

VIET NAM NATIONAL UNIVERSITY HO CHI MINH CITY
HO CHI MINH CITY UNIVERSITY OF TECHNOLOGY
FACULTY OF COMPUTER SCIENCE AND ENGINEERING



LABORATORY REPORT

LAB 3

COMPUTER NETWORK

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

Version HTTP of browser: HTTP/1.1

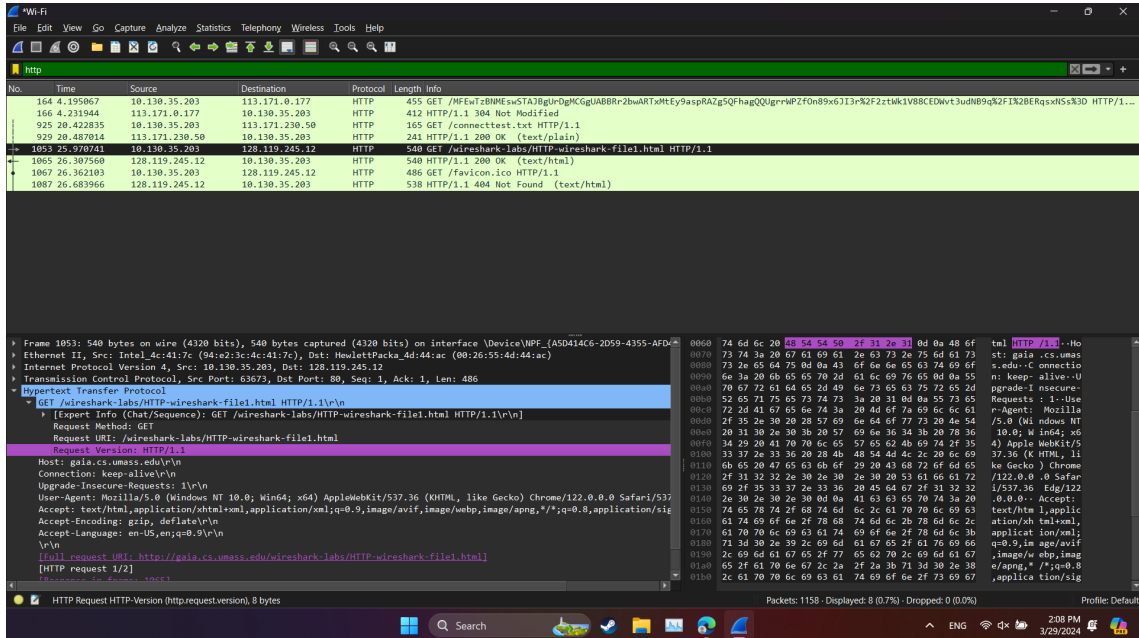


Figure 1: HTTP version of Browser.

Version HTTP of server: HTTP/1.1

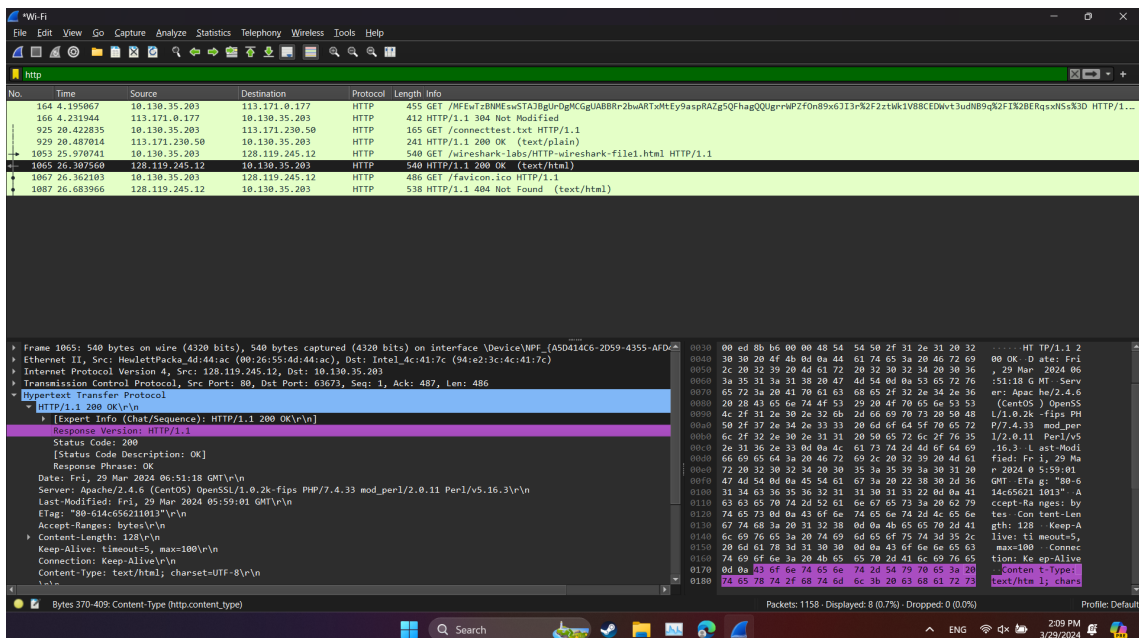


Figure 2: HTTP version of Server.

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

Accept language: English.

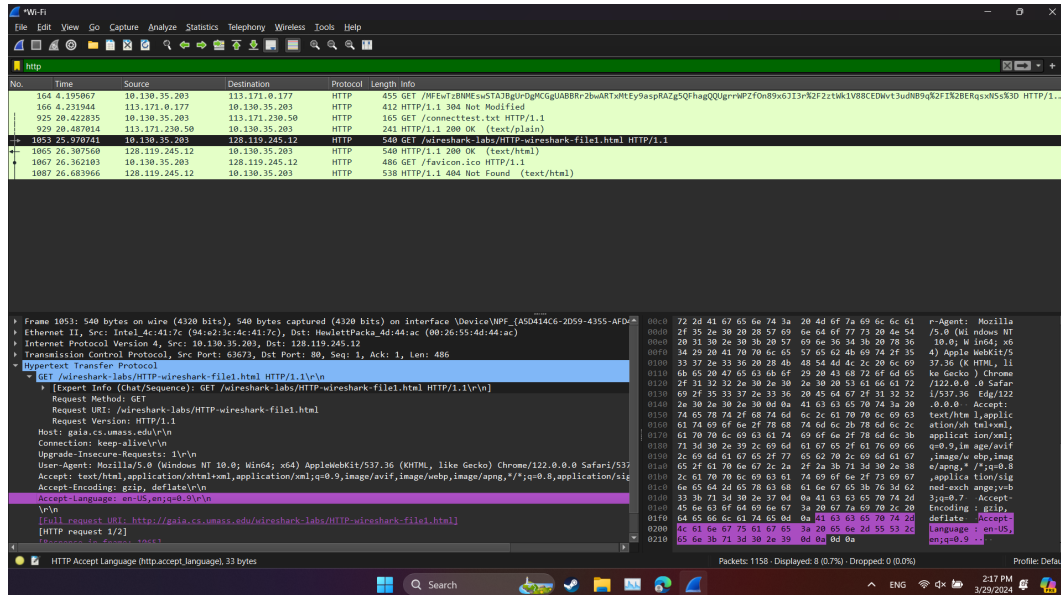


Figure 3: Accept Language for Browser.

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

gaia.cs.umass.edu address: 128.119.245.12

Internet address of your computer: 10.130.35.203

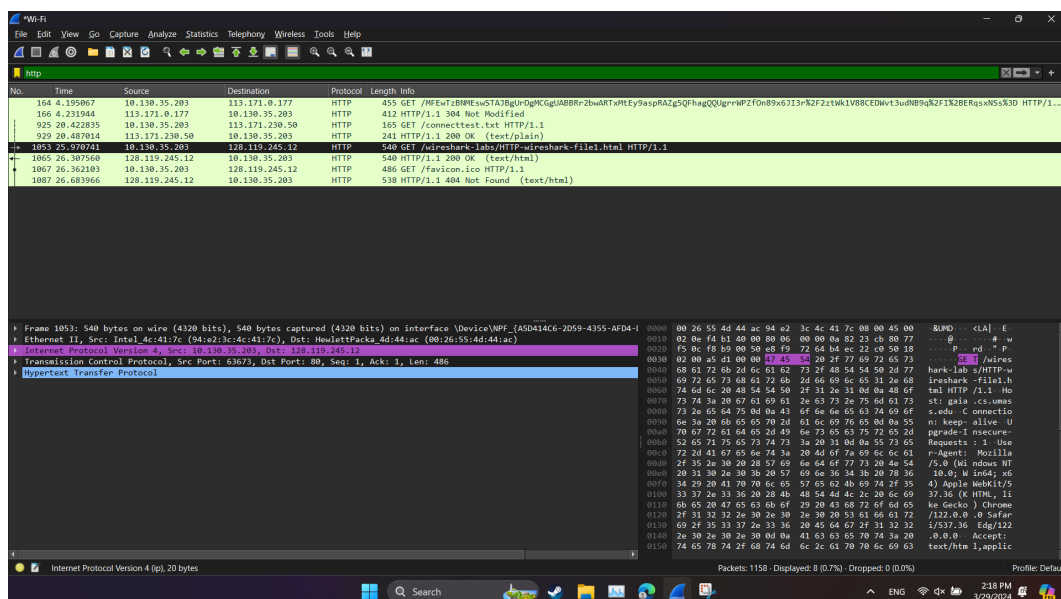


Figure 4: Source and Destination IP.

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

Status code: 200.

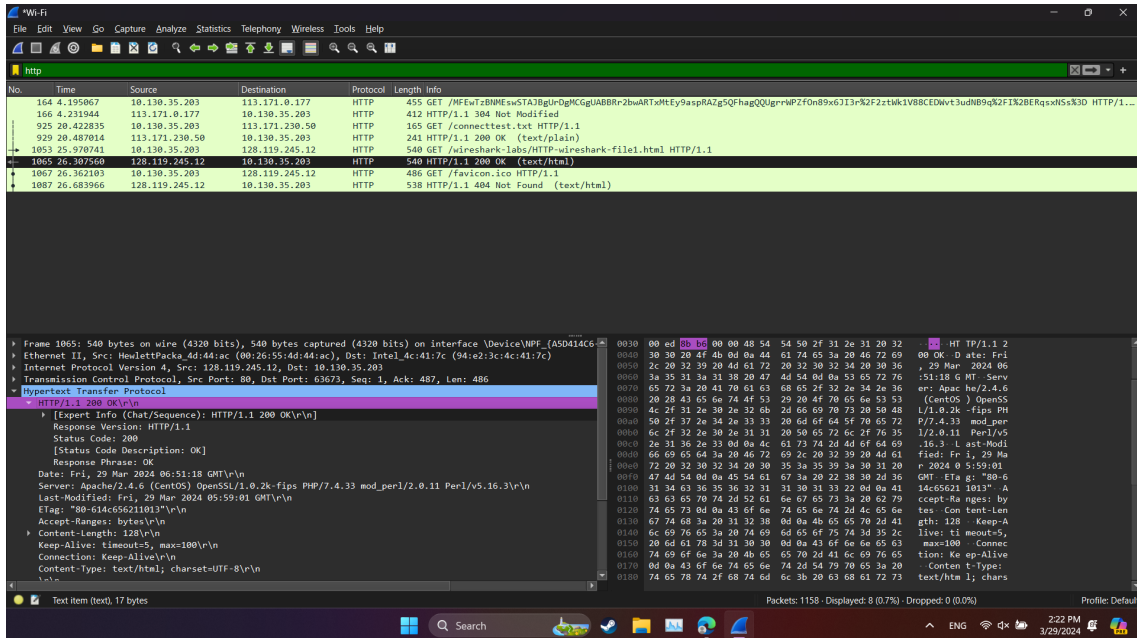


Figure 5: Returned status code.

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

Last modified date and time at the Server: Friday, 29 March 2024 05:59:01 GMT.

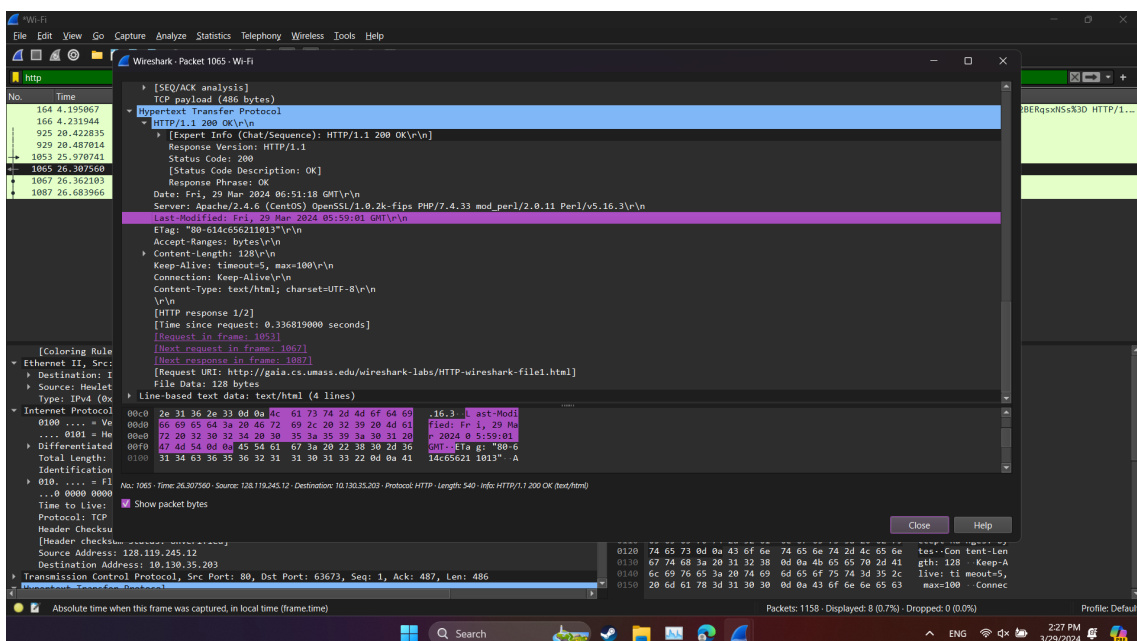


Figure 6: Last modified date at the Server.

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

Content length: 128 bytes.

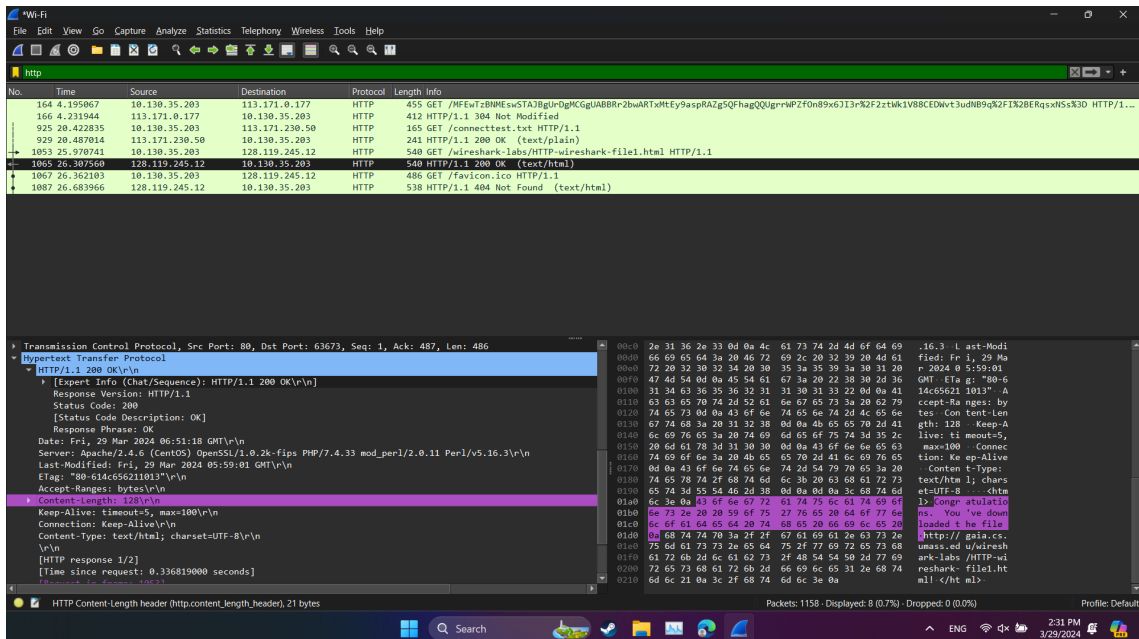


Figure 7: Content Length

- 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

Everything is displayed in the packet-listing window.

- 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?

There is no line name "IF-MODIFIED-SINCE".

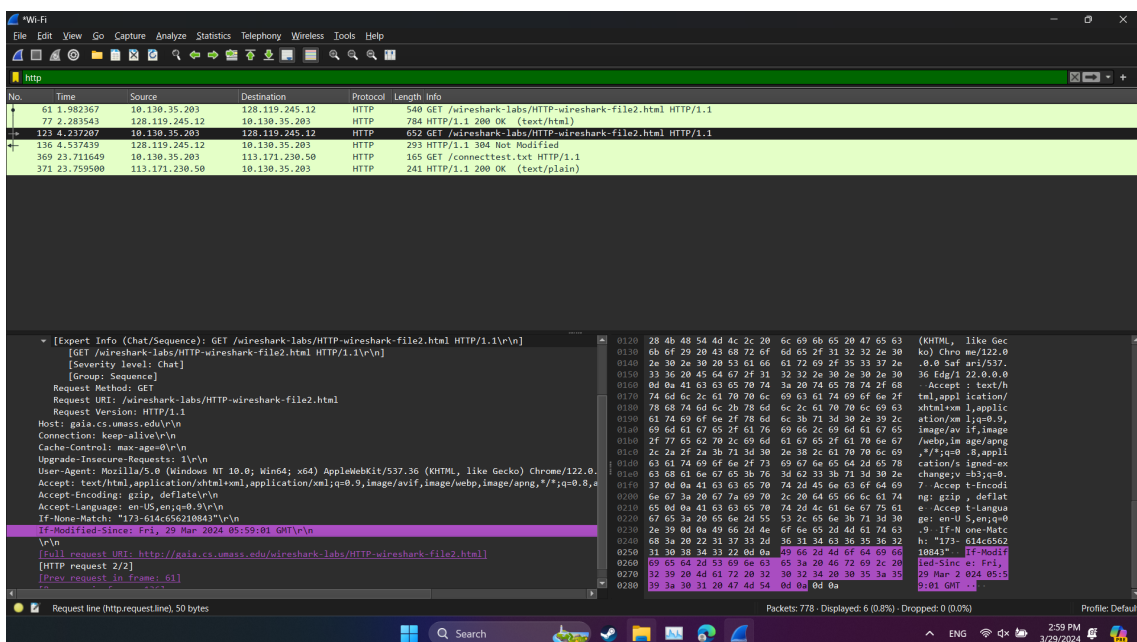


Figure 8: First GET request.

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

The server send the exact content with 317 bytes of data and also the information of it.

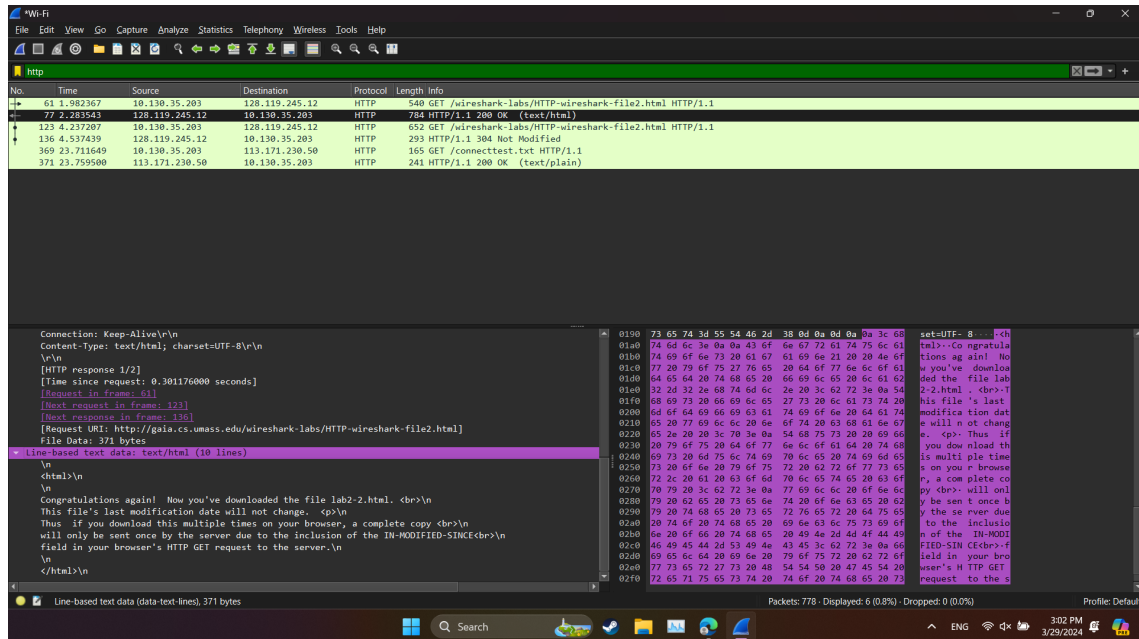


Figure 9: Content from the Server

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?

Yes. There is a “IF-MODIFIED-SINCE:” line.

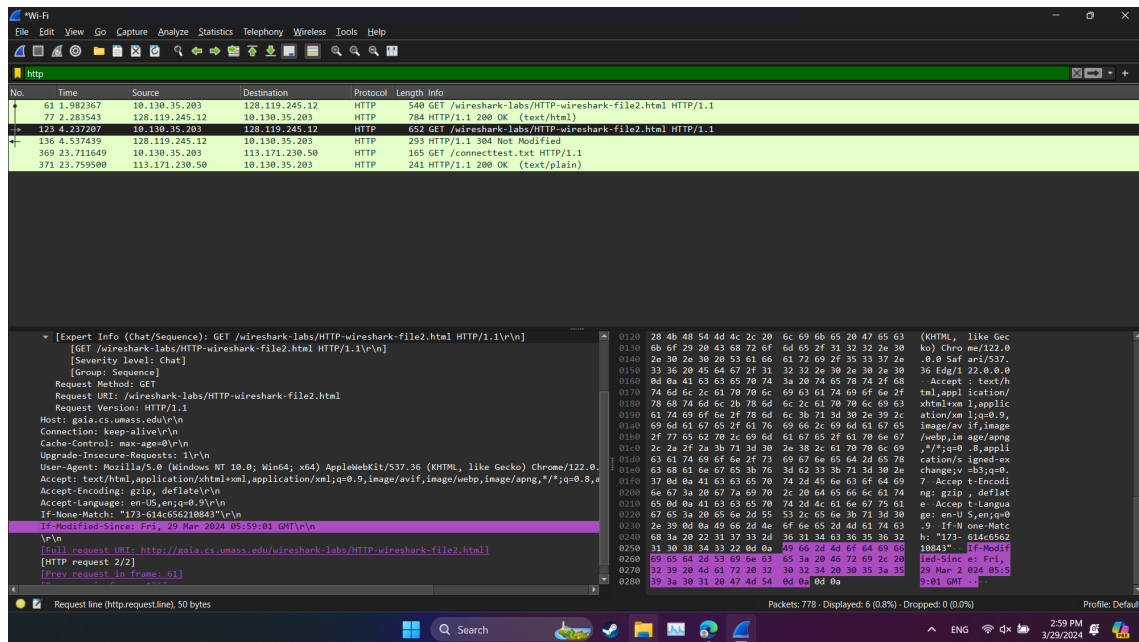


Figure 10: Second GET request.

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.

The status code of the second GET response is 304. The server sent the same data as it sent at the first response (Not Modified).

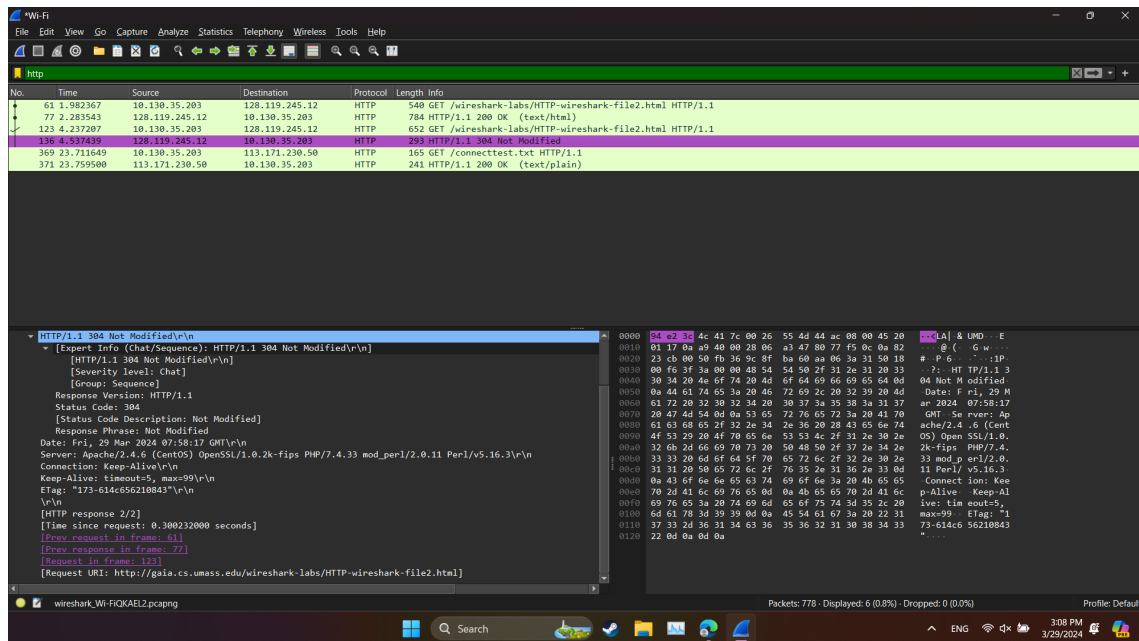


Figure 11: Status Code 304.

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?

Only one time needed.

84	1.694492	10.130.35.203	128.119.245.12	HTTP	540	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
106	2.000381	128.119.245.12	10.130.35.203	HTTP	679	HTTP/1.1 200 OK (text/html)

Figure 12: GET request for the third link.

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

The packet number is 106. The GET request is at number 84.

84	1.694492	10.130.35.203	128.119.245.12	HTTP	540	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
106	2.000381	128.119.245.12	10.130.35.203	HTTP	679	HTTP/1.1 200 OK (text/html)

Figure 13: Caption

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

The status code is 200. The phrase is "OK".

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

There are 4 TCP segments in a single HTTP response.

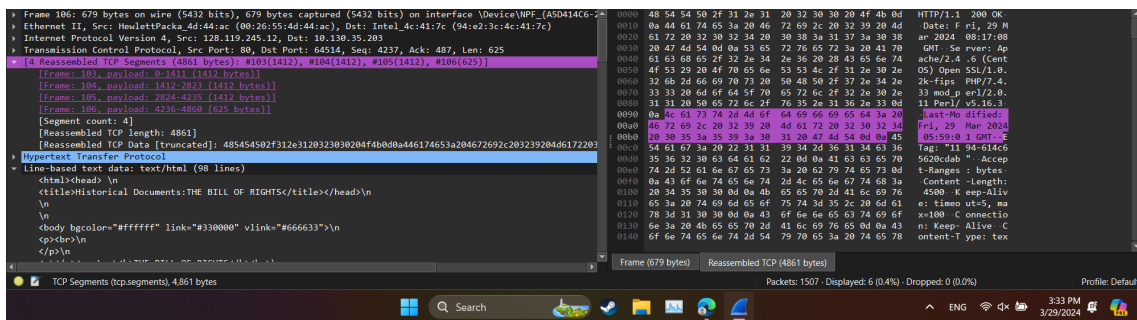


Figure 14: TCP Segments.

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

There are 3 GET requests include the html file and the 2 pictures. The html file and the person picture GET request sent to the same destination address while the last object didn't.

202	2.296548	10.130.35.203	128.119.245.12	HTTP	540 GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
243	3.272487	128.119.245.12	10.130.35.203	HTTP	1355 HTTP/1.1 200 OK (text/html)
250	3.323423	10.130.35.203	128.119.245.12	HTTP	486 GET /pearson.png HTTP/1.1
275	3.628616	128.119.245.12	10.130.35.203	HTTP	841 HTTP/1.1 200 OK (PNG)
279	3.662493	10.130.35.203	178.79.137.164	HTTP	453 GET /8E_cover_small.jpg HTTP/1.1
287	3.926963	178.79.137.164	10.130.35.203	HTTP	225 HTTP/1.1 301 Moved Permanently

Figure 15: GET requests of the fourth link.

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.

Yes. Due to the time, we can see that the browser downloaded two serial pictures.

202	2.296548	10.130.35.203	128.119.245.12	HTTP	540 GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
243	3.272487	128.119.245.12	10.130.35.203	HTTP	1355 HTTP/1.1 200 OK (text/html)
250	3.323423	10.130.35.203	128.119.245.12	HTTP	486 GET /pearson.png HTTP/1.1
275	3.628616	128.119.245.12	10.130.35.203	HTTP	841 HTTP/1.1 200 OK (PNG)
279	3.662493	10.130.35.203	178.79.137.164	HTTP	453 GET /8E_cover_small.jpg HTTP/1.1
287	3.926963	178.79.137.164	10.130.35.203	HTTP	225 HTTP/1.1 301 Moved Permanently

Figure 16: Time of each GET request.

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

Status code is 401 and the phrase is "Unauthorized".

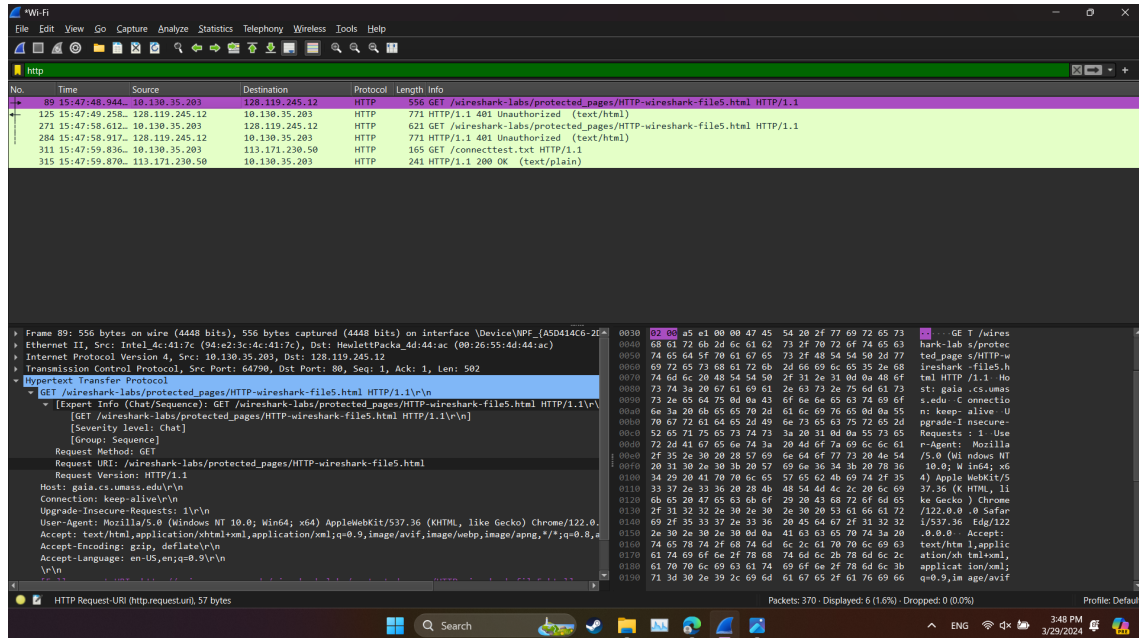


Figure 17: GET request of the fifth link.

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

There is another field about the credential information.

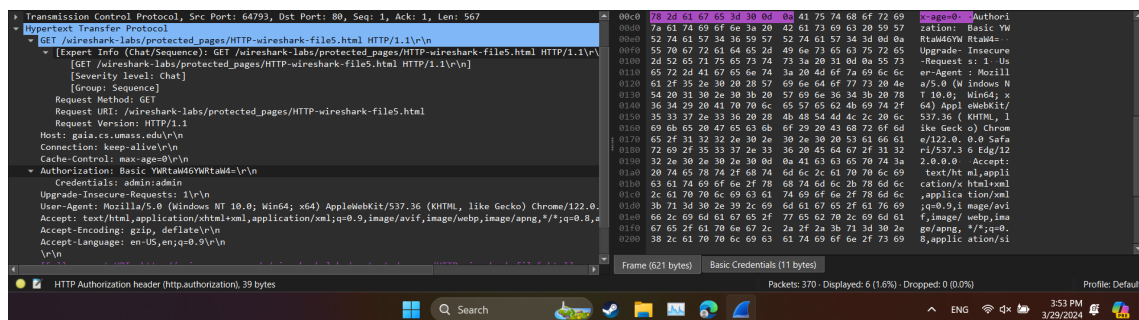


Figure 18: Added credential field.