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CS446

09/29/2023

Wireshark Lab: HTTP

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

```
Hypertext Transfer Protocol
> GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
```

```
Hypertext Transfer Protocol
> HTTP/1.1 200 OK\r\n
```

51	5.523655	10.0.0.122	128.119.245.12	HTTP	545 GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
55	5.545392	128.119.245.12	10.0.0.122	HTTP	540 HTTP/1.1 200 OK (text/html)

2. **What languages (if any) does your browser indicate that it can accept to the server?**
    - My browser accepts American English, as stated as “en-US”
    - But it can also accept other forms of English, as it also states “en” in general

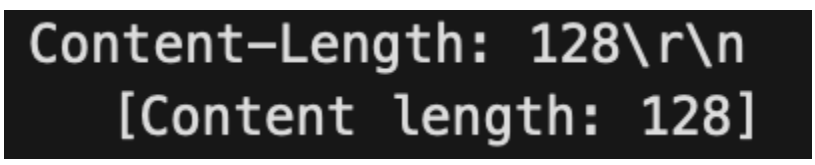
```
Accept-Language: en-US,en;q=0.9\r\n
```

3. **What is the IP address of your computer? Of the gaia.cs.umass.edu server?**
    - The IP address of my computer is 10.0.0.122
    - The IP address of the **gaia.cs.umass.edu server** is 128.119.245.12

4. **What is the status code returned from the server to your browser?**
    - The status code returned from the server to my browser is 200

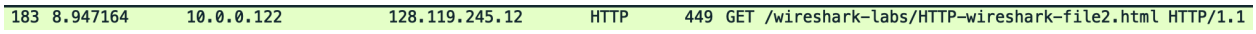
5. **When was the HTML file you are retrieving last modified at the server?**
    - The HTML file that I retrieved was last modified, on Thursday, September 28th, 2023, 05:59:01 GMT

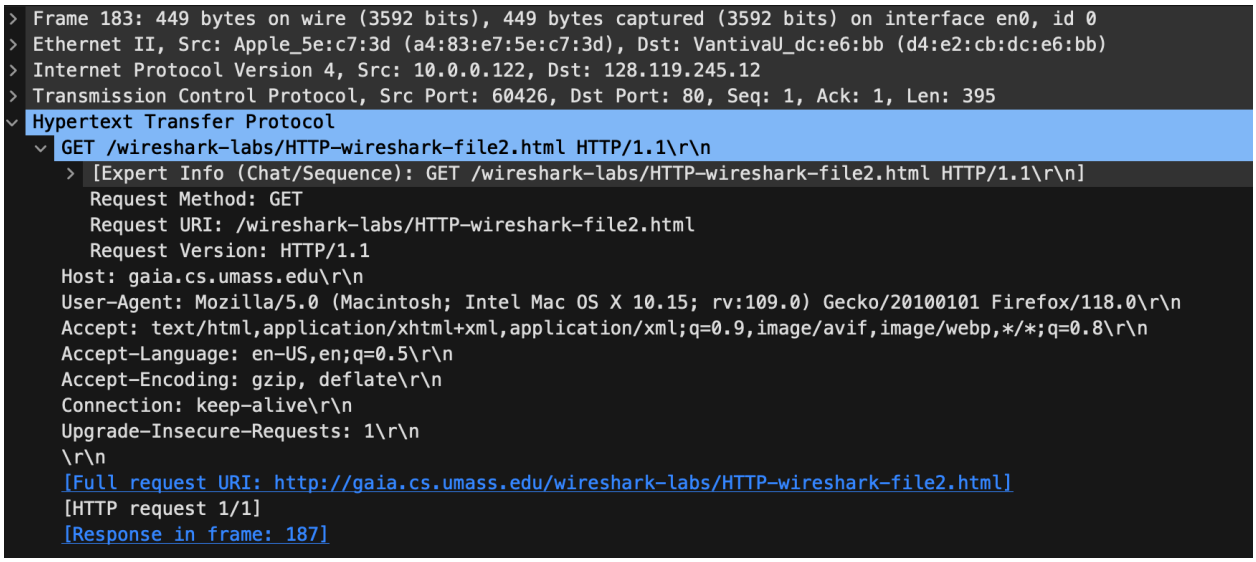
6. **How many bytes of content are being returned to your browser?**
    - The number of bytes of content being returned to my browser is 128



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?**

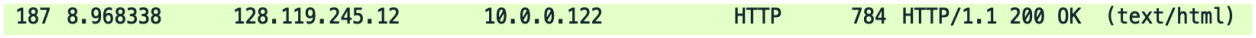
    - No, I don't see any **"IF-MODIFIED-SINCE"** in the first **HTTP GET**

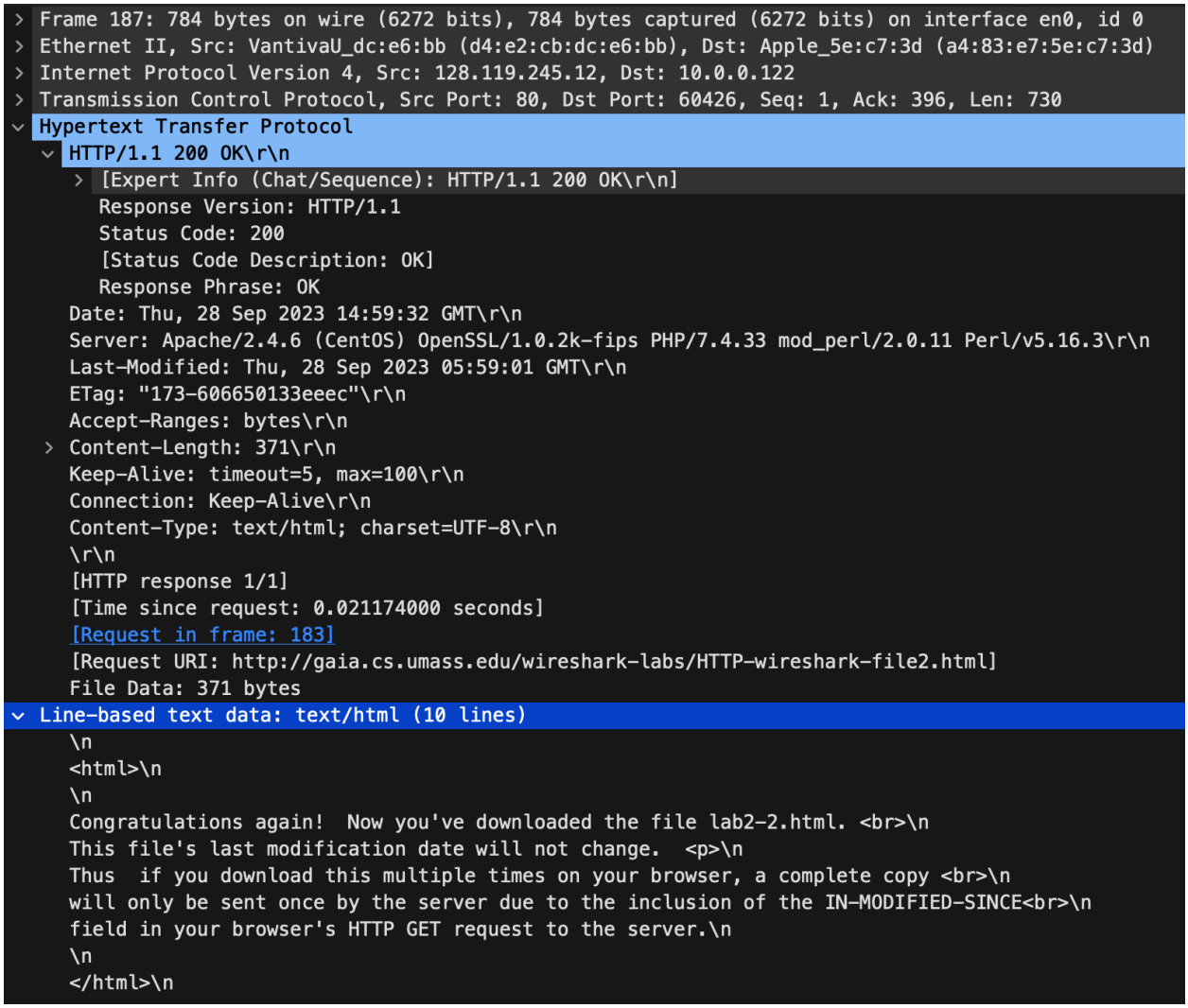




8. **Inspect the contents of the server response. Did the server explicitly return the contents of the file? How can you tell?**

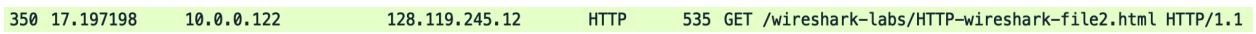
    - Yes, I was able to see the text data which was retrieved from the first **HTTP GET**

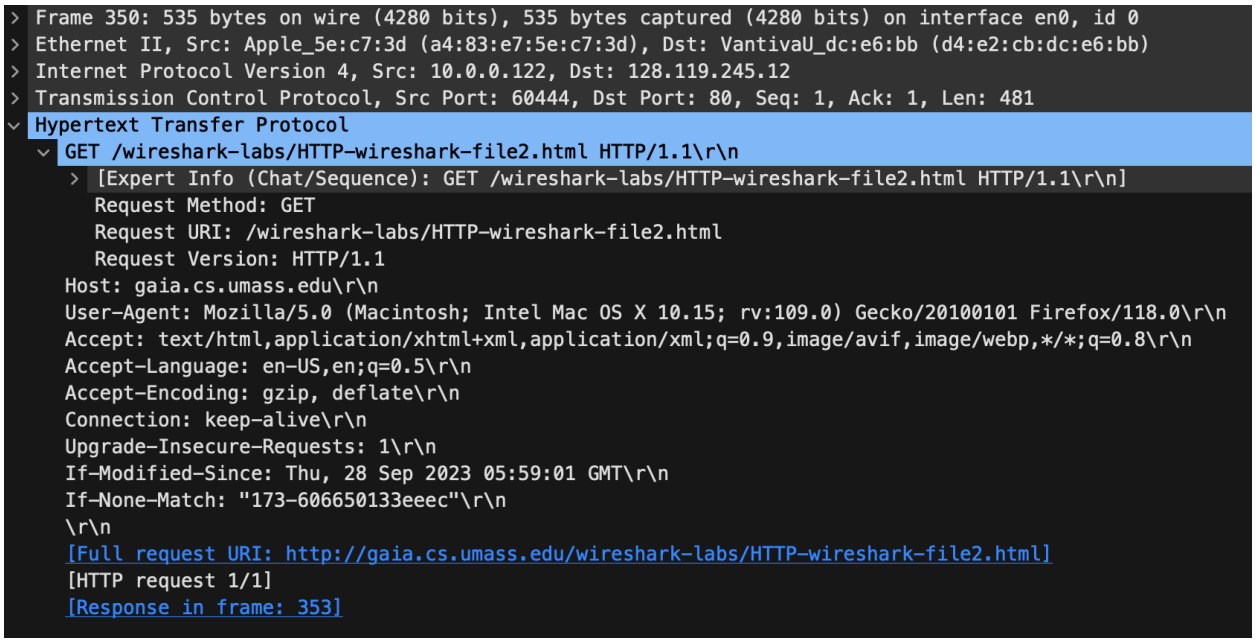




9. **Now inspect the contents of the second HTTP GET request from your browser to the server. Do you see an "IF-MODIFIED-SINCE:" line in the HTTP GET? If so, what information follows the "IF-MODIFIED-SINCE:" header?**

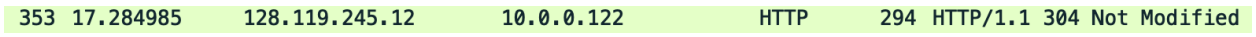
    - Yes, I do see an **"IF-MODIFIED-SINCE"** in the second **HTTP GET**
    - The information that follows the **"IF-MODIFIED-SINCE:"** header is the date and time since, which the resource should be modified for the server to return to the client. **If-Modified-Since: Thu, 28 Sep 2023 05:59:01 GMT**

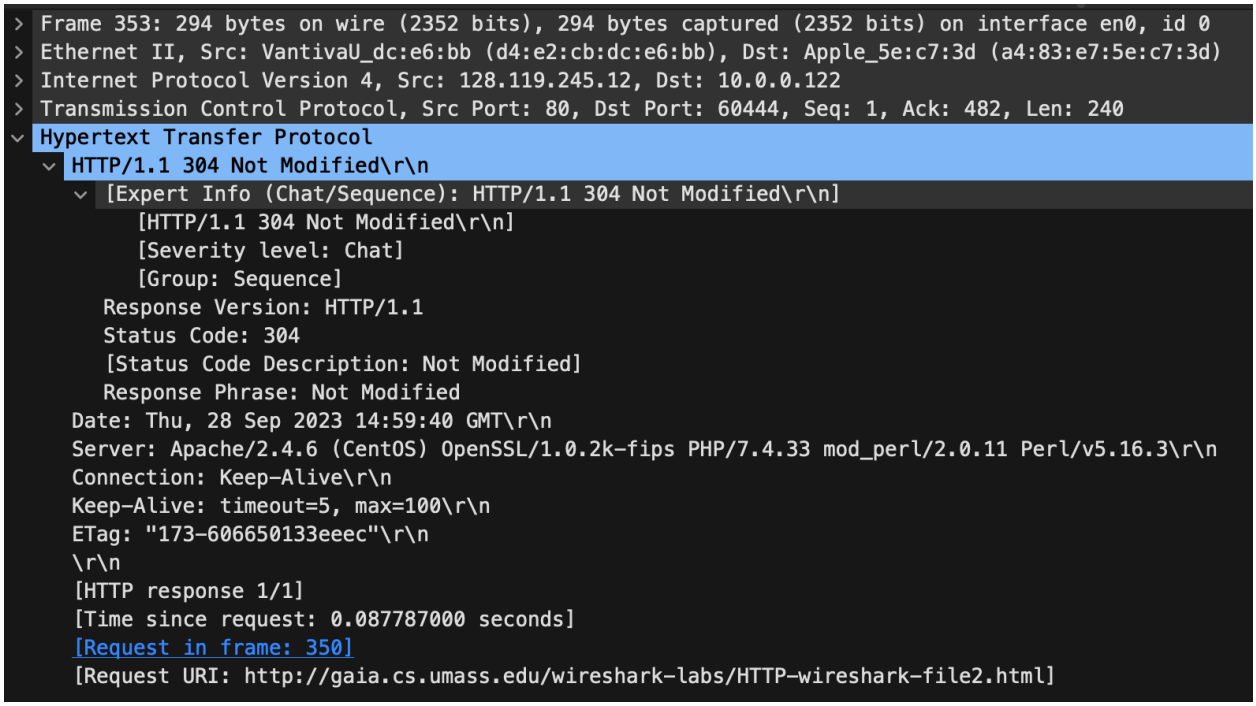




10. What is the HTTP status code and phrase returned from the server in response to this second HTTP GET? Did the server explicitly return the contents of the file? Explain.

- The **HTTP** status code and phrase returned from the server in response to the second **HTTP GET** is 304 Not Modified
- The server didn't return the contents of the file because the requested resource had not been modified since the **If-Modified-Since** date.




Frame 353: 294 bytes on wire (2352 bits), 294 bytes captured (2352 bits) on interface en0, id 0
Ethernet II, Src: VantivaU_dc:e6:bb (d4:e2:cb:dc:e6:bb), Dst: Apple_5e:c7:3d (a4:83:e7:5e:c7:3d)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.122
Transmission Control Protocol, Src Port: 80, Dst Port: 60444, Seq: 1, Ack: 482, Len: 240
Hypertext Transfer Protocol
HTTP/1.1 304 Not Modified\r\n
[Expert Info (Chat/Sequence): HTTP/1.1 304 Not Modified\r\n]
[HTTP/1.1 304 Not Modified\r\n]
[Severity level: Chat]
[Group: Sequence]
Response Version: HTTP/1.1
Status Code: 304
[Status Code Description: Not Modified]
Response Phrase: Not Modified
Date: Thu, 28 Sep 2023 14:59:40 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
Connection: Keep-Alive\r\n
Keep-Alive: timeout=5, max=100\r\n
ETag: "173-606650133eeec"\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.087787000 seconds]
[Request in frame: 350]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]