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CSC 138

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1. List 3 different protocols that appear in the protocol column in the unfiltered packet-listing window.

- **TCP** (Transmission Control Protocol)

473	10.089079	104.251.212.114	192.168.68.106	TCP	54	80 → 61460	[FIN, ACK] Seq=1 Ack=1 Win=245 Len=0
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- **UDP** (User Datagram Protocol)

471	10.046696	192.168.68.106	172.217.6.36	UDP	70	50445 → 443	Len=28
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- **ARP** (Address Resolution Protocol)

545	12.420903	Tp-LinkT_27:f6:58	Broadcast	ARP	42	Who has 192.168.68.109? Tell 192.168.68.1	
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2. How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received?

- Approximately **0.1047 seconds**

No.	Time	Source	Destination	Protocol	Length	Info
46	12:19:59.596103	192.168.68.106	128.119.245.12	HTTP	655	GET /wireshark-labs/INTRO-wireshark-file1.html HTTP/1.1
50	12:19:59.700804	128.119.245.12	192.168.68.106	HTTP	292	HTTP/1.1 304 Not Modified

3. What is the internet address of the gaia.cs.umass.edu? What is the internet address of your computer?

- The internet address of gaia.cs.umass.edu is: **128.119.245.12**

128.119.245.12

- The internet address of my computer is: **192.168.68.106**

192.168.68.106

## 4. Print the two HTTP messages (GET and OK) referred to in question 2.

- **HTTP GET (packet 1)**

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No.      Time            Source                Destination           Protocol Length Info
  46 12:19:59.596103    192.168.68.106       128.119.245.12       HTTP      655    GET /wireshark-labs/INTRO-wireshark-file1.html
HTTP/1.1
Frame 46: 655 bytes on wire (5240 bits), 655 bytes captured (5240 bits) on interface \Device\NPF_{751BE670-A2D6-4EE4-9047-57F4946C007B},
id 0
Ethernet II, Src: EdupInte_77:8a:ba (e8:4e:06:77:8a:ba), Dst: Tp-LinkT_27:f6:58 (1c:3b:f3:27:f6:58)
Internet Protocol Version 4, Src: 192.168.68.106, Dst: 128.119.245.12
Transmission Control Protocol, Src Port: 61433, Dst Port: 80, Seq: 1, Ack: 1, Len: 601
Hypertext Transfer Protocol
  GET /wireshark-labs/INTRO-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
  DNT: 1\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/85.0.4183.102 Safari/537.36 Edg/
85.0.564.51\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=0.9\r\n
  Accept-Encoding: gzip, deflate\r\n
  Accept-Language: en-US,en;q=0.9\r\n
  If-None-Match: "51-5af177f84267e"\r\n
  If-Modified-Since: Sat, 12 Sep 2020 05:59:02 GMT\r\n
\r\n
[Full request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]
[HTTP request 1/1]
[Response in frame: 50]

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- **HTTP OK (packet 2)**

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No.      Time            Source                Destination           Protocol Length Info
  50 12:19:59.700804    128.119.245.12       192.168.68.106       HTTP      292    HTTP/1.1 304 Not Modified
Frame 50: 292 bytes on wire (2336 bits), 292 bytes captured (2336 bits) on interface \Device\NPF_{751BE670-A2D6-4EE4-9047-57F4946C007B},
id 0
Ethernet II, Src: Tp-LinkT_27:f6:58 (1c:3b:f3:27:f6:58), Dst: EdupInte_77:8a:ba (e8:4e:06:77:8a:ba)
Internet Protocol Version 4, Src: 128.119.245.12, Dst: 192.168.68.106
Transmission Control Protocol, Src Port: 80, Dst Port: 61433, Seq: 1, Ack: 602, Len: 238
Hypertext Transfer Protocol
  HTTP/1.1 304 Not Modified\r\n
  Date: Sat, 12 Sep 2020 19:20:00 GMT\r\n
  Server: Apache/2.4.6 (CentOS) OpenSSL/1.0.2k-fips PHP/7.4.9 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: "51-5af177f84267e"\r\n
\r\n
[HTTP response 1/1]
[Time since request: 0.104701000 seconds]
[Request in frame: 46]
[Request URI: http://gaia.cs.umass.edu/wireshark-labs/INTRO-wireshark-file1.html]

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