

# Python

As Server-Side Language

# Server side programming language – PHP

- Easy to learn
- Traditional server side scripting language



WIKIPEDIA  
The Free Encyclopedia



WORDPRESS



CommitStrip.com

# Server side programming language - Python

- Easy to learn
- dynamics, availability, and simplicity

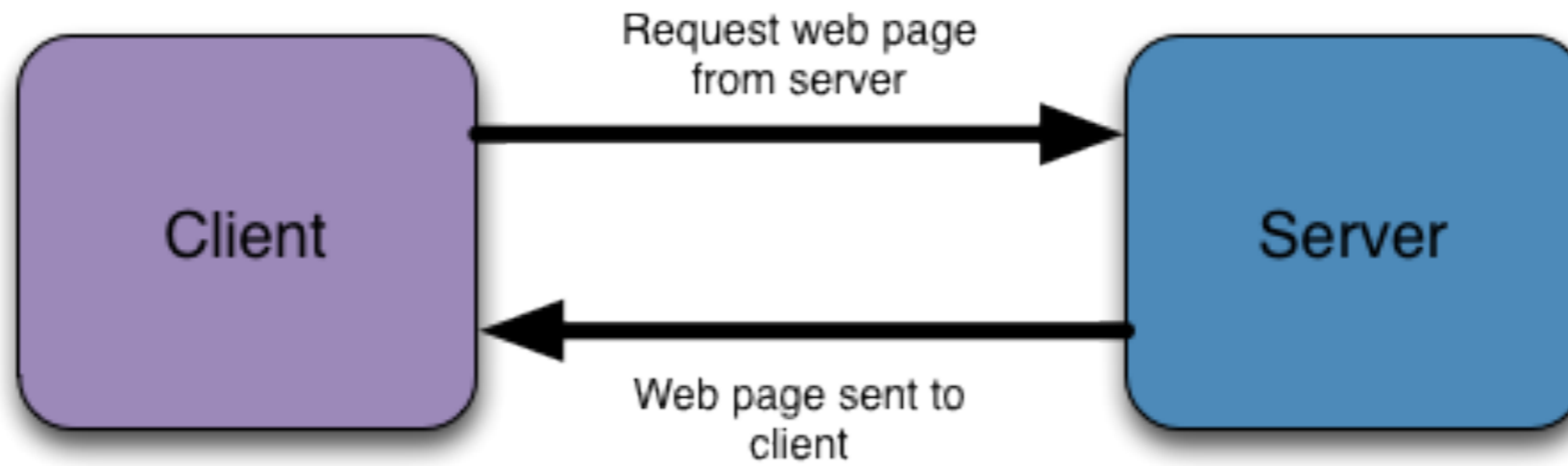


## 2016 Average Developer Salary in the U.S.

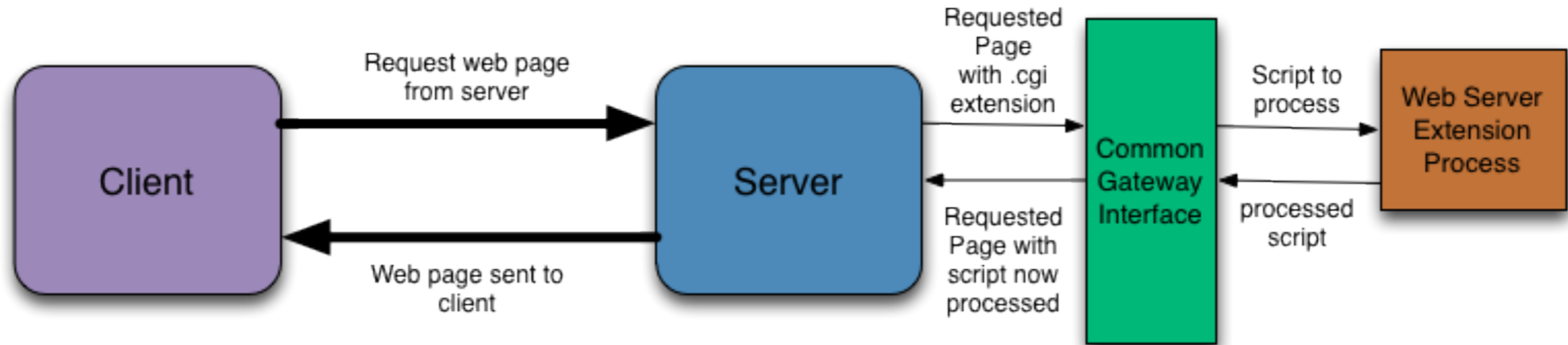
| indeed.com estimations(USD) | Language   |
|-----------------------------|------------|
| #1 115,000                  | Swift      |
| #2 107,000                  | Python     |
|                             | Ruby       |
| #3 104,000                  | C++        |
| #5 102,000                  | Java       |
|                             | C          |
| #6 99,000                   | JavaScript |
| #7 94,000                   | C          |
| #8 92,000                   | SQL        |
| #9 89,000                   | PHP        |

made by codemantic.io

# Client-Server System



# Client-Server System

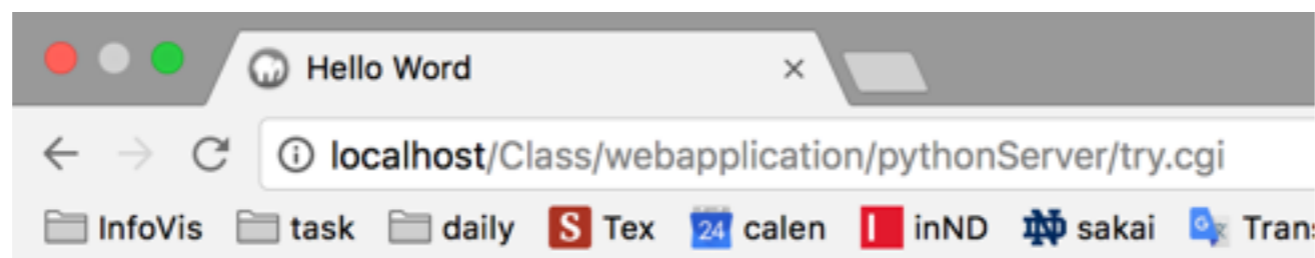


## CGI

- In order to deliver dynamic content we need to extend the abilities of the web server so that it can do more than merely send static web pages in response to client requests.

# Using Python in CGI

```
try.cgi
1  #!/usr/bin/python
2  # -*- coding: UTF-8 -*-
3
4  print "Content-type:text/html"
5  print
6  print '<html>'
7  print '<head>'
8  print '<meta charset="utf-8">'
9  print '<title>Hello Word</title>'
10 print '</head>'
11 print '<body>'
12 print '<h2>this is my first python cgi</h2>'
13 print '</body>'
14 print '</html>'
```

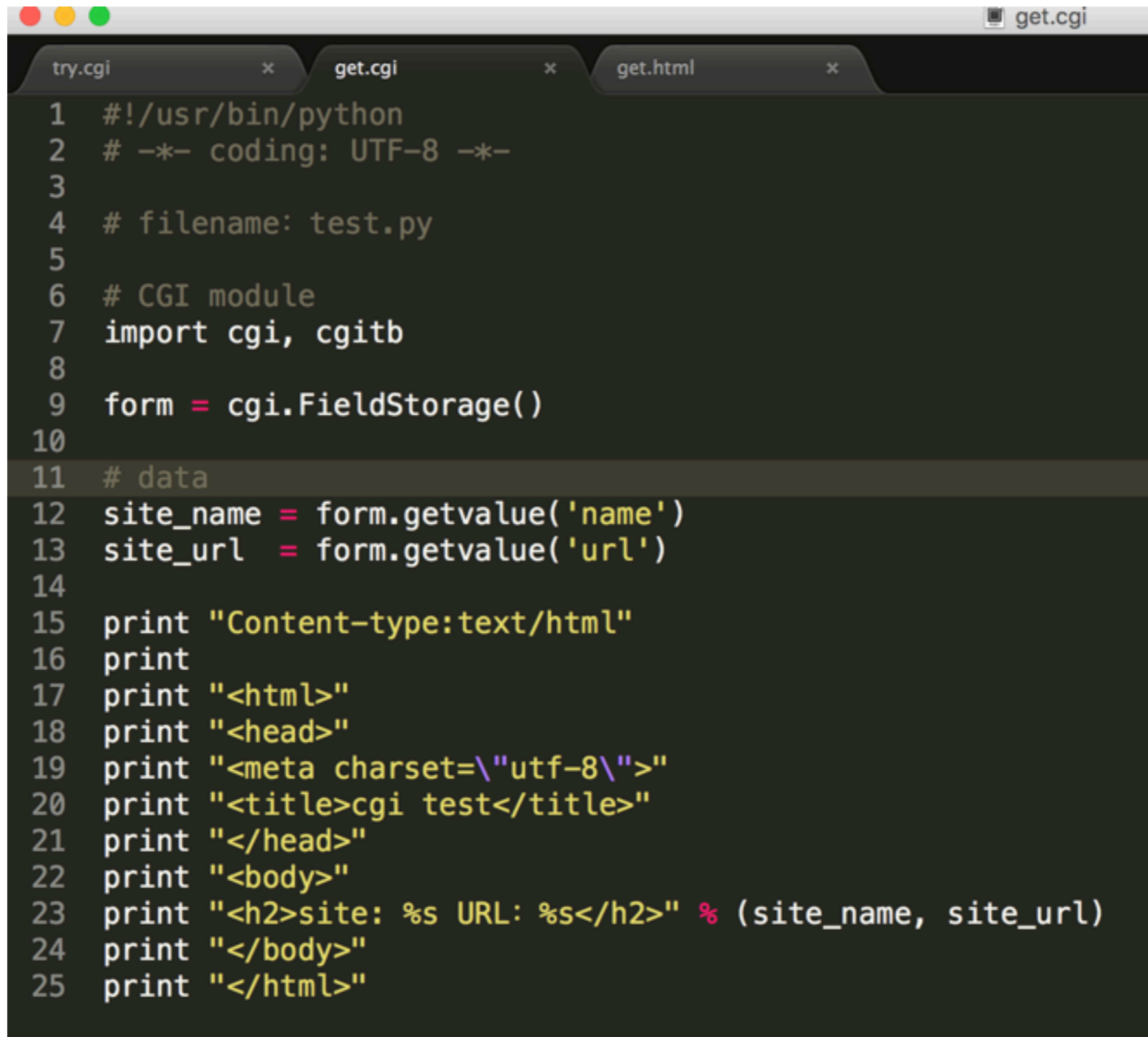


**this is my first python cgi**

# Using Python in CGI

```
try.cgi x get.cgi x get.html
1 <!DOCTYPE html>
2 <html>
3 <head>
4 <meta charset="utf-8">
5 <title>runoob.com</title>
6 </head>
7 <body>
8 <form action="get.cgi" method="get">
9 site name: <input type="text" name="name"> <br />
10 site URL: <input type="text" name="url" />
11 <input type="submit" value="submit" />
12 </form>
13 </body>
14 </html>
15
```

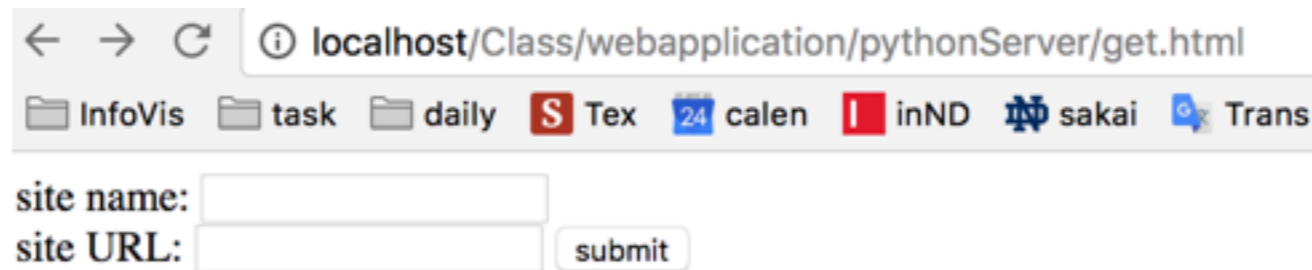
# Using Python in CGI



```
get.cgi
try.cgi x get.cgi x get.html x
1  #!/usr/bin/python
2  # -*- coding: UTF-8 -*-
3
4  # filename: test.py
5
6  # CGI module
7  import cgi, cgitb
8
9  form = cgi.FieldStorage()
10
11 # data
12 site_name = form.getvalue('name')
13 site_url = form.getvalue('url')
14
15 print "Content-type:text/html"
16 print
17 print "<html>"
18 print "<head>"
19 print "<meta charset=\"utf-8\">"
20 print "<title>cgi test</title>"
21 print "</head>"
22 print "<body>"
23 print "<h2>site: %s URL: %s</h2>" % (site_name, site_url)
24 print "</body>"
25 print "</html>"
```



# Using Python in CGI

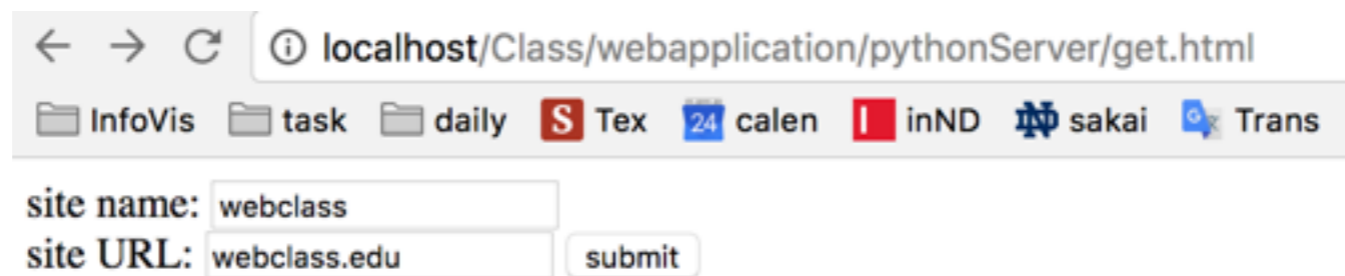


localhost/Class/webapplication/pythonServer/get.html

InfoVis task daily S Tex 24 calen I inND sakai Trans

site name:

site URL:  submit

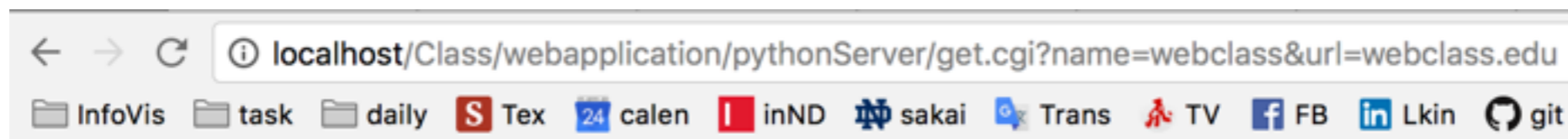


localhost/Class/webapplication/pythonServer/get.html

InfoVis task daily S Tex 24 calen I inND sakai Trans

site name:

site URL:  submit



localhost/Class/webapplication/pythonServer/get.cgi?name=webclass&url=webclass.edu

InfoVis task daily S Tex 24 calen I inND sakai Trans TV FB Lkin git

**site: webclass URL: webclass.edu**

“Most developers use a framework when they use python as their server side programming language”

# python web development framework - Django

- Most famous
- You can do everything
- Fantastic community
- Much to learn
- Needs solid background knowledge

# python web development framework - Flask

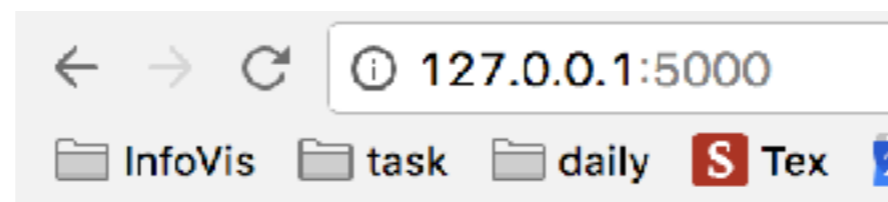
- Light version Django
- Good for small to medium sites
- Support custom features

# python web development framework - Web2py

- Different philosophy
- Graphical tools
- Support custom features

# flask hello world

```
hello.py
1  from flask import Flask
2  app = Flask(__name__)
3
4  @app.route('/')
5  def hello_world():
6      return 'Hello, World!'
```



Hello, World!

# flask hello world

- Imported the `Flask` class
- Create an instance of this class
- Use the `route()` decorator to tell Flask what URL should trigger our function.
- Returns the message we want to display in the user's browser.

```
hello.py
1  from flask import Flask
2  app = Flask(__name__)
3
4  @app.route('/')
5  def hello_world():
6      return 'Hello, World!'
```

# materials

- Flask Document
- Introduction to python server-side scripting