

How to run

Notice: Since in this assignment we assume the inputs are all valid, so there's no useless spaces or `\r\n` or anything in our input.

1. In the location of `server.py`, run command `sudo python3 server.py`. You may need to input your password of current machine. The server will be running on the `127.0.0.1:80`.

```
sudo python3 server.py
Password:
host_name: kenshinmbp.local host_ip: 127.0.0.1 host_port: 80
Server started. Waiting for connection...
```

2. Open another terminal window, run command `telnet 127.0.0.1 80`.

```
$ telnet 127.0.0.1 80
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
```

3. Now you're able to input HTTP request in the telnet interactive window.

3.1 `/api/gettime`

Request:

```
GET /api/gettime HTTP/1.1
```

Response:

```
HTTP/1.1 200 OK
Content-Type: text/html
Content-Length: 26

2019-10-07 10:57:10.928451Connection closed by foreign host.
```

3.2 `/api/evalexpression/`

Request:

```
POST /api/evalexpression HTTP/1.0
Content-Length: 8
```

```
7+9-11+6
```

Response:

```
HTTP/1 200 OK
Content-Type: text/html
Content-Length: 2

11Connection closed by foreign host.
```

3.3 any invalid URL

Request:

```
GET /api/notexist HTTP/1.1
```

Response:

```
HTTP/1.1 404 ERROR
Connection closed by foreign host.
```

3.4 `/status.html`, after you do each of the requests above once.

Request:

```
GET /status.html HTTP/1.1
```

Response:

```
<!DOCTYPE html>
<html>
<body>
<h3>/api/evalexpression</h3>
<ul>
<li>last minute: 0</li>
<li>last hour: 1</li>
<li>last 24 hours: 1</li>
<li>lifetime: 1</li>
</ul>
<h3>/api/gettime</h3>
```

```
<ul>
<li>last minute: 0</li>
<li>last hour: 1</li>
<li>last 24 hours: 1</li>
<li>lifetime: 1</li>
</ul>
<h1>Last 1 expressions</h1>
<ul>
<li>7+9-11+6</li>
</ul>
</body>
</html>
Connection closed by foreign host.
```