

**Comp 2322 Computer Networking**

**Lab 2: HTTP**

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Q2.

Accept-Language: zh-CN,zh;q=0.9

Q4.

Status Code: 200

Q6.

Content-Length: 128

Screen shot for Q2,4,6

```
No.      Time      Source      Destination      Protocol Length Info
2149 21:53:18.239466 172.20.113.176 128.119.245.12 HTTP 526 GET /wireshark-labs/HTTP-wireshark-file1.html
HTTP/1.1
Frame 2149: 526 bytes on wire (4208 bits), 526 bytes captured (4208 bits) on interface \Device\NPF_{438E97CA-A6FF-4D1D-B0ED-A35C8A4C4FF}, id 0
Ethernet II, Src: Intel_5c:9f:68 (f8:9e:94:5c:9f:68), Dst: HuaweiTechno_c9:d5:ae (14:30:04:c9:d5:ae)
Internet Protocol Version 4, Src: 172.20.113.176, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 14250, Dst Port: 80, Seq: 1, Ack: 1, Len: 472
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
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 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=0.7\r\n
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: zh-CN,zh;q=0.9\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: 2187]

No.      Time      Source      Destination      Protocol Length Info
2187 21:53:18.528482 128.119.245.12 172.20.113.176 HTTP 540 HTTP/1.1 200 OK (text/html)
Frame 2187: 540 bytes on wire (4320 bits), 540 bytes captured (4320 bits) on interface \Device\NPF_{438E97CA-A6FF-4D1D-B0ED-A35C8A4C4FF}, id 0
Ethernet II, Src: HuaweiTechno_c9:d5:ae (14:30:04:c9:d5:ae), Dst: Intel_5c:9f:68 (f8:9e:94:5c:9f:68)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 172.20.113.176
Transmission Control Protocol, Src Port: 80, Dst Port: 14250, Seq: 1, Ack: 473, Len: 486
Hypertext Transfer Protocol
  HTTP/1.1 200 OK\r\n
  Date: Sun, 25 Feb 2024 13:53:18 GMT\r\n
  Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod_perl/2.0.11 Perl/v5.16.3\r\n
  Last-Modified: Sun, 25 Feb 2024 06:59:01 GMT\r\n
  ETag: "80-6122f53f83bd9"\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: 0.289016000 seconds]
  [Request in frame: 2149]
  [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)
```

Q8.

No: there is no “IF-MODIFIED-SINCE” here

```
No.      Time      Source      Destination      Protocol Length Info
2149 21:53:18.239466 172.20.113.176 128.119.245.12 HTTP 526 GET /wireshark-labs/HTTP-wireshark-file1.html
HTTP/1.1
Frame 2149: 526 bytes on wire (4208 bits), 526 bytes captured (4208 bits) on interface \Device\NPF_{438E97CA-A6FF-4D1D-B0ED-A35C8A4C4FF}, id 0
Ethernet II, Src: Intel_5c:9f:68 (f8:9e:94:5c:9f:68), Dst: HuaweiTechno_c9:d5:ae (14:30:04:c9:d5:ae)
Internet Protocol Version 4, Src: 172.20.113.176, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 14250, Dst Port: 80, Seq: 1, Ack: 1, Len: 472
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
  Upgrade-Insecure-Requests: 1\r\n
  User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/122.0.0.0 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=0.7\r\n
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: zh-CN,zh;q=0.9\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: 2187]
```

Q10.

Yes If-Modified-Since: Sun, 25 Feb 2024 06:59:01 GMT

No.	Time	Source	Destination	Protocol	Length	Info
2294	23:03:18.508350	172.20.113.176	128.119.245.12	HTTP	637	GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1

Frame 2294: 637 bytes on wire (5096 bits), 637 bytes captured (5096 bits) on interface \Device\NPF\_{438E97CA-A6FF-4D1D-B0ED-A35C8A4C4FF}, id 0  
Ethernet II, Src: Intel\_5c:9f:68 (f8:9e:94:5c:9f:68), Dst: HuaweiTechno\_c9:d5:ae (14:30:04:c9:d5:ae)  
Internet Protocol Version 4, Src: 172.20.113.176, Dst: 128.119.245.12  
Transmission Control Protocol, Src Port: 1566, Dst Port: 80, Seq: 1, Ack: 1, Len: 583  
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  
Cache-Control: max-age=0\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/122.0.0.0 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=0.7\r\n  
Accept-Encoding: gzip, deflate\r\n  
Accept-Language: zh-CN,zh;q=0.9\r\n  
If-None-Match: "80-6122f53f83bd9"\r\n  
If-Modified-Since: Sun, 25 Feb 2024 06:59:01 GMT\r\n  
\r\n  
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]  
[HTTP request 1/2]  
[Response in frame: 2344]  
[Next request in frame: 2886]

Q12.

1 HTTP GET request message.

Package number in the trace contains the GET message for the Bill of Rights: 2026

http						
No.	Time	Source	Destination	Protocol	Length	Info
2026	23:23:56.922711	172.20.113.176	128.119.245.12	HTTP	526	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
2066	23:23:57.204381	128.119.245.12	172.20.113.176	HTTP	775	HTTP/1.1 200 OK (text/html)

Q14.

Status Code: 200

Response Phrase: OK

http						
No.	Time	Source	Destination	Protocol	Length	Info
2026	23:23:56.922711	172.20.113.176	128.119.245.12	HTTP	526	GET /wireshark-labs/HTTP-wireshark-file3.html HTTP/1.1
2066	23:23:57.204381	128.119.245.12	172.20.113.176	HTTP	775	HTTP/1.1 200 OK (text/html)

  

> Frame 2066: 775 bytes on wire (6200 bits), 775 bytes captured (6200 bits) on interface \Device\NPF\_{438E97CA-A6FF-4D1D-B0ED-A35CA8A4C4FF}, id 0  
> Ethernet II, Src: HuaweiTechno\_c9:d5:ae (14:30:04:c9:d5:ae), Dst: Intel\_5c:9f:68 (f8:9e:94:5c:9f:68)  
> Internet Protocol Version 4, Src: 128.119.245.12, Dst: 172.20.113.176  
> Transmission Control Protocol, Src Port: 80, Dst Port: 1910, Seq: 4141, Ack: 473, Len: 721  
> [4 Reassembled TCP Segments (4861 bytes): #2063(1380), #2064(1380), #2065(1380), #2066(721)]

Hypertext Transfer Protocol

> HTTP/1.1 200 OK\r\n
Date: Sun, 25 Feb 2024 15:23:57 GMT\r\n
Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.33 mod\_perl/2.0.11 Perl/v5.16.3\r\n
Last-Modified: Sun, 25 Feb 2024 06:59:01 GMT\r\n
ETag: "1194-6122f53f7f1a1"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 4500\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: 0.281670000 seconds]  
[Request in frame: 2026]  
[Request URI: http://zaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file3.html]

Q16.

3 HTTP GET messages sent: package 759, package 827, package 949.

Package 759 sent to 128.119.245.12

Package 827 sent to 128.119.245.12

Package 949 sent to 178.79.137.164

http						
No.	Time	Source	Destination	Protocol	Length	Info
759	23:43:50.268582	172.20.113.176	128.119.245.12	HTTP	526	GET /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1
821	23:43:50.554374	128.119.245.12	172.20.113.176	HTTP	1355	HTTP/1.1 200 OK (text/html)
827	23:43:50.587496	172.20.113.176	128.119.245.12	HTTP	472	GET /pearson.png HTTP/1.1
904	23:43:50.875536	128.119.245.12	172.20.113.176	HTTP	905	HTTP/1.1 200 OK (PNG)
949	23:43:51.145344	172.20.113.176	178.79.137.164	HTTP	439	GET /8E_cover_small.jpg HTTP/1.1
995	23:43:51.415032	178.79.137.164	172.20.113.176	HTTP	225	HTTP/1.1 301 Moved Permanently