

Task 1

1. Is your browser running HTTP version 1.0, 1.1, or 2? What version of HTTP is the server running?

Ans: 1.1

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

Ans: en-US

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

Ans: My computer: 10.0.0.44

Server: 128.119.245.12

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

Ans: 200

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

Ans: Last-Modified: Sat, 30 Jan 2021 06:59:02 GMT\r\n

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

Ans: 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.

Ans: No

Task 2

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?

Ans: No. As it is sending the request for the first time.

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

Ans: Yes. Because it sent the full line based html text data. Also the status code is 200 which indicates ok.

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 GET6? If so, what information follows the "IF-MODIFIED-SINCE:" header?

Ans: Yes. It follows with the date Sat, 30 Jan 2021 06:59:02 GMT. It means it is asking if the file is being modified since the date.

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?

Ans: The status code is 304 and the response phrase is "Not Modified". The server didn't return the contents explicitly as we can not see the full line based html text data.

Task-3

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

Ans: One. 26 is the packet number.

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

Ans: 32

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

Ans: Status code: 200 and Response Phrase: Ok

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

Ans: 4

Task-4

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

Ans: 4.

1st: 128.119.245.12

2nd: 128.119.245.12

3rd: 178.79.137.164

4th: 104.98.115.146

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.

Ans: Serially. Because the second image is requested (3.309908) after the response time (3.092770) of the first request.

Task-5

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

Ans: Status Code: 401

Response Phrase: 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?

Ans: The new field is authorization. It contains the credentials.(user-id and password)