

### 3. Update cache

```
Command Prompt - tcp-server.py 127.0.0.1 12000
<p class="pl">Second Line</p></p>
<p class="pl">Third Line</p></p>
<p class="pl">COMPLETE</p>
</body>
</html>

Mon, 09 Nov 2020 12:48:19 GMT\r\n
Socket created for client 127.0.0.1, 32736
Data from client: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
filename.html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta http-equiv="Content-Style-Type" content="text/css">
<title></title>
<meta name="Generator" content="Cocoa HTML Writer">
<meta name="CocoaVersion" content="1404.47">
<style type="text/css">
.p.pl {margin: 0.0px 0.0px 0.0px 0.0px; font: 12.0px Helvetica}
</style>
</head>
<body>
<p class="pl"><!--<p class="pl">First Line</p>
<p class="pl">Second Line</p>
<p class="pl">Third Line</p>
<p class="pl">COMPLETE</p>
</body>
</html>

Mon, 09 Nov 2020 12:45:28 GMT\r\n
Socket created for client 127.0.0.1, 32847
Data from client: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
filename.html
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta http-equiv="Content-Style-Type" content="text/css">
<title></title>
<meta name="Generator" content="Cocoa HTML Writer">
<meta name="CocoaVersion" content="1404.47">
<style type="text/css">
.p.pl {margin: 0.0px 0.0px 0.0px 0.0px; font: 12.0px Helvetica}
</style>
</head>
<body>
<p class="pl"><!--<p class="pl">First Line</p>
<p class="pl">Second Line</p>
<p class="pl">Third Line</p>
<p class="pl">COMPLETE</p>
</body>
</html>

Mon, 09 Nov 2020 12:46:44 GMT\r\n
in here

Command Prompt
error in code
C:\Users\AlbertWang\Documents\cs356 programs>tcp-client.py 127.0.0.1 12000 filename.html
Connecting to 127.0.0.1, 12000
file not found
Sending data to server: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
Receive data from server: HTTP/1.1 200 OK\r\nDate: Mon, 09 Nov 2020 17:40:18 UTC\r\nLast-Modified: Mon, 09 Nov 2020 17:40:19 GMT\r\nContent-Length: 720\r\nContent-Type: text/html; charset=UTF-8\r\n\r\n<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta http-equiv="Content-Style-Type" content="text/css">
<title></title>
<meta name="Generator" content="Cocoa HTML Writer">
<meta name="CocoaVersion" content="1404.47">
<style type="text/css">
.p.pl {margin: 0.0px 0.0px 0.0px 0.0px; font: 12.0px Helvetica}
</style>
</head>
<body>
<p class="pl"><!--<p class="pl">First Line</p>
<p class="pl">Second Line</p>
<p class="pl">Third Line</p>
<p class="pl">COMPLETE</p>
</body>
</html>

HTTP/1.1 200 OK
webpage returned
cache successfully created

C:\Users\AlbertWang\Documents\cs356 programs>tcp-client.py 127.0.0.1 12000 filename.html
Connecting to 127.0.0.1, 12000
file not found
Sending data to server: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
Receive data from server: HTTP/1.1 200 OK\r\nDate: Mon, 09 Nov 2020 17:40:18 UTC\r\nLast-Modified: Mon, 09 Nov 2020 17:45:28 GMT\r\nContent-Length: 720\r\nContent-Type: text/html; charset=UTF-8\r\n\r\n<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta http-equiv="Content-Type" content="text/html; charset=utf-8">
<meta http-equiv="Content-Style-Type" content="text/css">
<title></title>
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<style type="text/css">
.p.pl {margin: 0.0px 0.0px 0.0px 0.0px; font: 12.0px Helvetica}
</style>
</head>
<body>
<p class="pl"><!--<p class="pl">First Line</p>
<p class="pl">Second Line</p>
<p class="pl">Third Line</p>
<p class="pl">COMPLETE</p>
</body>
</html>

HTTP/1.1 200 OK
webpage returned
cache successfully created
```

#### 4. File not found

```
Command Prompt - tcp-server.py 127.0.0.1 12000
<p class="pl">Second Line</p></p>
<p class="pl">Third Line</p></p>
<p class="pl">COMPLETE</p>
</body>
</html>

Mon, 09 Nov 2020 12:29:04 GMT\r\n
in here
Socket created for client 127.0.0.1, 31582
Data from client: GET /filenames.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
\r\n
Traceback (most recent call last):
  File "C:\Users\AlbertWang\Documents\cs356 programs>tcp-server.py", line 39, in <module>
    t1 = time.strptime(body, "%a, %d %b %Y %H:%M:%S %Z\r\n")
  File "C:\Users\AlbertWang\AppData\Local\Programs\Python\Python38\lib\strptime.py", line 562, in _strptime_time
    tt = _strptime(data_string, format)[0]
  File "C:\Users\AlbertWang\AppData\Local\Programs\Python\Python38\lib\strptime.py", line 349, in _strptime
    raise ValueError("time data '%s' does not match format '%s'" %
ValueError: time data '\r\n' does not match format '%a, %d %b %Y %H:%M:%S %Z\r\n'

C:\Users\AlbertWang\Documents\cs356 programs>tcp-server.py 127.0.0.1 12000
The server is ready to receive on port: 12000
Socket created for client 127.0.0.1, 31695
Data from client: GET /filenames.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
\r\n
filenames.html

Command Prompt
Sending data to server: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
Receive data from server: HTTP/1.1 304 Not Modified\r\nDate: Mon, 09 Nov 2020 17:26:05 UTC\r\n\r\n
not modified

C:\Users\AlbertWang\Documents\cs356 programs>tcp-client.py 127.0.0.1 12000 filename.html
Connecting to 127.0.0.1, 12000
file not found
Sending data to server: GET /filename.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
Receive data from server: HTTP/1.1 304 Not Modified\r\nDate: Mon, 09 Nov 2020 17:26:05 UTC\r\n\r\n
not modified

C:\Users\AlbertWang\Documents\cs356 programs>tcp-client.py 127.0.0.1 12000 filenames.html
Connecting to 127.0.0.1, 12000
file not found
Sending data to server: GET /filenames.htmlHTTP/1.1\r\nHost: 127.0.0.1:12000\r\n\r\n
Receive data from server: HTTP/1.1 304 Not Found\r\nDate: Mon, 09 Nov 2020 17:30:58 UTC\r\nContent-Length: 0\r\n\r\n
HTTP/1.1 404 Not Found
webpage does not exist

C:\Users\AlbertWang\Documents\cs356 programs>
```