```
No.     Time                           Source                Destination           Protocol Length Info
     42 2023-02-12 22:46:11.165668     10.162.31.137         128.119.245.12        HTTP     637    GET /wireshark-labs/HTTP-wireshark-file1.html
HTTP/1.1
Frame 42: 637 bytes on wire (5096 bits), 637 bytes captured (5096 bits) on interface \Device\NPF_{1DD7923C-13AB-467D-9439-E2A4D71AF3BC}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{1DD7923C-13AB-467D-9439-E2A4D71AF3BC})
    Encapsulation type: Ethernet (1)
    Arrival Time: Feb 12, 2023 22:46:11.165668000 Eastern Standard Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1676259971.165668000 seconds
    [Time delta from previous captured frame: 0.000283000 seconds]
    [Time delta from previous displayed frame: 0.000000000 seconds]
    [Time since reference or first frame: 4.840050000 seconds]
    Frame Number: 42
    Frame Length: 637 bytes (5096 bits)
    Capture Length: 637 bytes (5096 bits)
    [Frame is marked: True]
    [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: Micro-St_06:51:9e (00:d8:61:06:51:9e), Dst: Routerbo_eb:56:c3 (08:55:31:eb:56:c3)
    Destination: Routerbo_eb:56:c3 (08:55:31:eb:56:c3)
        Address: Routerbo_eb:56:c3 (08:55:31:eb:56:c3)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: Micro-St_06:51:9e (00:d8:61:06:51:9e)
        Address: Micro-St_06:51:9e (00:d8:61:06:51:9e)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 10.162.31.137, 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: 623
    Identification: 0x66b8 (26296)
    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: 0x0000 [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 10.162.31.137
    Destination Address: 128.119.245.12
Transmission Control Protocol, Src Port: 57629, Dst Port: 80, Seq: 1, Ack: 1, Len: 583
    Source Port: 57629
    Destination Port: 80
    [Stream index: 4]
    [Conversation completeness: Incomplete (12)]
    [TCP Segment Len: 583]
    Sequence Number: 1    (relative sequence number)
    Sequence Number (raw): 311770680
    [Next Sequence Number: 584    (relative sequence number)]
    Acknowledgment Number: 1    (relative ack number)
    Acknowledgment number (raw): 2935686137
    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
        .... ...1 .... = Acknowledgment: Set
        .... .... 1... = Push: Set
        .... .... .0.. = Reset: Not set
        .... .... ..0. = Syn: Not set
        .... .... ...0 = Fin: Not set
        [TCP Flags: ·····AP···]
    Window: 1026
    [Calculated window size: 1026]
    [Window size scaling factor: -1 (unknown)]
    Checksum: 0xa210 [unverified]
    [Checksum Status: Unverified]
    Urgent Pointer: 0
    [Timestamps]
        [Time since first frame in this TCP stream: 0.000000000 seconds]
        [Time since previous frame in this TCP stream: 0.000000000 seconds]
    [SEQ/ACK analysis]
        [Bytes in flight: 583]
        [Bytes sent since last PSH flag: 583]
    TCP payload (583 bytes)
```

```
Hypertext Transfer Protocol
    GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n
        [Expert Info (Chat/Sequence): GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n]
            [GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1\r\n]
            [Severity level: Chat]
            [Group: Sequence]
        Request Method: GET
        Request URI: /wireshark-labs/HTTP-wireshark-file1.html
        Request Version: HTTP/1.1
    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/109.0.0.0 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=0.9\r\n
    Accept-Encoding: gzip, deflate\r\n
    Accept-Language: en-US,en;q=0.9\r\n
    If-None-Match: "80-5f47b43f5b3ce"\r\n
    If-Modified-Since: Sun, 12 Feb 2023 06:59:01 GMT\r\n
    \r\n
    [Full request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]
    [HTTP request 1/1]
    [Response in frame: 45]
No.     Time                           Source                Destination           Protocol Length Info
     45 2023-02-12 22:46:11.189923     128.119.245.12        10.162.31.137         HTTP     293    HTTP/1.1 304 Not Modified
Frame 45: 293 bytes on wire (2344 bits), 293 bytes captured (2344 bits) on interface \Device\NPF_{1DD7923C-13AB-467D-9439-E2A4D71AF3BC}, id 0
    Section number: 1
    Interface id: 0 (\Device\NPF_{1DD7923C-13AB-467D-9439-E2A4D71AF3BC})
    Encapsulation type: Ethernet (1)
    Arrival Time: Feb 12, 2023 22:46:11.189923000 Eastern Standard Time
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1676259971.189923000 seconds
    [Time delta from previous captured frame: 0.001568000 seconds]
    [Time delta from previous displayed frame: 0.024255000 seconds]
    [Time since reference or first frame: 4.864305000 seconds]
    Frame Number: 45
    Frame Length: 293 bytes (2344 bits)
    Capture Length: 293 bytes (2344 bits)
    [Frame is marked: True]
    [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: Routerbo_eb:56:c3 (08:55:31:eb:56:c3), Dst: Micro-St_06:51:9e (00:d8:61:06:51:9e)
    Destination: Micro-St_06:51:9e (00:d8:61:06:51:9e)
        Address: Micro-St_06:51:9e (00:d8:61:06:51:9e)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Source: Routerbo_eb:56:c3 (08:55:31:eb:56:c3)
        Address: Routerbo_eb:56:c3 (08:55:31:eb:56:c3)
        .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
        .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.162.31.137
    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: 279
    Identification: 0x8275 (33397)
    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: 51
    Protocol: TCP (6)
    Header Checksum: 0x24bd [validation disabled]
    [Header checksum status: Unverified]
    Source Address: 128.119.245.12
    Destination Address: 10.162.31.137
Transmission Control Protocol, Src Port: 80, Dst Port: 57629, Seq: 1, Ack: 584, Len: 239
    Source Port: 80
    Destination Port: 57629
    [Stream index: 4]
    [Conversation completeness: Incomplete (12)]
    [TCP Segment Len: 239]
    Sequence Number: 1    (relative sequence number)
    Sequence Number (raw): 2935686137
    [Next Sequence Number: 240    (relative sequence number)]
    Acknowledgment Number: 584    (relative ack number)
    Acknowledgment number (raw): 311771263
    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
        .... ...1 .... = Acknowledgment: Set
        .... .... 1... = Push: Set
        .... .... .0.. = Reset: Not set
        .... .... ..0. = Syn: Not set
        .... .... ...0 = Fin: Not set
        [TCP Flags: ·······AP···]
    Window: 238
    [Calculated window size: 238]
    [Window size scaling factor: -1 (unknown)]
    Checksum: 0xf972 [unverified]
    [Checksum Status: Unverified]
    Urgent Pointer: 0
    [Timestamps]
        [Time since first frame in this TCP stream: 0.024255000 seconds]
        [Time since previous frame in this TCP stream: 0.001568000 seconds]
    [SEQ/ACK analysis]
        [Bytes in flight: 239]
        [Bytes sent since last PSH flag: 239]
    TCP payload (239 bytes)
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: Mon, 13 Feb 2023 03:46:10 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
    Connection: Keep-Alive\r\n
    Keep-Alive: timeout=5, max=100\r\n
    ETag: "80-5f47b43f5b3ce"\r\n
    \r\n
    [HTTP response 1/1]
    [Time since request: 0.024255000 seconds]
    [Request in frame: 42]
    [Request URI: http://gaia.cs.umass.edu/wireshark-labs/HTTP-wireshark-file1.html]
```