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CS 372

Lab 2

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

a. My browser is running HTTP version 1.1

b. The server is running HTTP version 1.1

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

The server indicates that it can accept en-us and en. This means that it can accept United States English and English.

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

a. My IP address: 10.248.86.15

b. gaia.cs.umass.edu server IP address: 128.119.245.12

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

The code it returns is 200, which means OK.

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

The file was last modified on Friday October 9th, 2015 at 05:59:01 GMT.

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

There were 542 bytes returned to my browser.

**7.** 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?

Yes, it is IF-MODIFIED-SINCE: Friday October 9th, 2015 at 05:59:01 GMT

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

Yes, because before accessing the website I had cleared my cache, meaning that I got a response from the origin server as an original html file.

**9.** 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 “IFMODIFIED-SINCE:” header?

The phrase followed by the IF MODIFIED-SINCE header is Friday October 9th, 2015 at 05:59:01 GMT.

**10.** 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 status code is 304 Not Modified. Based on that and the message “Response Phrase: Not Modified” and the previous status code, the server did not explicitly return the contents of the file; it simply returned the information that was previously cached.

**11.** 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?

My browser sent one HTTP GET request message to the server. The packet number associated with the HTTP GET request message is 1175.

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

The packet number associated with the HTTP GET response message is 1183.

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

The status code in the response is 200, meaning OK.

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

In order to carry the single HTTP response and the text of the Bill of Rights, 4 Reassembled TCP Segments were needed.

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

My browser sent 4 HTTP GET request messages to the following IP addresses:

a.) 128.119.245.12

b.) 165.193.140.14

c.) 128.119.240.90

d.) 128.119.240.90

**16.** Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.

These two images were downloaded from two different websites in parallel. This is shown by the fact that each GET request message has a corresponding response immediately following and a different source. The first image came from the IP address 165.193.140.14, while the second one came from the IP address 128.119.240.90.

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

The server’s response to the initial HTTP GET request message is 401 Authorization Required. This requires the client to enter a username and password to check for authorization.

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

When my browser sent the HTTP GET message for the second time, the Authorization field is added. This simply allows the client to access the information based on the username and password entered.