Lab 1

Oliver Lundin & Emma Zettervall (olilu316, emmze999)

1. The Basic HTTP GET/response interaction

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

Both server and browser is running 1.1 (HTTP/1.1)

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

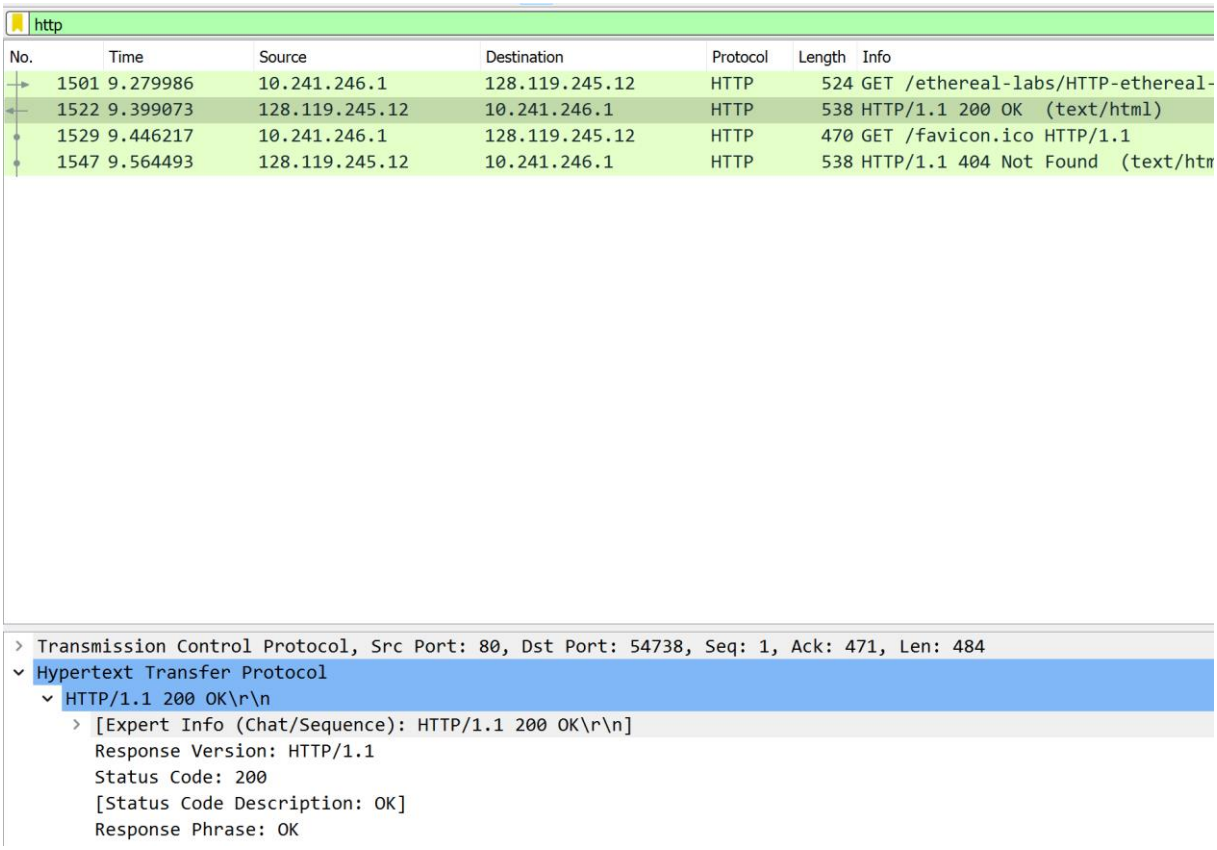
sv-SE,sv;q=0.9,en-US;q=0.8,en;q=0.7 (Svenska/Engelska)

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

10.241.202.10 is my address, 128.119.245.12 is the server address.

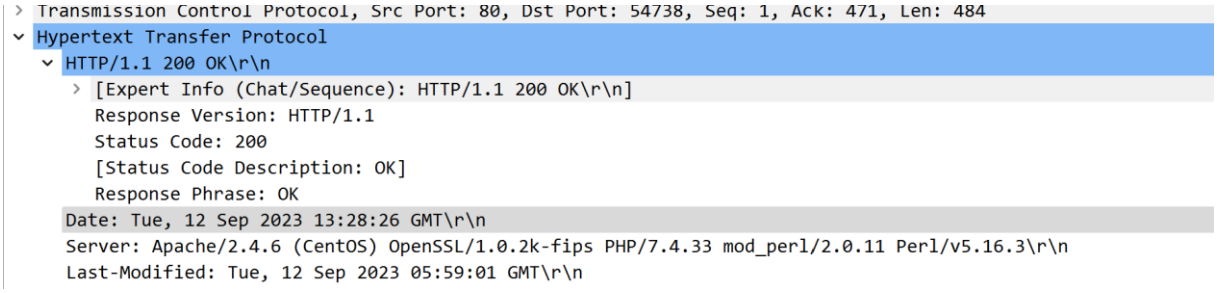
4. What is the status code returned from the server to your browser?

Status Code: 200 OK

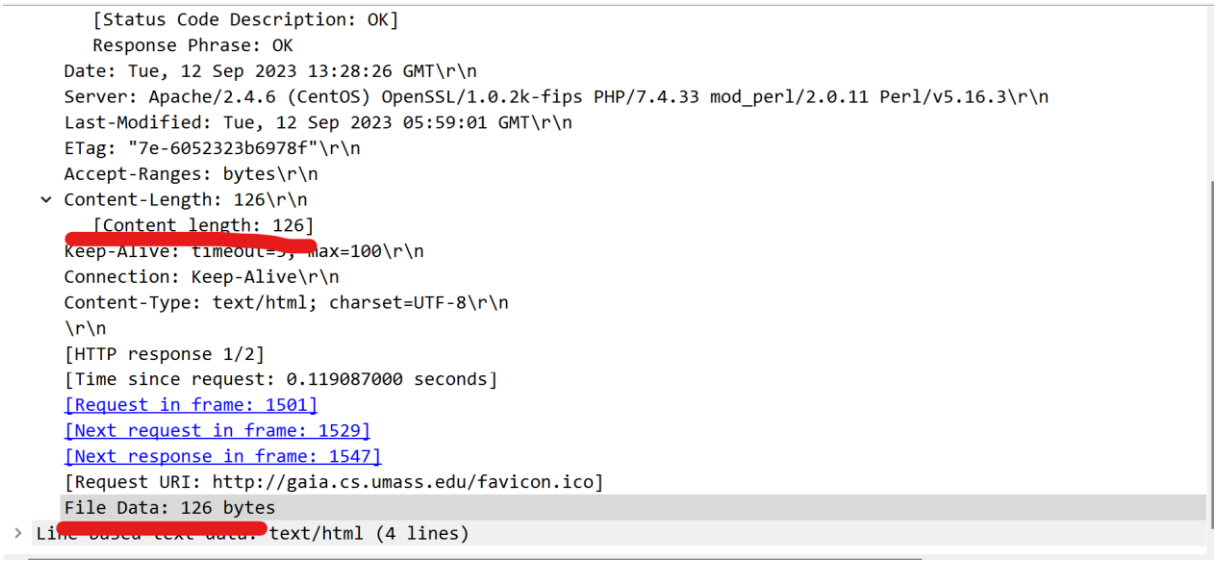


5. When was the HTML file that you are retrieving last modified at the server?

This morning.



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



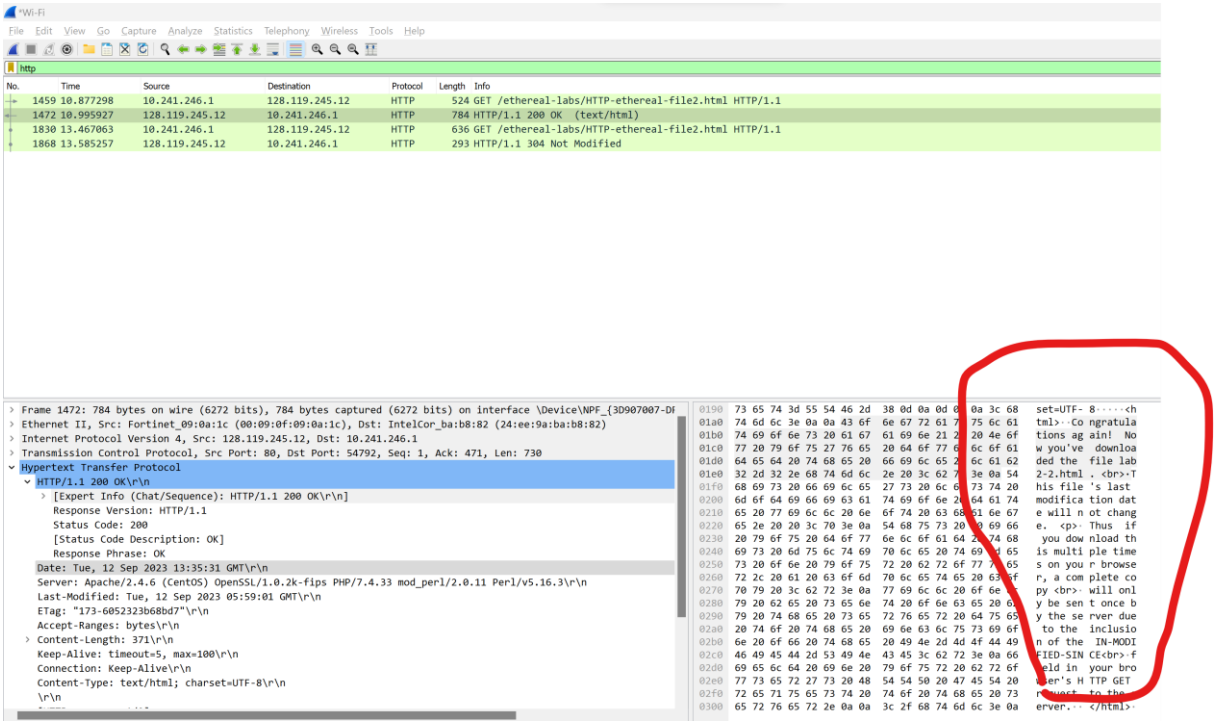
Content should be 126 bytes.

2. The HTTP CONDITIONAL GET/response interaction

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?

No we do not see it.

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



We can tell because the content from the web browser is being displayed in wireshark.

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 “IF-MODIFIED-SINCE:” header?

Yes, If-Modified-Since: Thu, 07 Sep 2023 05:59:02 GMT\r\n, A date.

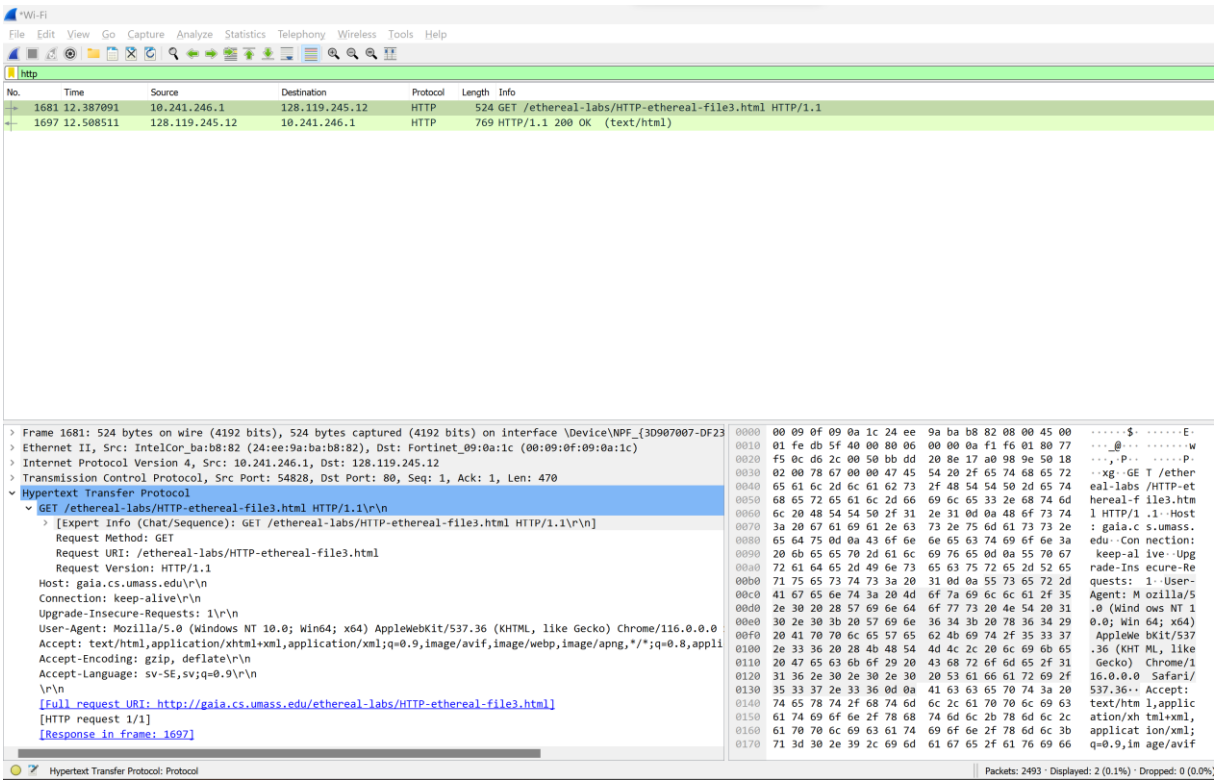
10. What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.

Status Code: 304, Response Phrase: Not Modified, it did not return the contents because the file was not modified.

3. Retrieving Long Documents

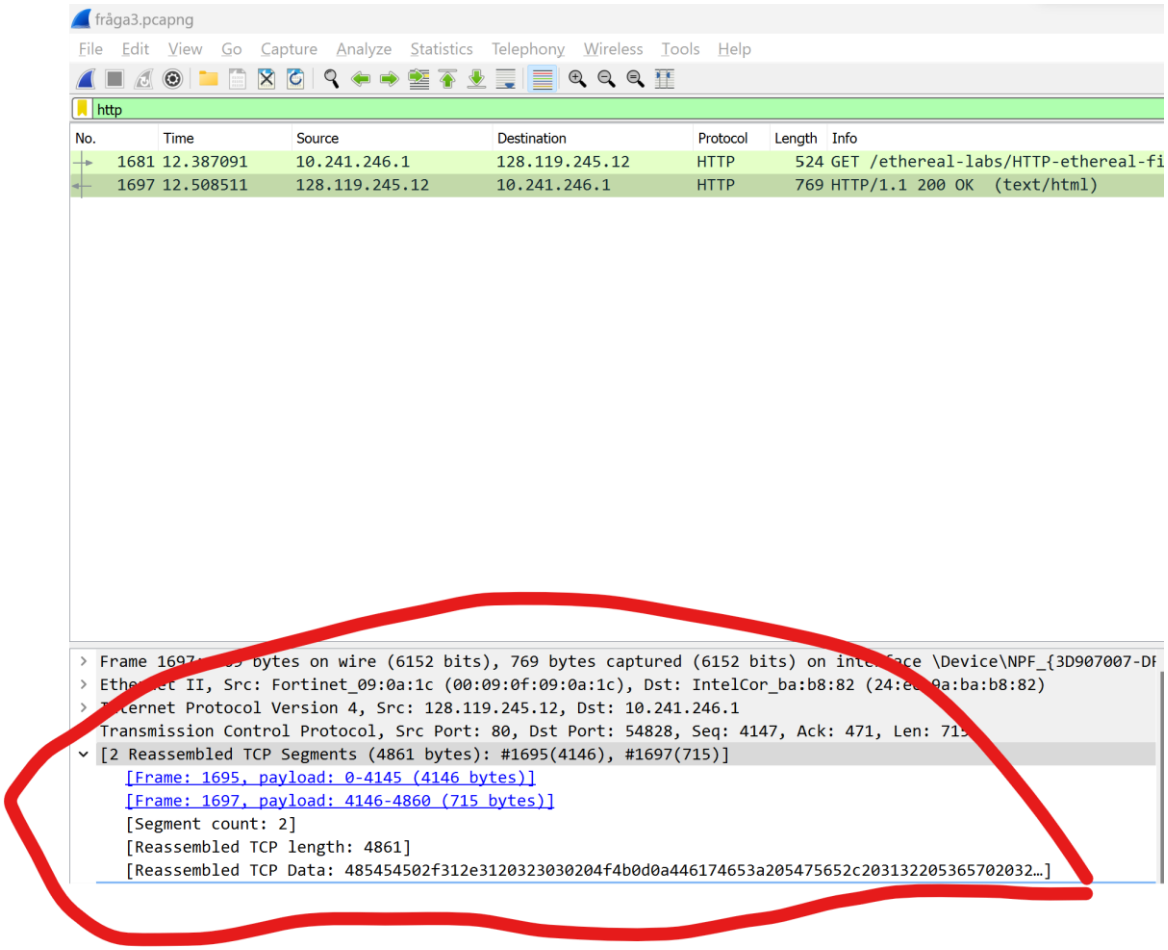
11. How many HTTP GET request messages were sent by your browser?

1



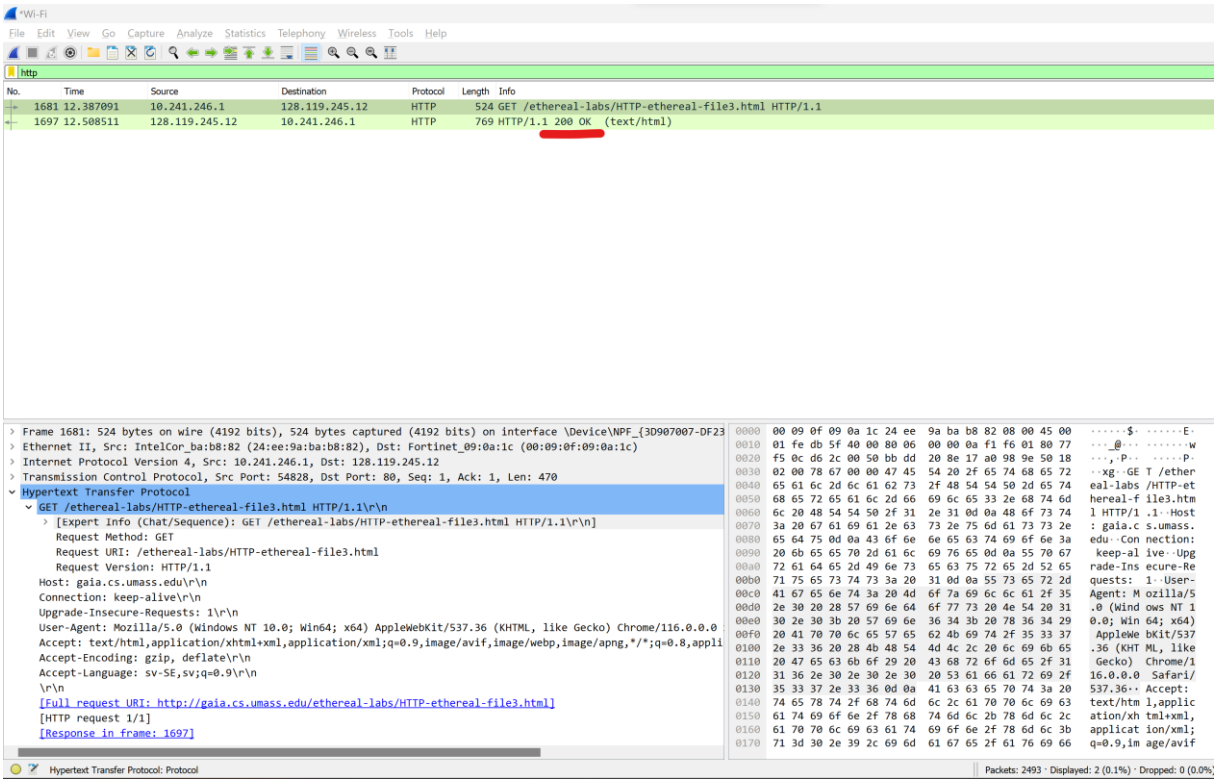
12. How many data-containing TCP segments were needed to carry the single HTTP response?

2



13. What is the status code and phrase associated with the response to the HTTP GET request?

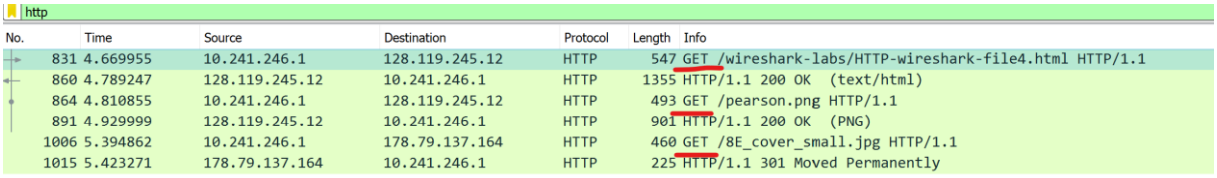
Status Code: 200, Response Phrase: OK



4. HTML Documents with Embedded Objects

14. How many HTTP GET request messages were sent by your browser? To which Internet addresses were these GET requests sent?

3 requests are sent. 1 for the website, 1 for the first picture and 1 for the second.



The first two requests are sent to the address: 128.119.245.12 and the third is to another address: 178.79.137.164.

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

They should be downloaded in parallel since the arrival times are very close. If it was serial it would be a bigger difference in arrival time since the 3rd GET should be sent after the 2nd is done.

2nd Arrival Time: Sep 12, 2023 16:04:45.592493000 W. Europe Daylight Time

3rd Arrival Time: Sep 12, 2023 16:04:46.176500000 W. Europe Daylight Time

5. HTTP Authentication

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

401: Authorization required

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

A field for authentication.