

Name : Ramzy Izza Wardhana
Class : IUP CS B – Lab OS & Computer Network
NIM : 21/472698/PA/20322

Class Activity 2.2 – Lab Computer Network

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.	Time	Source	Destination	Protocol	Length	Info
233	4.649459	10.6.161.140	128.119.245.12	HTTP	445	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
254	4.933544	128.119.245.12	10.6.161.140	HTTP	540	HTTP/1.1 200 OK (text/html)
272	4.989448	10.6.161.140	128.119.245.12	HTTP	402	GET /favicon.ico HTTP/1.1
313	5.274747	128.119.245.12	10.6.161.140	HTTP	539	HTTP/1.1 404 Not Found (text/html)
718	13.794109	10.6.161.140	128.119.245.12	HTTP	530	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
735	14.076211	128.119.245.12	10.6.161.140	HTTP	293	HTTP/1.1 304 Not Modified

> Frame 233: 445 bytes on wire (3560 bits), 445 bytes captured (3560 bits) on interface \Device\NPF_{4348209E-FD09-48E4-B2B8-E465E6676079}, id 0
> Ethernet II, Src: IntelCor_17:c8:c5 (8c:c6:81:17:c8:c5), Dst: Routerbo_3c:35:e9 (e4:8d:8c:3c:35:e9)
> Internet Protocol Version 4, Src: 10.6.161.140, Dst: 128.119.245.12
> Transmission Control Protocol, Src Port: 51437, Dst Port: 80, Seq: 1, Ack: 1, Len: 391
> Hypertext Transfer Protocol
> GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
Host: gaia.cs.umass.edu\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:104.0) Gecko/20100101 Firefox/104.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8\r\n
Accept-Language: en-US,en;q=0.5\r\n
Accept-Encoding: gzip, deflate\r\n
Connection: keep-alive\r\n
Upgrade-Insecure-Requests: 1\r\n
\r\n
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]
[HTTP request 1/1]
[Response in frame: 254]

**Does Not Exist On First
GET Request**

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

No.	Time	Source	Destination	Protocol	Length	Info
233	4.649459	10.6.161.140	128.119.245.12	HTTP	445	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
254	4.933544	128.119.245.12	10.6.161.140	HTTP	540	HTTP/1.1 200 OK (text/html)
272	4.989448	10.6.161.140	128.119.245.12	HTTP	402	GET /favicon.ico HTTP/1.1
313	5.274747	128.119.245.12	10.6.161.140	HTTP	539	HTTP/1.1 404 Not Found (text/html)
718	13.794109	10.6.161.140	128.119.245.12	HTTP	530	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
735	14.076211	128.119.245.12	10.6.161.140	HTTP	293	HTTP/1.1 304 Not Modified

> Ethernet II, Src: Routerbo_3c:35:e9 (e4:8d:8c:3c:35:e9), Dst: IntelCor_17:c8:c5 (8c:c6:81:17:c8:c5)
> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.6.161.140
> Transmission Control Protocol, Src Port: 80, Dst Port: 51437, Seq: 1, Ack: 392, Len: 486
> Hypertext Transfer Protocol
> HTTP/1.1 200 OK\r\n
Date: Thu, 08 Sep 2022 01:39:40 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.30 mod_perl/2.0.11 Perl/v5.16.3\r\n
Last-Modified: Wed, 07 Sep 2022 05:59:01 GMT\r\n
Etag: "80-5e810026d849b"\r\n
Accept-Ranges: bytes\r\n
> Content-Length: 128\r\n
Keep-Alive: timeout=5, max=100\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=UTF-8\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.284085000 seconds]
[Request in frame: 233]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]
File Data: 128 bytes
> Line-based text data: text/html (4 lines)

**Received 128
Bytes of files
on the first
GET Request**

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?

No.	Time	Source	Destination	Protocol	Length	Info
233	4.649459	10.6.161.140	128.119.245.12	HTTP	445	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
254	4.933544	128.119.245.12	10.6.161.140	HTTP	540	HTTP/1.1 200 OK (text/html)
272	4.989448	10.6.161.140	128.119.245.12	HTTP	402	GET /favicon.ico HTTP/1.1
313	5.274747	128.119.245.12	10.6.161.140	HTTP	539	HTTP/1.1 404 Not Found (text/html)
718	13.794109	10.6.161.140	128.119.245.12	HTTP	530	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
735	14.076211	128.119.245.12	10.6.161.140	HTTP	293	HTTP/1.1 304 Not Modified

> Frame 718: 530 bytes on wire (4240 bits), 530 bytes captured (4240 bits) on interface \Device\NPF_{4348209E-FD09-48E4-B2B8-E465E6676079}, id 0

> Ethernet II, Src: IntelCor_17:c8:c5 (8c:c6:81:17:c8:c5), Dst: Routerbo_3c:35:e9 (e4:8d:8c:3c:35:e9)

> Internet Protocol Version 4, Src: 10.6.161.140, Dst: 128.119.245.12

> Transmission Control Protocol, Src Port: 51455, Dst Port: 80, Seq: 1, Ack: 1, Len: 476

> Hypertext Transfer Protocol

> GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n

Host: gaia.cs.umass.edu\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:104.0) Gecko/20100101 Firefox/104.0\r\n

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8\r\n

Accept-Language: en-US,en;q=0.5\r\n

Accept-Encoding: gzip, deflate\r\n

Connection: keep-alive\r\n

Upgrade-Insecure-Requests: 1\r\n

If-Modified-Since: Wed, 07 Sep 2022 05:59:01 GMT\r\n

If-None-Match: "80-5e810026d849b"\r\n

\r\n

[Full request URI: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html>]

[HTTP request 1/1]

[Response in frame: 735]

Followed up with the date information that correspond to latest modification since we previously accessed it

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.

Server will no longer return the content of the file since it has already been stored in the cache system of the browser and matched with the previous unmodified version.

No.	Time	Source	Destination	Protocol	Length	Info
233	4.649459	10.6.161.140	128.119.245.12	HTTP	445	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
254	4.933544	128.119.245.12	10.6.161.140	HTTP	540	HTTP/1.1 200 OK (text/html)
272	4.989448	10.6.161.140	128.119.245.12	HTTP	402	GET /favicon.ico HTTP/1.1
313	5.274747	128.119.245.12	10.6.161.140	HTTP	539	HTTP/1.1 404 Not Found (text/html)
718	13.794109	10.6.161.140	128.119.245.12	HTTP	530	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
735	14.076211	128.119.245.12	10.6.161.140	HTTP	293	HTTP/1.1 304 Not Modified

> Frame 735: 293 bytes on wire (2344 bits), 293 bytes captured (2344 bits) on interface \Device\NPF_{4348209E-FD09-48E4-B2B8-E465E6676079}, id 0

> Ethernet II, Src: Routerbo_3c:35:e9 (e4:8d:8c:3c:35:e9), Dst: IntelCor_17:c8:c5 (8c:c6:81:17:c8:c5)

> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.6.161.140

> Transmission Control Protocol, Src Port: 80, Dst Port: 51455, Seq: 1, Ack: 477, Len: 239

> Hypertext Transfer Protocol

> HTTP/1.1 304 Not Modified\r\n

> [Expert Info (Chat/Sequence): HTTP/1.1 304 Not Modified\r\n]

Response Version: HTTP/1.1

Status Code: 304

[Status Code Description: Not Modified]

Response Phrase: Not Modified

Date: Thu, 08 Sep 2022 01:39:49 GMT\r\n

Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.30 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: "80-5e810026d849b"\r\n

\r\n

[HTTP response 1/1]

[Time since request: 0.282102000 seconds]

[Request in frame: 718]

[Request URI: <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html>]

Responses : 304 Not Modified

Phrase : Not Modified, since there were no changes since we accessed the web previously, therefore the system will access the stored cache files