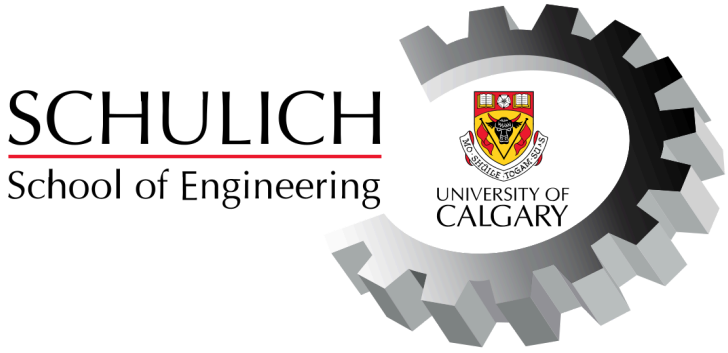


Lab #1: Wireshark and Socket Programming

Networked Systems – ENSF 462, Lab B02

Instructor: Qiang Ye

Al Malik Mahdivika (30196233)

Date of Submission: Sept. 30, 2025

Q1. Which of the following protocols are shown as appearing (i.e., are listed in the Wireshark “protocol” column) in your trace file: TCP, QUIC, HTTP, DNS, UDP, TLSv1.2?

The HTTP protocol is shown in the printed trace file for both the GET and OK messages.

Q2. How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packet-listing window is the amount of time, in seconds, since Wireshark tracing began. (If you want to display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)

The GET message was sent at time 22.392135 with the OK message being received at time 22.463893. This means it took roughly 0.071758 seconds for the GET message to get an OK message in return.

Q3. What is the Internet address of the gaia.cs.umass.edu? What is the Internet address of your computer that sent the HTTP GET message?

The Internet address of the gaia website is 128.119.245.12 and the address of my computer sending the GET message is 192.168.1.78.

Q4. Expand the information on the HTTP message in the Wireshark “Details of selected packet” window so you can see the fields in the HTTP GET request message. What type of Web browser issued the HTTP request? The answer is shown at the right end of the information following the “User-Agent:” field in the expanded HTTP message display. [This field value in the HTTP message is how a web server learns what type of browser you are using.]
• Example: Firefox, Safari, Microsoft Internet Edge, Other

The web browser issuing the request (next to the User-Agent field) is listed as Mozilla/5.0.

Q5. Expand the information on the Transmission Control Protocol for this packet in the Wireshark “Details of selected packet” window so you can see the fields in the TCP segment carrying the HTTP message. What is the destination port number (the

number following “Dest Port:” for the TCP segment containing the HTTP request) to which this HTTP request is being sent?

The destination port number listed is 80.

Printed GET and OK Messages.

\\\pp\\p_ppg p,
No. Time Source Destination Protocol Length Info
937 22.392135 192.168.1.78 128.119.245.12 HTTP 577 GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
Frame 937: 577 bytes on wire (4616 bits), 577 bytes captured (4616 bits) on interface \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6})
Interface name: \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}
Interface description: Ethernet
Encapsulation type: Ethernet (1)
Arrival Time: Sep 30, 2025 16:34:42.560126000 Mountain Daylight Time
UTC Arrival Time: Sep 30, 2025 22:34:42.560126000 UTC
Epoch Arrival Time: 1759271682.560126000
[Time shift for this packet: 0.000000000 seconds]
[Time delta from previous captured frame: 0.000258000 seconds]
[Time delta from previous displayed frame: 0.000000000 seconds]
[Time since reference or first frame: 22.392135000 seconds]
Frame Number: 937
Frame Length: 577 bytes (4616 bits)
Capture Length: 577 bytes (4616 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: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5), Dst: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30) Destination: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Source: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
[Stream index: 2]
Internet Protocol Version 4, Src: 192.168.1.78, 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: 563
Identification: 0x4839 (18489)
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: 192.168.1.78
Destination Address: 128.119.245.12
[Stream index: 32]
Transmission Control Protocol, Src Port: 57423, Dst Port: 80, Seq: 1, Ack: 1, Len: 523
Source Port: 57423
Destination Port: 80
[Stream index: 35]
[Stream Packet Number: 4]
[Conversation completeness: Complete, WITH_DATA (63)]
..1. .... = RST: Present
...1 .... = FIN: Present
.... 1... = Data: Present
.... .1.. = ACK: Present
.... ..1. = SYN-ACK: Present
....1 = SYN: Present
[Completeness Flags: RFDASS]
[TCP Segment Len: 523]
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 2351174818
[Next Sequence Number: 524 (relative sequence number)]
Acknowledgment Number: 1 (relative ack number)
Acknowledgment number (raw): 1663662137
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
\\\pp\\p_ppg p,
....1 .... = Acknowledgment: Set
.... 1... = Push: Set
.... .0.. = Reset: Not set
....0. = Syn: Not set
....0 = Fin: Not set
[TCP Flags: ·····AP···]
Window: 255
[Calculated window size: 65280]
[Window size scaling factor: 256]
Checksum: 0x39a0 [unverified]
[Checksum Status: Unverified]

Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.071207000 seconds]
[Time since previous frame in this TCP stream: 0.000258000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.070949000 seconds]
[Bytes in flight: 523]
[Bytes sent since last PSH flag: 523]
TCP payload (523 bytes)
Hypertext Transfer Protocol
GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1\r\n
Request Method: GET
Request URI: /wireshark-labs/INTRO-wireshark-file1.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/138.0.0.0 Safari/537.36 OPR/122.0.0.0\r\n
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signedexchange;v=b3;q=0.7\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: en-US,en;q=0.9,ja;q=0.8,fr;q=0.7,pl;q=0.6,ko;q=0.5\r\n
\r\n
[Response in frame: 945]
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
No. Time Source Destination Protocol Length Info
945 22.463893 128.119.245.12 192.168.1.78 HTTP 492 HTTP/1.1 200 OK (text/html)Frame 945: 492 bytes on wire (3936 bits), 492 bytes captured (3936 bits) on interface \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6})
Interface name: \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}
Interface description: Ethernet
Encapsulation type: Ethernet (1)
Arrival Time: Sep 30, 2025 16:34:42.631884000 Mountain Daylight Time
UTC Arrival Time: Sep 30, 2025 22:34:42.631884000 UTC
Epoch Arrival Time: 1759271682.631884000
[Time shift for this packet: 0.000000000 seconds]
[Time delta from previous captured frame: 0.000221000 seconds]
[Time delta from previous displayed frame: 0.071758000 seconds]
[Time since reference or first frame: 22.463893000 seconds]
Frame Number: 945
Frame Length: 492 bytes (3936 bits)
Capture Length: 492 bytes (3936 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: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30), Dst: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5) Destination: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Source: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
[Stream index: 2]
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.78
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: 478
Identification: 0x3f46 (16198)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
\\\pp\\p_ppg p,
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 46
Protocol: TCP (6)
Header Checksum: 0xd459 [validation disabled]
[Header checksum status: Unverified]
Source Address: 128.119.245.12
Destination Address: 192.168.1.78
[Stream index: 32]
Transmission Control Protocol, Src Port: 80, Dst Port: 57423, Seq: 1, Ack: 524, Len: 438
Source Port: 80
Destination Port: 57423
[Stream index: 35]
[Stream Packet Number: 6]
[Conversation completeness: Complete, WITH_DATA (63)]
..1. .... = RST: Present
...1 .... = FIN: Present
.... 1... = Data: Present
.... .1.. = ACK: Present
.... ..1. = SYN-ACK: Present
....1 = SYN: Present
[Completeness Flags: RFDASS]

[TCP Segment Len: 438]
Sequence Number: 1 (relative sequence number)
Sequence Number (raw): 1663662137
[Next Sequence Number: 439 (relative sequence number)]
Acknowledgment Number: 524 (relative ack number)
Acknowledgment number (raw): 2351175341
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: 237
[Calculated window size: 30336]
[Window size scaling factor: 128]
Checksum: 0x54c3 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.142965000 seconds]
[Time since previous frame in this TCP stream: 0.000221000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.070949000 seconds]
[Bytes in flight: 438]
[Bytes sent since last PSH flag: 438]
TCP payload (438 bytes)
Hypertext Transfer Protocol
HTTP/1.1 200 OK\r\n
Response Version: HTTP/1.1
Status Code: 200
[Status Code Description: OK]
Response Phrase: OK
Date: Tue, 30 Sep 2025 22:34:41 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: Tue, 30 Sep 2025 05:59:01 GMT\r\n
ETag: "51-63ffe72e099e4"\r\n
Accept-Ranges: bytes\r\n
Content-Length: 81\r\n
[Content length: 81]
Keep-Alive: timeout=5, max=100\r\n

Connection: Keep-Alive\r\n
Content-Type: text/html; charset=UTF-8\r\n
\r\n
[Request in frame: 937]
[Time since request: 0.071758000 seconds]
[Request URI: /wireshark-labs/INTRO-wireshark-file1.html]
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
File Data: 81 bytes
Line-based text data: text/html (3 lines)
<html>\n
\\\pp\\p_ppg p,
Congratulations! You've downloaded the first Wireshark lab file!\n
</html>\n
No. Time Source Destination Protocol Length Info
965 22.915686 192.168.1.78 128.119.245.12 HTTP 523 GET /favicon.ico HTTP/1.1 Frame 965: 523 bytes on wire (4184 bits), 523 bytes captured (4184 bits) on interface \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6})
Interface name: \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}
Interface description: Ethernet
Encapsulation type: Ethernet (1)
Arrival Time: Sep 30, 2025 16:34:43.083677000 Mountain Daylight Time
UTC Arrival Time: Sep 30, 2025 22:34:43.083677000 UTC
Epoch Arrival Time: 1759271683.083677000
[Time shift for this packet: 0.000000000 seconds]
[Time delta from previous captured frame: 0.103992000 seconds]
[Time delta from previous displayed frame: 0.451793000 seconds]
[Time since reference or first frame: 22.915686000 seconds]
Frame Number: 965
Frame Length: 523 bytes (4184 bits)
Capture Length: 523 bytes (4184 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: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5), Dst: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30) Destination: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Source: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
[Stream index: 2]
Internet Protocol Version 4, Src: 192.168.1.78, 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: 509
Identification: 0x483b (18491)
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: 192.168.1.78
Destination Address: 128.119.245.12
[Stream index: 32]
Transmission Control Protocol, Src Port: 57423, Dst Port: 80, Seq: 524, Ack: 439, Len: 469
Source Port: 57423
Destination Port: 80
[Stream index: 35]
[Stream Packet Number: 8]
[Conversation completeness: Complete, WITH_DATA (63)]
..1. .... = RST: Present
...1 .... = FIN: Present
.... 1... = Data: Present
.... .1.. = ACK: Present
.... ..1. = SYN-ACK: Present
....1 = SYN: Present
[Completeness Flags: RFDASS]
[TCP Segment Len: 469]
Sequence Number: 524 (relative sequence number)
Sequence Number (raw): 2351175341
[Next Sequence Number: 993 (relative sequence number)]
Acknowledgment Number: 439 (relative ack number)
Acknowledgment number (raw): 1663662575
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
\\\pp\\p_ppg   p,
.... ..0. .... = Urgent: Not set
....1 .... = Acknowledgment: Set

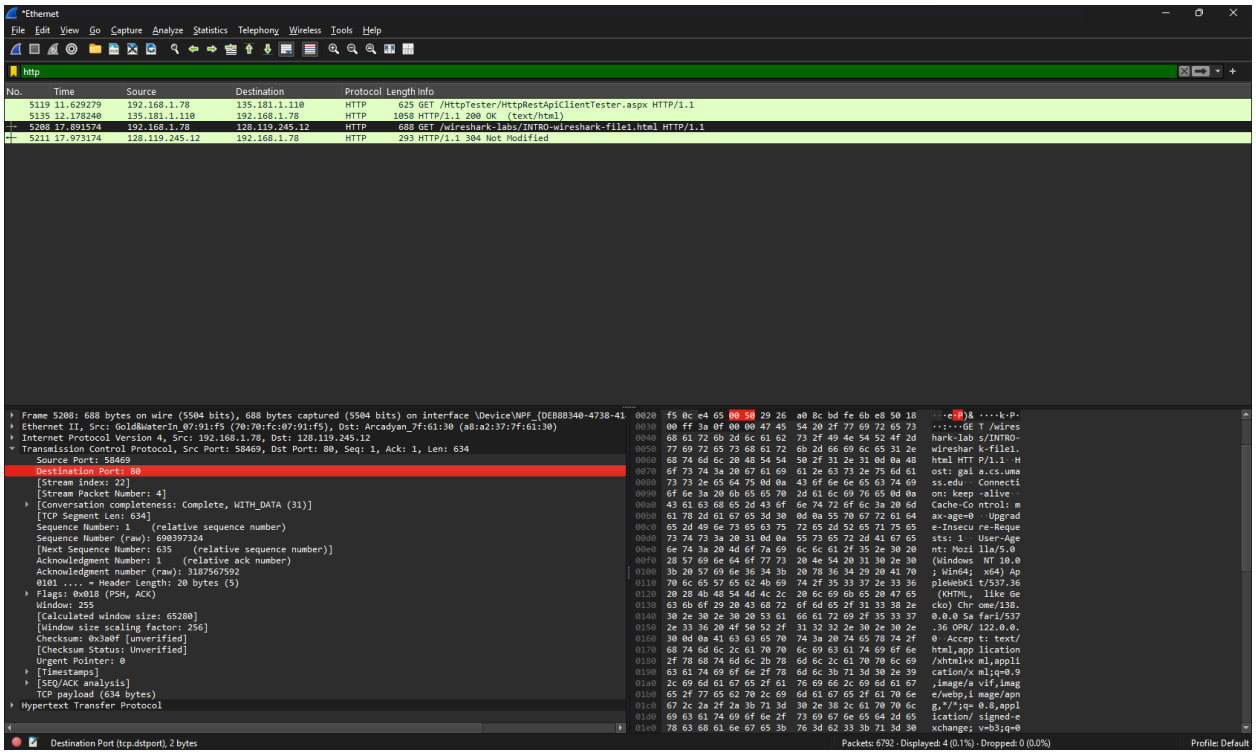
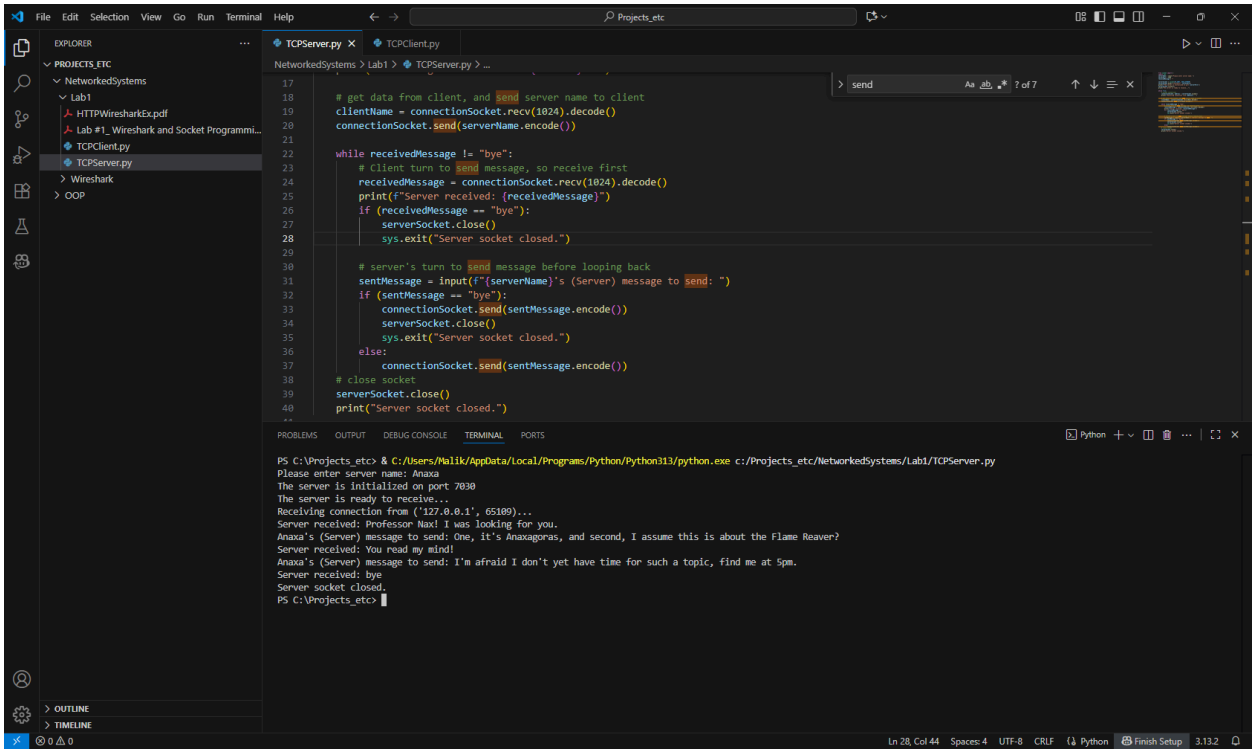
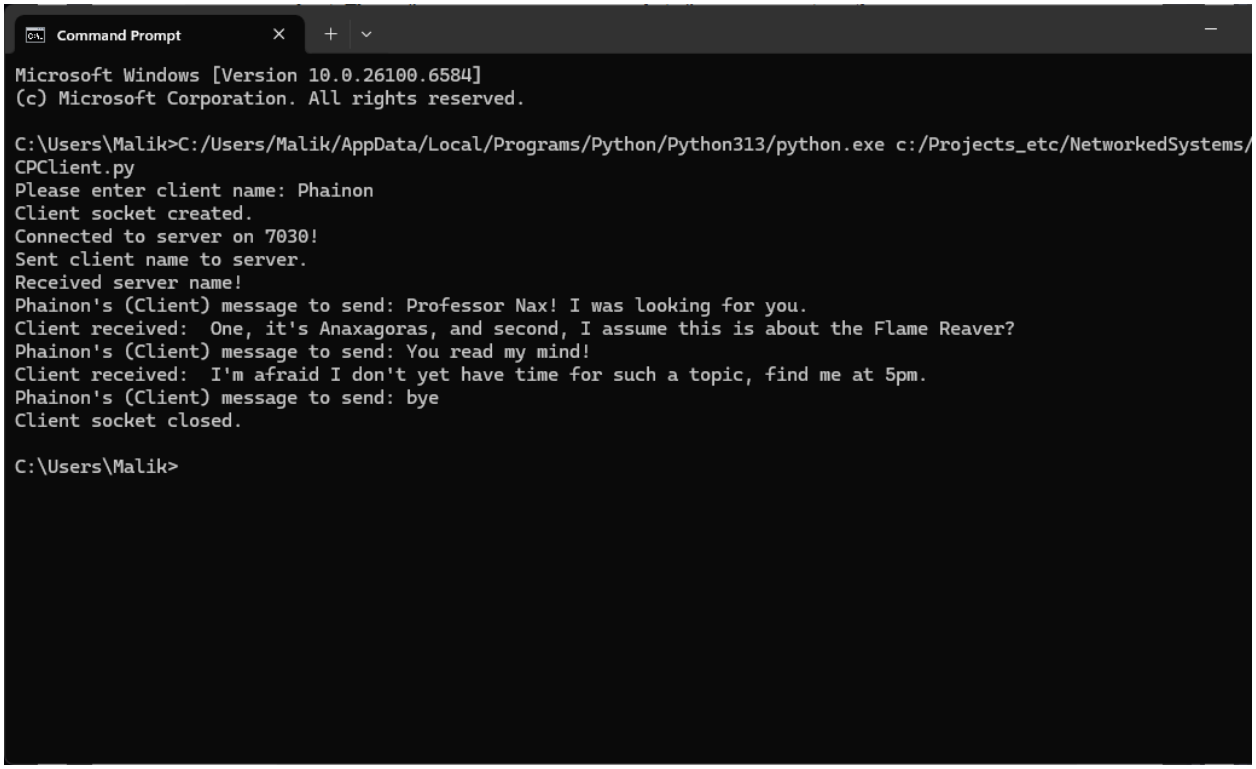
.... 1... = Push: Set
.... .0.. = Reset: Not set
....0. = Syn: Not set
....0 = Fin: Not set
[TCP Flags: ·····AP···]
Window: 254
[Calculated window size: 65024]
[Window size scaling factor: 256]
Checksum: 0x396a [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.594758000 seconds]
[Time since previous frame in this TCP stream: 0.401484000 seconds]
[SEQ/ACK analysis]
[iRTT: 0.070949000 seconds]
[Bytes in flight: 469]
[Bytes sent since last PSH flag: 469]
TCP payload (469 bytes)
Hypertext Transfer Protocol
GET /favicon.ico HTTP/1.1\r\n
Request Method: GET
Request URI: /favicon.ico
Request Version: HTTP/1.1
Host: gaia.cs.umass.edu\r\n
Connection: keep-alive\r\n
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/138.0.0.0 Safari/537.36 OPR/122.0.0.0\r\n
Accept: image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8\r\n
Referer: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html\r\n
Accept-Encoding: gzip, deflate\r\n
Accept-Language: en-US,en;q=0.9,ja;q=0.8,fr;q=0.7,pl;q=0.6,ko;q=0.5\r\n
\r\n
[Response in frame: 966]
[Full request URI: http://gaia.cs.umass.edu/favicon.ico]
No. Time Source Destination Protocol Length Info
966 22.987610 128.119.245.12 192.168.1.78 HTTP 538 HTTP/1.1 404 Not Found (text/html)Frame 966: 538 bytes on wire (4304 bits), 538 bytes captured (4304 bits) on interface \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}, id 0
Section number: 1
Interface id: 0 (\Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6})
Interface name: \Device\NPF_{DEB8B340-4738-4145-9CE0-725F4B8136F6}
Interface description: Ethernet
Encapsulation type: Ethernet (1)
Arrival Time: Sep 30, 2025 16:34:43.155601000 Mountain Daylight Time
UTC Arrival Time: Sep 30, 2025 22:34:43.155601000 UTC
Epoch Arrival Time: 1759271683.155601000

[Time shift for this packet: 0.000000000 seconds]
[Time delta from previous captured frame: 0.071924000 seconds]
[Time delta from previous displayed frame: 0.071924000 seconds]
[Time since reference or first frame: 22.987610000 seconds]
Frame Number: 966
Frame Length: 538 bytes (4304 bits)
Capture Length: 538 bytes (4304 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: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30), Dst: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5) Destination: Gold&WaterIn_07:91:f5 (70:70:fc:07:91:f5)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Source: Arcadyan_7f:61:30 (a8:a2:37:7f:61:30)
.... ..0. .... = LG bit: Globally unique address (factory default)
....0 .... = IG bit: Individual address (unicast)
Type: IPv4 (0x0800)
[Stream index: 2]
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.1.78
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: 524
Identification: 0x3f47 (16199)
010. .... = Flags: 0x2, Don't fragment
0... .... = Reserved bit: Not set
\\\pp\\p_ppg p,
.1.. .... = Don't fragment: Set
..0. .... = More fragments: Not set
...0 0000 0000 0000 = Fragment Offset: 0
Time to Live: 46
Protocol: TCP (6)
Header Checksum: 0xd42a [validation disabled]
[Header checksum status: Unverified]
Source Address: 128.119.245.12
Destination Address: 192.168.1.78
[Stream index: 32]
Transmission Control Protocol, Src Port: 80, Dst Port: 57423, Seq: 439, Ack: 993, Len: 484
Source Port: 80
Destination Port: 57423
[Stream index: 35]
[Stream Packet Number: 9]

[Conversation completeness: Complete, WITH_DATA (63)]
..1. .... = RST: Present
...1 .... = FIN: Present
.... 1... = Data: Present
.... .1.. = ACK: Present
.... ..1. = SYN-ACK: Present
....1 = SYN: Present
[Completeness Flags: RFDASS]
[TCP Segment Len: 484]
Sequence Number: 439 (relative sequence number)
Sequence Number (raw): 1663662575
[Next Sequence Number: 923 (relative sequence number)]
Acknowledgment Number: 993 (relative ack number)
Acknowledgment number (raw): 2351175810
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: 245
[Calculated window size: 31360]
[Window size scaling factor: 128]
Checksum: 0xa668 [unverified]
[Checksum Status: Unverified]
Urgent Pointer: 0
[Timestamps]
[Time since first frame in this TCP stream: 0.666682000 seconds]
[Time since previous frame in this TCP stream: 0.071924000 seconds]
[SEQ/ACK analysis]
[This is an ACK to the segment in frame: 965]
[The RTT to ACK the segment was: 0.071924000 seconds]
[iRTT: 0.070949000 seconds]
[Bytes in flight: 484]
[Bytes sent since last PSH flag: 484]
TCP payload (484 bytes)
Hypertext Transfer Protocol
HTTP/1.1 404 Not Found\r\n
Response Version: HTTP/1.1
Status Code: 404

[Status Code Description: Not Found]
Response Phrase: Not Found
Date: Tue, 30 Sep 2025 22:34:41 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
Content-Length: 209\r\n
[Content length: 209]
Keep-Alive: timeout=5, max=99\r\n
Connection: Keep-Alive\r\n
Content-Type: text/html; charset=iso-8859-1\r\n
\r\n
[Request in frame: 965]
[Time since request: 0.071924000 seconds]
[Request URI: /favicon.ico]
[Full request URI: http://gaia.cs.umass.edu/favicon.ico]
File Data: 209 bytes
Line-based text data: text/html (7 lines)
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">\n
<html><head>\n
\\\pp\\p_ppg p,
<title>404 Not Found</title>\n
</head><body>\n
<h1>Not Found</h1>\n
The requested URL /favicon.ico was not found on this server. \n
</body></html>\n

TCP Port Number



Socket Programming Output