HOMEWORK 1

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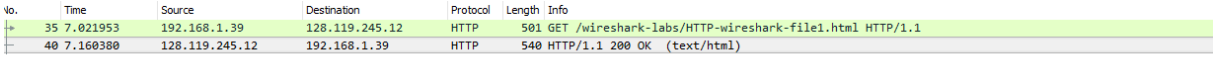
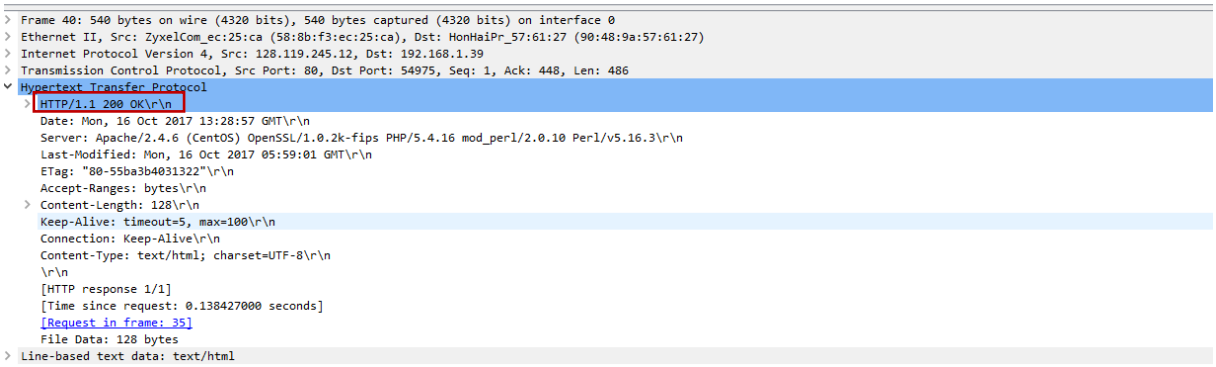
I.

1. HTTP server 1.1 is running on my server.

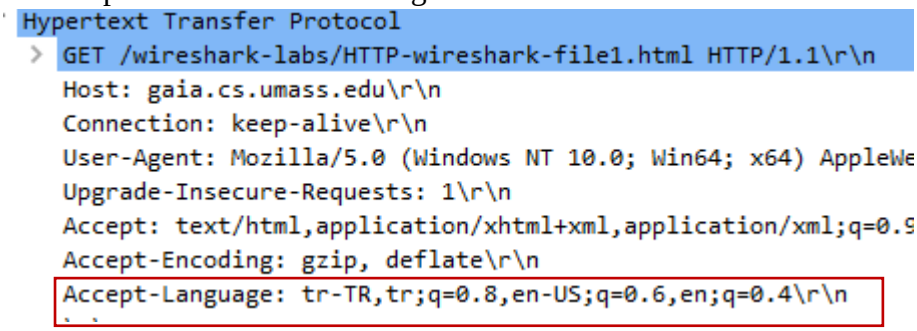


No.	Time	Source	Destination	Protocol	Length	Info
35	7.021953	192.168.1.39	128.119.245.12	HTTP	501	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
40	7.160380	128.119.245.12	192.168.1.39	HTTP	540	HTTP/1.1 200 OK (text/html)



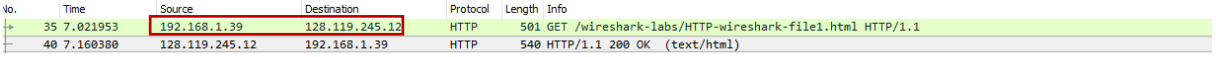
```
> Frame 40: 540 bytes on wire (4320 bits), 540 bytes captured (4320 bits) on interface 0
> Ethernet II, Src: ZyxelCom_ec:25:ca (58:8b:f3:ec:25:ca), Dst: HonHaiPr_57:61:27 (90:48:9a:57:61:27)
> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.39
> Transmission Control Protocol, Src Port: 80, Dst Port: 54975, Seq: 1, Ack: 448, Len: 486
v Hypertext Transfer Protocol
  > HTTP/1.1 200 OK\r\n
    Date: Mon, 16 Oct 2017 13:28:57 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/5.4.16 mod_perl/2.0.10 Perl/v5.16.3\r\n
    Last-Modified: Mon, 16 Oct 2017 05:59:01 GMT\r\n
    ETag: "80-55ba3b4031322"\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: 0.138427000 seconds]
    [Request in frame: 35]
    File Data: 128 bytes
> Line-based text data: text/html
```

2. It accepts both Turkish and Englis-US.



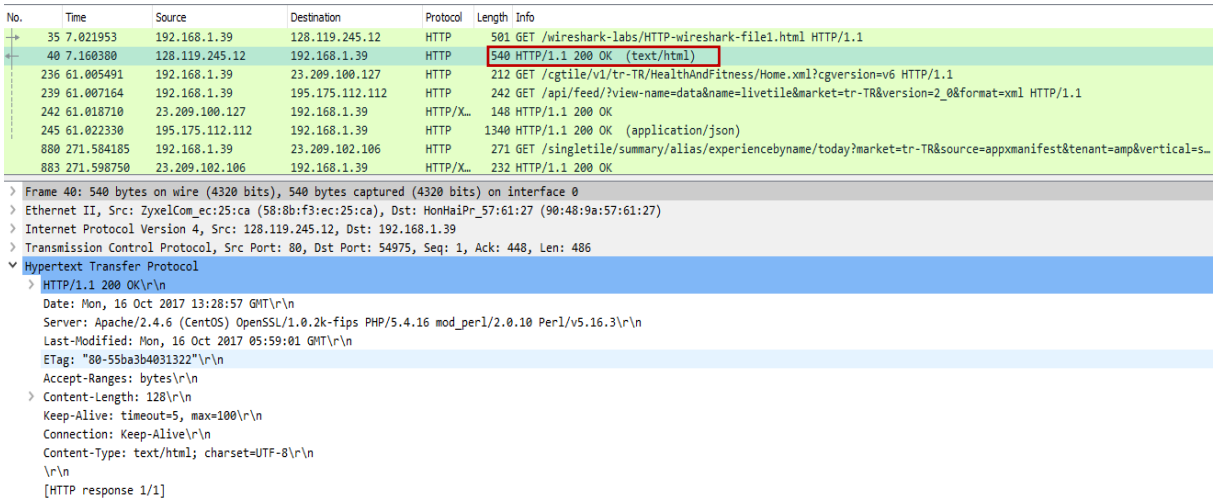
```
Hypertext Transfer Protocol
> GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
  Host: gaia.cs.umass.edu\r\n
  Connection: keep-alive\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWe
  Upgrade-Insecure-Requests: 1\r\n
  Accept: text/html,application/xhtml+xml,application/xml;q=0.9
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: tr-TR,tr;q=0.8,en-US;q=0.6,en;q=0.4\r\n
```

3. Ip address of my computer is fist line's source 192.168.1.39. And the server's ip address is 128.119.245.12.

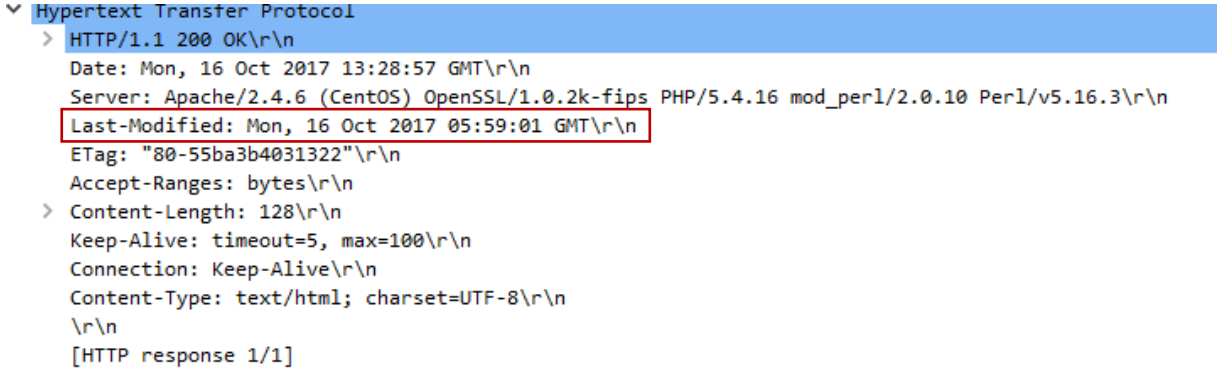


No.	Time	Source	Destination	Protocol	Length	Info
35	7.021953	192.168.1.39	128.119.245.12	HTTP	501	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
40	7.160380	128.119.245.12	192.168.1.39	HTTP	540	HTTP/1.1 200 OK (text/html)

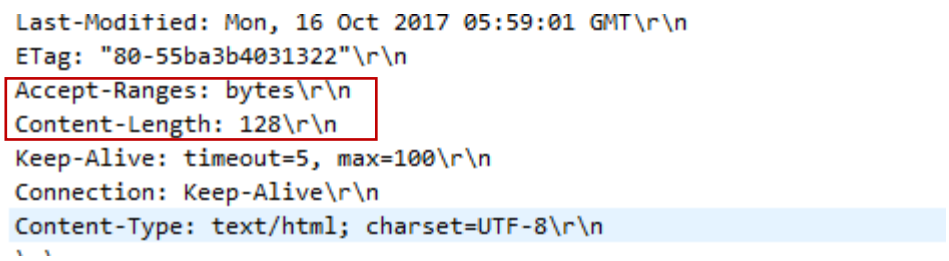
4. The code is “200 OK”.



5. The file last modified at the server on Monday, October 16, 2017 at 05:59:01 GMT.



6. The returned content’s length is 128 bytes.

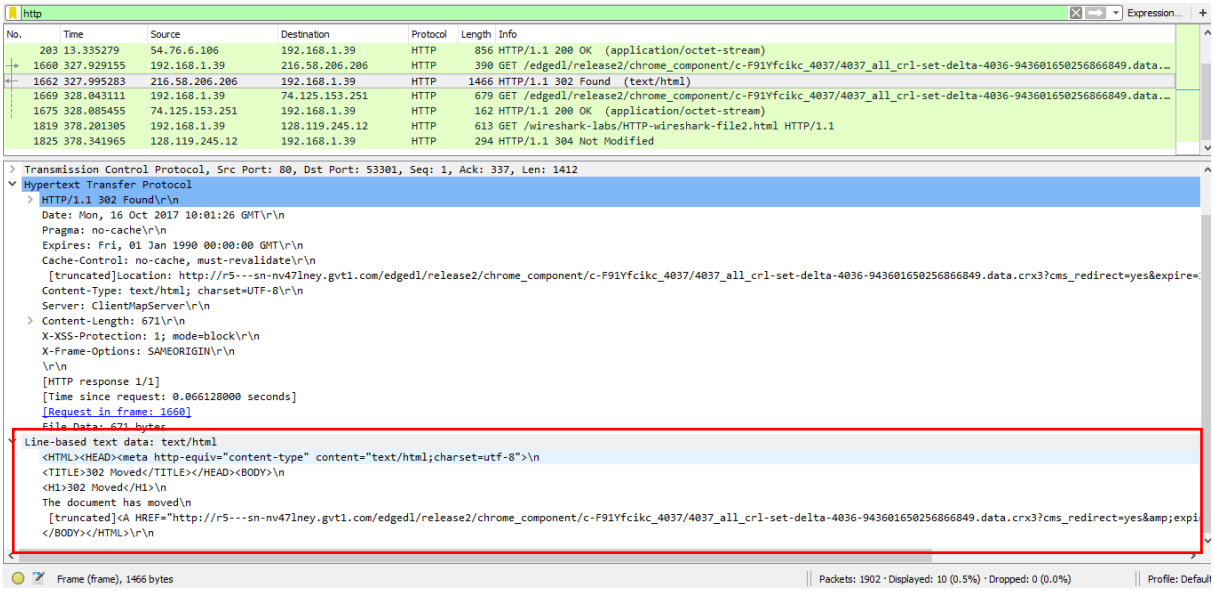


7. No. I cannot see any different headings between them.

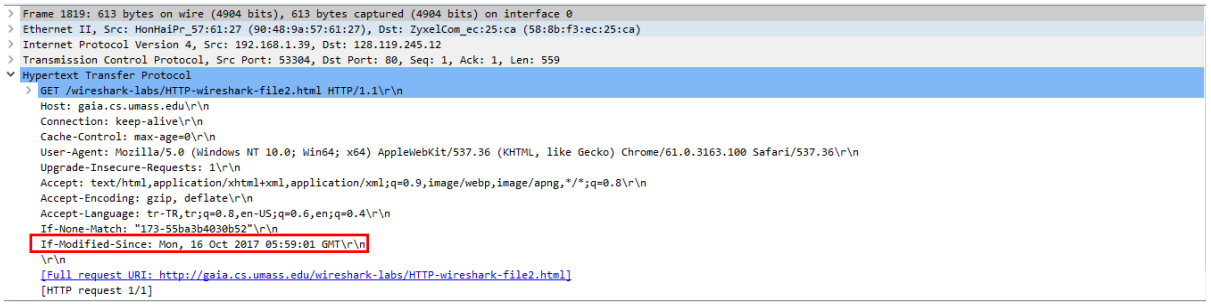
II.

8. No, I dont see any “IF-MODIFIED-SINCE” line in the first http_GET.

9. The server returned the contents of the file explicitly. There is a part called “Line-Based Text Data”, that means what the contents of server sending to my browser.

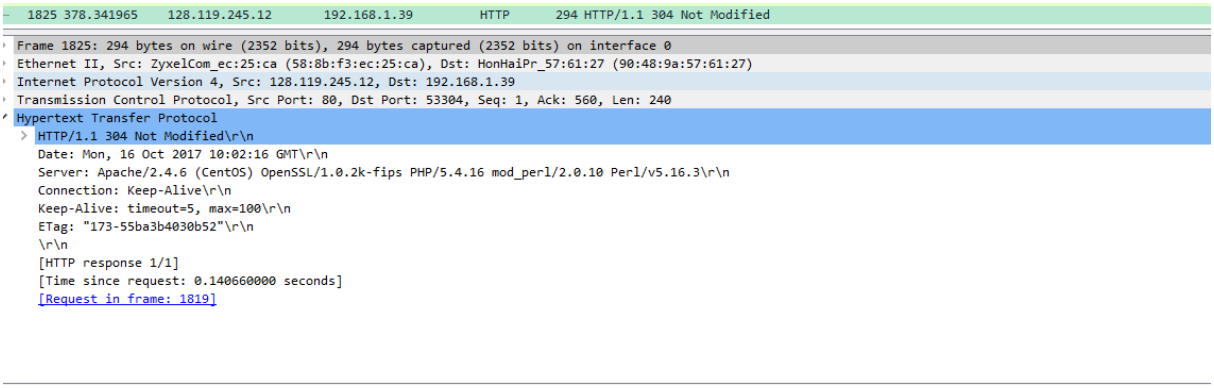


10. Yes, for the second http-get, there is a “IF-MODIFIED-SINCE” line.



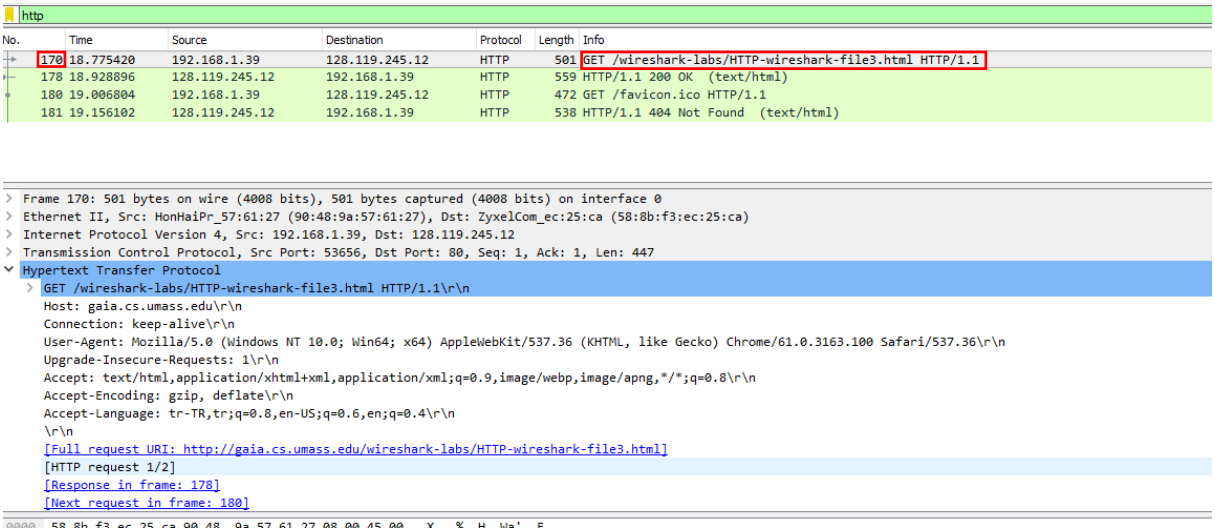
11.

The status code “304 Not Modified” as its shown in the figure below.
The browser retrieved the contents from the cache, thats why the server didnt return the contents of the file. Had the file been modified since it was last accessed, it would have returned the contents of the file, instead it simply told my browser to retrieve the old file from its cached memory.

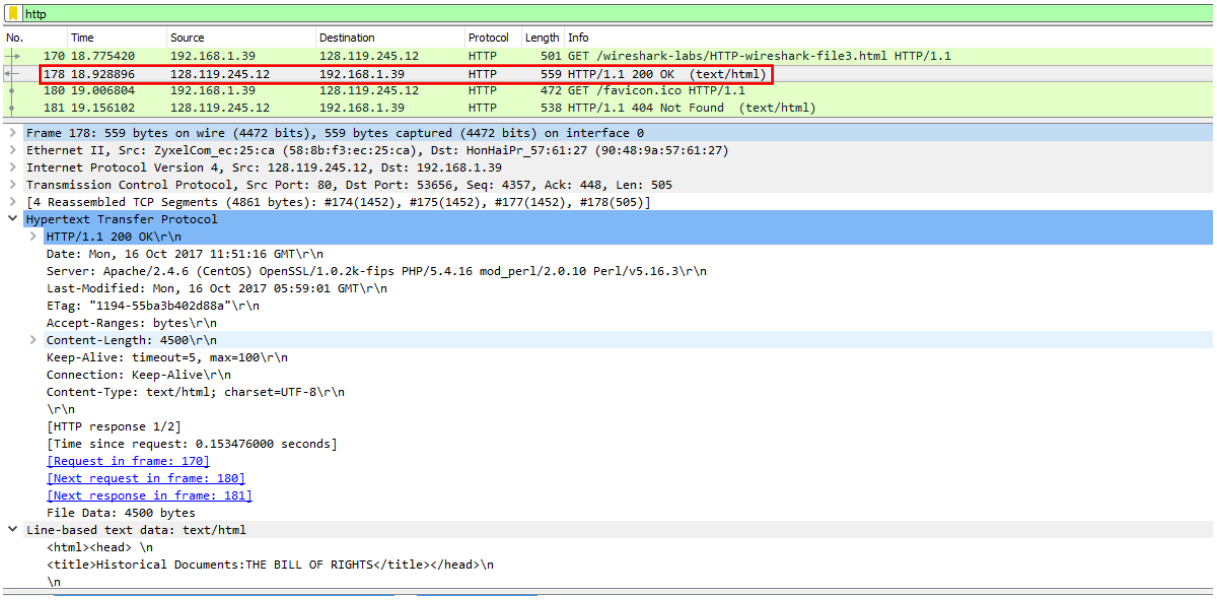


III.

12. There is only 1 sended HTTP GET request to the server. And its packet number is 170.

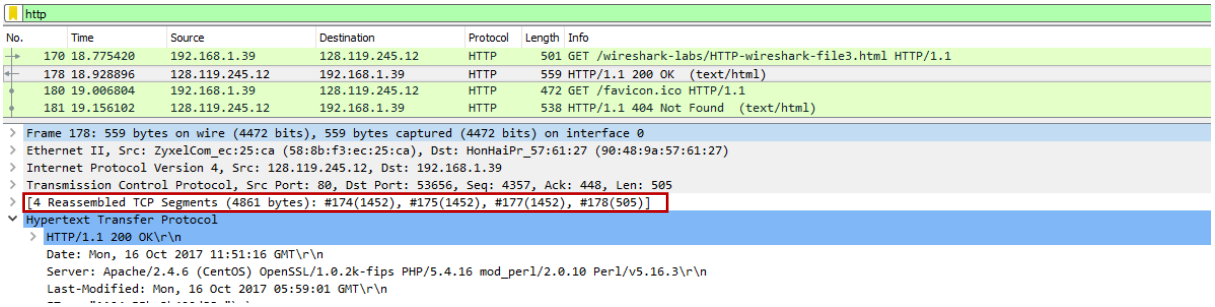


13. Status code and phrase that server sent as response is in the packet numbered 178.



14. The code and phrase at the response is 200 OK.

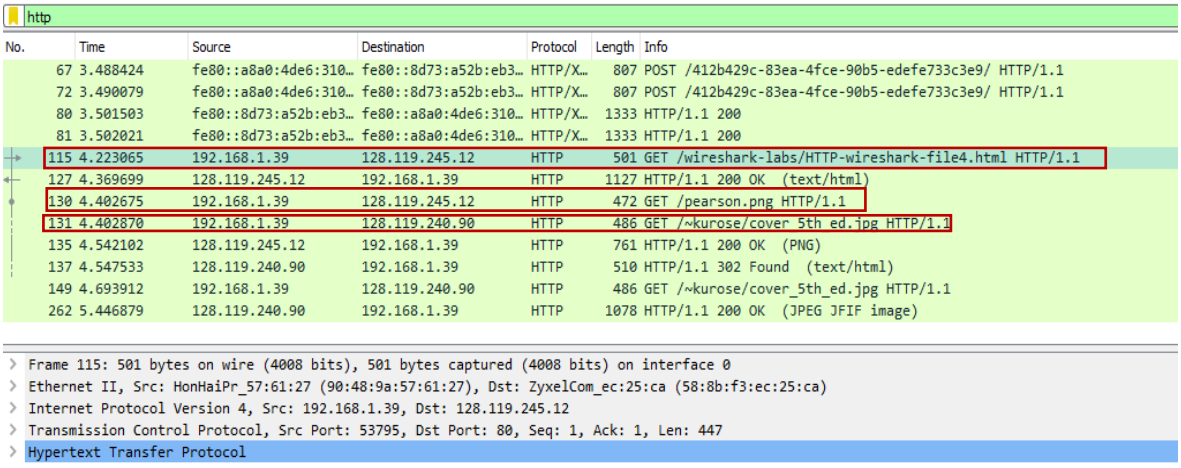
15. Data is sended in 4 TCP segments to the browser and then reassembled.



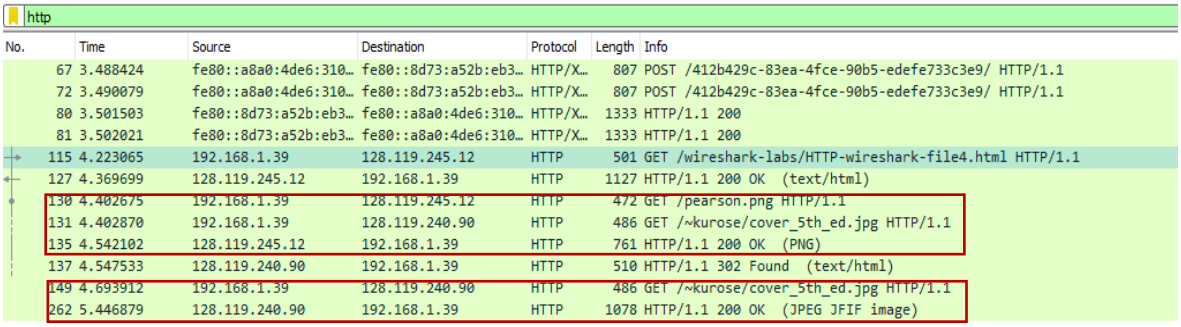
IV.

16. My browser sent 3 HTTP GET message requests. They are in order, the initial page, pearson logo.png, and the cover of the pearson book 5th ed.

- ❖ Inital page address : 128.119.245.12
- ❖ Logo address : 128.119.245.12
- ❖ Cover address : 128.119.240.90

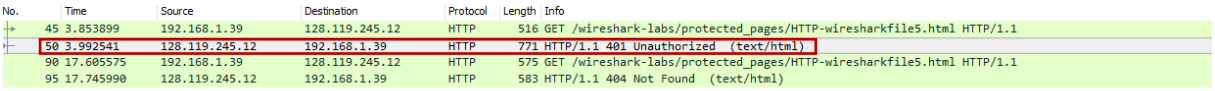


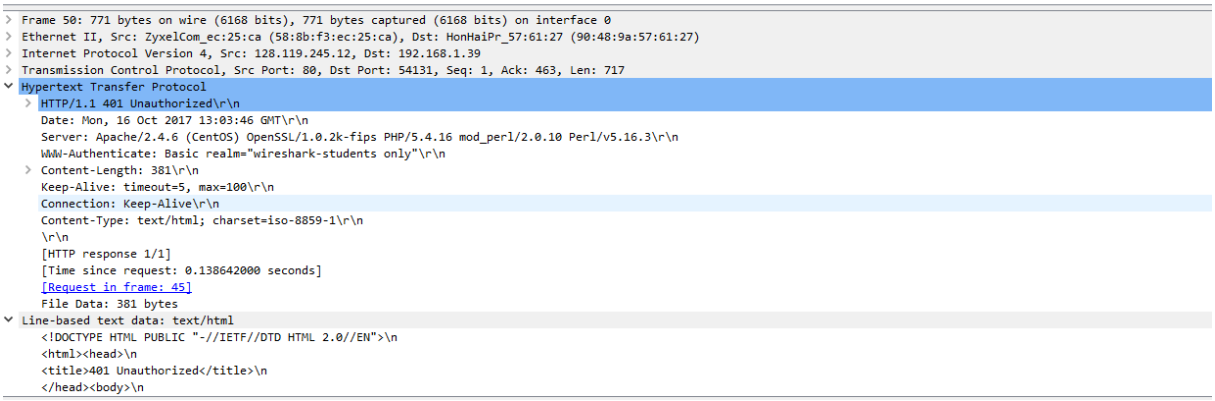
17. I thought that my browser downloaded the images in serially. Thats because first images was requested and send, when it is came back then second image is requested by the browser. If they had downloaded parallel then the requests would have been in the same time, but they didnt.



V.

18. Server's response to my browser's GET request is "401 Unauthorized".





19. The new field includes the authorization field because now I sent the server the username and the password along with my request stating that I was authorized to receive the page.