# Lab 1

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**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?

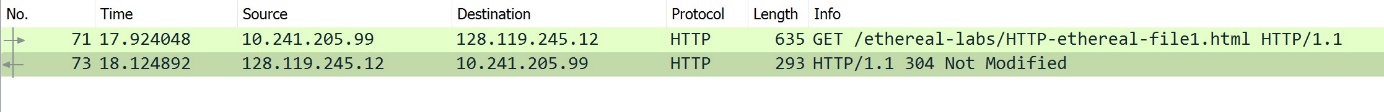
sv-SE,sv;q=0.9,en-US;q=0.8,en;q=0.7 (Svenska/Engelska)

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: 304



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

Date: Thu, 07 Sep 2023 08:58:45 GMT\r\n

A screenshot of a computer

Description automatically generated

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

Capture Length: 293 bytes (2344 bits)

**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?

01a0 74 6d 6c 3e 0a 0a 43 6f 6e 67 72 61 74 75 6c 61 tml>..Congratula

01b0 74 69 6f 6e 73 20 61 67 61 69 6e 21 20 20 4e 6f tions again! No

01c0 77 20 79 6f 75 27 76 65 20 64 6f 77 6e 6c 6f 61 w you've downloa

01d0 64 65 64 20 74 68 65 20 66 69 6c 65 20 6c 61 62 ded the file lab

01e0 32 2d 32 2e 68 74 6d 6c 2e 20 3c 62 72 3e 0a 54 2-2.html. <br>.T

01f0 68 69 73 20 66 69 6c 65 27 73 20 6c 61 73 74 20 his file's last

0200 6d 6f 64 69 66 69 63 61 74 69 6f 6e 20 64 61 74 modification dat

0210 65 20 77 69 6c 6c 20 6e 6f 74 20 63 68 61 6e 67 e will not chang

0220 65 2e 20 20 3c 70 3e 0a 54 68 75 73 20 20 69 66 e. <p>.Thus if

0230 20 79 6f 75 20 64 6f 77 6e 6c 6f 61 64 20 74 68 you download th

0240 69 73 20 6d 75 6c 74 69 70 6c 65 20 74 69 6d 65 is multiple time

0250 73 20 6f 6e 20 79 6f 75 72 20 62 72 6f 77 73 65 s on your browse

0260 72 2c 20 61 20 63 6f 6d 70 6c 65 74 65 20 63 6f r, a complete co

0270 70 79 20 3c 62 72 3e 0a 77 69 6c 6c 20 6f 6e 6c py <br>.will onl

0280 79 20 62 65 20 73 65 6e 74 20 6f 6e 63 65 20 62 y be sent once b

0290 79 20 74 68 65 20 73 65 72 76 65 72 20 64 75 65 y the server due

02a0 20 74 6f 20 74 68 65 20 69 6e 63 6c 75 73 69 6f to the inclusio

02b0 6e 20 6f 66 20 74 68 65 20 49 4e 2d 4d 4f 44 49 n of the IN-MODI

02c0 46 49 45 44 2d 53 49 4e 43 45 3c 62 72 3e 0a 66 FIED-SINCE<br>.f

02d0 69 65 6c 64 20 69 6e 20 79 6f 75 72 20 62 72 6f ield in your bro

02e0 77 73 65 72 27 73 20 48 54 54 50 20 47 45 54 20 wser's HTTP GET

02f0 72 65 71 75 65 73 74 20 74 6f 20 74 68 65 20 73 request to the s

0300 65 72 76 65 72 2e 0a 0a 3c 2f 68 74 6d 6c 3e 0a erver...</html>.

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**

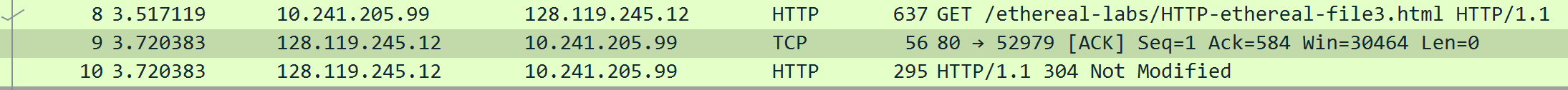
11. How many HTTP GET request messages were sent by your browser?

1

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

[2 Reassembled TCP Segments (4861 bytes): #44(4146), #45(715)]

1

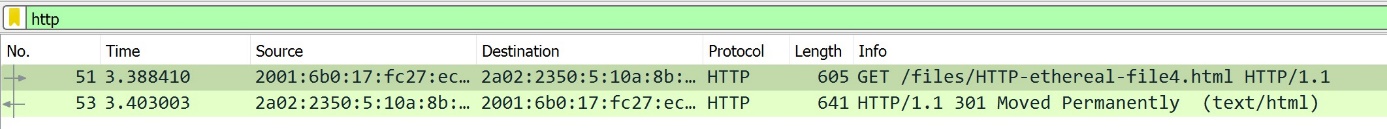


13. What is the status code and phrase associated with the response to the HTTP GET request?

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?

1, 

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.

Since there is only one get request we assume they are downloaded parallel.

**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?

Status Code: 200, Reponse Phrase: OK

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.