WEB CRAWLING

웹을 탐색하며 구조화된 정보를 자동으로 탐색하는 일

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WEB SCRAPING

웹에 게시된 문서를 수집하는 행위

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WEB SCRAPING WITH PYTHON

pip install requests

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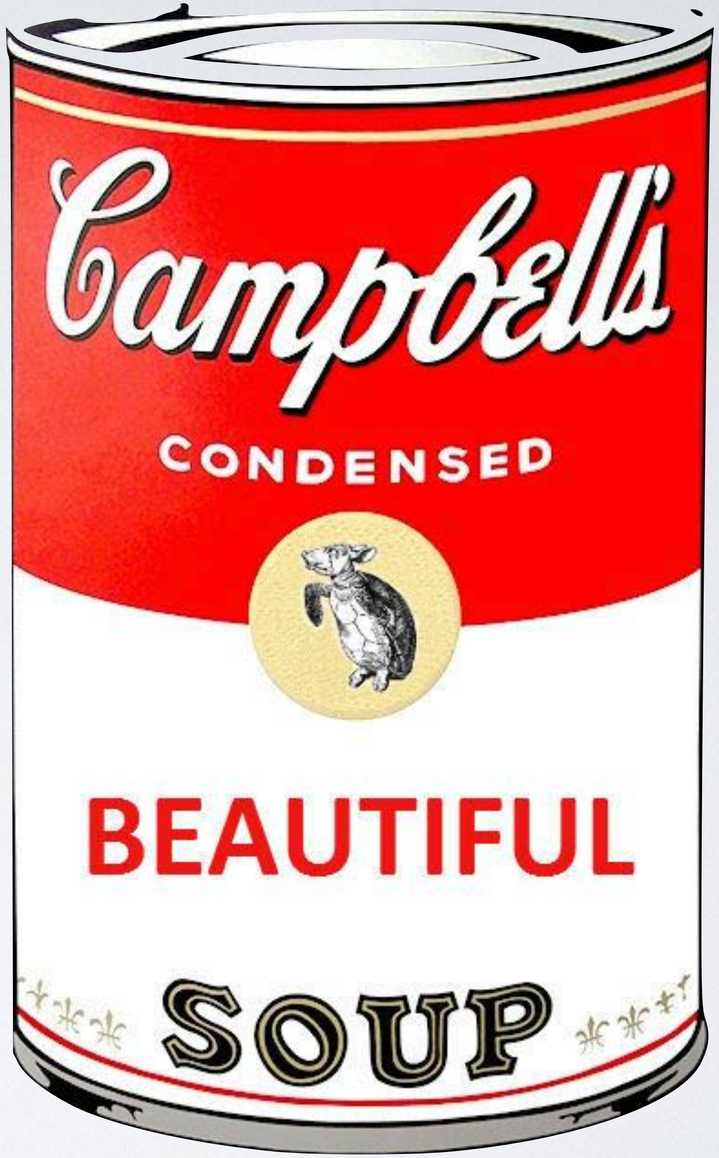
WEB SCRAPING WITH PYTHON

pip install beautifulsoup4



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WWW

Introduction to Web

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HTML, CSS, JAVASCRIPT

월드 와이드 웹에서 정보를 표현하기 위한 언어들

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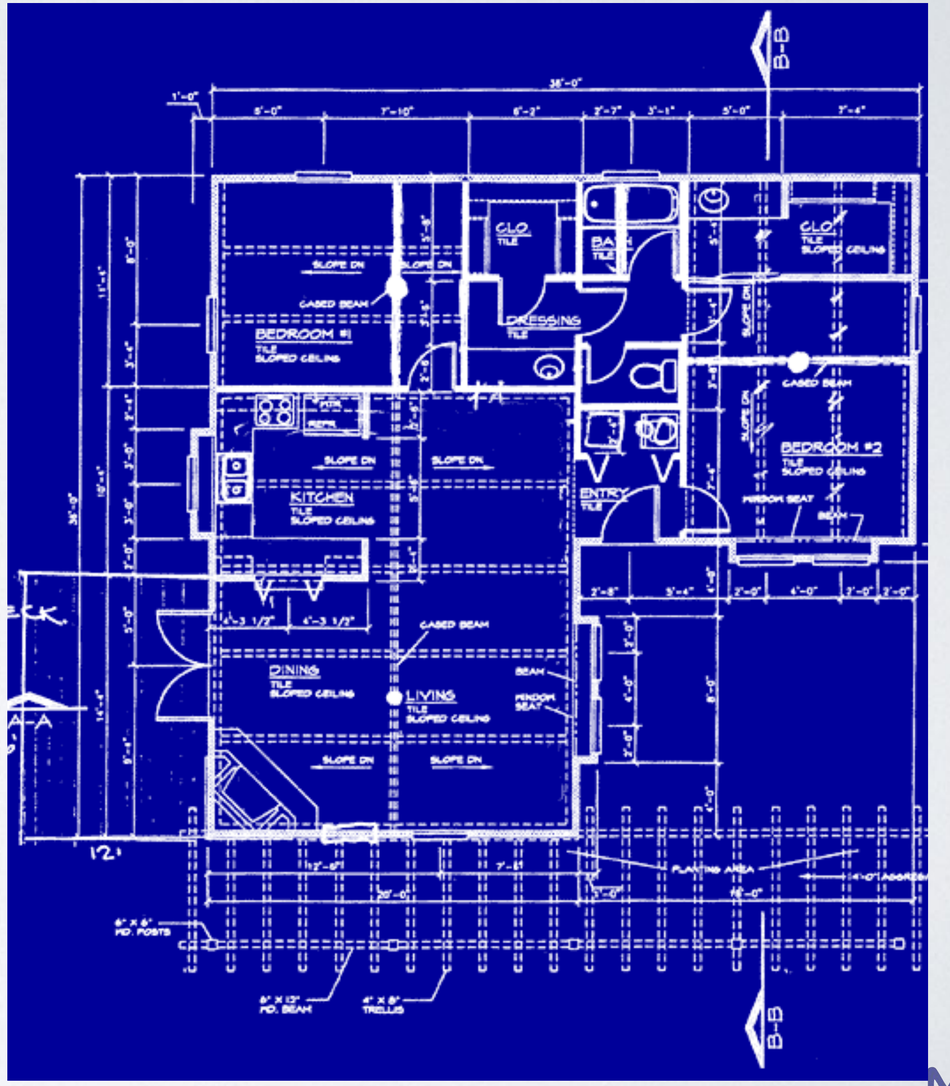
HTML

HyperText Markup Language

하이퍼텍스트를 표현하기 위한 마크업 언어



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CSS

Cascading Style Sheet

HTML의 디자인적 속성을 기술하기 위한 문서

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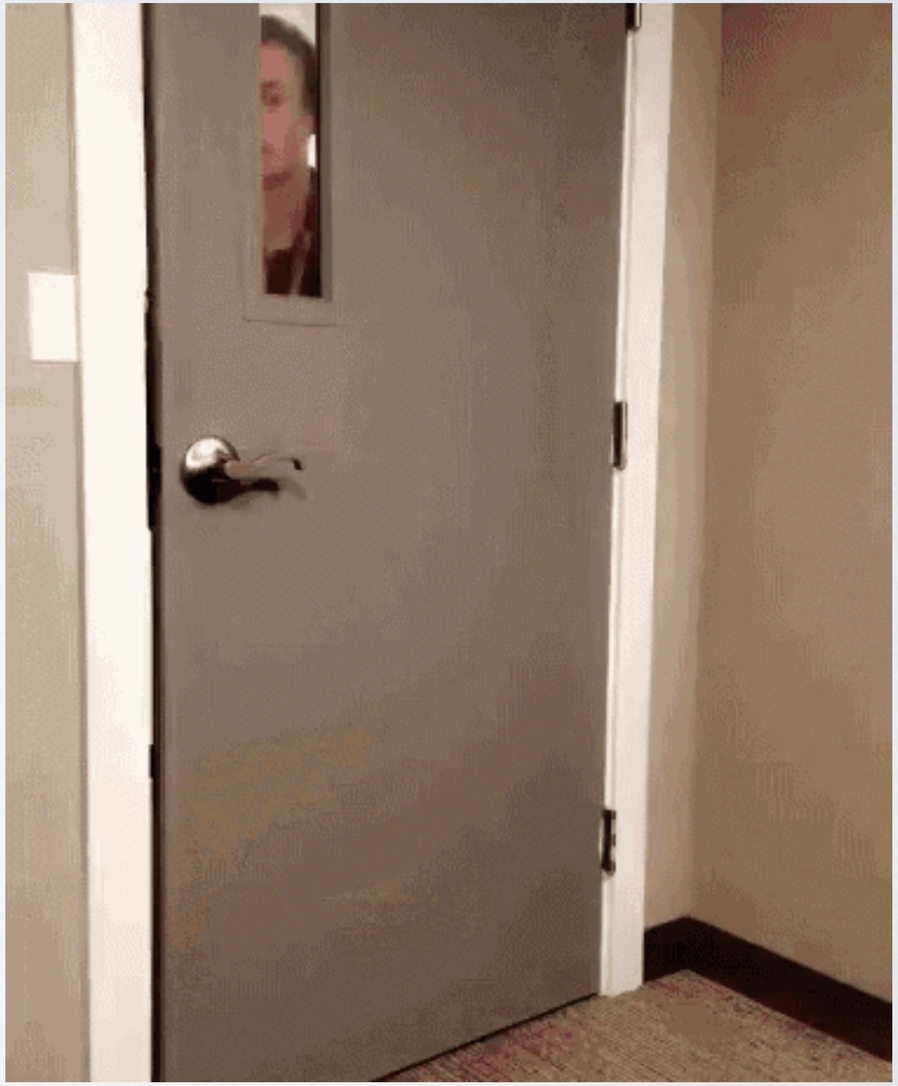
JAVASCRIPT

HTML의 데이터 관련 속성과 행동을 정의하기 위한 언어



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LET'S LEARN HTML

So simple!!

HTML5

<!doctype html>

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HTML5

<!doctype html>

<html>

</html>

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HTML5

```
<!doctype html>
<html>
 <head></head>
 <body></body>
</html>
```

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HTML5

```
<!doctype html>
<html>
 <head>
  <meta charset="utf-8">
  <title></title>
 </head>
 <body></body>
</html>
```

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HTML5

```
<!doctype html>
<html>
 <head>
  <meta charset=“utf-8”>
  <title></title>
 </head>
 <body>
  <h1>My first Homepage</h1>
  <p>This is my home!!!</p>
 </body>
</html>
```

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PYTHON

Web Programming with Python

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WEB PROGRAMMING

웹 서비스를 제공하기 위해 수반되는 소스코드를 프로그래밍 하는 것

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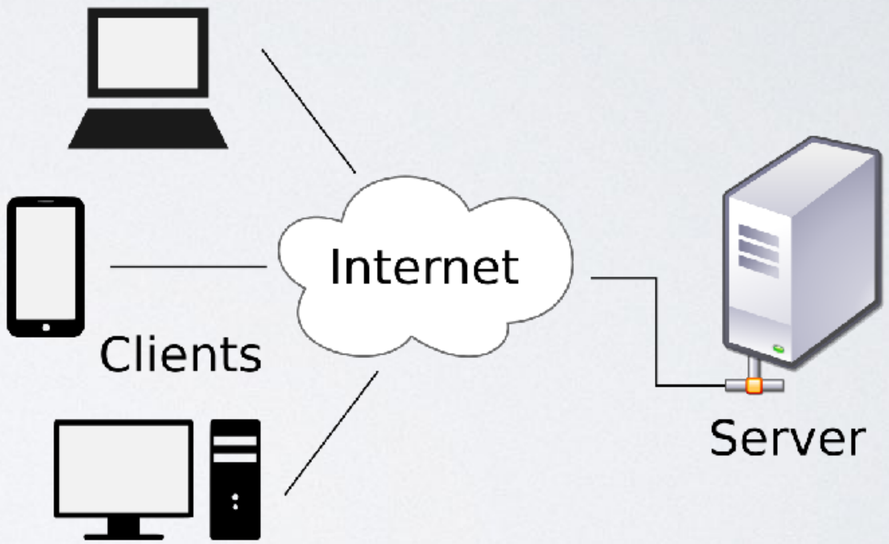
SERVER-CLIENT MODEL

- 사용자가 정보를 요청(Request)하면, 서버가 그 요청에 맞는 응답(Response)을 보냄



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WEB PROGRAMMING WITH PYTHON

pip install django

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WEB PROGRAMMING WITH PYTHON

pip install flask

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FLASK WEB FRAMEWORK

- Python 기반의 Micro Web Framework
- 가볍다
- 가볍다
- 가볍다

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FLASK WEB FRAMEWORK

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FLASK - HELLO FLASK

새 폴더(first-web) 만들기 -> 새 파일 만들기(server.py)

** server.py

```
from flask import Flask



app = Flask(__name__)

@app.route("/")
def index():
    return "hello Flask"

if __name__ == "__main__":
    app.run(host="0.0.0.0")
```

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FLASK - HTML SERVE

first-web/

- **templates/**
  - **index.html**
- server.py

"hello Flask" 대신 index.html을 응답으로 보내줄 준비를 합시다!

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FLASK - HTML SERVE

** server.py

```
from flask import Flask, render_template


app = Flask(__name__)

@app.route("/")
def index():
    return render_template("index.html")

if __name__ == "__main__":
    app.run(host="0.0.0.0")
```

** templates/index.html

```
<!doctype html>
<html>
 <head>
  <title>My Flask Home</title>
  <meta charset="utf-8">
 </head>
 <body>
  <!— 원하는 내용을 입력하세요 —>
 </body>
</html>
```

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FLASK - STATIC FILE SERVE

first-web/

- templates/
  - index.html
- **static/**
  - **style.css**
- server.py

웹페이지를 꾸며줄 style.css를 제공합시다!

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FLASK - STATIC FILE SERVE

** templates/index.html

```
<!doctype html>
<html>
 <head>
  <title>My Flask Home</title>
  <link rel="stylesheet" type="text/css"
href="{{ url_for(`static`, filename=`style.css`) }}">
  <meta charset="utf-8">
 </head>
 <body>
  <!— 원하는 내용을 입력하세요 —>
 </body>
</html>
```

** static/style.css

```
body {
    background: #0000ff;
}
h1, h2, h3, h4, h5, h6 {
    font-style: italic;
}
p {
    color: #dddddd;
}
```

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FLASK - 여러 페이지 라우트 하기

first-web/

- templates/
  - index.html
  - **about.html**
- static/
  - style.css
- server.py

웹페이지를 꾸며줄 style.css를 제공합시다!

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FLASK - 여러 페이지 라우트하기

** server.py

```
from flask import Flask, render_template


app = Flask(__name__)

@app.route("/")
def index():
    return render_template("index.html")

@app.route("/about")
def about():
    return render_template("about.html")

if __name__ == "__main__":
    app.run(host="0.0.0.0")
```

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FLASK - 서버에서 메시지 보내기

** server.py

```
from flask import Flask, render_template


app = Flask(__name__)

@app.route("/")
def index():
    return render_template("index.html")

@app.route("/about")
def about():
    result = "Mirae-N"
    return render_template("about.html", msg = result)

if __name__ == "__main__":
    app.run(host="0.0.0.0")
```

** templates/about.html

```
<!doctype html>
<html>
 <head>
  <title>My Flask Home</title>
  <meta charset="utf-8">
 </head>
 <body>
  <!— 원하는 내용을 입력하세요 —>
  <p>세계 최고의 출판사는 {{ msg }} 입니다.</p>
 </body>
</html>
```

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FLASK - 서버에서 메시지 랜덤으로 보내기

** server.py

```
from flask import Flask, render_template
import random


app = Flask(__name__)

@app.route("/")
def index():
    return render_template("index.html")

@app.route("/about")
def about():
    animals = ["cat", "dog", "panda", "python"]
    result = random.choice(animals)
    return render_template("about.html", msg = result)

if __name__ == "__main__":
    app.run(host="0.0.0.0")
```

** templates/about.html

```
<!doctype html>
<html>
 <head>
  <title>My Flask Home</title>
  <meta charset="utf-8">
 </head>
 <body>
  <!— 원하는 내용을 입력하세요 —>
  <p>저는 {{ msg }} 를 좋아합니다.</p>
 </body>
</html>
```

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