HTTP

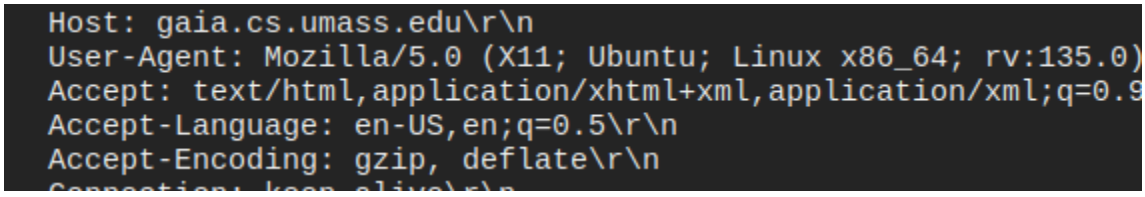
The Basic HTTP GET/response interaction

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

Ans) the browser is currently running version 1.1 ,the version of the server which we got is also of the version
we can obtain this by searching http selecting the capture and observing the request version

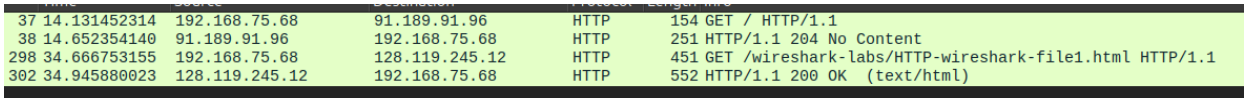
2.)What languages (if any) does your browser indicate that it can accept to the server?

ans) we can find this out by selecting the capture that we look into. It will display the properties like request method ,version ,host etc .Go into the accept-language and it will display the language that is accepted. In this case it is en-US .
it is something sent by the client to indicate the preference of the host
i have also attached the screenshot of this below



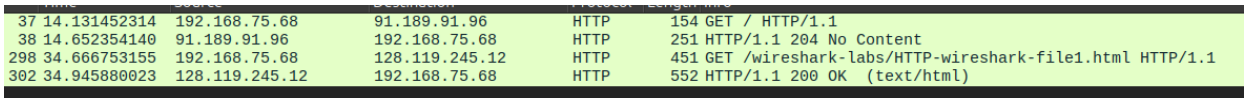
3.)What is the IP address of your computer? What is the IP address of the gaia.cs.umass.edu server?

Ip addresses basically a unique number that help us to identify number assigned to devices connected in the internet
In order to get the ip address o the host first we need to stop the capture and search in http and filter out the required packet then expand the ip address header which would show the ip address of both source and destination in our case i have attached the screenshot which contain both the ip's of computer and server

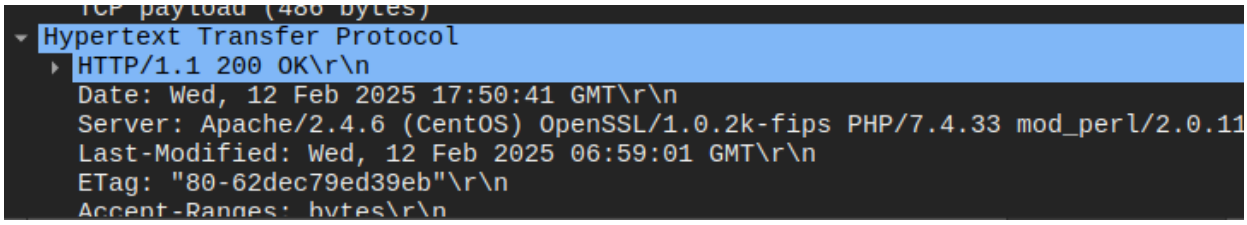


4.)What is the status code returned from the server to your browser?

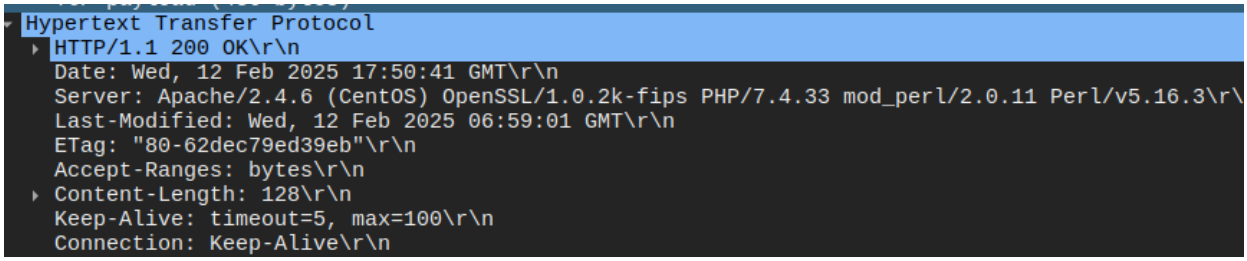
Status code plays impt role because it is what tell the server what has happened after the request.the status code we got here is 200
By googling i understood that the code 200 means that request we sent is received and accepted
Have also attached the screenshot that i got



5.) When was the HTML file that you are retrieving last modified at the server?
By selecting the required jacket and going through the options
I got that the file that i am trying to retrieve was last modified on 12 Feb 2025 wednesday
Also attached the screenshot below



6.) How many bytes of content are being returned to your browser?
So inorder to find this we need to get the content length which shows the actual data in our case it is 128 whereas the total no of bytes capture is shown as 552 bytes which includes the total size of network frame
The answer to the question is 128
Also attached the screenshot of the above

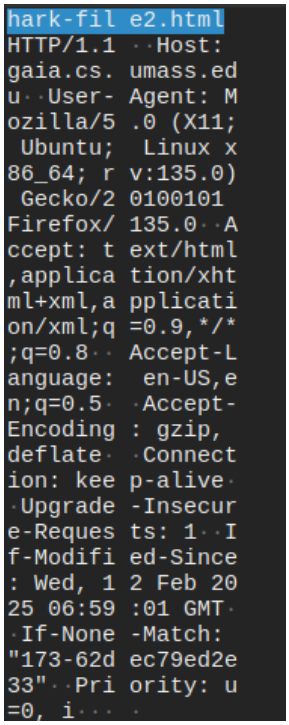


7.)By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one.

ans.) didn't get this question

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?

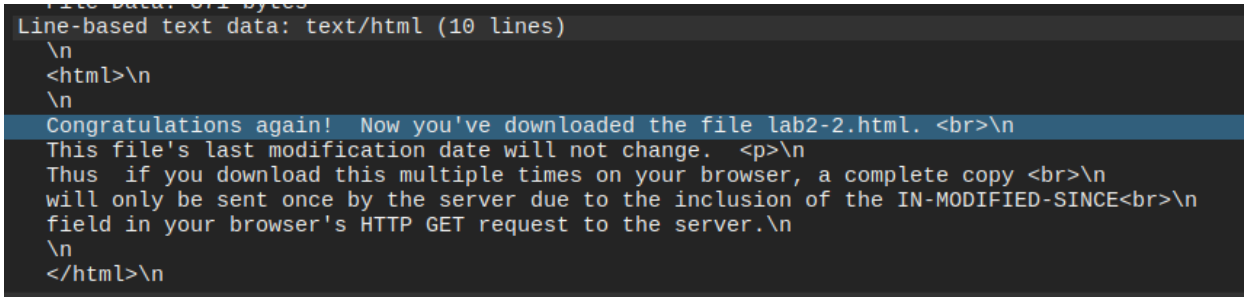
After inspecting the contents of the file there is no such line in the http get this is what i got after inspecting the GET request



9.)

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

To see the server response we need to go to the request part
So in order to see that go the capture search for http and filter out the required one having the 200 code and view details of that capture



10.)

1. 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[1]? If so, what information follows the "IF-MODIFIED-SINCE:" header?

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 we obtained was 200 and the phrase returned was ok

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?

The no of http get request sent was 1 and the packet which contained it was packet 8

13.)Which packet number in the trace contains the status code and phrase associated with the

response to the HTTP GET request?

The packet which contained the status code and phrase was packet number 10

14.)what is the status code and Phrase in the response?

ans.) 200 (ok) this means tht server has accepted the request from the client

15.)How many data-containing TCP segments were needed to carry the single HTTP

response and the text of the Bill of Rights?

ans) three packets (10, 11, 13 in the trace)

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

ans) a total of 3 http get messages were sent packets 10 20 and 17

They all were sent to different ip addresses

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)

The downloads occurred in parallel

18.) What is the server's response (status code and phrase) in response to the initial HTTP

GET message from your browser

ans) packet 6 contains the first get and packet 9 contains the first reply the server is in packet 9 and needs authorization code 401

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

ans) authorization:basic:field