COMP9331 Computer Networks and Applications
Lab2

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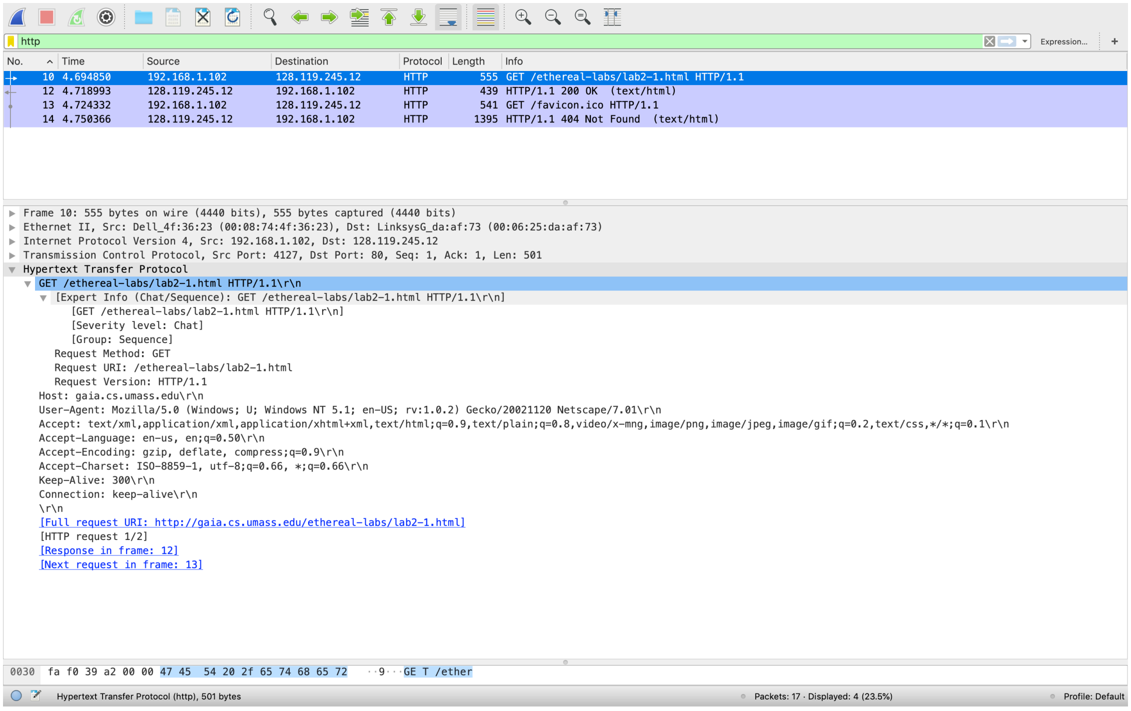
Exercise 3

Screenshot - trace1 HTTP GET packet header information:



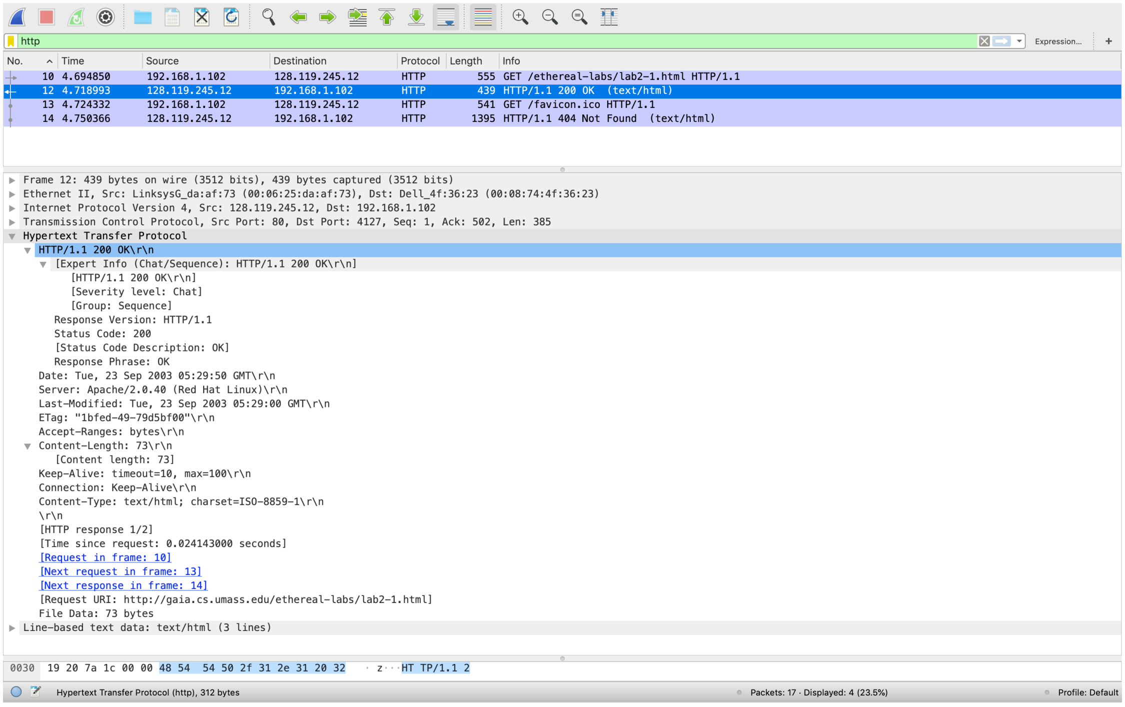
```
No.   Time      Source          Destination     Protocol Length Info
  10 4.694850   192.168.1.102   128.119.245.12  HTTP       555  GET /ethereal-labs/lab2-1.html HTTP/1.1
  12 4.718993   128.119.245.12  192.168.1.102   HTTP       439  HTTP/1.1 200 OK  (text/html)
  13 4.724332   192.168.1.102   128.119.245.12  HTTP       541  GET /favicon.ico HTTP/1.1
  14 4.750366   128.119.245.12  192.168.1.102   HTTP      1395  HTTP/1.1 404 Not Found  (text/html)
```

```
▶ Frame 10: 555 bytes on wire (4440 bits), 555 bytes captured (4440 bits)
▶ Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
▶ Internet Protocol Version 4, Src: 192.168.1.102, Dst: 128.119.245.12
▶ Transmission Control Protocol, Src Port: 4127, Dst Port: 80, Seq: 1, Ack: 1, Len: 501
▼ Hypertext Transfer Protocol
  ▼ GET /ethereal-labs/lab2-1.html HTTP/1.1\r\n
    ▼ [Expert Info (Chat/Sequence): GET /ethereal-labs/lab2-1.html HTTP/1.1\r\n]
        [GET /ethereal-labs/lab2-1.html HTTP/1.1\r\n]
        [Severity level: Chat]
        [Group: Sequence]
      Request Method: GET
      Request URI: /ethereal-labs/lab2-1.html
      Request Version: HTTP/1.1
    Host: gaia.cs.umass.edu\r\n
    User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.0.2) Gecko/20021120 Netscape/7.01\r\n
    Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,video/x-mng,image/png,image/jpeg,image/gif;q=0.2,text/css,*/*;q=0.1\r\n
    Accept-Language: en-us, en;q=0.50\r\n
    Accept-Encoding: gzip, deflate, compress;q=0.9\r\n
    Accept-Charset: ISO-8859-1, utf-8;q=0.66, *;q=0.66\r\n
    Keep-Alive: 300\r\n
    Connection: keep-alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-1.html]
    [HTTP request 1/2]
    [Response in frame: 12]
    [Next request in frame: 13]
```

```
0030  fa f0 39 a2 00 00 47 45  54 20 2f 65 74 68 65 72   ··9···GE T /ether
```

```
Hypertext Transfer Protocol (http), 501 bytes        Packets: 17 · Displayed: 4 (23.5%)        Profile: Default
```

Screenshot - trace1 HTTP response packet header information:



```
No.   Time      Source          Destination     Protocol Length Info
  10 4.694850   192.168.1.102   128.119.245.12  HTTP       555  GET /ethereal-labs/lab2-1.html HTTP/1.1
  12 4.718993   128.119.245.12  192.168.1.102   HTTP       439  HTTP/1.1 200 OK  (text/html)
  13 4.724332   192.168.1.102   128.119.245.12  HTTP       541  GET /favicon.ico HTTP/1.1
  14 4.750366   128.119.245.12  192.168.1.102   HTTP      1395  HTTP/1.1 404 Not Found  (text/html)
```

```
▶ Frame 12: 439 bytes on wire (3512 bits), 439 bytes captured (3512 bits)
▶ Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: Dell_4f:36:23 (00:08:74:4f:36:23)
▶ Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.102
▶ Transmission Control Protocol, Src Port: 80, Dst Port: 4127, Seq: 1, Ack: 502, Len: 385
▼ Hypertext Transfer Protocol
  ▼ HTTP/1.1 200 OK\r\n
    ▼ [Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
        [HTTP/1.1 200 OK\r\n]
        [Severity level: Chat]
        [Group: Sequence]
      Response Version: HTTP/1.1
      Status Code: 200
      [Status Code Description: OK]
      Response Phrase: OK
    Date: Tue, 23 Sep 2003 05:29:50 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    Last-Modified: Tue, 23 Sep 2003 05:29:00 GMT\r\n
    ETag: "1bfed-49-79d5bf00"\r\n
    Accept-Ranges: bytes\r\n
  ▼ Content-Length: 73\r\n
      [Content length: 73]
    Keep-Alive: timeout=10, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=ISO-8859-1\r\n
    \r\n
    [HTTP response 1/2]
    [Time since request: 0.024143000 seconds]
    [Request in frame: 10]
    [Next request in frame: 13]
    [Next response in frame: 14]
    [Request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-1.html]
    File Data: 73 bytes
▶ Line-based text data: text/html (3 lines)
```

```
0030  19 20 7a 1c 00 00 48 54  54 50 2f 31 2e 31 20 32   · z···HT TP/1.1 2
```

```
Hypertext Transfer Protocol (http), 312 bytes        Packets: 17 · Displayed: 4 (23.5%)        Profile: Default
```

Question 1: The status code is **200**, the phrase is “**OK**”.

Question 2: The HTML file was last modified at **Tue, 23 Sep 2003 05:29:00 GMT**. Yes, the Date header is **Tue, 23 Sep 2003 05:29:50 GMT**. The Date is 50 seconds later than the Last modified time. This is probably because the Last modified field is the date and time recorded at the origin server when the HTML file was last modified, whereas the Date field is recorded when the message containing this HTML file was last sent.

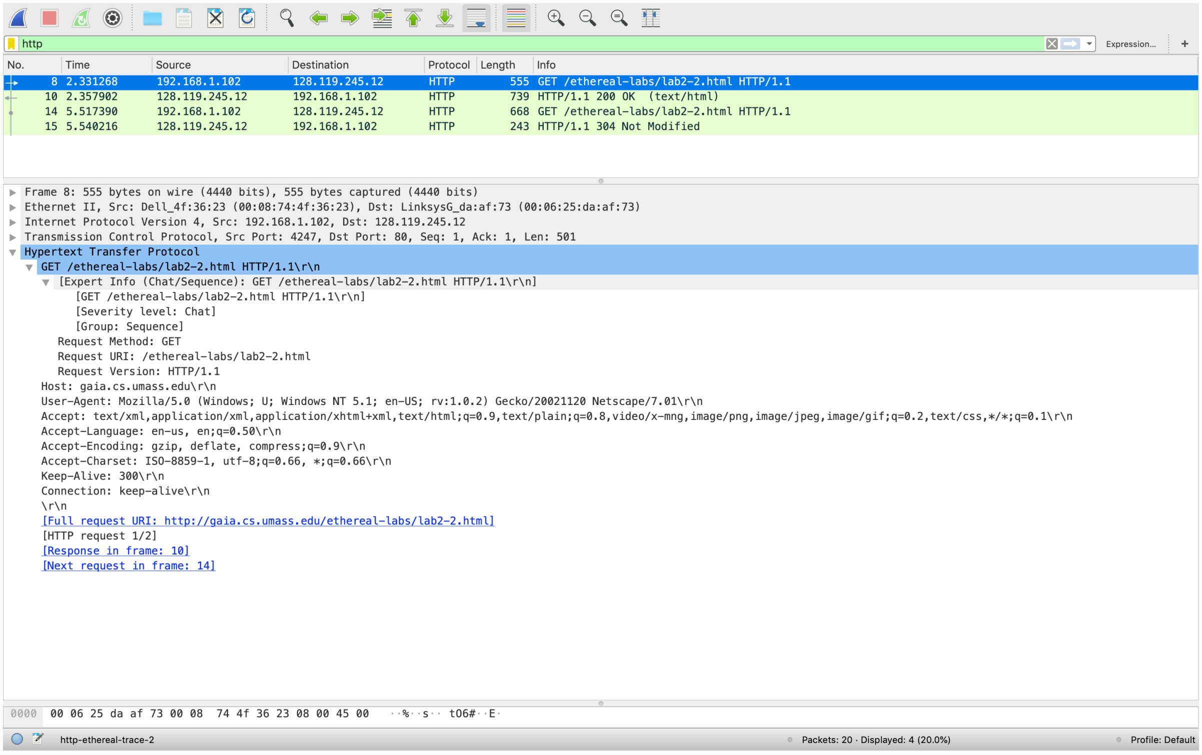
Question 3: The connection is **persistent**, because the status of the field **Connection: Keep-Alive**. The connection header field controls if the connection is persistent or not, and the field Keep-Alive means the connection is persistent.

Question 4: There are **73 bytes** content returned to the browser shown in the header field Content-Length.

Question 5: From the header field Content-Type indicates that the data contained in the HTTP response packet is a **text/html** file. Also, from the field Request URI in the response, we can see that the last section which is the name of file is **lab2-1.html**, so this conforms that the request data should be a text/html file.

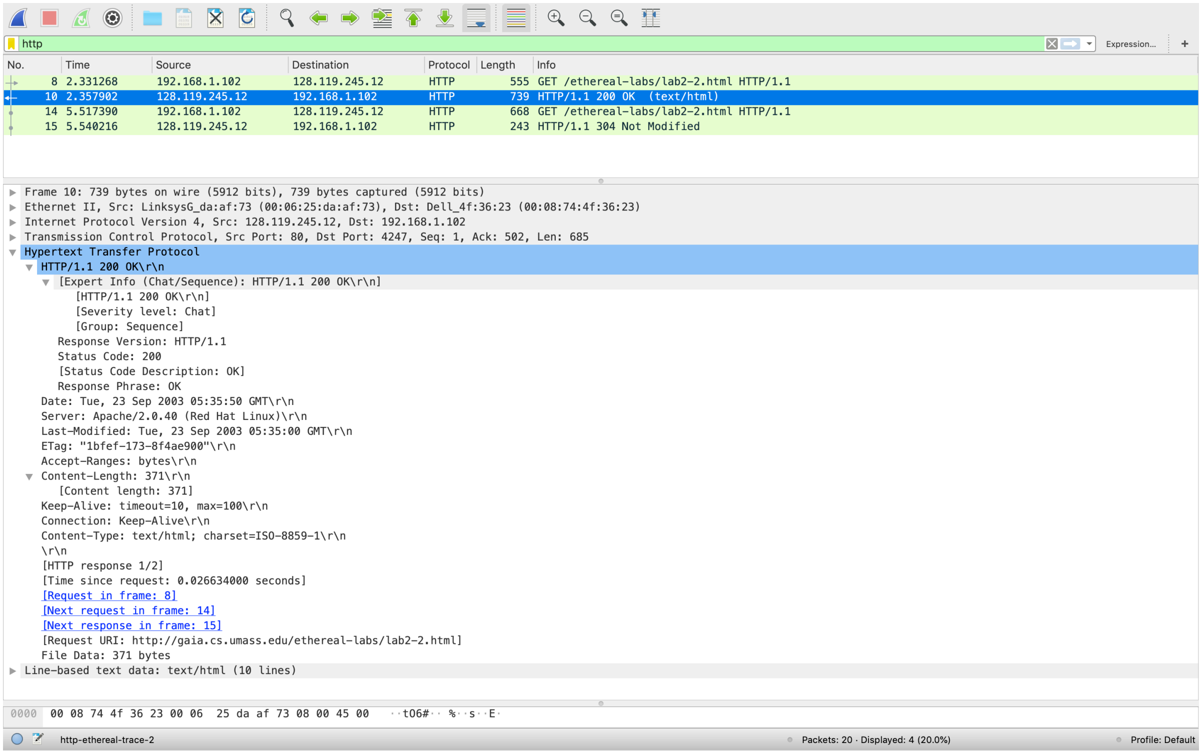
Exercise 4

Screenshot - trace2 first HTTP GET packet header information:



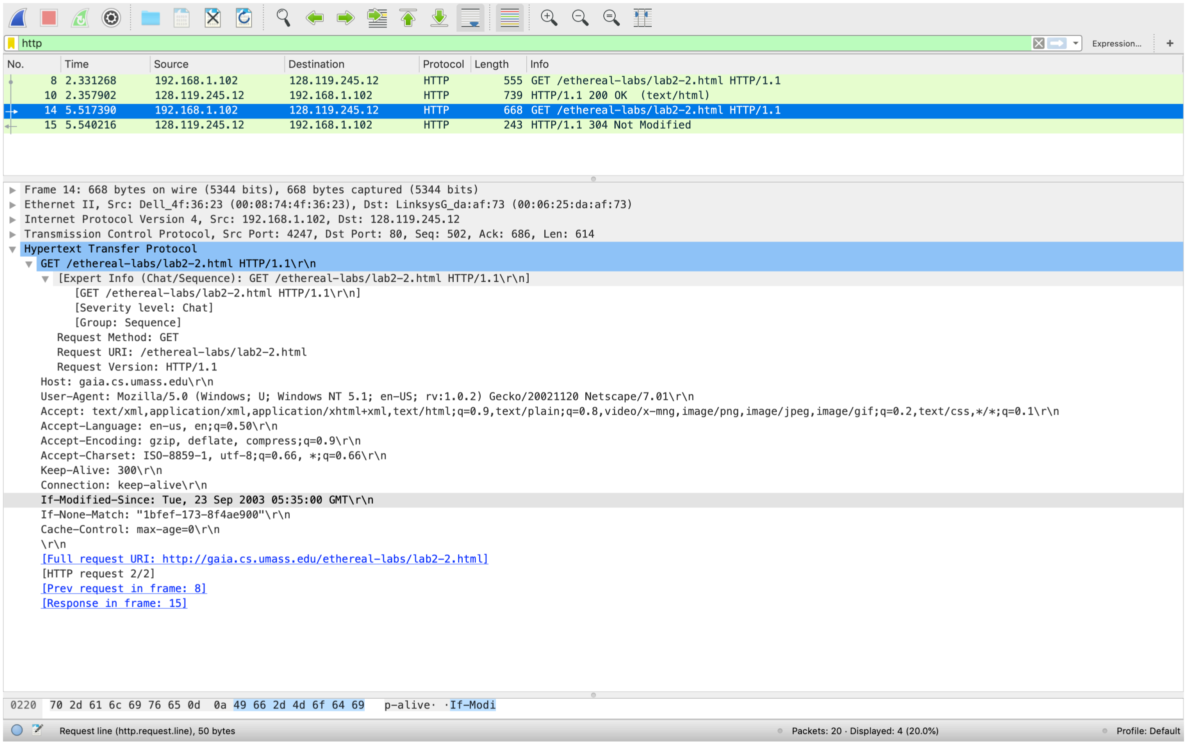
```
http

No.  Time      Source          Destination     Protocol  Length  Info
  8  2.331268  192.168.1.102   128.119.245.12  HTTP         555  GET /ethereal-labs/lab2-2.html HTTP/1.1
 10  2.357902  128.119.245.12  192.168.1.102   HTTP         739  HTTP/1.1 200 OK  (text/html)
 14  5.517390  192.168.1.102   128.119.245.12  HTTP         668  GET /ethereal-labs/lab2-2.html HTTP/1.1
 15  5.540216  128.119.245.12  192.168.1.102   HTTP         243  HTTP/1.1 304 Not Modified

▶ Frame 8: 555 bytes on wire (4440 bits), 555 bytes captured (4440 bits)
▶ Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
▶ Internet Protocol Version 4, Src: 192.168.1.102, Dst: 128.119.245.12
▶ Transmission Control Protocol, Src Port: 4247, Dst Port: 80, Seq: 1, Ack: 1, Len: 501
▼ Hypertext Transfer Protocol
  ▼ GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n
    ▼ [Expert Info (Chat/Sequence): GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n]
          [GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n]
          [Severity level: Chat]
          [Group: Sequence]
      Request Method: GET
      Request URI: /ethereal-labs/lab2-2.html
      Request Version: HTTP/1.1
    Host: gaia.cs.umass.edu\r\n
    User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.0.2) Gecko/20021120 Netscape/7.01\r\n
    Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,video/x-mng,image/png,image/jpeg,image/gif;q=0.2,text/css,*/*;q=0.1\r\n
    Accept-Language: en-us, en;q=0.50\r\n
    Accept-Encoding: gzip, deflate, compress;q=0.9\r\n
    Accept-Charset: ISO-8859-1, utf-8;q=0.66, *;q=0.66\r\n
    Keep-Alive: 300\r\n
    Connection: keep-alive\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-2.html]
    [HTTP request 1/2]
    [Response in frame: 10]
    [Next request in frame: 14]

0000  00 06 25 da af 73 00 08  74 4f 36 23 08 00 45 00   ··%··s·· tO6#··E·

http-ethereal-trace-2          Packets: 20 · Displayed: 4 (20.0%)          Profile: Default
```

Screenshot - trace2 first HTTP response packet header information:



```
http

No.  Time      Source          Destination     Protocol  Length  Info
  8  2.331268  192.168.1.102   128.119.245.12  HTTP         555  GET /ethereal-labs/lab2-2.html HTTP/1.1
 10  2.357902  128.119.245.12  192.168.1.102   HTTP         739  HTTP/1.1 200 OK  (text/html)
 14  5.517390  192.168.1.102   128.119.245.12  HTTP         668  GET /ethereal-labs/lab2-2.html HTTP/1.1
 15  5.540216  128.119.245.12  192.168.1.102   HTTP         243  HTTP/1.1 304 Not Modified

▶ Frame 10: 739 bytes on wire (5912 bits), 739 bytes captured (5912 bits)
▶ Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: Dell_4f:36:23 (00:08:74:4f:36:23)
▶ Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.102
▶ Transmission Control Protocol, Src Port: 80, Dst Port: 4247, Seq: 1, Ack: 502, Len: 685
▼ Hypertext Transfer Protocol
  ▼ HTTP/1.1 200 OK\r\n
    ▼ [Expert Info (Chat/Sequence): HTTP/1.1 200 OK\r\n]
          [HTTP/1.1 200 OK\r\n]
          [Severity level: Chat]
          [Group: Sequence]
      Response Version: HTTP/1.1
      Status Code: 200
      [Status Code Description: OK]
      Response Phrase: OK
    Date: Tue, 23 Sep 2003 05:35:50 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    Last-Modified: Tue, 23 Sep 2003 05:35:00 GMT\r\n
    ETag: "1bfef-173-8f4ae900"\r\n
    Accept-Ranges: bytes\r\n
  ▼ Content-Length: 371\r\n
      [Content length: 371]
    Keep-Alive: timeout=10, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: text/html; charset=ISO-8859-1\r\n
    \r\n
    [HTTP response 1/2]
    [Time since request: 0.026634000 seconds]
    [Request in frame: 8]
    [Next request in frame: 14]
    [Next response in frame: 15]
    [Request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-2.html]
    File Data: 371 bytes
▶ Line-based text data: text/html (10 lines)

0000  00 08 74 4f 36 23 00 06  25 da af 73 08 00 45 00   ··tO6#·· %··s··E·

http-ethereal-trace-2          Packets: 20 · Displayed: 4 (20.0%)          Profile: Default
```

Screenshot - trace2 second HTTP GET packet header information:



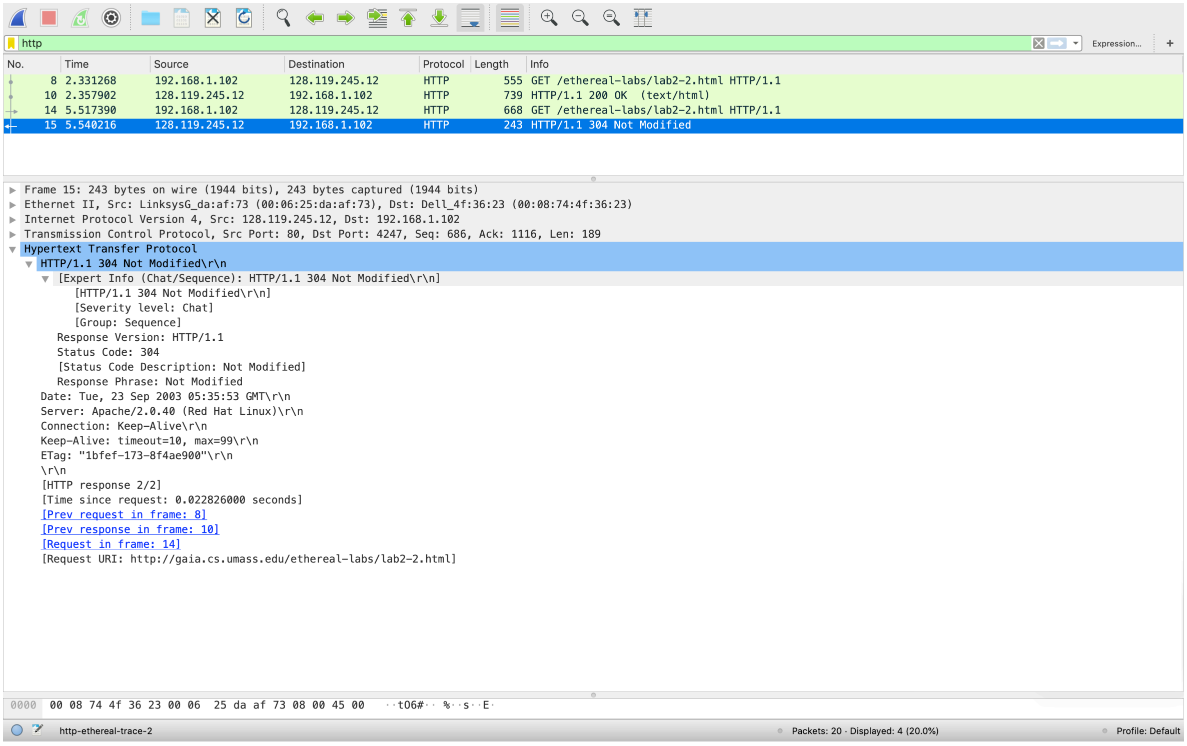
```
No.     Time       Source            Destination       Protocol  Length  Info
    8   2.331268   192.168.1.102     128.119.245.12    HTTP      555  GET /ethereal-labs/lab2-2.html HTTP/1.1
   10   2.357902   128.119.245.12    192.168.1.102     HTTP      739  HTTP/1.1 200 OK  (text/html)
   14   5.517390   192.168.1.102     128.119.245.12    HTTP      668  GET /ethereal-labs/lab2-2.html HTTP/1.1
   15   5.540216   128.119.245.12    192.168.1.102     HTTP      243  HTTP/1.1 304 Not Modified
```

```
▶ Frame 14: 668 bytes on wire (5344 bits), 668 bytes captured (5344 bits)
▶ Ethernet II, Src: Dell_4f:36:23 (00:08:74:4f:36:23), Dst: LinksysG_da:af:73 (00:06:25:da:af:73)
▶ Internet Protocol Version 4, Src: 192.168.1.102, Dst: 128.119.245.12
▶ Transmission Control Protocol, Src Port: 4247, Dst Port: 80, Seq: 502, Ack: 686, Len: 614
▼ Hypertext Transfer Protocol
  ▼ GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n
    ▼ [Expert Info (Chat/Sequence): GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n]
        [GET /ethereal-labs/lab2-2.html HTTP/1.1\r\n]
        [Severity level: Chat]
        [Group: Sequence]
      Request Method: GET
      Request URI: /ethereal-labs/lab2-2.html
      Request Version: HTTP/1.1
    Host: gaia.cs.umass.edu\r\n
    User-Agent: Mozilla/5.0 (Windows; U; Windows NT 5.1; en-US; rv:1.0.2) Gecko/20021120 Netscape/7.01\r\n
    Accept: text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,video/x-mng,image/png,image/jpeg,image/gif;q=0.2,text/css,*/*;q=0.1\r\n
    Accept-Language: en-us, en;q=0.50\r\n
    Accept-Encoding: gzip, deflate, compress;q=0.9\r\n
    Accept-Charset: ISO-8859-1, utf-8;q=0.66, *;q=0.66\r\n
    Keep-Alive: 300\r\n
    Connection: keep-alive\r\n
    If-Modified-Since: Tue, 23 Sep 2003 05:35:00 GMT\r\n
    If-None-Match: "1bfef-173-8f4ae900"\r\n
    Cache-Control: max-age=0\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-2.html]
    [HTTP request 2/2]
    [Prev request in frame: 8]
    [Response in frame: 15]
```

```
0220  70 2d 61 6c 69 76 65 0d  0a 49 66 2d 4d 6f 64 69   p-alive· ·If-Modi
```

```
Request line (http.request.line), 50 bytes          Packets: 20 · Displayed: 4 (20.0%)          Profile: Default
```

Screenshot - trace2 second HTTP response packet header information:



```
No.     Time       Source            Destination       Protocol  Length  Info
    8   2.331268   192.168.1.102     128.119.245.12    HTTP      555  GET /ethereal-labs/lab2-2.html HTTP/1.1
   10   2.357902   128.119.245.12    192.168.1.102     HTTP      739  HTTP/1.1 200 OK  (text/html)
   14   5.517390   192.168.1.102     128.119.245.12    HTTP      668  GET /ethereal-labs/lab2-2.html HTTP/1.1
   15   5.540216   128.119.245.12    192.168.1.102     HTTP      243  HTTP/1.1 304 Not Modified
```

```
▶ Frame 15: 243 bytes on wire (1944 bits), 243 bytes captured (1944 bits)
▶ Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst: Dell_4f:36:23 (00:08:74:4f:36:23)
▶ Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.102
▶ Transmission Control Protocol, Src Port: 80, Dst Port: 4247, Seq: 686, Ack: 1116, Len: 189
▼ Hypertext Transfer Protocol
  ▼ HTTP/1.1 304 Not Modified\r\n
    ▼ [Expert Info (Chat/Sequence): HTTP/1.1 304 Not Modified\r\n]
        [HTTP/1.1 304 Not Modified\r\n]
        [Severity level: Chat]
        [Group: Sequence]
      Response Version: HTTP/1.1
      Status Code: 304
      [Status Code Description: Not Modified]
      Response Phrase: Not Modified
    Date: Tue, 23 Sep 2003 05:35:53 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    Connection: Keep-Alive\r\n
    Keep-Alive: timeout=10, max=99\r\n
    ETag: "1bfef-173-8f4ae900"\r\n
    \r\n
    [HTTP response 2/2]
    [Time since request: 0.022826000 seconds]
    [Prev request in frame: 8]
    [Prev response in frame: 10]
    [Request in frame: 14]
    [Request URI: http://gaia.cs.umass.edu/ethereal-labs/lab2-2.html]
```

```
0000  00 08 74 4f 36 23 00 06  25 da af 73 08 00 45 00   ··tO6#·· %··s··E·
```

```
http-ethereal-trace-2          Packets: 20 · Displayed: 4 (20.0%)          Profile: Default
```

Question 1: **No**, there is no “IF-MODIFIED-SINCE” field in the first HTTP GET request.

Question 2: **Yes**, the last modified time was **Tue, 23 Sep 2003 05:35:00 GMT**.

Question 3: **Yes**.
The **“IF-MODIFIED-SINCE”** field has the value: **Tue, 23 Sep 2003 05:35:00 GMT**, this tells that if the last modified date of the requested resource is later than the given date, then, the server will send back the requested resource with OK status (code: 200); otherwise, it will just return a header.
The **“IF-NONE-MATCH”** field has the value: **“1bfef-173-8f4ae900”** which is same as the ETag field in the first response.

Question 4: The HTTP status code is **304**, and the phrase returned is **Not Modified**. **No**, the server did not return the contents of the file. The “IF-MODIFIED-SINCE” field means that only when the modified date is later than the given date, the requested file would be returned, otherwise, only the header with code 304 will be returned. The requested file in the second HTTP GET is not modified since the “IF-MODIFIED-SINCE” date, therefore, the server only returned the header because the content of file was already cached during the first time it was requested.

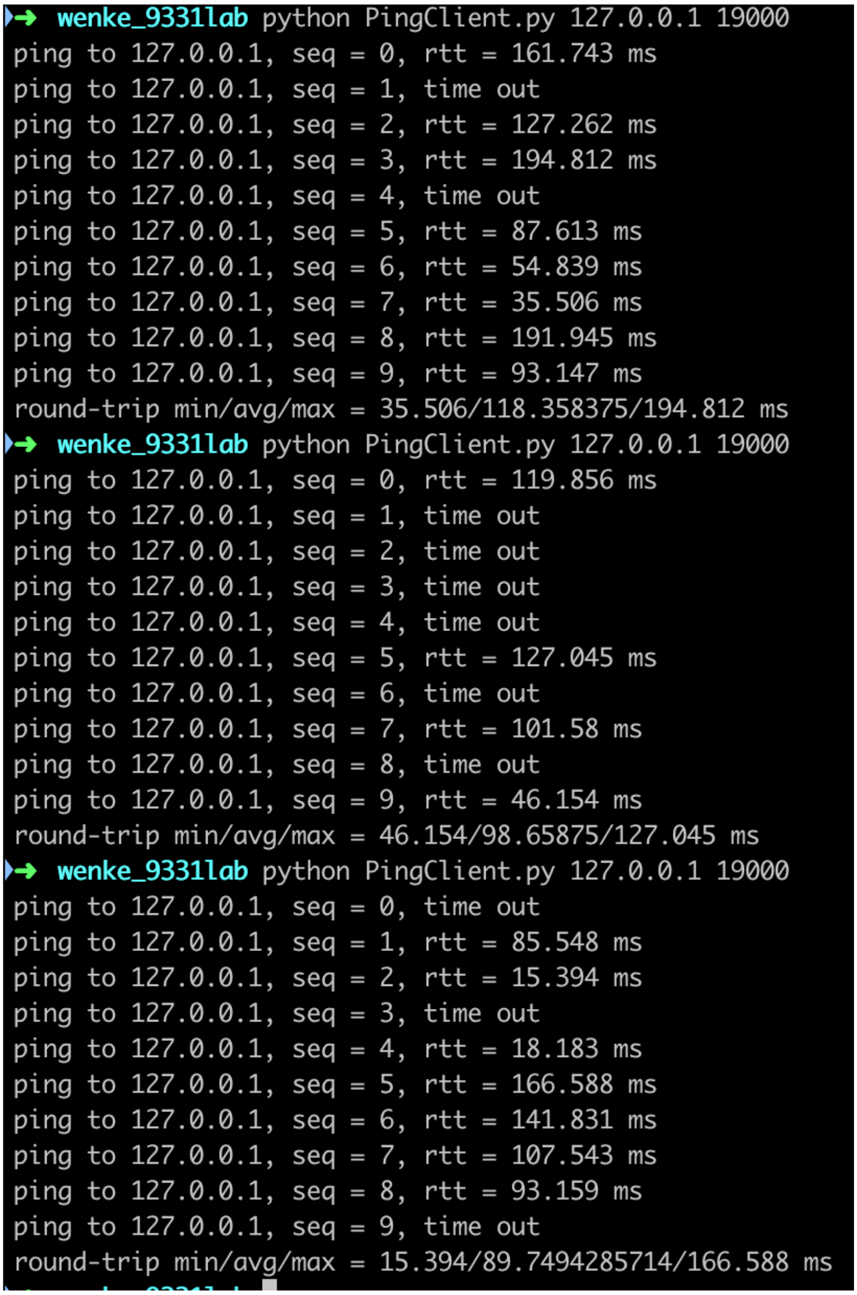
Question 5: The ETag field has the value: **“1bfef-173-8f4ae900”** which is **same as the first response** and the If-None-Match field in the second request. ETag identifies a specific version of a resource. When the resource at a URL changes, the ETag can distinguish the different versions of resource. In this example, the ETag 1bfef-173-8f4ae900 indicates the version of file lab2-2.html which was last modified at Tue, 23 Sep 2003 05:35:00 GMT. Therefore, any other versions modified after this date should be assigned with a new ETag. The ETag is used for recording which version of file at a specific URL has been cached.

Reference for answering some of the exercise 3 and 4 questions:
https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers/

Exercise 5

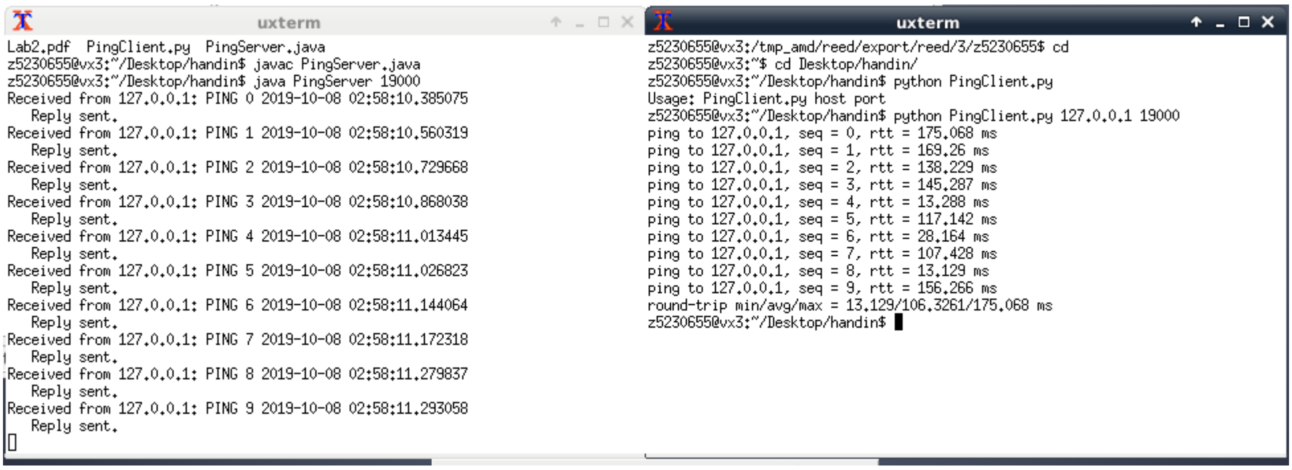
I was writing the PingClient using Python 2.7 and have attached the program PingClient.py in the tar file. Here are three sample outputs for testing the server and client on my own PC, setting LOSS_RATE = 0.3, AVERAGE_DELAY = 100 ms, and the server was listening on port 19000.

From the sample outputs, we can see that the average RTT is close to the AVERAGE_DELAY set, and the number of packets time out (assume as loss) is close to the LOSS_RATE set.



```
➜  wenke_9331lab python PingClient.py 127.0.0.1 19000
ping to 127.0.0.1, seq = 0, rtt = 161.743 ms
ping to 127.0.0.1, seq = 1, time out
ping to 127.0.0.1, seq = 2, rtt = 127.262 ms
ping to 127.0.0.1, seq = 3, rtt = 194.812 ms
ping to 127.0.0.1, seq = 4, time out
ping to 127.0.0.1, seq = 5, rtt = 87.613 ms
ping to 127.0.0.1, seq = 6, rtt = 54.839 ms
ping to 127.0.0.1, seq = 7, rtt = 35.506 ms
ping to 127.0.0.1, seq = 8, rtt = 191.945 ms
ping to 127.0.0.1, seq = 9, rtt = 93.147 ms
round-trip min/avg/max = 35.506/118.358375/194.812 ms
➜  wenke_9331lab python PingClient.py 127.0.0.1 19000
ping to 127.0.0.1, seq = 0, rtt = 119.856 ms
ping to 127.0.0.1, seq = 1, time out
ping to 127.0.0.1, seq = 2, time out
ping to 127.0.0.1, seq = 3, time out
ping to 127.0.0.1, seq = 4, time out
ping to 127.0.0.1, seq = 5, rtt = 127.045 ms
ping to 127.0.0.1, seq = 6, time out
ping to 127.0.0.1, seq = 7, rtt = 101.58 ms
ping to 127.0.0.1, seq = 8, time out
ping to 127.0.0.1, seq = 9, rtt = 46.154 ms
round-trip min/avg/max = 46.154/98.65875/127.045 ms
➜  wenke_9331lab python PingClient.py 127.0.0.1 19000
ping to 127.0.0.1, seq = 0, time out
ping to 127.0.0.1, seq = 1, rtt = 85.548 ms
ping to 127.0.0.1, seq = 2, rtt = 15.394 ms
ping to 127.0.0.1, seq = 3, time out
ping to 127.0.0.1, seq = 4, rtt = 18.183 ms
ping to 127.0.0.1, seq = 5, rtt = 166.588 ms
ping to 127.0.0.1, seq = 6, rtt = 141.831 ms
ping to 127.0.0.1, seq = 7, rtt = 107.543 ms
ping to 127.0.0.1, seq = 8, rtt = 93.159 ms
ping to 127.0.0.1, seq = 9, time out
round-trip min/avg/max = 15.394/89.7494285714/166.588 ms
```

Here is another sample output running with the same setting as above on a lab machine:
(The left terminal shows the output of server, and the right terminal shows the result of running my PingClient program)



```
Lab2.pdf  PingClient.py  PingServer.java
z5230655@vx3:~/Desktop/handin$ javac PingServer.java
z5230655@vx3:~/Desktop/handin$ java PingServer 19000
Received from 127.0.0.1: PING 0 2019-10-08 02:58:10.385075
   Reply sent.
Received from 127.0.0.1: PING 1 2019-10-08 02:58:10.560319
   Reply sent.
Received from 127.0.0.1: PING 2 2019-10-08 02:58:10.729668
   Reply sent.
Received from 127.0.0.1: PING 3 2019-10-08 02:58:10.868038
   Reply sent.
Received from 127.0.0.1: PING 4 2019-10-08 02:58:11.013445
   Reply sent.
Received from 127.0.0.1: PING 5 2019-10-08 02:58:11.026823
   Reply sent.
Received from 127.0.0.1: PING 6 2019-10-08 02:58:11.144064
   Reply sent.
Received from 127.0.0.1: PING 7 2019-10-08 02:58:11.172318
   Reply sent.
Received from 127.0.0.1: PING 8 2019-10-08 02:58:11.279837
   Reply sent.
Received from 127.0.0.1: PING 9 2019-10-08 02:58:11.293058
   Reply sent.
```

```
z5230655@vx3:/tmp_amd/reed/export/reed/3/z5230655$ cd
z5230655@vx3:~$ cd Desktop/handin/
z5230655@vx3:~/Desktop/handin$ python PingClient.py
Usage: PingClient.py host port
z5230655@vx3:~/Desktop/handin$ python PingClient.py 127.0.0.1 19000
ping to 127.0.0.1, seq = 0, rtt = 175.068 ms
ping to 127.0.0.1, seq = 1, rtt = 169.26 ms
ping to 127.0.0.1, seq = 2, rtt = 138.229 ms
ping to 127.0.0.1, seq = 3, rtt = 145.287 ms
ping to 127.0.0.1, seq = 4, rtt = 13.288 ms
ping to 127.0.0.1, seq = 5, rtt = 117.142 ms
ping to 127.0.0.1, seq = 6, rtt = 28.164 ms
ping to 127.0.0.1, seq = 7, rtt = 107.428 ms
ping to 127.0.0.1, seq = 8, rtt = 13.129 ms
ping to 127.0.0.1, seq = 9, rtt = 156.266 ms
round-trip min/avg/max = 13.129/106.3261/175.068 ms
z5230655@vx3:~/Desktop/handin$ 
```