COMPUTER NETWORKS

Lab 2a

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Answer questions:

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

Answer: My browser is running HTTP ver 1.1. The server is running HTTP ver 1.1.

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

Answer: They can be Vietnamese or English.

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

Answer: My IP address: 10.228.199.43. Server's IP address: 128.119.245.12

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

Answer: The status code from the server is 200 OK.

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

Answer: It was 05:59:02 GMT, 12 October 2020.

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

Answer: 128 bytes.

7. 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.

Answer: There are some data were not displayed in the packet content but in the packet-listing window. One of them: [Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]

8. 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?

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

Answer: The server didn't return content of the file. Because there is no data field inside the return content.

10. 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?

Answer: It's Mon, 12 Oct 2020 05:59:02 GMT.

11. 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.

Answer: The status code this time is 304 Not Modified. The server didn't return the content because the browser took the content that was not modified from cache.

12. 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?

Answer: There is 1 GET request.

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

Answer: 49

14. What is the status code and phrase in the response?

Answer: 200 OK.

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

Answer: There is 4 of them. 3 carried 1452 bytes and 1 carried 505 bytes.

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

Answer: It sent 3 requests to 128.119.245.12

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

Answer: Serially. Because they have different packet number.

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

Answer: 401 Unauthorized

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

Answer: It was [Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n

Credentials: wireshark-students:network].