

Задание 1

1. И клиент, и сервер используют HTTP версии 1.1.

*Ethernet 3

Файл Редактирование Просмотр Запуск Захват Анализ Статистика Телефония Беспроводной Инструменты Помощь

http

No.	Time	Source	Destination	Protocol	Length	Info
353	10.352064	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
355	10.519076	128.119.245.12	10.0.0.100	HTTP	540	HTTP/1.1 200 OK (text/html)

> Frame 355: 540 bytes on wire (4320 bits), 540 bytes captured (4320 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E15268858...}

> Ethernet II, Src: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6), Dst: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e)

> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.100

> Transmission Control Protocol, Src Port: 80, Dst Port: 55272, Seq: 1, Ack: 498, Len: 486

▼ Hypertext Transfer Protocol

> HTTP/1.1 200 OK\r\n

Date: Thu, 21 Feb 2020 16:27:27 GMT\r\n

> Frame 353: 551 bytes on wire (4408 bits), 551 bytes captured (4408 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC},

> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)

> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12

> Transmission Control Protocol, Src Port: 55272, Dst Port: 80, Seq: 1, Ack: 1, Len: 497

▼ Hypertext Transfer Protocol

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

...

2. Браузер принимает русский и английский языки.

Accept-Language: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n

\r\n

Дополнительная информация о пользователе:

- У пользователя операционная система windows 10 с 64-битной архитектурой и браузер Google Chrome версии 98.0.4758.102.

Upgrade-Insecure-Requests: 1\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n

3. IP моего компьютера: 10.0.0.100

IP сервера: 128.119.245.12

Source	Destination
10.0.0.100	128.119.245.12
128.119.245.12	10.0.0.100

4. Вернулся код 200 OK

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

5. Дата последней модификации файла:

Server: Apache/2.4.6 (Ubuntu) OpenSSL/1.0.2k-TLS HTTP/1.4.2/ mod_perl/2.0.11 Perl/5.10.3/ (w
 Last-Modified: Thu, 24 Feb 2022 06:59:01 GMT\r\n

6. Возвращается 128 байт контента.

Content-Length: 128\r\n
 [Content length: 128]

Задание 2

1. Строки «IF-MODIFIED-SINCE» в HTTP GET нет

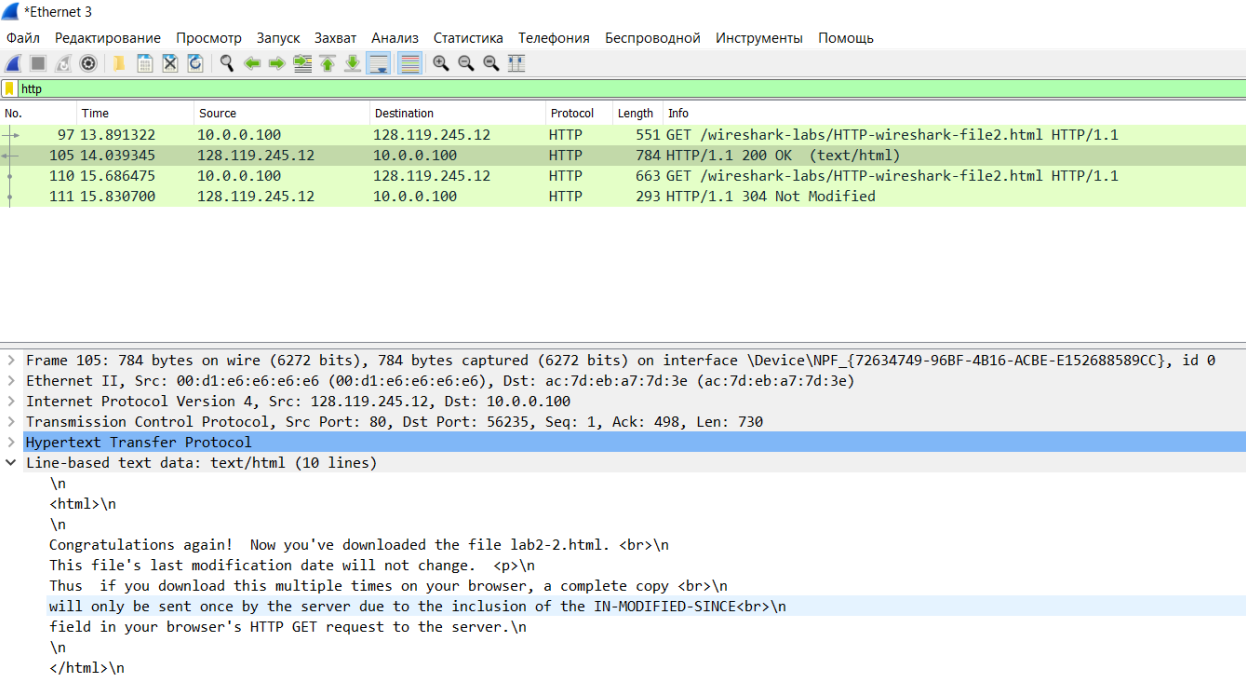
Wireshark packet capture showing an HTTP GET request and response. The response status is 200 OK. The packet details pane shows the Hypertext Transfer Protocol section with the GET request line and various headers. The packet bytes pane shows the raw data of the HTTP response.

No.	Time	Source	Destination	Protocol	Length	Info
109	15.249192	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
122	15.399393	128.119.245.12	10.0.0.100	HTTP	784	HTTP/1.1 200 OK (text/html)
157	19.889354	10.0.0.100	128.119.245.12	HTTP	663	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
158	20.036997	128.119.245.12	10.0.0.100	HTTP	293	HTTP/1.1 304 Not Modified

Frame 109: 551 bytes on wire (4408 bits), 551 bytes captured (4408 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0
 Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)
 Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12
 Transmission Control Protocol, Src Port: 52240, Dst Port: 80, Seq: 1, Ack: 1, Len: 497
 ▼ 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 (Windows NT 10.0; Win64; x64) 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: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n
 \r\n
 [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
 [HTTP request 1/2]
 [Response in frame: 122]
 [Next request in frame: 157]

0000 00 d1 e6 e6 e6 ac 7d eb a7 7d 3e 00 00 45 00} >>>...E-
 0010 02 19 37 1a 40 00 80 06 41 dd 0a 00 00 64 80 77 ..7.@... A....d-w
 0020 f5 0c cc 10 00 50 85 1f 36 48 b2 73 23 26 50 18P... 6H-s#&P.
 0030 02 03 a0 cf 00 00 47 45 54 20 2f 77 69 72 65 73GE T /wires
 0040 68 61 72 6b 2d 6c 61 62 73 2f 48 54 54 50 2d 77 hark-lab s/HTTP-w
 0050 69 72 65 73 68 61 72 6b 2d 66 69 6c 65 32 2e 68 ireshark -file2.h
 0060 74 6d 6c 20 48 54 54 50 2f 31 2e 31 0d 0a 48 6f tml HTTP /1.1-..Ho

2. Да, сервер возвращает содержимое пакета явно. Содержимое можно посмотреть в поле “Line-based text data”.



Frame 105: 784 bytes on wire (6272 bits), 784 bytes captured (6272 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0

Ethernet II, Src: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6), Dst: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e)

Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.100

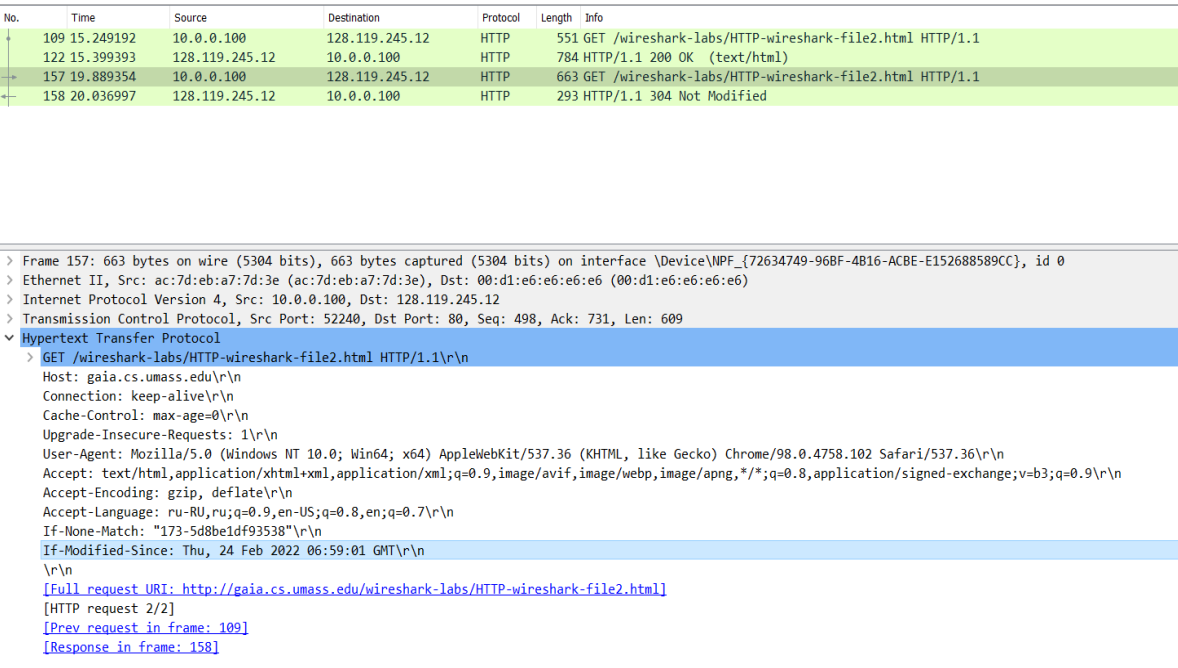
Transmission Control Protocol, Src Port: 80, Dst Port: 56235, Seq: 1, Ack: 498, Len: 730

Hypertext Transfer Protocol

Line-based text data: text/html (10 lines)

```
<html>\n\n\nCongratulations again! Now you've downloaded the file lab2-2.html. <br>\nThis file's last modification date will not change. <p>\nThus if you download this multiple times on your browser, a complete copy <br>\nwill only be sent once by the server due to the inclusion of the IN-MODIFIED-SINCE<br>\nfield in your browser's HTTP GET request to the server.\n\n</html>\n
```

3. Да, во втором запросе строка «IF-MODIFIED-SINCE» уже есть. В ней отражена дата моего последнего посещения анализируемой веб-страницы.



Frame 157: 663 bytes on wire (5304 bits), 663 bytes captured (5304 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0

Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)

Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12

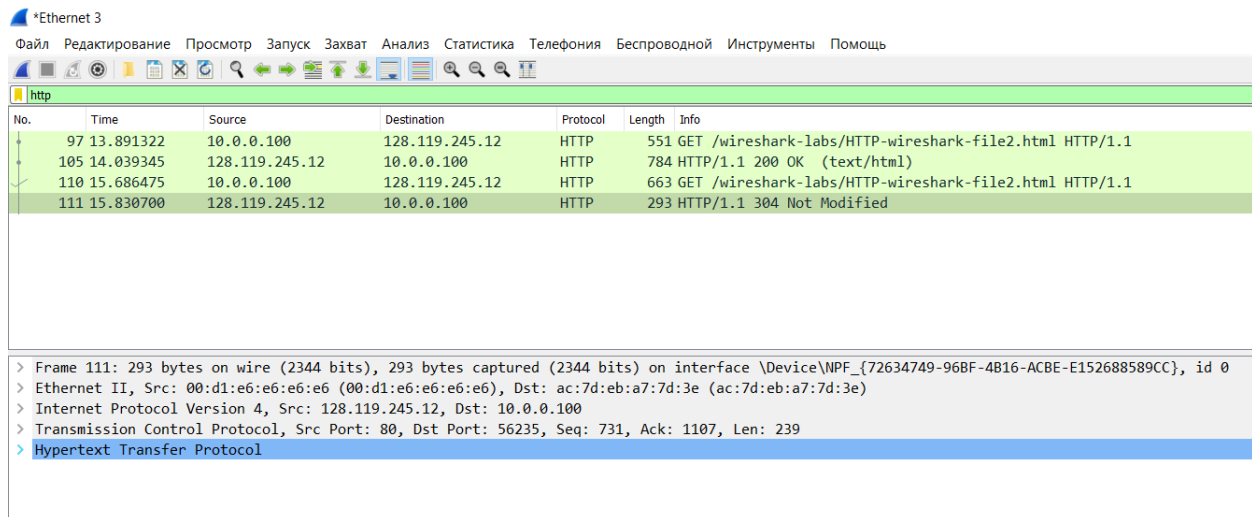
Transmission Control Protocol, Src Port: 52240, Dst Port: 80, Seq: 498, Ack: 731, Len: 609

Hypertext Transfer Protocol

GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\nHost: gaia.cs.umass.edu\r\nConnection: keep-alive\r\nCache-Control: max-age=0\r\nUpgrade-Insecure-Requests: 1\r\nUser-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\nAccept: 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\nAccept-Encoding: gzip, deflate\r\nAccept-Language: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\nIf-None-Match: "173-5d8be1df93538"\r\nIf-Modified-Since: Thu, 24 Feb 2022 06:59:01 GMT\r\n\r\n[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]\n[HTTP request 2/2]\n[Prev request in frame: 109]\n[Response in frame: 158]

4. В ответ на второй запрос сервер возвращает “304 Not Modified”. Сервер не возвращает содержимое файла, поскольку браузер просто

достаёт это содержимое из кэша. Если бы файл был изменен с момента последнего доступа к веб-странице, сервер бы вернул его содержимое явно.



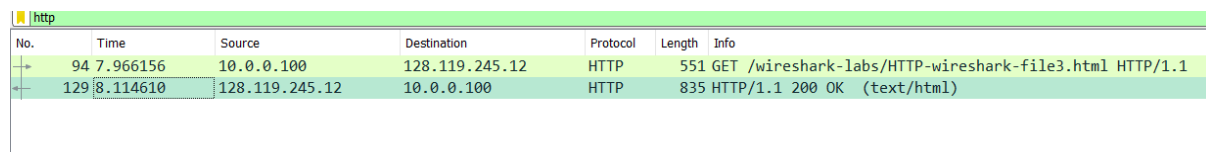
Wireshark capture of HTTP traffic. The packet list shows four packets. Packet 94 is a GET request for /wireshark-labs/HTTP-wireshark-file2.html. Packet 105 is a 200 OK response. Packet 110 is a GET request for /wireshark-labs/HTTP-wireshark-file2.html. Packet 111 is a 304 Not Modified response.

No.	Time	Source	Destination	Protocol	Length	Info
94	13.891322	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
105	14.039345	128.119.245.12	10.0.0.100	HTTP	784	HTTP/1.1 200 OK (text/html)
110	15.686475	10.0.0.100	128.119.245.12	HTTP	663	GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1
111	15.830700	128.119.245.12	10.0.0.100	HTTP	293	HTTP/1.1 304 Not Modified

Frame 111: 293 bytes on wire (2344 bits), 293 bytes captured (2344 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0
> Ethernet II, Src: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6), Dst: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e)
> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.100
> Transmission Control Protocol, Src Port: 80, Dst Port: 56235, Seq: 731, Ack: 1107, Len: 239
> Hypertext Transfer Protocol

Задание 3

1. Мой браузер отправил один HTTP GET запрос, номер пакета 94.

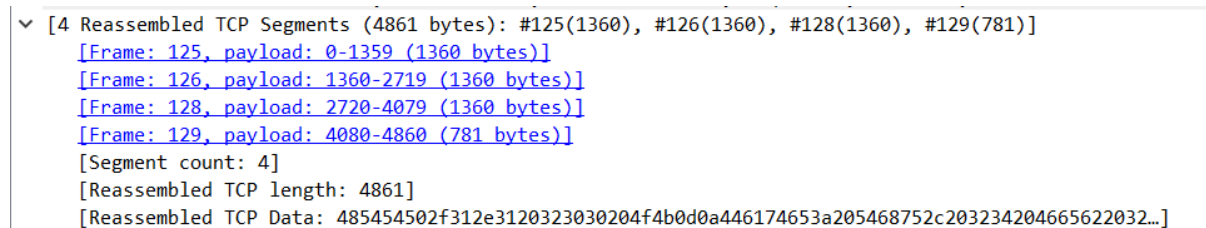


Wireshark capture of HTTP traffic. The packet list shows two packets. Packet 94 is a GET request for /wireshark-labs/HTTP-wireshark-file3.html. Packet 129 is a 200 OK response.

No.	Time	Source	Destination	Protocol	Length	Info
94	7.966156	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
129	8.114610	128.119.245.12	10.0.0.100	HTTP	835	HTTP/1.1 200 OK (text/html)

2. Пакет, содержащий код и фразу, которую сервер отправил в качестве ответа, имеет номер 129 (см. фото выше).

3. Понадобилось 4 сегмента TCP



Wireshark packet details for a reassembled TCP segment. The packet is a GET request for /wireshark-labs/HTTP-wireshark-file3.html. The details pane shows the reassembled TCP data.

No.	Time	Source	Destination	Protocol	Length	Info
125	7.966156	10.0.0.100	128.119.245.12	TCP	60	485454502f312e3120323030204f4b0d0a446174653a205468752c203234204665622032...

4 [4 Reassembled TCP Segments (4861 bytes): #125(1360), #126(1360), #128(1360), #129(781)]
[Frame: 125, payload: 0-1359 (1360 bytes)]
[Frame: 126, payload: 1360-2719 (1360 bytes)]
[Frame: 128, payload: 2720-4079 (1360 bytes)]
[Frame: 129, payload: 4080-4860 (781 bytes)]
[Segment count: 4]
[Reassembled TCP length: 4861]
[Reassembled TCP Data: 485454502f312e3120323030204f4b0d0a446174653a205468752c203234204665622032...]

4. Нет, в самом заголовке HTTP нет никакой информации, связанной с сегментацией TCP.

```

Hypertext Transfer Protocol
  HTTP/1.1 200 OK\r\n
  Date: Thu, 24 Feb 2022 20:03:46 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
  Last-Modified: Thu, 24 Feb 2022 06:59:01 GMT\r\n
  ETag: "1194-5d8be1df8e330"\r\n
  Accept-Ranges: bytes\r\n
  Content-Length: 4500\r\n
    [Content length: 4500]
  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: 0.148454000 seconds]
  [Request in frame: 94]
  [Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file3.html]
  File Data: 4500 bytes
Line-based text data: text/html (98 lines)

```

Задание 4

1. Было сделано 3 GET запроса по следующим Интернет-адресам:

- <http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html>
- <http://gaia.cs.umass.edu/pearson.png>
- http://kurose.cslash.net/8E_cover_small.jpg

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http

No.	Time	Source	Destination	Protocol	Length	Info
99	18.064032	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
127	18.217333	128.119.245.12	10.0.0.100	HTTP	1355	HTTP/1.1 200 OK (text/html)
138	18.338182	10.0.0.100	128.119.245.12	HTTP	497	GET /pearson.png HTTP/1.1
147	18.489115	128.119.245.12	10.0.0.100	HTTP	945	HTTP/1.1 200 OK (PNG)
157	18.607284	10.0.0.100	178.79.137.164	HTTP	464	GET /8E_cover_small.jpg HTTP/1.1
162	18.674948	178.79.137.164	10.0.0.100	HTTP	225	HTTP/1.1 301 Moved Permanently

> Frame 99: 551 bytes on wire (4408 bits), 551 bytes captured (4408 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0

> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)

> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12

> Transmission Control Protocol, Src Port: 60391, Dst Port: 80, Seq: 1, Ack: 1, Len: 497

> 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 (Windows NT 10.0; Win64; x64) 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: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\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: 127]

[Next request in frame: 138]

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http

No.	Time	Source	Destination	Protocol	Length	Info
99	18.064032	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
127	18.217333	128.119.245.12	10.0.0.100	HTTP	1355	HTTP/1.1 200 OK (text/html)
138	18.338182	10.0.0.100	128.119.245.12	HTTP	497	GET /pearson.png HTTP/1.1
147	18.489115	128.119.245.12	10.0.0.100	HTTP	945	HTTP/1.1 200 OK (PNG)
157	18.607284	10.0.0.100	178.79.137.164	HTTP	464	GET /8E_cover_small.jpg HTTP/1.1
162	18.674948	178.79.137.164	10.0.0.100	HTTP	225	HTTP/1.1 301 Moved Permanently

> Frame 138: 497 bytes on wire (3976 bits), 497 bytes captured (3976 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0

> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)

> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12

> Transmission Control Protocol, Src Port: 60391, Dst Port: 80, Seq: 498, Ack: 1302, Len: 443

> Hypertext Transfer Protocol

> GET /pearson.png HTTP/1.1\r\n

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

Connection: keep-alive\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n

Accept: image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n

Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n

Accept-Encoding: gzip, deflate\r\n

Accept-Language: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n

\r\n

[Full request URI: http://gaia.cs.umass.edu/pearson.png]

[HTTP request 2/2]

[Prev request in frame: 99]

[Response in frame: 147]

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http

No.	Time	Source	Destination	Protocol	Length	Info
99	18.064032	10.0.0.100	128.119.245.12	HTTP	551	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
127	18.217333	128.119.245.12	10.0.0.100	HTTP	1355	HTTP/1.1 200 OK (text/html)
138	18.338182	10.0.0.100	128.119.245.12	HTTP	497	GET /pearson.png HTTP/1.1
147	18.489115	128.119.245.12	10.0.0.100	HTTP	945	HTTP/1.1 200 OK (PNG)
157	18.607284	10.0.0.100	178.79.137.164	HTTP	464	GET /8E_cover_small.jpg HTTP/1.1
162	18.674948	178.79.137.164	10.0.0.100	HTTP	225	HTTP/1.1 301 Moved Permanently

> Frame 157: 464 bytes on wire (3712 bits), 464 bytes captured (3712 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0

> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)

> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 178.79.137.164

> Transmission Control Protocol, Src Port: 60394, Dst Port: 80, Seq: 1, Ack: 1, Len: 410

> Hypertext Transfer Protocol

> GET /8E_cover_small.jpg HTTP/1.1\r\n

Host: kurose.cslash.net\r\n

Connection: keep-alive\r\n

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/98.0.4758.102 Safari/537.36\r\n

Accept: image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n

Referer: http://gaia.cs.umass.edu\r\n

Accept-Encoding: gzip, deflate\r\n

Accept-Language: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n

\r\n

[Full request URI: http://kurose.cslash.net/8E_cover_small.jpg]

[HTTP request 1/1]

[Response in frame: 162]

- Браузер загрузил изображения последовательно. Как видно на скриншотах из Wireshark выше, второе изображение было запрошено только после того, как сервер вернул ответ на запрос о первом

изображении (в случае параллельности оба запроса были бы отправлены одновременно).

Задание 5

1. “401 Unauthorized”

*Ethernet 3

Файл Редактирование Просмотр Запуск Захват Анализ Статистика Телефония Беспроводной Инструменты Помощь

http

No.	Time	Source	Destination	Protocol	Length	Info
93	16.797908	10.0.0.100	128.119.245.12	HTTP	567	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
104	16.928921	128.119.245.12	10.0.0.100	HTTP	771	HTTP/1.1 401 Unauthorized (text/html)
218	38.121978	10.0.0.100	128.119.245.12	HTTP	652	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
223	38.257794	128.119.245.12	10.0.0.100	HTTP	544	HTTP/1.1 200 OK (text/html)
265	43.223289	10.0.0.100	96.7.145.90	HTTP	269	GET /singletile/summary/alias/experiencebyname/today?market=ru-RU&source=appxmanifest&tenant=amp HTTP/1.1
269	43.280059	96.7.145.90	10.0.0.100	HTTP	321	HTTP/1.1 301 Moved Permanently

> Frame 104: 771 bytes on wire (6168 bits), 771 bytes captured (6168 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0
> Ethernet II, Src: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6), Dst: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e)
> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.0.0.100
> Transmission Control Protocol, Src Port: 80, Dst Port: 52489, Seq: 1, Ack: 514, Len: 717
v Hypertext Transfer Protocol
 > HTTP/1.1 401 Unauthorized\r\n
 Date: Thu, 24 Feb 2022 22:29:48 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: 0.131013000 seconds]
 [\[Request in frame: 93\]](#)
 [Request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html]
 File Data: 381 bytes

2. В моем случае, появляются 2 новых поля: Authorization(думаю, именно оно изначально имелось в виду) и Cache-Control.

*Ethernet 3

Файл Редактирование Просмотр Запуск Захват Анализ Статистика Телефония Беспроводной Инструменты Помощь

http

No.	Time	Source	Destination	Protocol	Length	Info
93	16.797908	10.0.0.100	128.119.245.12	HTTP	567	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
104	16.928921	128.119.245.12	10.0.0.100	HTTP	771	HTTP/1.1 401 Unauthorized (text/html)
218	38.121978	10.0.0.100	128.119.245.12	HTTP	652	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
223	38.257794	128.119.245.12	10.0.0.100	HTTP	544	HTTP/1.1 200 OK (text/html)
265	43.223289	10.0.0.100	96.7.145.90	HTTP	269	GET /singletile/summary/alias/experiencebyname/today?market=ru-RU&source=appxmanifest&tenant=amp&vertical=news HTTP/1.1
269	43.280059	96.7.145.90	10.0.0.100	HTTP	321	HTTP/1.1 301 Moved Permanently

> Frame 93: 567 bytes on wire (4536 bits), 567 bytes captured (4536 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0
> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)
> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12
> Transmission Control Protocol, Src Port: 52489, Dst Port: 80, Seq: 1, Len: 513
v Hypertext Transfer Protocol
 > GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.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 (Windows NT 10.0; Win64; x64) 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: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n
 \r\n
 [\[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html\]](#)
 [HTTP request 1/1]
 [\[Response in frame: 104\]](#)

http						
No.	Time	Source	Destination	Protocol	Length	Info
93	16.797908	10.0.0.100	128.119.245.12	HTTP	567	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
104	16.928921	128.119.245.12	10.0.0.100	HTTP	771	HTTP/1.1 401 Unauthorized (text/html)
218	18.121978	10.0.0.100	128.119.245.12	HTTP	652	GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1
223	18.257794	128.119.245.12	10.0.0.100	HTTP	544	HTTP/1.1 200 OK (text/html)
265	43.223289	10.0.0.100	96.7.145.90	HTTP	269	GET /singletile/summary/alias/experiencebyname/today?market=ru-RU&source=appxmanifest&tenant=amp&vertical-news HTTP/1.1
269	43.280059	96.7.145.90	10.0.0.100	HTTP	321	HTTP/1.1 301 Moved Permanently

```
> Frame 218: 652 bytes on wire (5216 bits), 652 bytes captured (5216 bits) on interface \Device\NPF_{72634749-96BF-4B16-ACBE-E152688589CC}, id 0
```

```
> Ethernet II, Src: ac:7d:eb:a7:7d:3e (ac:7d:eb:a7:7d:3e), Dst: 00:d1:e6:e6:e6:e6 (00:d1:e6:e6:e6:e6)
```

```
> Internet Protocol Version 4, Src: 10.0.0.100, Dst: 128.119.245.12
```

> Transmission Control Protocol, Src Port: 52490, Dst Port: 80, Seq: 1, Ack: 1, Len: 598

- ▼ Hypertext Transfer Protocol

```
> GET /wireshark-labs/protected_pages/HTTP-wireshark-file5.html HTTP/1.1\r\n
```

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

```
Connection: keep-alive\r\n
```

```
Cache-Control: max-age=0\r\n
```

Authorization: Basic d2lyZXNoYXJrLXN0dWRlbnRzOm5ldHdvcms=\r\n

Credentials: wireshark-students:network

```
Upgrade-Insecure-Requests: 1\r\n
```

```
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) 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: ru-RU,ru;q=0.9,en-US;q=0.8,en;q=0.7\r\n

\r\n

[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/protected_pages/HTTP-wireshark-file5.html]

[HTTP request 1/1]

[Response in frame: 223]