```
file2.html HTTP/1.1
Frame 539: 566 bytes on wire (4528 bits), 566 bytes captured (4528 bits) on interface \Device\NPF_{8F4CCA7D-037E-4F4A-
A903-982EA39577AF}, id 0
   Section number: 1
   Interface id: 0 (\Device\NPF_{8F4CCA7D-037E-4F4A-A903-982EA39577AF})
       Interface name: \Device\NPF_{8F4CCA7D-037E-4F4A-A903-982EA39577AF}
       Interface description: WLAN
   Encapsulation type: Ethernet (1)
   Arrival Time: Oct 5, 2023 13:55:56.146190000 中国标准时间
   [Time shift for this packet: 0.000000000 seconds]
   Epoch Time: 1696485356.146190000 seconds
   [Time delta from previous captured frame: 0.000193000 seconds]
   [Time delta from previous displayed frame: 5.443559000 seconds]
   [Time since reference or first frame: 11.969677000 seconds]
   Frame Number: 539
   Frame Length: 566 bytes (4528 bits)
   Capture Length: 566 bytes (4528 bits)
   [Frame is marked: False]
   [Frame is ignored: False]
   [Protocols in frame: eth:ethertype:ip:tcp:http]
   [Coloring Rule Name: HTTP]
   [Coloring Rule String: http || tcp.port == 80 || http2]
Ethernet II, Src: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3), Dst: VMware_9f:00:7f (00:50:56:9f:00:7f)
   Destination: VMware_9f:00:7f (00:50:56:9f:00:7f)
       Address: VMware_9f:00:7f (00:50:56:9f:00:7f)
       .... ..0. .... := LG bit: Globally unique address (factory default)
       .... ...0 .... = IG bit: Individual address (unicast)
   Source: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3)
       Address: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3)
       .... ..0. .... := LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 202.141.180.194, Dst: 128.119.245.12
   0100 .... = Version: 4
   .... 0101 = Header Length: 20 bytes (5)
   Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
       0000 00.. = Differentiated Services Codepoint: Default (0)
       .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
   Total Length: 552
   Identification: 0xc4f1 (50417)
   010. .... = Flags: 0x2, Don't fragment
       0... = Reserved bit: Not set
       .1.. .... = Don't fragment: Set
       ..0. .... = More fragments: Not set
   ...0 0000 0000 0000 = Fragment Offset: 0
   Time to Live: 128
   Protocol: TCP (6)
   Header Checksum: 0x3f0a [validation disabled]
   [Header checksum status: Unverified]
   Source Address: 202.141.180.194
   Destination Address: 128.119.245.12
Transmission Control Protocol, Src Port: 50392, Dst Port: 80, Seq: 1, Ack: 1, Len: 512
   Source Port: 50392
   Destination Port: 80
   [Stream index: 10]
   [Conversation completeness: Incomplete, DATA (15)]
   [TCP Segment Len: 512]
   Sequence Number: 1
                        (relative sequence number)
   Sequence Number (raw): 4144067985
   [Next Sequence Number: 513
                                (relative sequence number)]
   Acknowledgment Number: 1 (relative ack number)
   Acknowledgment number (raw): 2273301255
   0101 .... = Header Length: 20 bytes (5)
   Flags: 0x018 (PSH, ACK)
       000. .... = Reserved: Not set
       ...0 .... = Accurate ECN: Not set
       .... 0... = Congestion Window Reduced: Not set
       .... .0.. .... = ECN-Echo: Not set
       .... ..0. .... = Urgent: Not set
       .... = Acknowledgment: Set
       .... = Push: Set
       .... .... .0.. = Reset: Not set
```

Destination

128.119.245.12

Protocol Length Info

HTTP

566

GET /wireshark-labs/HTTP-wireshark-

No.

Time

539 11.969677

Source

....0. = Syn: Not set

202.141.180.194

```
.... .... 0 = Fin: Not set
       [TCP Flags: ·····AP···]
   Window: 513
   [Calculated window size: 131328]
   [Window size scaling factor: 256]
   Checksum: 0x18c6 [unverified]
   [Checksum Status: Unverified]
   Urgent Pointer: 0
   [Timestamps]
       [Time since first frame in this TCP stream: 0.275645000 seconds]
       [Time since previous frame in this TCP stream: 0.000193000 seconds]
   [SEQ/ACK analysis]
       [iRTT: 0.275452000 seconds]
       [Bytes in flight: 512]
       [Bytes sent since last PSH flag: 512]
   TCP payload (512 bytes)
Hypertext Transfer Protocol
   GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n
       [Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
           [GET /wireshark-labs/HTTP-wireshark-file2.html HTTP/1.1\r\n]
           [Severity level: Chat]
           [Group: Sequence]
       Request Method: GET
       Request URI: /wireshark-labs/HTTP-wireshark-file2.html
       Request Version: HTTP/1.1
   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/117.0.0.0
Safari/537.36 Edg/117.0.2045.47\r\n
   Accept: text/html,application/xhtml+xml,application/xml;q=0.9,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, en; q=0.8, en-GB; q=0.7, en-US; q=0.6 \r\n
   \r\n
   [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
   [HTTP request 1/3]
   [Response in frame: 562]
   [Next request in frame: 574]
       Time
                      Source
                                            Destination
                                                                  Protocol Length Info
   562 12.258395
                     128.119.245.12
                                           202.141.180.194
                                                                 HTTP
                                                                          784
                                                                                 HTTP/1.1 200 OK (text/html)
Frame 562: 784 bytes on wire (6272 bits), 784 bytes captured (6272 bits) on interface \Device\NPF_{8F4CCA7D-037E-4F4A-
A903-982EA39577AF}, id 0
   Interface id: 0 (\Device\NPF_{8F4CCA7D-037E-4F4A-A903-982EA39577AF})
       Interface name: \Device\NPF_{8F4CCA7D-037E-4F4A-A903-982EA39577AF}
       Interface description: WLAN
   Encapsulation type: Ethernet (1)
   Arrival Time: Oct 5, 2023 13:55:56.434908000 中国标准时间
   [Time shift for this packet: 0.000000000 seconds]
   Epoch Time: 1696485356.434908000 seconds
   [Time delta from previous captured frame: 0.000000000 seconds]
   [Time delta from previous displayed frame: 0.288718000 seconds]
   [Time since reference or first frame: 12.258395000 seconds]
   Frame Number: 562
   Frame Length: 784 bytes (6272 bits)
   Capture Length: 784 bytes (6272 bits)
   [Frame is marked: False]
   [Frame is ignored: False]
   [Protocols in frame: eth:ethertype:ip:tcp:http:data-text-lines]
   [Coloring Rule Name: HTTP]
   [Coloring Rule String: http || tcp.port == 80 || http2]
Ethernet II, Src: VMware_9f:00:7f (00:50:56:9f:00:7f), Dst: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3)
   Destination: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3)
       Address: LiteonTe_9d:af:b3 (74:4c:a1:9d:af:b3)
       .... ..0. .... = LG bit: Globally unique address (factory default)
       .... ...0 .... = IG bit: Individual address (unicast)
   Source: VMware_9f:00:7f (00:50:56:9f:00:7f)
       Address: VMware_9f:00:7f (00:50:56:9f:00:7f)
       .... .0. .... = LG bit: Globally unique address (factory default)
       .... = IG bit: Individual address (unicast)
   Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 202.141.180.194
   0100 .... = Version: 4
   .... 0101 = Header Length: 20 bytes (5)
```

```
Differentiated Services Field: 0x04 (DSCP: LE, ECN: Not-ECT)
       0000 01.. = Differentiated Services Codepoint: Lower Effort (1)
       .... ..00 = Explicit Congestion Notification: Not ECN-Capable Transport (0)
   Total Length: 770
   Identification: 0x125d (4701)
   010. .... = Flags: 0x2, Don't fragment
       0... = Reserved bit: Not set
       .1.. .... = Don't fragment: Set
       ..0. .... = More fragments: Not set
    ...0 0000 0000 0000 = Fragment Offset: 0
   Time to Live: 34
   Protocol: TCP (6)
   Header Checksum: 0x4ec1 [validation disabled]
   [Header checksum status: Unverified]
   Source Address: 128.119.245.12
   Destination Address: 202.141.180.194
Transmission Control Protocol, Src Port: 80, Dst Port: 50392, Seq: 1, Ack: 513, Len: 730
   Source Port: 80
   Destination Port: 50392
   [Stream index: 10]
   [Conversation completeness: Incomplete, DATA (15)]
   [TCP Segment Len: 730]
                         (relative sequence number)
   Sequence Number: 1
   Sequence Number (raw): 2273301255
   [Next Sequence Number: 731
                                (relative sequence number)]
   Acknowledgment Number: 513
                                 (relative ack number)
   Acknowledgment number (raw): 4144068497
   0101 .... = Header Length: 20 bytes (5)
   Flags: 0x018 (PSH, ACK)
       000. .... = Reserved: Not set
       ...0 .... = Accurate ECN: Not set
       .... 0... = Congestion Window Reduced: Not set
       .... .0.. .... = ECN-Echo: Not set
       .... ..0. .... = Urgent: Not set
       .... = Acknowledgment: Set
       .... = Push: Set
       .... .0.. = Reset: Not set
       .... .... ..0. = Syn: Not set
       .... .... 0 = Fin: Not set
       [TCP Flags: ······AP····]
   Window: 237
   [Calculated window size: 30336]
   [Window size scaling factor: 128]
   Checksum: 0x02a0 [unverified]
   [Checksum Status: Unverified]
   Urgent Pointer: 0
   [Timestamps]
       [Time since first frame in this TCP stream: 0.564363000 seconds]
       [Time since previous frame in this TCP stream: 0.001477000 seconds]
   [SEQ/ACK analysis]
       [iRTT: 0.275452000 seconds]
       [Bytes in flight: 730]
       [Bytes sent since last PSH flag: 730]
   TCP payload (730 bytes)
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: Thu, 05 Oct 2023 05:55:56 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: Thu, 05 Oct 2023 05:55:02 GMT\r\n
   ETag: "173-606f1c3d0b269"\r\n
   Accept-Ranges: bytes\r\n
   Content-Length: 371\r\n
       [Content length: 371]
   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 1/3]
                [Time since request: 0.288718000 seconds]
                [Request in frame: 539]
                [Next request in frame: 574]
                [Next response in frame: 591]
                [Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file2.html]
               File Data: 371 bytes
Line-based text data: text/html (10 lines)
                <html>\n
                \n
               Congratulations again! Now you've downloaded the file lab2-2.html. 
 \
                This file's last modification date will not change. \n
               Thus if you download this multiple times on your browser, a complete copy <br>\n
               will only be sent once by the server due to the inclusion of the IN-MODIFIED-SINCE<br/>\ensuremath{\text{hr}}\xspace\ensuremath{\text{N}}\xspace\ensuremath{\text{IN-MODIFIED-SINCE}}\xspace\ensuremath{\text{sinch}}\xspace\ensuremath{\text{h}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{h}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{server}}\xspace\ensuremath{\text{d}}\xspace\ensuremath{\text{h}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{h}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch}}\xspace\ensuremath{\text{ch
                field in your browser's HTTP GET request to the server.\n
                </html>\n
```