Lab 2

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1. **Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running?**

My browser is running HTTP 1.1 as well as the server is running HTTP 1.1.

1. **What languages (if any) does your browser indicate that it can accept to the server?**

Acceptable languages are English and English-US.

1. **What is the IP address of your computer? Of the gaia.cs.umass.edu server?**

My IP address: 10.0.0.69 & edu server’s IP address: 128.119.245.12

1. **What is the status code returned from the server to your browser?**

200

1. **When was the HTML file that you are retrieving last modified at the server?**

Sun, 30 April 2017

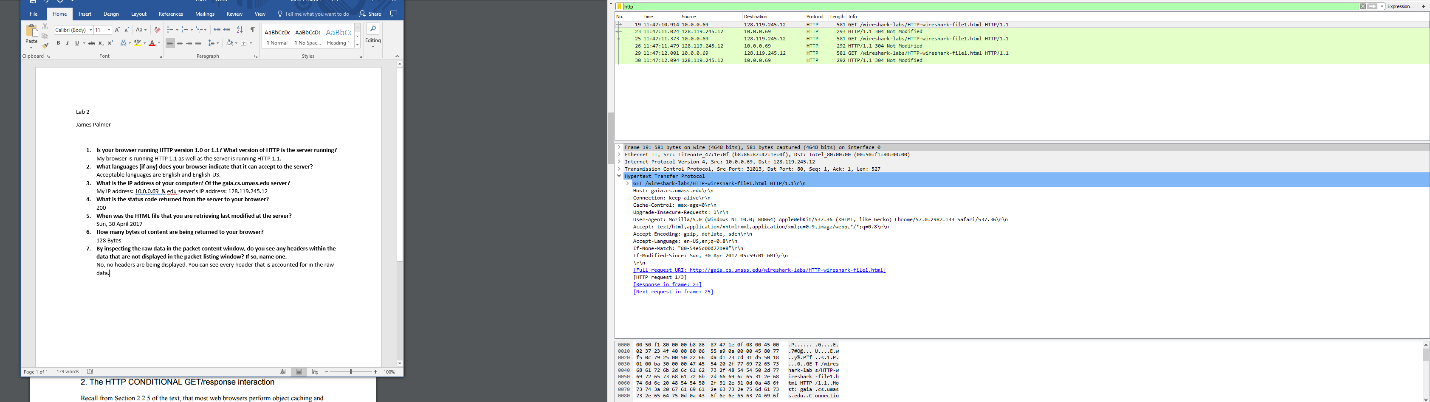
1. **How many bytes of content are being returned to your browser?**

128 Bytes

1. **By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one.**

No, no headers are being displayed. You can see every header that is accounted for in the raw data.

It was stated in Lab 1 that I was docked points because the screenshots were in separate files that my word doc. So, I am pasting below each question section:



1. **Inspect the contents of the first HTTP GET request from your browser to the server. Do you see an “IF-MODIFIED-SINCE” line in the HTTP GET?**

No, you can only see an IF-MODIFIED-SINCE in the second browser GET request.

1. **Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?**

Yes, the file is being displayed below the packet.

1. **Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an “IF-MODIFIED-SINCE:” line in the HTTP GET? If so, what information follows the “IF-MODIFIED-SINCE:” header?**

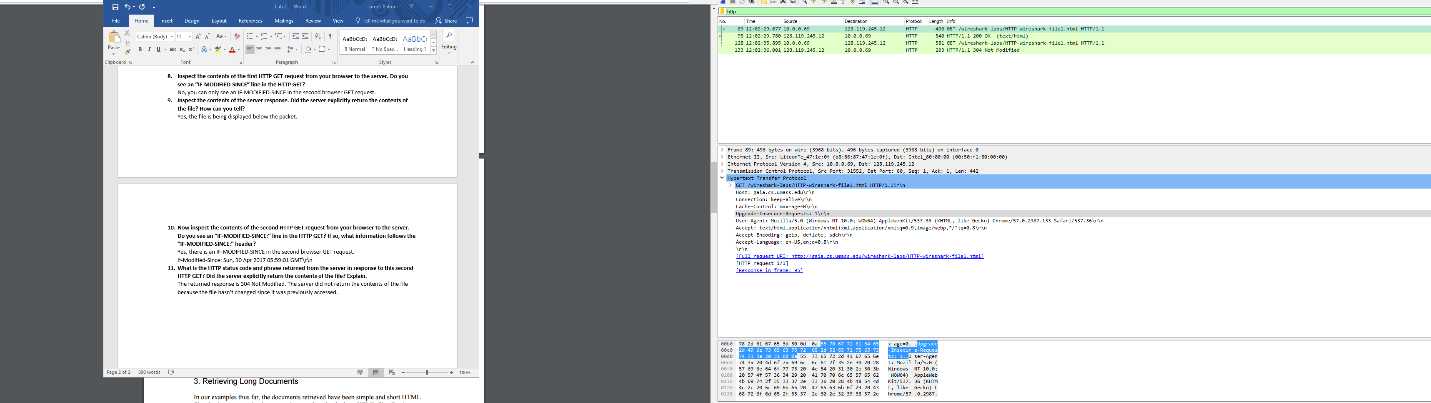
Yes, there is an IF-MODIFIED-SINCE in the second browser GET request.

If-Modified-Since: Sun, 30 Apr 2017 05:59:01 GMT\r\n

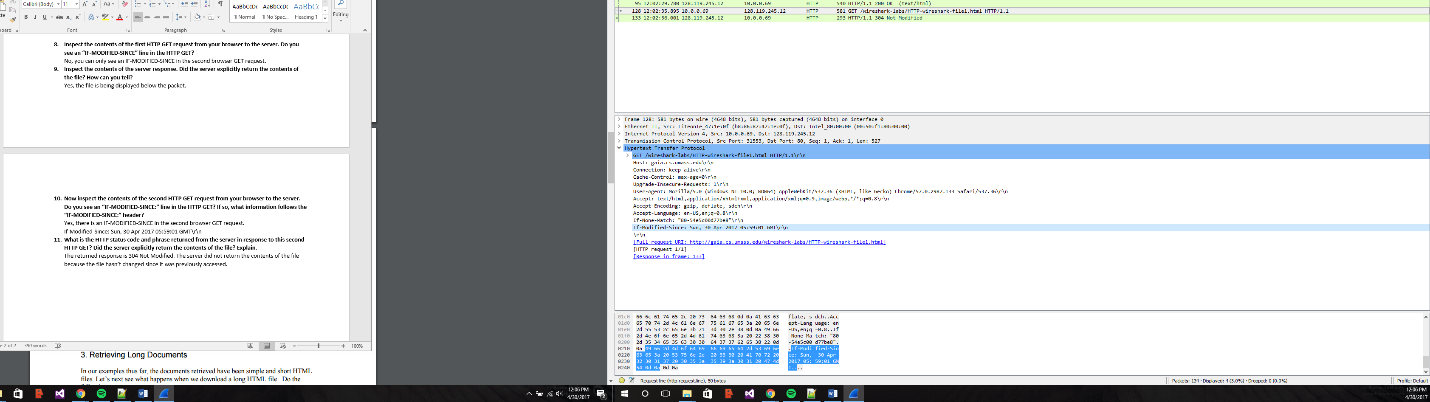
1. **What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.**

The returned response is 304 Not Modified. The server did not return the contents of the file because the file hasn’t changed since it was previously accessed.

First GET



Second GET



1. **How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill or Rights?**

One HTTP Get messages was sent by my browser. My packet number was 60.

1. **Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request?**

The packet that contains the status code and phrase which the server sent in response to the GET message was packet number 66.

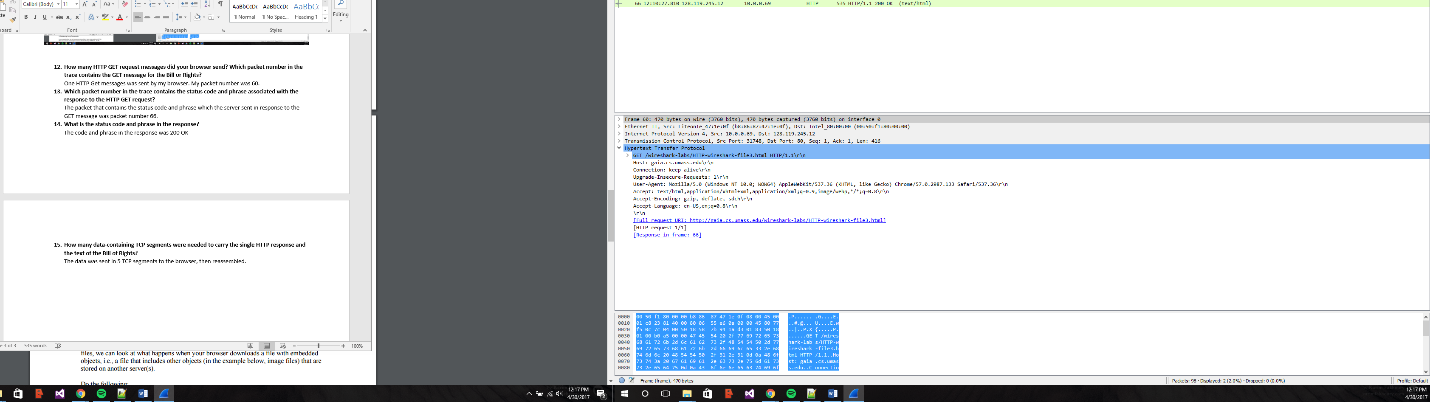
1. **What is the status code and phrase in the response?**

The code and phrase in the response was 200 OK

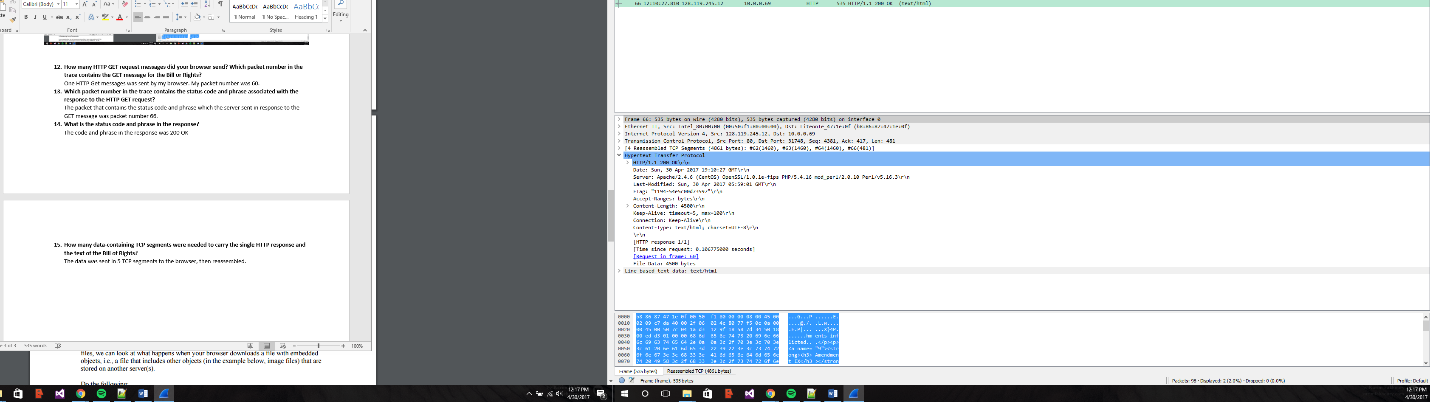
1. **How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights?**

The data was sent in 5 TCP segments to the browser, then reassembled.

HTTP GET



Second HTTP

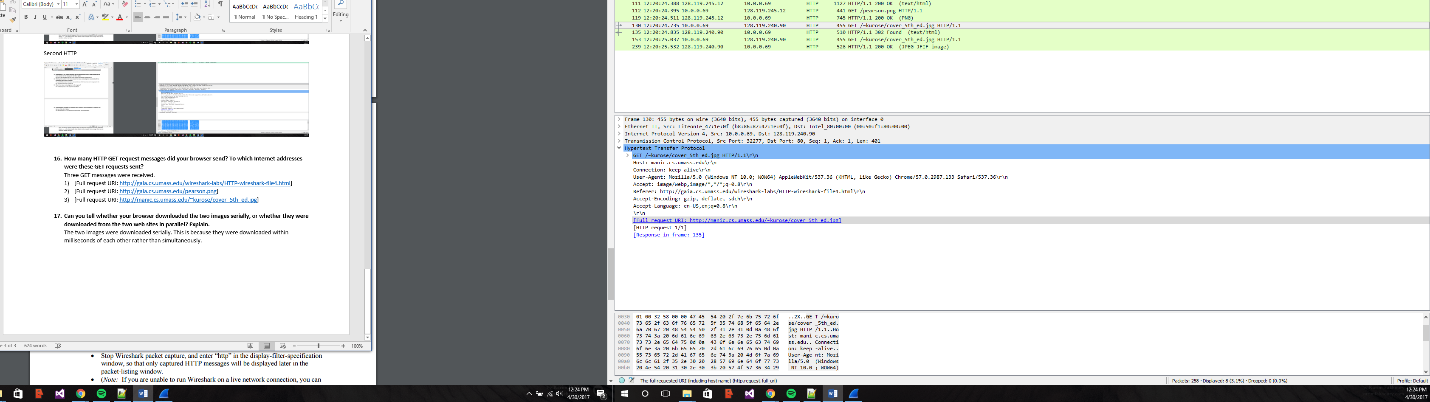


1. **How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?**

Three GET messages were received.

1. [Full request URI: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html>]
2. [Full request URI: <http://gaia.cs.umass.edu/pearson.png>]
3. [Full request URI: <http://manic.cs.umass.edu/~kurose/cover_5th_ed.jpg>]
4. **Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.**

The two images were downloaded serially. This is because they were downloaded within milliseconds of each other rather than simultaneously.



1. **What is the server’s response (status code and phrase) in response to the initial HTTP GET message from your browser?**

401 Unauthorized

1. **When your browser’s sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?**

The second GET message displays the following:

Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n

