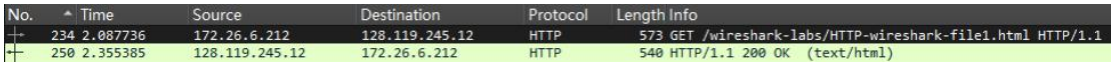
1. Is your browser running HTTP version 1.0, 1.1, or 2? What version of HTTP is the server running?

1.1；1.1

2. What languages (if any) does your browser indicate that it can accept to the server?

3. What is the IP address of your computer? What is the IP address of the gaia.cs.umass.edu server?



计算机 IP 地址为 172.26.6.212；服务器 IP 地址为 128.119.245.12

4. What is the status code returned from the server to your browser?

200

5. When was the HTML file that you are retrieving last modified at the server?

05:59:01

6. How many bytes of content are being returned to your browser?

128

7. By inspecting the raw data in the packet content window, do you see any headers within the data that are not displayed in the packet-listing window? If so, name one.

有，User-Agent、last-modified 等

8. 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?

没有

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

是，响应内容中包含 371 字节的 Line-based text data

10. 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 GET6? If so, what information follows the “IF-MODIFIED-SINCE:” header?

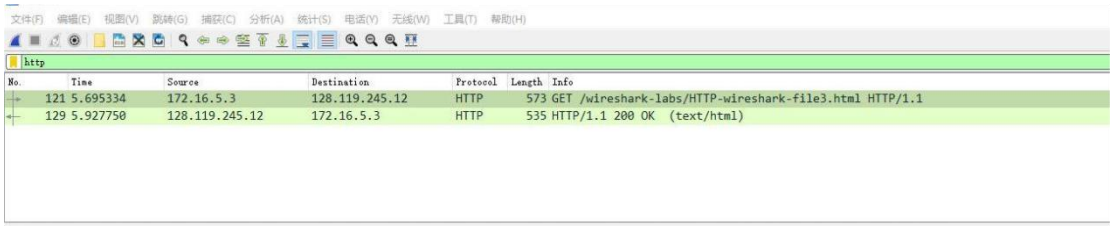
能看到，后面有日期和时间

11. 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.

304；Not Modified;服务器没有显式返回文件内容，因为响应消息中包含零字节的 Line-based text data

12. How many HTTP GET request messages did your browser send? Which packet number in the trace contains the GET message for the Bill or Rights?



1 个；121

13. Which packet number in the trace contains the status code and phrase associated with the response to the HTTP GET request?

129

14. What is the status code and phrase in the response?

200；OK

15. How many data-containing TCP segments were needed to carry the single HTTP response and the text of the Bill of Rights?

```
[4 Reassembled TCP Segments (4861 bytes): #109(1460), #110(1460), #112(1460), #113(481)]
    [Frame: 109, payload: 0-1459 (1460 bytes)]
    [Frame: 110, payload: 1460-2919 (1460 bytes)]
    [Frame: 112, payload: 2920-4379 (1460 bytes)]
    [Frame: 113, payload: 4380-4860 (481 bytes)]
    [Segment count: 4]
    [Reassembled TCP length: 4861]
    [Reassembled TCP Data […]: 485454502f312e3120323030204f4b0d0a446174653a2053756e2c203238205
```

4 个

16. How many HTTP GET request messages did your browser send? To which Internet addresses were these GET requests sent?

5362	25.678648	172.19.58.234	128.119.245.12	HTTP	573	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
5388	25.984116	128.119.245.12	172.19.58.234	HTTP	1355	HTTP/1.1 200 OK (text/html)
5389	26.014392	172.19.58.234	128.119.245.12	HTTP	519	GET /pearson.png HTTP/1.1
5406	26.279212	128.119.245.12	172.19.58.234	HTTP	745	HTTP/1.1 200 OK (PNG)
6562	27.373886	172.19.58.234	178.79.137.164	HTTP	486	GET /8E_cover_small.jpg HTTP/1.1
6565	27.632906	178.79.137.164	172.19.58.234	HTTP	225	HTTP/1.1 301 Moved Permanently

3 个；两个发到 128.119.245.12，第三个发到 178.79.137.164

17. Can you tell whether your browser downloaded the two images serially, or whether they were downloaded from the two web sites in parallel? Explain.

5362	25.678648	172.19.58.234	128.119.245.12	HTTP	573	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
5388	25.984116	128.119.245.12	172.19.58.234	HTTP	1355	HTTP/1.1 200 OK (text/html)
5389	26.014392	172.19.58.234	128.119.245.12	HTTP	519	GET /pearson.png HTTP/1.1
5406	26.279212	128.119.245.12	172.19.58.234	HTTP	745	HTTP/1.1 200 OK (PNG)
6562	27.373886	172.19.58.234	178.79.137.164	HTTP	486	GET /8E_cover_small.jpg HTTP/1.1
6565	27.632906	178.79.137.164	172.19.58.234	HTTP	225	HTTP/1.1 301 Moved Permanently

串行，第一张图片收到响应后再请求第二张图片

269	1.541359	172.26.6.212	128.119.245.12	HTTP	573	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
305	1.796229	128.119.245.12	172.26.6.212	HTTP	1355	HTTP/1.1 200 OK (text/html)
308	1.851425	172.26.6.212	128.119.245.12	HTTP	519	GET /pearson.png HTTP/1.1
309	1.851637	172.26.6.212	178.79.137.164	HTTP	486	GET /8E_cover_small.jpg HTTP/1.1
314	2.059954	178.79.137.164	172.26.6.212	HTTP	225	HTTP/1.1 301 Moved Permanently
319	2.103342	128.119.245.12	172.26.6.212	HTTP	745	HTTP/1.1 200 OK (PNG)

并行，请求两张图片后才收到响应

18. What is the server’s response (status code and phrase) in response to the initial HTTP GET message from your browser?

401；Unauthorized

19. When your browser’s sends the HTTP GET message for the second time, what new field is included in the HTTP GET message?

Authorization

批改文档：

https://web.ugreen.cloud/web/#/share/9272cf5af1f842399db10c938681ba1e

提取码：789J