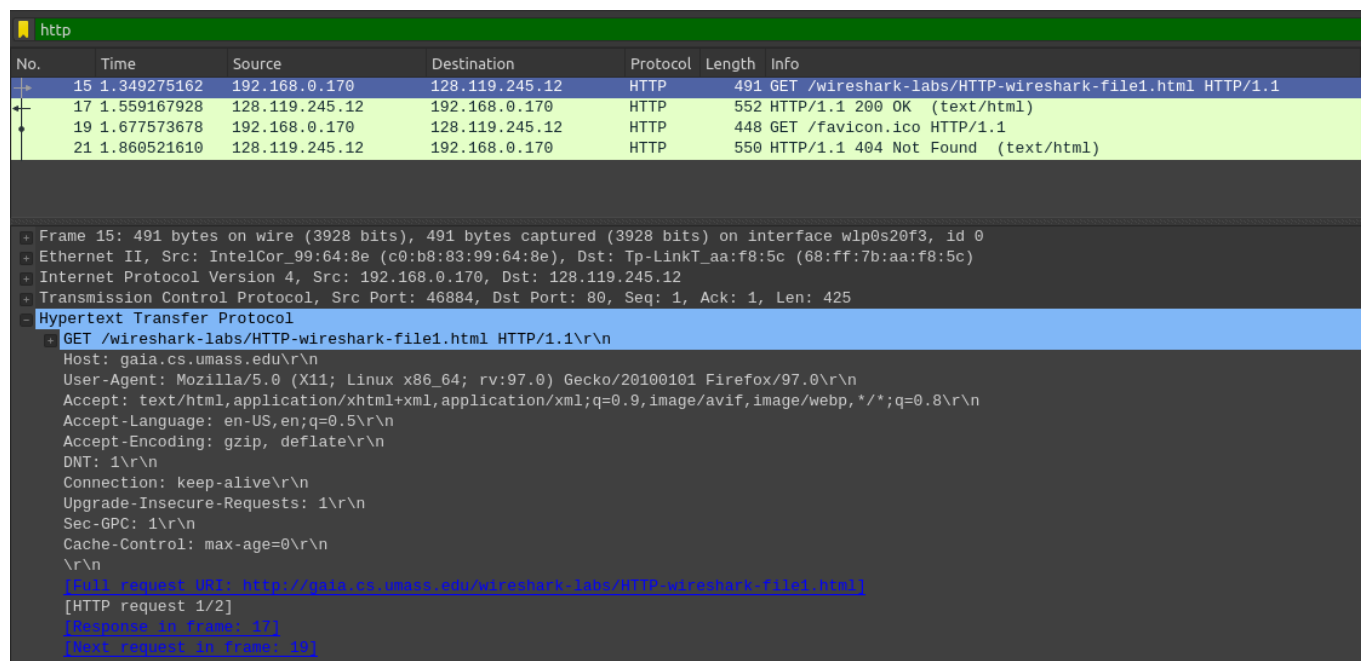


Задание 1

1. Мой браузер использует HTTP1.1, сервер тоже
2. Ассерп-Language: en-US,en. Так же предоставляются доступные кодировки, в принципе доступные форматы (text/html, application/xhtml+xml, ...), и user-agent, конечно, по которому можно определить браузер и даже устройство
3. Internet Protocol Version 4, Src (мой): 192.168.0.170, Dst (сервера): 128.119.245.12
4. 200 OK со страницы, и еще 404 Not Found с /favicon.ico
5. Last-Modified: Tue, 22 Feb 2022 06:59:01 GMT
6. File Data: 128 bytes и еще File Data: 209 bytes которые в /favicon.ico



No.	Time	Source	Destination	Protocol	Length	Info
15	1.349275162	192.168.0.170	128.119.245.12	HTTP	491	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
17	1.559167928	128.119.245.12	192.168.0.170	HTTP	552	HTTP/1.1 200 OK (text/html)
19	1.677573678	192.168.0.170	128.119.245.12	HTTP	448	GET /favicon.ico HTTP/1.1
21	1.860521610	128.119.245.12	192.168.0.170	HTTP	550	HTTP/1.1 404 Not Found (text/html)

Frame 15: 491 bytes on wire (3928 bits), 491 bytes captured (3928 bits) on interface wlp0s20f3, id 0
Ethernet II, Src: IntelCor_99:64:8e (c0:b8:83:99:64:8e), Dst: Tp-LinkT_aa:f8:5c (68:ff:7b:aa:f8:5c)
Internet Protocol Version 4, Src: 192.168.0.170, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 46884, Dst Port: 80, Seq: 1, Ack: 1, Len: 425
Hypertext Transfer Protocol
GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
Host: gaia.cs.umass.edu
User-Agent: Mozilla/5.0 (X11; Linux x86_64; rv:97.0) Gecko/20100101 Firefox/97.0
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
Accept-Language: en-US,en;q=0.5
Accept-Encoding: gzip, deflate
DNT: 1
Connection: keep-alive
Upgrade-Insecure-Requests: 1
Sec-GPC: 1
Cache-Control: max-age=0
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]
[HTTP request 1/2]
[Response in frame 17]
[Next request in frame 19]

Задание 2

1. Нет, этой строчки нету
2. Да, он вернулся явно, потому что есть Line-based text data
3. If-Modified-Since: Tue, 22 Feb 2022 06:59:01 GMT, это значение Last-Modified
4. 304 Not Modified; нет, не вернул

Чтоб не чистить куки в основном Firefox браузере, я просто скачал Chromium, поэтому там другой User-Agent 😊

No.	Time	Source	Destination	Protocol	Length	Info
32	5.836990222	192.168.0.170	128.119.245.12	HTTP	532	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
34	6.040802414	128.119.245.12	192.168.0.170	HTTP	796	HTTP/1.1 200 OK (text/html)
50	18.229053825	192.168.0.170	128.119.245.12	HTTP	644	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
53	18.359919901	128.119.245.12	192.168.0.170	HTTP	306	HTTP/1.1 304 Not Modified

Frame 32: 532 bytes on wire (4256 bits), 532 bytes captured (4256 bits) on interface wlp0s20f3, id 0
 Ethernet II, Src: IntelCor_99:64:8e (c0:b8:83:99:64:8e), Dst: Tp-LinkT_aa:f8:5c (68:ff:7b:aa:f8:5c)
 Internet Protocol Version 4, Src: 192.168.0.170, Dst: 128.119.245.12
 Transmission Control Protocol, Src Port: 47798, Dst Port: 80, Seq: 1, Ack: 1, Len: 466
 Hypertext Transfer Protocol
 GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n
 Host: gaia.cs.umass.edu\r\n
 Connection: keep-alive\r\n
 Upgrade-Insecure-Requests: 1\r\n
 User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9\r\n
 Accept-Encoding: gzip, deflate\r\n
 Accept-Language: en-US,en;q=0.9\r\n
 \r\n
 [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
 [HTTP request 1/1]
 [Response in frame 34]

Задание 3

1. Один GET-запрос. 34-й пакет содержит сообщение GET.
2. 36-й пакет.
3. 2 Reassembled TCP Segments
4. Есть информация о номерах пакетов, в которых содержится контент, и размер контента в пакете.

No.	Time	Source	Destination	Protocol	Length	Info
34	3.392394594	192.168.0.170	128.119.245.12	HTTP	532	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
36	3.596593230	128.119.245.12	192.168.0.170	HTTP	4927	HTTP/1.1 200 OK (text/html)

Frame 34: 532 bytes on wire (4256 bits), 532 bytes captured (4256 bits) on interface wlp0s20f3, id 0
 Ethernet II, Src: IntelCor_99:64:8e (c0:b8:83:99:64:8e), Dst: Tp-LinkT_aa:f8:5c (68:ff:7b:aa:f8:5c)
 Internet Protocol Version 4, Src: 192.168.0.170, Dst: 128.119.245.12
 Transmission Control Protocol, Src Port: 47814, Dst Port: 80, Seq: 1, Ack: 1, Len: 466
 Hypertext Transfer Protocol
 GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1\r\n
 Host: gaia.cs.umass.edu\r\n
 Connection: keep-alive\r\n
 Upgrade-Insecure-Requests: 1\r\n
 User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n
 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9\r\n
 Accept-Encoding: gzip, deflate\r\n
 Accept-Language: en-US,en;q=0.9\r\n
 \r\n
 [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file3.html]
 [HTTP request 1/1]
 [Response in frame 36]

Задание 4

1. Три GET-запроса
 - GET /wireshark-labs/HTTP-wireshark-file4.html
Host: gaia.cs.umass.edu
 - GET /pearson.png

Host: gaia.cs.umass.edu

- GET /8E_cover_small.jpg

Host: kurose.cslash.net

- Последовательно, потому что GET к первой картинке был в 8м пакете, ответ был получен в 10 пакете, и при этом следующий GET ко второй картинке был в 16м пакете, т.е. сначала ожидался ответ от первого GET-а, а уже потом формировался второй.

No.	Time	Source	Destination	Protocol	Length	Info
4	0.152503293	192.168.0.170	128.119.245.12	HTTP	532	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
6	0.357097865	128.119.245.12	192.168.0.170	HTTP	1367	HTTP/1.1 200 OK (text/html)
8	0.404125415	192.168.0.170	128.119.245.12	HTTP	478	GET /pearson.png HTTP/1.1
10	0.562681335	128.119.245.12	192.168.0.170	HTTP	3677	HTTP/1.1 200 OK (PNG)
16	0.809977183	192.168.0.170	178.79.137.164	HTTP	445	GET /8E_cover_small.jpg HTTP/1.1
18	0.853305473	178.79.137.164	192.168.0.170	HTTP	237	HTTP/1.1 301 Moved Permanently

Frame 4: 532 bytes on wire (4256 bits), 532 bytes captured (4256 bits) on interface wlp0s20f3, id 0
Ethernet II, Src: IntelCor_99:64:8e (c0:b8:83:99:64:8e), Dst: Tp-LinkT_aa:f8:5c (68:ff:7b:aa:f8:5c)
Internet Protocol Version 4, Src: 192.168.0.170, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 47914, Dst Port: 80, Seq: 1, Ack: 1, Len: 466
Hypertext Transfer Protocol
GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1\r\n
Host: gaia.cs.umass.edu\r\n
Connection: keep-alive\r\n
Upgrade-Insecure-Requests: 1\r\n
User-Agent: Mozilla/5.0 (X11; Linux x86_64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.9\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: en-US,en;q=0.9\r\n
\r\n
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html]
[HTTP request 1/2]
[Response in frame 6]
[Request in frame 8]

0040	13 66 47 45 54 20 2f 77	69 72 65 73 68 61 72 6b	fGET /w ireshark
0050	2d 6c 61 62 73 2f 48 54	54 50 2d 77 69 72 65 73	-labs/HT TP-wires
0060	68 61 72 6b 2d 66 69 6c	65 34 2e 68 74 6d 6c 20	hark-fil e4.html

Задание 5

- 401 Unauthorized
- Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcm5= Credentials: wireshark-students:network

No.	Time	Source	Destination	Protocol	Length	Info
4	0.135018557	192.168.0.170	128.119.245.12	HTTP	548	GET /wireshark-labs/protected_pages/HTTP-wireshark-f...
6	0.339006145	128.119.245.12	192.168.0.170	HTTP	783	HTTP/1.1 401 Unauthorized (text/html)
30	12.8335364...	192.168.0.170	128.119.245.12	HTTP	633	GET /wireshark-labs/protected_pages/HTTP-wireshark-f...
32	13.0372009...	128.119.245.12	192.168.0.170	HTTP	556	HTTP/1.1 200 OK (text/html)

Frame 6: 783 bytes on wire (6264 bits), 783 bytes captured (6264 bits) on interface wlp0s20f3, id 0
Ethernet II, Src: Tp-LinkT_aa:f8:5c (68:ff:7b:aa:f8:5c), Dst: IntelCor_99:64:8e (c0:b8:83:99:64:8e)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.0.170
Transmission Control Protocol, Src Port: 80, Dst Port: 47960, Seq: 1, Ack: 483, Len: 717
Hypertext Transfer Protocol
HTTP/1.1 401 Unauthorized\r\n
Date: Tue, 22 Feb 2022 08:58:00 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.27 mod_perl/2.0.11 Perl/v5.16.3\r\n
WWW-Authenticate: Basic realm="wireshark-students only"\r\n
Content-Length: 381\r\n
Keep-Alive: timeout=5, max=100\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=iso-8859-1\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.203987588 seconds]
[Request in frame 4]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file4.html]