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COMP 332

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README HW#4

There are two python files included called WEB_CLIENT.py and WEB_PROXY.py. The goal of these two scripts is to create and implement a simple web client and web proxy using python. Eventually, the code will not require a web client, but rather use a web browser to connect to the proxy.

Two files called http_constants.py and http_util.py are included. Each file contains helper functions which help parse URLs, get requests, and create the appropriate fields.

The “web_client.py” file is a python script used to interact with a web proxy. This script sends a requested URL to its specified proxy and then prints the response received from the proxy. To run the web client, we must use the terminal and type the following command:

```
python3 web_client.py <proxy_host> <proxy_port> <requested_url>
```

An example of the command being ran properly is as follows:

```
python3 web_client.py localhost 50008 http://example.com/
```

The “web_proxy.py” file is a multi-threaded web proxy. It listens for client connections, retrieves the requested URLs from the clients, caches responses from web servers, and forwards the responses to the client. To run the web proxy, we must use the terminal and type the following command:

```
python3 web_proxy.py <proxy_host> <proxy_port>
```

An example of the command being ran properly is as follows:

```
python3 web_client.py localhost 50008
```

***Note- when running python3 web_proxy.py localhost 50007, the code runs into errors and usually breaks. However, while running the proxy on localhost 50008 and a web client, the cache and responses work as intended. ***