Julia Diliberto
CST 311
Lab 2
5/12/15

Part 1

No.   Time   Source   Destination
Protocol Length Info
  14724 17:26:37.732693000 ==10.0.0.10==   ==128.119.245.12==
HTTP   465   GET /wireshark-labs/HTTP-wireshark-file1.html ==HTTP/1.1==

Frame 14724: 465 bytes on wire (3720 bits), 465 bytes captured (3720 bits)
on interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 59315 (59315), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 411
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
    Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
    Accept-Encoding: gzip, deflate, sdch\r\n
    Accept-Language: ==en-US,en==;q=0.8\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: 14728]

No.   Time   Source   Destination
Protocol Length Info
  14728 17:26:37.858796000 128.119.245.12   10.0.0.10
HTTP   543   ==HTTP/1.1== ==200== OK (text/html)

Frame 14728: 543 bytes on wire (4344 bits), 543 bytes captured (4344 bits)
on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59315 (59315),
Seq: 1, Ack: 412, Len: 489
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n

Date: Wed, 13 May 2015 00:26:38 GMT\r\n
        Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16
mod_perl/2.0.9-dev Perl/v5.16.3\r\n
        Last-Modified: <mark>Tue, 12 May 2015 05:59:02 GMT</mark>\r\n
        ETag: "80-515dc30f71bf9"\r\n
        Accept-Ranges: bytes\r\n
        Content-Length: <mark>128</mark>\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: 0.126103000 seconds]
        [Request in frame: 14724]
Line-based text data: text/html

1. HTTP 1.1; HTTP 1.1
2. U.S. English and English
3. 10.0.0.10; 128.119.245.12
4. 200
5. Tue, 12 May 2015 05:59:02 GMT
6. 128
7. I didn't see any.

Part 2

No.   Time   Source   Destination
Protocol Length Info
   1174 17:41:35.646708000 10.0.0.10   128.119.245.12
HTTP   439   GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1

Frame 1174: 439 bytes on wire (3512 bits), 439 bytes captured (3512 bits)
on interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 59484 (59484), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 385
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
        Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
\r\n
        User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
        Accept-Encoding: gzip, deflate, sdch\r\n
        Accept-Language: en-US,en;q=0.8\r\n
        \r\n
        [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-
wireshark-file2.html]
        [HTTP request 1/1]

[Response in frame: 1180]

No.   Time   Source   Destination
Protocol Length Info
    1180 17:41:35.761812000 128.119.245.12   10.0.0.10
HTTP   787   HTTP/1.1 200 OK (text/html)

Frame 1180: 787 bytes on wire (6296 bits), 787 bytes captured (6296 bits)
on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59484 (59484),
Seq: 1, Ack: 386, Len: 733
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Wed, 13 May 2015 00:41:35 GMT\r\n
    Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16
mod_perl/2.0.9-dev Perl/v5.16.3\r\n
    Last-Modified: Tue, 12 May 2015 05:59:02 GMT\r\n
    ETag: "173-515dc30f71041"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 371\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: 0.115104000 seconds]
    [Request in frame: 1174]
Line-based text data: text/html

No.   Time   Source   Destination
Protocol Length Info
    1220 17:41:52.545083000 10.0.0.10   128.119.245.12
HTTP   551   GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1

Frame 1220: 551 bytes on wire (4408 bits), 551 bytes captured (4408 bits)
on interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 59488 (59488), Dst Port: 80 (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
    Cache-Control: max-age=0\r\n
    Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
\r\n

User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
        Accept-Encoding: gzip, deflate, sdch\r\n
        Accept-Language: en-US,en;q=0.8\r\n
        If-None-Match: "173-515dc30f71041"\r\n
        If-Modified-Since: Tue, 12 May 2015 05:59:02 GMT\r\n
        \r\n
        [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-
wireshark-file2.html]
        [HTTP request 1/1]
        [Response in frame: 1224]

No.   Time   Source   Destination
Protocol Length Info
    1224 17:41:52.657755000 128.119.245.12   10.0.0.10
HTTP   297   HTTP/1.1 304 Not Modified

Frame 1224: 297 bytes on wire (2376 bits), 297 bytes captured (2376 bits)
on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59488 (59488),
Seq: 1, Ack: 498, Len: 243
Hypertext Transfer Protocol
        HTTP/1.1 304 Not Modified\r\n
        Date: Wed, 13 May 2015 00:41:52 GMT\r\n
        Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16
mod_perl/2.0.9-dev Perl/v5.16.3\r\n
        Connection: Keep-Alive\r\n
        Keep-Alive: timeout=5, max=100\r\n
        ETag: "173-515dc30f71041"\r\n
        \r\n
        [HTTP response 1/1]
        [Time since request: 0.112672000 seconds]
        [Request in frame: 1220]

8. No
9. Yes, 371 bytes of content
10. Yes, the LAST MODIFIED time associated with the first GET
11. 304 Not Modified; No; No CONTENT LENGTH header

Part 3

No.   Time   Source   Destination
Protocol Length Info
       8 22:36:59.501408 192.168.1.102   128.119.245.12   HTTP
555   GET /ethereal-labs/lab2-3.html HTTP/1.1

Frame 8: 555 bytes on wire (4440 bits), 555 bytes captured (4440 bits)
Ethernet II, Src: DellComp_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 (192.168.1.102), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 4272 (4272), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 501
Hypertext Transfer Protocol
    GET /ethereal-labs/lab2-3.html HTTP/1.1\r\n
    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/lab2-3.html]
    [HTTP request 1/1]
    [Response in frame: 14]

No.   Time   Source   Destination
Protocol Length Info
    14 22:36:59.558596 128.119.245.12   192.168.1.102   HTTP
490   HTTP/1.1 200 OK   (text/html)

Frame 14: 490 bytes on wire (3920 bits), 490 bytes captured (3920 bits)
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst:
DellComp_4f:36:23 (00:08:74:4f:36:23)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
192.168.1.102 (192.168.1.102)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 4272 (4272),
Seq: 4381, Ack: 502, Len: 436
[4 Reassembled TCP Segments (4816 bytes): #10(1460), #11(1460), #13(1460),
#14(436)]
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Tue, 23 Sep 2003 05:37:02 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    Last-Modified: Tue, 23 Sep 2003 05:37:01 GMT\r\n
    ETag: "1bff2-1194-96813940"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 4500\r\n
    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 1/1]
    [Time since request: 0.057188000 seconds]
    [Request in frame: 8]
Line-based text data: text/html

12. 1; 8
13. 14
14. 200 OK
15. 4 Reassembled TCP Segments

Part 4

No.   Time   Source   Destination
Protocol Length Info
    21 18:02:40.145241000 10.0.0.10   128.119.245.12
HTTP   439   <mark>GET</mark> /wireshark-labs/HTTP-wireshark-file4.html HTTP/1.1

Frame 21: 439 bytes on wire (3512 bits), 439 bytes captured (3512 bits) on
interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 59751 (59751), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 385
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
    Accept:
text/html,application/xhtml+xml,application/xml;q=0.9,image/webp,*/*;q=0.8
\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
    Accept-Encoding: gzip, deflate, sdch\r\n
    Accept-Language: en-US,en;q=0.8\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-
wireshark-file4.html]
    [HTTP request 1/1]
    [Response in frame: 23]

No.   Time   Source   Destination
Protocol Length Info
    23 18:02:40.253811000 128.119.245.12   10.0.0.10
HTTP   1157   HTTP/1.1 200 OK (text/html)

Frame 23: 1157 bytes on wire (9256 bits), 1157 bytes captured (9256 bits)
on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59751 (59751),
Seq: 1, Ack: 386, Len: 1103
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Wed, 13 May 2015 01:02:40 GMT\r\n

Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.1e-fips PHP/5.4.16
mod_perl/2.0.9-dev Perl/v5.16.3\r\n
    Last-Modified: Tue, 12 May 2015 05:59:02 GMT\r\n
    ETag: "2e5-515dc30f70489"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 741\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: 0.108570000 seconds]
    [Request in frame: 21]
Line-based text data: text/html

No.   Time   Source   Destination
Protocol Length Info
    32 18:02:40.548402000 10.0.0.10   165.193.140.14
HTTP   487   GET
/assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif HTTP/1.1

Frame 32: 487 bytes on wire (3896 bits), 487 bytes captured (3896 bits) on
interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
165.193.140.14 (165.193.140.14)
Transmission Control Protocol, Src Port: 59753 (59753), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 433
Hypertext Transfer Protocol
    GET /assets/hip/us/hip_us_pearsonhighered/images/pearson_logo.gif
HTTP/1.1\r\n
    Host: www.pearsonhighered.com\r\n
    Connection: keep-alive\r\n
    Accept: image/webp,*/*;q=0.8\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
    Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-
file4.html\r\n
    Accept-Encoding: gzip, deflate, sdch\r\n
    Accept-Language: en-US,en;q=0.8\r\n
    \r\n
    [Full request URI:
http://www.pearsonhighered.com/assets/hip/us/hip_us_pearsonhighered/images
/pearson_logo.gif]
    [HTTP request 1/1]
    [Response in frame: 43]

No.   Time   Source   Destination
Protocol Length Info
    42 18:02:40.733395000 10.0.0.10   128.119.240.90
HTTP   446   GET /~kurose/cover_5th_ed.jpg HTTP/1.1

Frame 42: 446 bytes on wire (3568 bits), 446 bytes captured (3568 bits) on interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst: Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst: 128.119.240.90 (128.119.240.90)
Transmission Control Protocol, Src Port: 59754 (59754), Dst Port: 80 (80), Seq: 1, Ack: 1, Len: 392
Hypertext Transfer Protocol
    GET /~kurose/cover_5th_ed.jpg HTTP/1.1\r\n
    Host: manic.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Accept: image/webp,*/*;q=0.8\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
    Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file4.html\r\n
    Accept-Encoding: gzip, deflate, sdch\r\n
    Accept-Language: en-US,en;q=0.8\r\n
    \r\n
    [Full request URI: http://manic.cs.umass.edu/~kurose/cover_5th_ed.jpg]
    [HTTP request 1/1]
    [Response in frame: 48]

No.   Time   Source   Destination   Protocol Length Info
     43 18:02:40.742469000 165.193.140.14   10.0.0.10   HTTP   998   HTTP/1.1 200 OK (GIF89a)

Frame 43: 998 bytes on wire (7984 bits), 998 bytes captured (7984 bits) on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 165.193.140.14 (165.193.140.14), Dst: 10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59753 (59753), Seq: 1647, Ack: 434, Len: 944
[3 Reassembled TCP Segments (2590 bytes): #36(266), #37(1380), #43(944)]
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Wed, 13 May 2015 01:02:40 GMT\r\n
    Server: Apache\r\n
    Vary: Host,User-Agent\r\n
    Last-Modified: Sat, 09 Jul 2011 13:17:52 GMT\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 2324\r\n
    Keep-Alive: timeout=5, max=100\r\n
    Connection: Keep-Alive\r\n
    Content-Type: image/gif\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.194067000 seconds]
    [Request in frame: 32]
Compuserve GIF, Version: GIF89a

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No.      Time               Source              Destination
Protocol Length Info
     48 18:02:40.854307000 128.119.240.90          10.0.0.10
HTTP      510     HTTP/1.1 302 Found  (text/html)

Frame 48: 510 bytes on wire (4080 bits), 510 bytes captured (4080 bits) on
interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.240.90 (128.119.240.90), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59754 (59754),
Seq: 1, Ack: 393, Len: 456
Hypertext Transfer Protocol
    HTTP/1.1 302 Found\r\n
    Date: Wed, 13 May 2015 01:02:41 GMT\r\n
    Server: Apache\r\n
    Location: http://caite.cs.umass.edu/~kurose/cover_5th_ed.jpg\r\n
    Content-Length: 234\r\n
    Connection: close\r\n
    Content-Type: text/html; charset=iso-8859-1\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.120912000 seconds]
    [Request in frame: 42]
Line-based text data: text/html

No.      Time               Source              Destination
Protocol Length Info
     60 18:02:40.999324000 10.0.0.10               128.119.240.90
HTTP      446     GET /~kurose/cover_5th_ed.jpg HTTP/1.1

Frame 60: 446 bytes on wire (3568 bits), 446 bytes captured (3568 bits) on
interface 0
Ethernet II, Src: LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de), Dst:
Netgear_c7:80:e8 (00:22:3f:c7:80:e8)
Internet Protocol Version 4, Src: 10.0.0.10 (10.0.0.10), Dst:
128.119.240.90 (128.119.240.90)
Transmission Control Protocol, Src Port: 59756 (59756), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 392
Hypertext Transfer Protocol
    GET /~kurose/cover_5th_ed.jpg HTTP/1.1\r\n
    Host: caite.cs.umass.edu\r\n
    Connection: keep-alive\r\n
    Accept: image/webp,*/*;q=0.8\r\n
    User-Agent: Mozilla/5.0 (Windows NT 6.3; WOW64) AppleWebKit/537.36
(KHTML, like Gecko) Chrome/42.0.2311.135 Safari/537.36\r\n
    Referer: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-
file4.html\r\n
    Accept-Encoding: gzip, deflate, sdch\r\n
    Accept-Language: en-US,en;q=0.8\r\n
    \r\n
    [Full request URI: http://caite.cs.umass.edu/~kurose/cover_5th_ed.jpg]
```

```
    [HTTP request 1/1]
    [Response in frame: 165]


No.     Time                 Source               Destination
Protocol Length Info
    165 18:02:41.474529000 128.119.240.90       10.0.0.10
HTTP     526    HTTP/1.1 200 OK  (JPEG JFIF image)


Frame 165: 526 bytes on wire (4208 bits), 526 bytes captured (4208 bits)
on interface 0
Ethernet II, Src: Netgear_c7:80:e8 (00:22:3f:c7:80:e8), Dst:
LiteonTe_a1:7d:de (ac:b5:7d:a1:7d:de)
Internet Protocol Version 4, Src: 128.119.240.90 (128.119.240.90), Dst:
10.0.0.10 (10.0.0.10)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 59756 (59756),
Seq: 100741, Ack: 393, Len: 472
[70 Reassembled TCP Segments (101212 bytes): #62(1460), #63(1460),
#65(1460), #66(1460), #68(1460), #69(1460), #70(1460), #72(1460),
#74(1460), #75(1460), #77(1460), #78(1460), #80(1460), #81(1460),
#82(1460), #84(1460), #86(1460), #87(1460]
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Wed, 13 May 2015 01:02:41 GMT\r\n
    Server: Apache\r\n
    Last-Modified: Tue, 15 Sep 2009 18:23:27 GMT\r\n
    ETag: "78004-18a68-473a1e0e6e5c0"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 100968\r\n
    Connection: close\r\n
    Content-Type: image/jpeg\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.475205000 seconds]
    [Request in frame: 60]
JPEG File Interchange Format

16.  4
17.  In parallel; Because the GET for the jpeg was sent before the gif was
returned.
```

Part 5

```
No.     Time                 Source               Destination
Protocol Length Info
     6 22:39:55.405022 192.168.1.102            128.119.245.12        HTTP
571     GET /ethereal-labs/protected_pages/lab2-5.html HTTP/1.1


Frame 6: 571 bytes on wire (4568 bits), 571 bytes captured (4568 bits)
Ethernet II, Src: DellComp_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 (192.168.1.102), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 4335 (4335), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 517
```

Hypertext Transfer Protocol
    GET /ethereal-labs/protected_pages/lab2-5.html HTTP/1.1\r\n
    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/protected_pages/lab2-5.html]
    [HTTP request 1/1]
    [Response in frame: 9]

No.   Time   Source   Destination
Protocol Length Info
      9 22:39:55.435024 128.119.245.12   192.168.1.102   HTTP
278   HTTP/1.1 401 Authorization Required (text/html)

Frame 9: 278 bytes on wire (2224 bits), 278 bytes captured (2224 bits)
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst:
DellComp_4f:36:23 (00:08:74:4f:36:23)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
192.168.1.102 (192.168.1.102)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 4335 (4335),
Seq: 1461, Ack: 518, Len: 224
[2 Reassembled TCP Segments (1684 bytes): #8(1460), #9(224)]
Hypertext Transfer Protocol
    HTTP/1.1 401 Authorization Required\r\n
    Date: Tue, 23 Sep 2003 05:39:58 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    WWW-Authenticate: Basic realm="eth-students only"\r\n
    Vary: accept-language\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 1349\r\n
    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 1/1]
    [Time since request: 0.030002000 seconds]
    [Request in frame: 6]
Line-based text data: text/html

No.   Time   Source   Destination
Protocol Length Info
     65 22:40:11.413586 192.168.1.102   128.119.245.12   HTTP
622   GET /ethereal-labs/protected_pages/lab2-5.html HTTP/1.1

```
Frame 65: 622 bytes on wire (4976 bits), 622 bytes captured (4976 bits)
Ethernet II, Src: DellComp_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 (192.168.1.102), Dst:
128.119.245.12 (128.119.245.12)
Transmission Control Protocol, Src Port: 4342 (4342), Dst Port: 80 (80),
Seq: 1, Ack: 1, Len: 568
Hypertext Transfer Protocol
    GET /ethereal-labs/protected_pages/lab2-5.html HTTP/1.1\r\n
    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
    Authorization: Basic ZXRoLXN0dWRlbnRzOm5ldHdvcmtz\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/ethereal-
labs/protected_pages/lab2-5.html]
    [HTTP request 1/1]
    [Response in frame: 68]

No.     Time             Source              Destination
Protocol Length Info
     68 22:40:11.438464 128.119.245.12       192.168.1.102       HTTP
499    HTTP/1.1 200 OK  (text/html)

Frame 68: 499 bytes on wire (3992 bits), 499 bytes captured (3992 bits)
Ethernet II, Src: LinksysG_da:af:73 (00:06:25:da:af:73), Dst:
DellComp_4f:36:23 (00:08:74:4f:36:23)
Internet Protocol Version 4, Src: 128.119.245.12 (128.119.245.12), Dst:
192.168.1.102 (192.168.1.102)
Transmission Control Protocol, Src Port: 80 (80), Dst Port: 4342 (4342),
Seq: 1, Ack: 569, Len: 445
Hypertext Transfer Protocol
    HTTP/1.1 200 OK\r\n
    Date: Tue, 23 Sep 2003 05:40:14 GMT\r\n
    Server: Apache/2.0.40 (Red Hat Linux)\r\n
    Last-Modified: Tue, 23 Sep 2003 04:03:59 GMT\r\n
    ETag: "626ec-84-49caa9c0"\r\n
    Accept-Ranges: bytes\r\n
    Content-Length: 132\r\n
    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 1/1]
```

```
     [Time since request: 0.024878000 seconds]
     [Request in frame: 65]
Line-based text data: text/html

18.   401 Authorization Required
19.   Authorization: Basic ZXRoLXN0dWRlbnRzOm5ldHdvcmtz
```