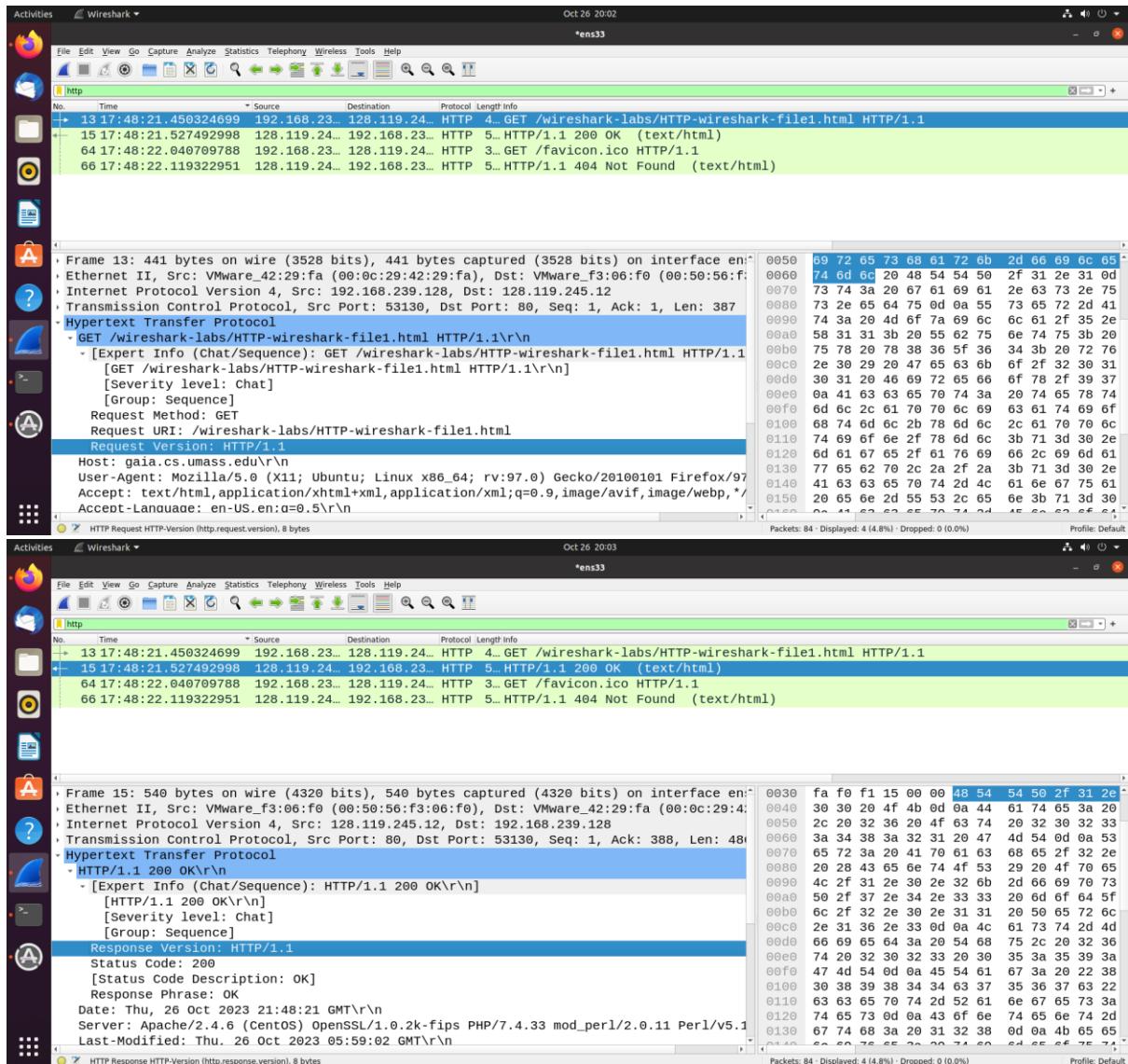


CSC138-01 Lab2

303833894 Yunjeong Lee

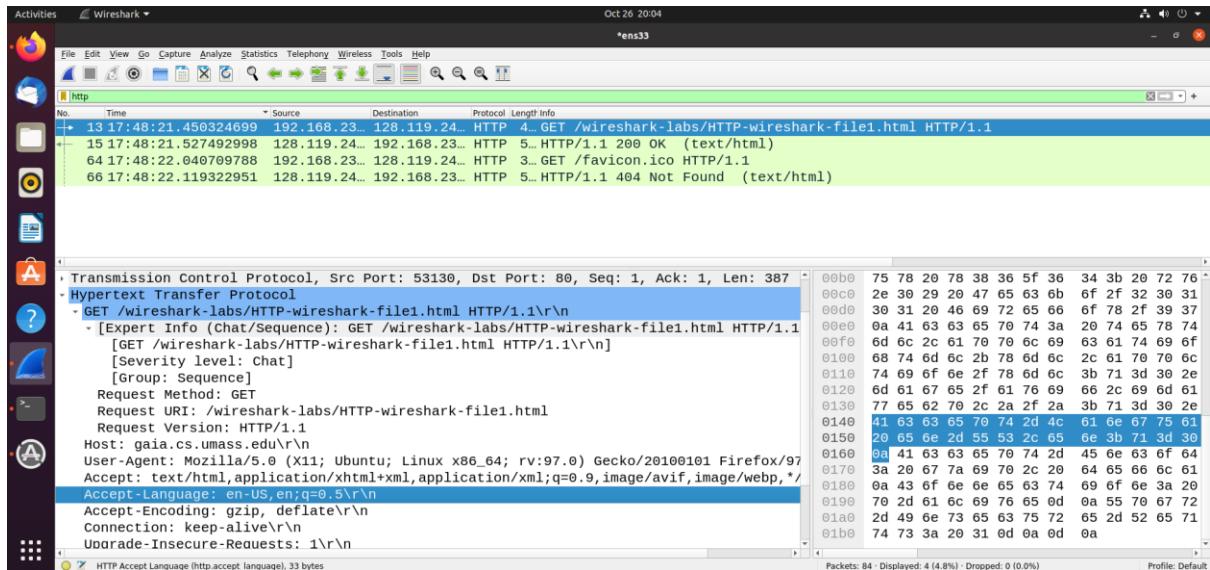
Question 1 : Is your browser running HTTP version 1.0 or 1.1? What version of HTTP is the server running? (Attach screenshot)

Both my browser and the server are running HTTP 1.1



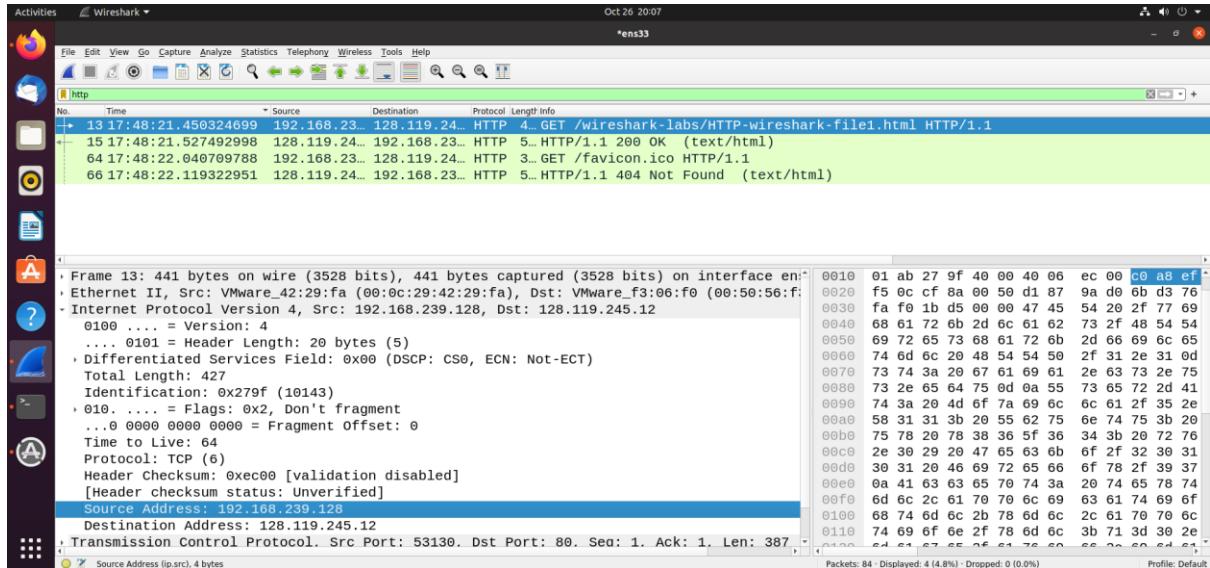
Question 2 : What languages (if any) does your browser indicate that it can accept to the server?
(Attach screenshot)

en-US, en;q=0.5

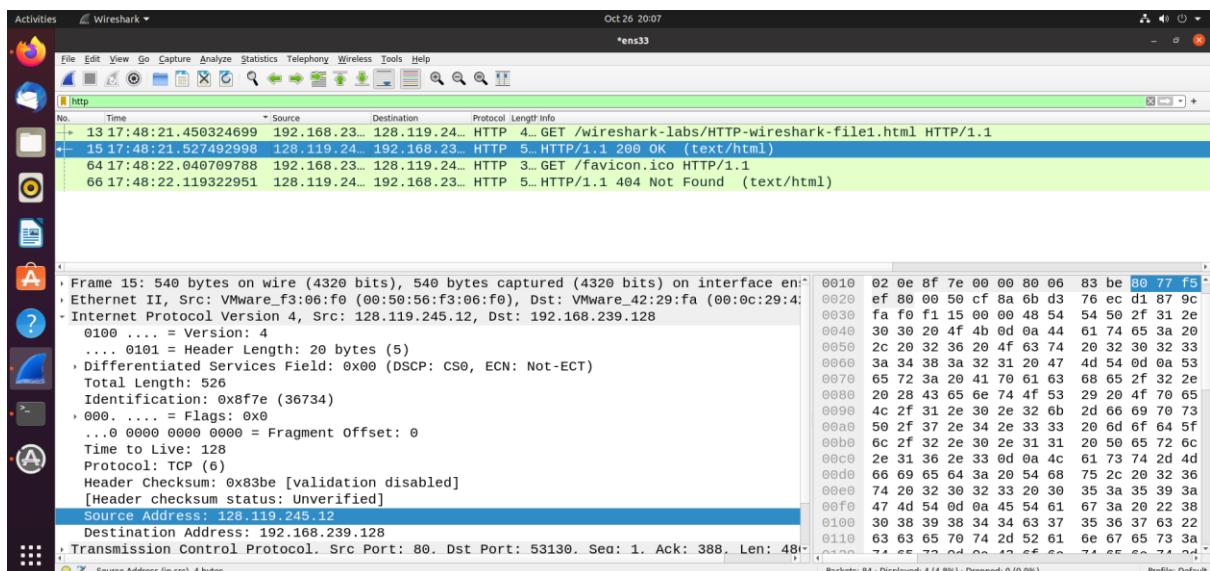


Question 3: What is the IP address of your computer? Of the gaia.cs.umass.edu server? (Attach screenshot)

The IP address of my computer is 192.168.239.128

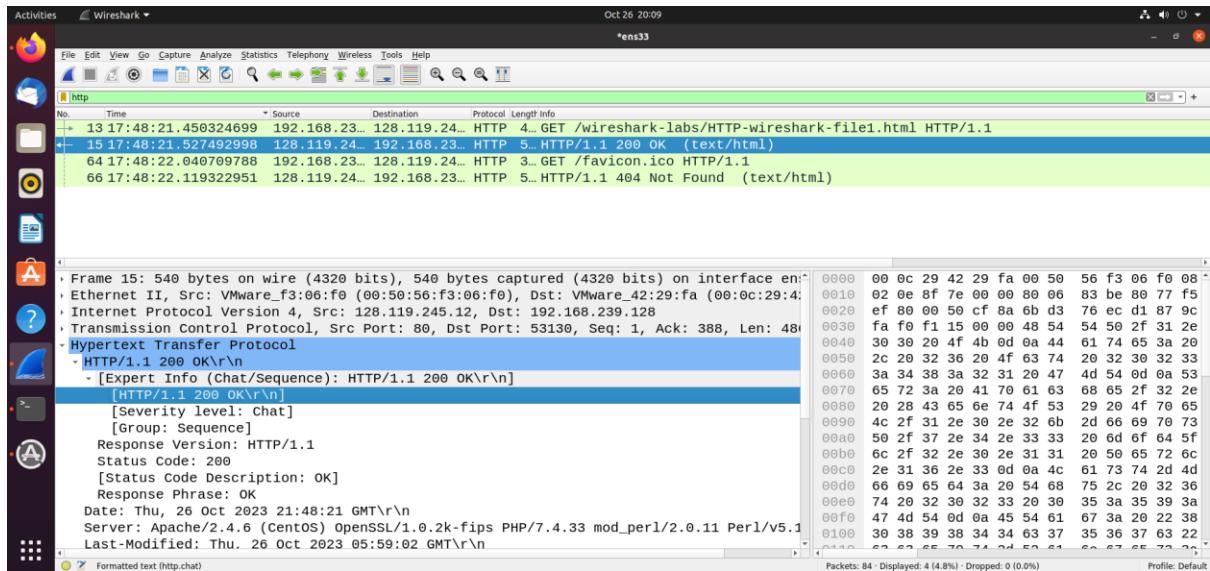


The IP address of the gaia.cs.umass.edu server is 128.119.245.12



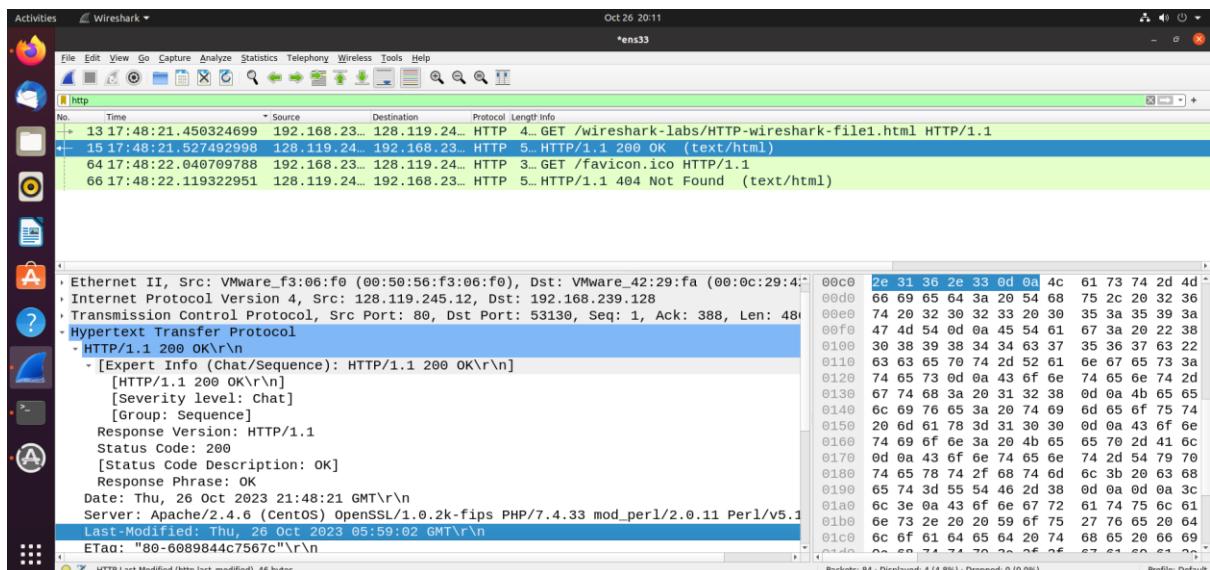
Question 4: What is the status code returned from the server to your browser? (Attach screenshot)

The status code returned from the server to my browser is 200 OK



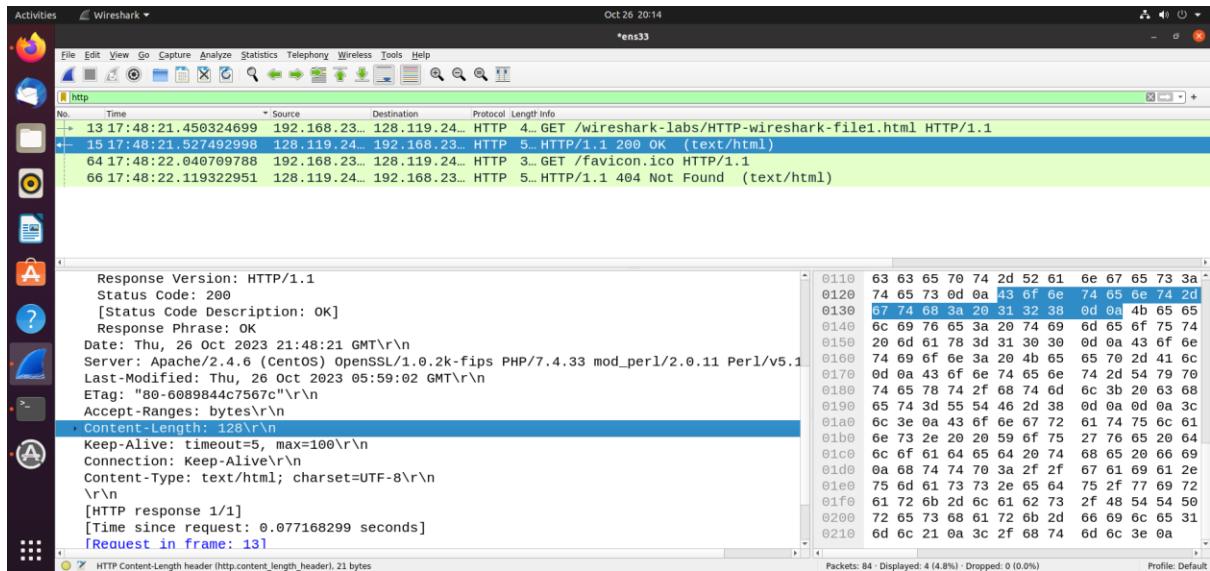
Question 5: When was the HTML file that you are retrieving last modified at the server? (Attach screenshot)

It was last modified at the server on Thu, 26 Oct 2023 05:59:02 GMT



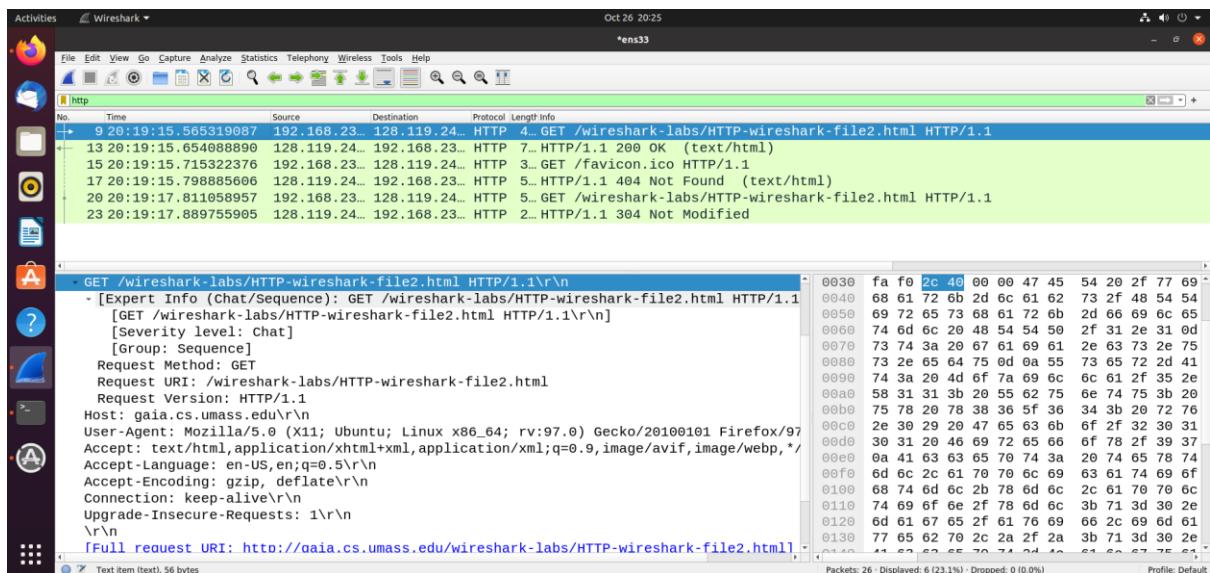
Question 6: How many bytes of content are being returned to your browser? (Attach screenshot)

128bytes of content are being returned to my browser



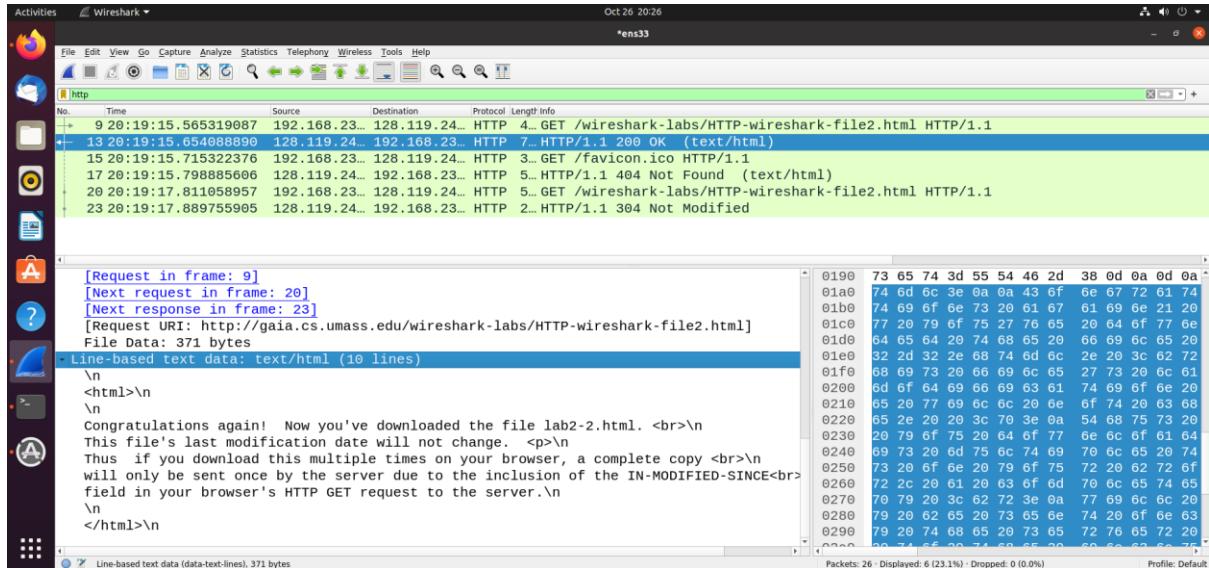
Question 7: Inspect the contents of the first HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE" line in the HTTP GET? (Attach screenshot)

No



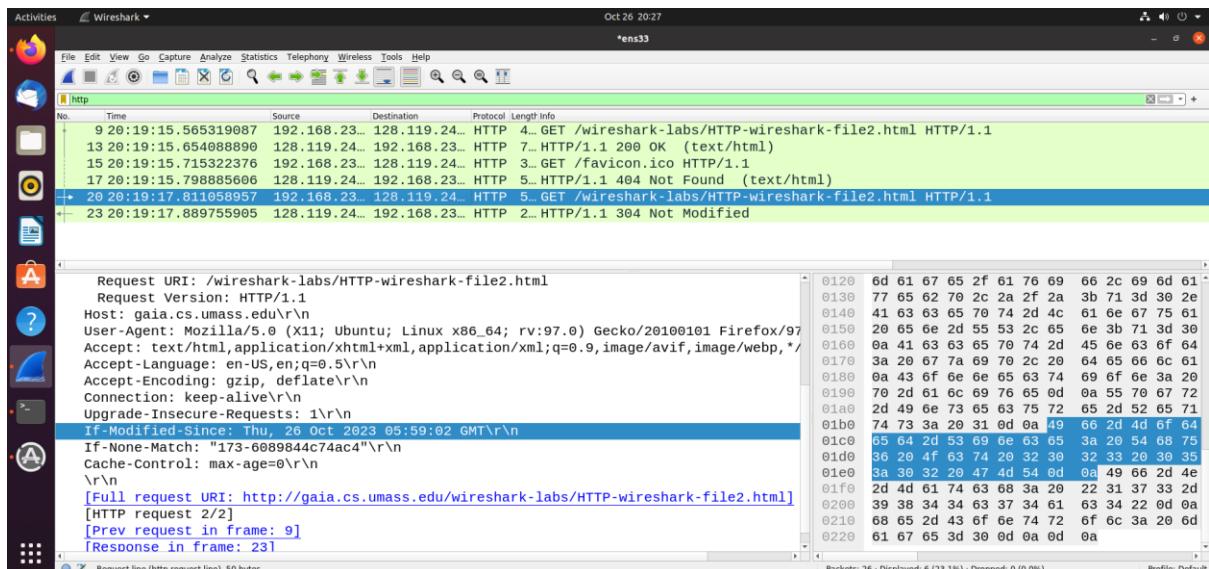
Question 8: Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell? (Attach screenshot)

Yes. I can find the contents in the server response as line-based text data.



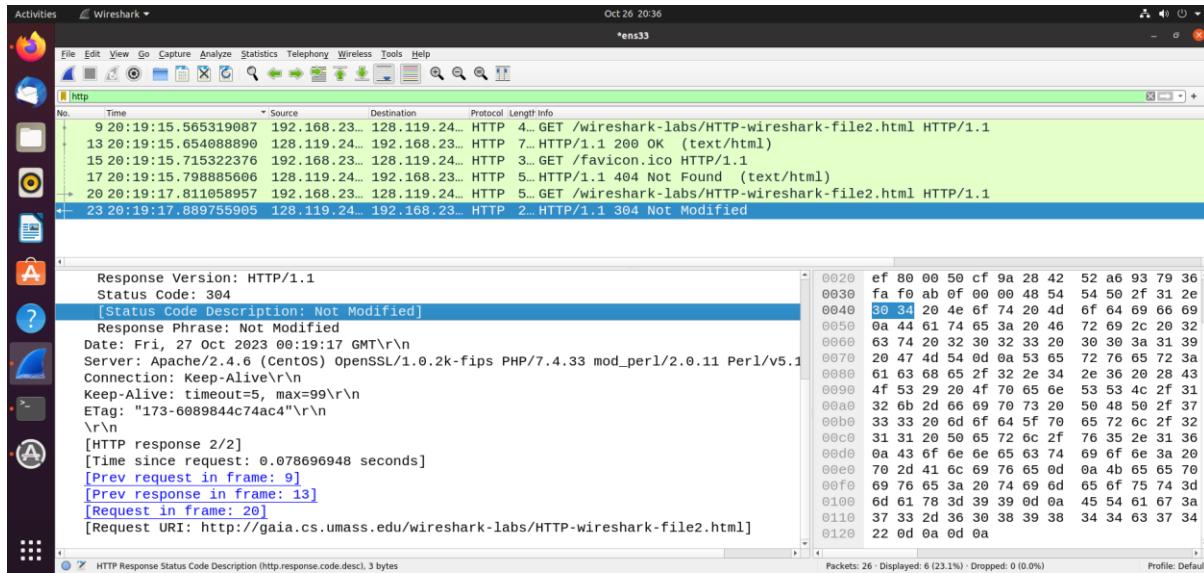
Question 9: Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE:" line in the HTTP GET? If so, what information follows the "IF-MODIFIED-SINCE:" header? (Attach screenshot)

Yes. The last modified time of first response from the server, Thu, 26 Oct 2023 05:59:02 GMT follows the "IF-MODIFIED-SINCE:" header.



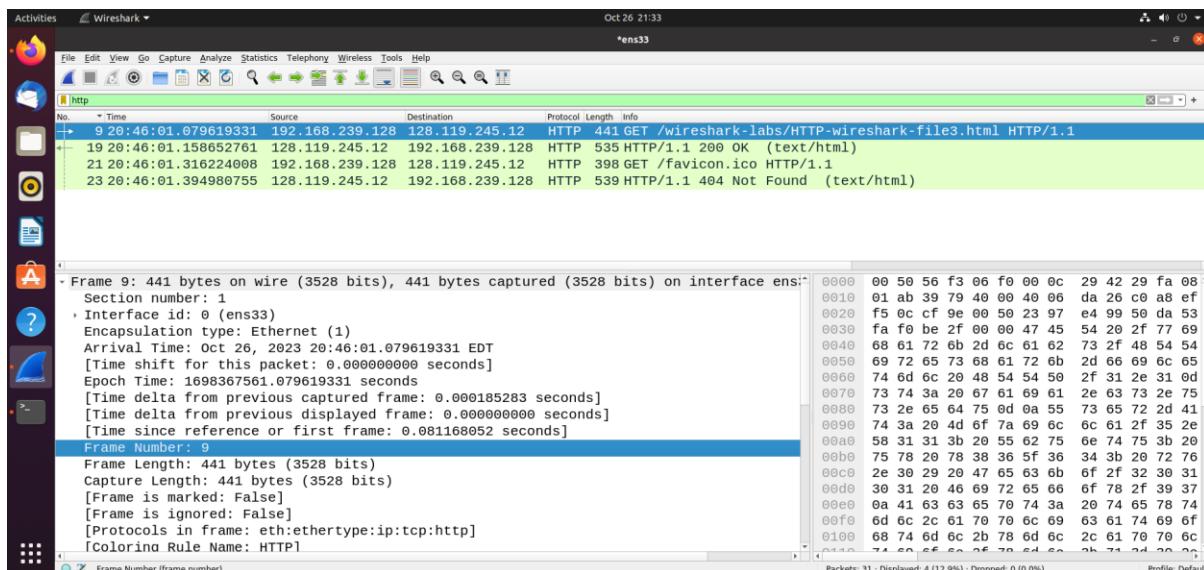
Question 10: What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain. (Attach screenshot)

The HTTP status code and phrase returned from the server in response to this second HTTP GET is 304 Not Modified and there is no line-based text data in the end of the response. Which means my browser had up-to-date cached version, so the server didn't explicitly return the contents of the file this time.



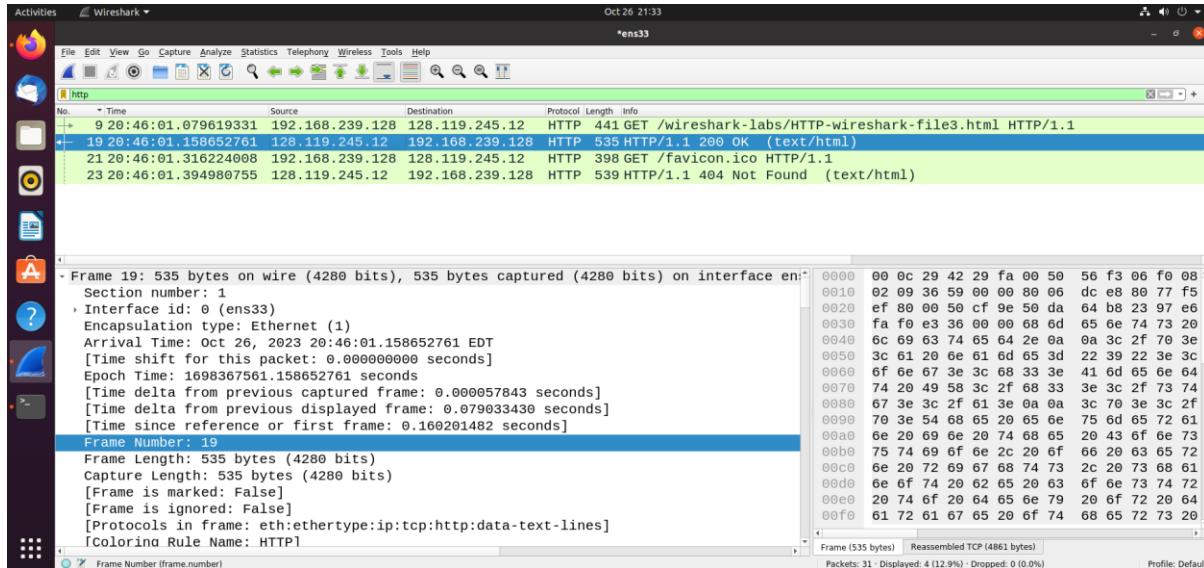
Question 11: How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill or Rights? (Attach screenshot)

Actually, there are two GET request messages, however I think the second one is just following request for icon and not important in this question. For the first GET request, which is for the Bill or Rights, the packet number is 9.



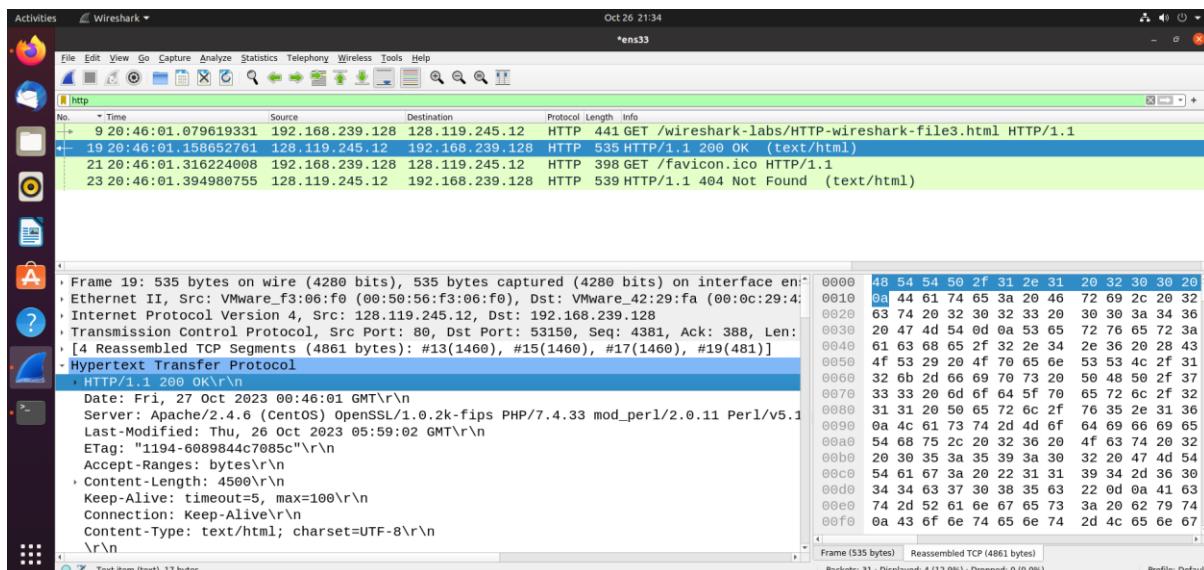
Question 12: Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request? (Attach screenshot)

Number 19.



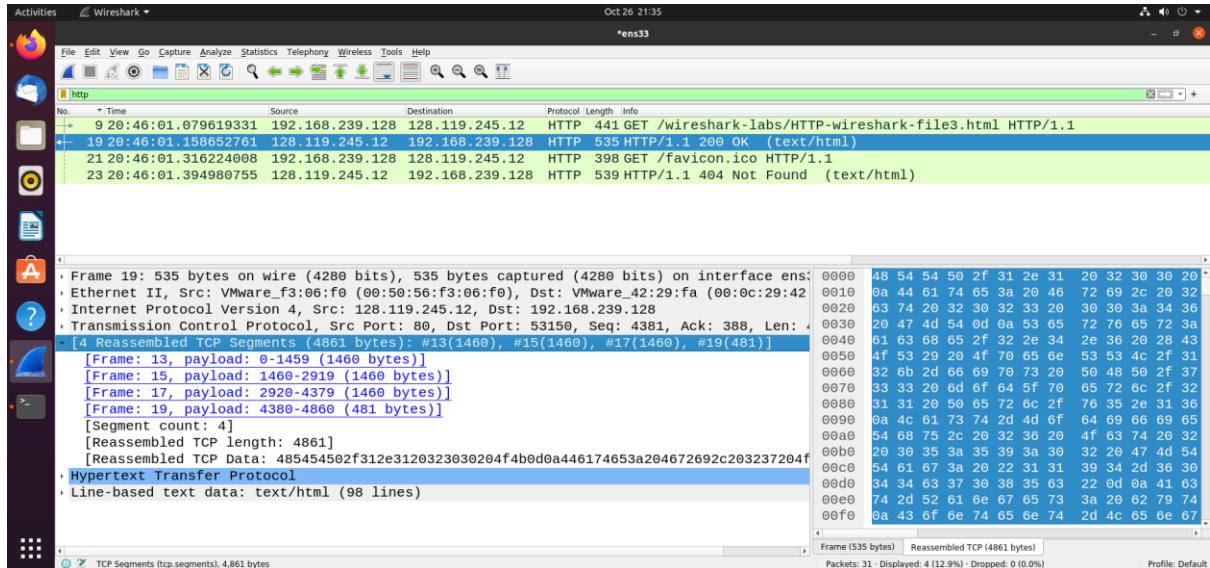
Question 13: What is the status code in the response? (Attach screenshot)

200 OK



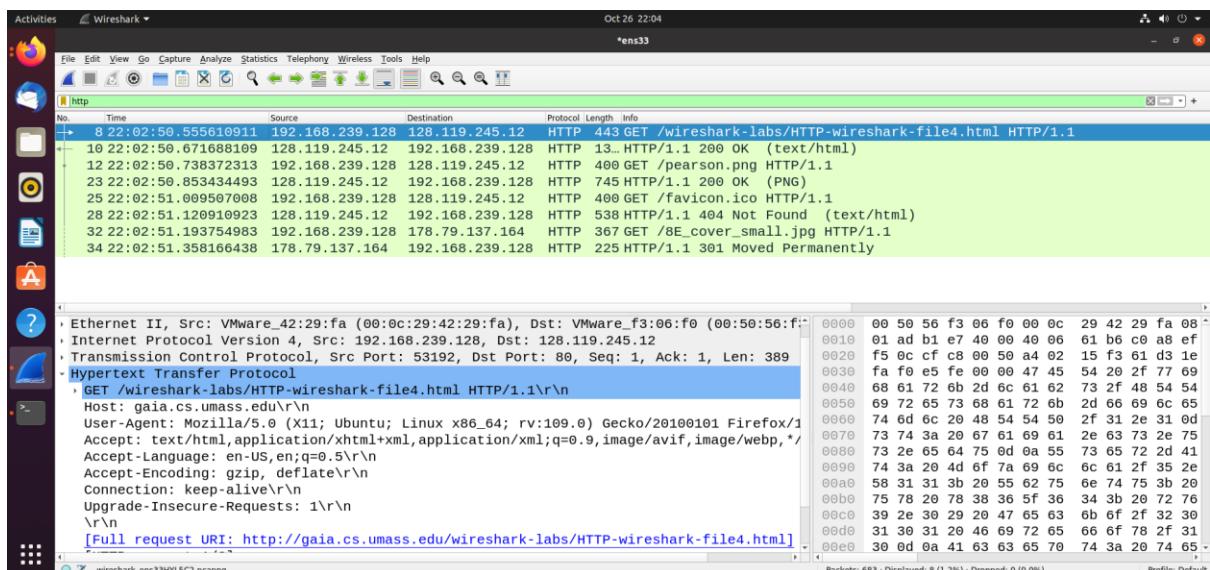
Question 14: How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights? (Attach screenshot)

4 TCP segments were needed.



Question 15: How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent? (Attach screenshot)

There are 4 HTTP GET request messages, 1st, 2nd, 3rd ones were sent to 128.119.245.12 and the 4th one was sent to 178.79.137.164.

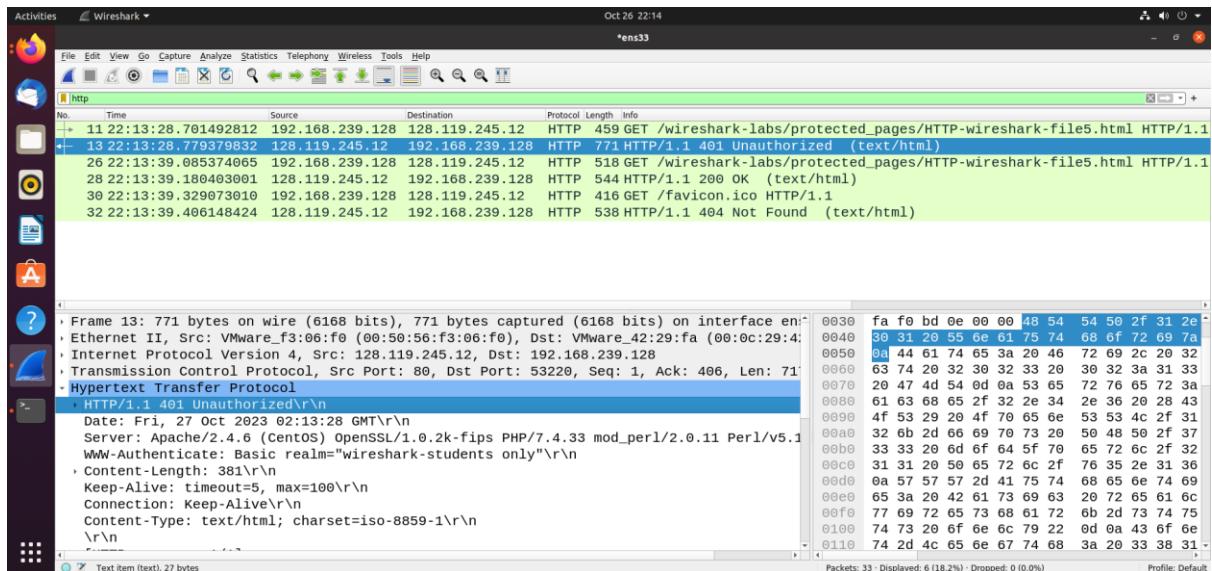


Question 16: Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain

We can see they were downloaded serially through the time stamp, as the PNG was downloaded after the 2nd GET and the 301 moved permanently response was arrived after the 4th GET.

Question 17: What is the server's response (status code and phrase) in response to the initial HTTP GET message from your browser? (Attach screenshot)

401 Unauthorized



Question 18: When your browser's sends the HTTP GET message for the second time, what new field is included in the HTTP GET message? (Attach screenshot)

Authorization field is newly included.

