Assignment 1
Computer Networks

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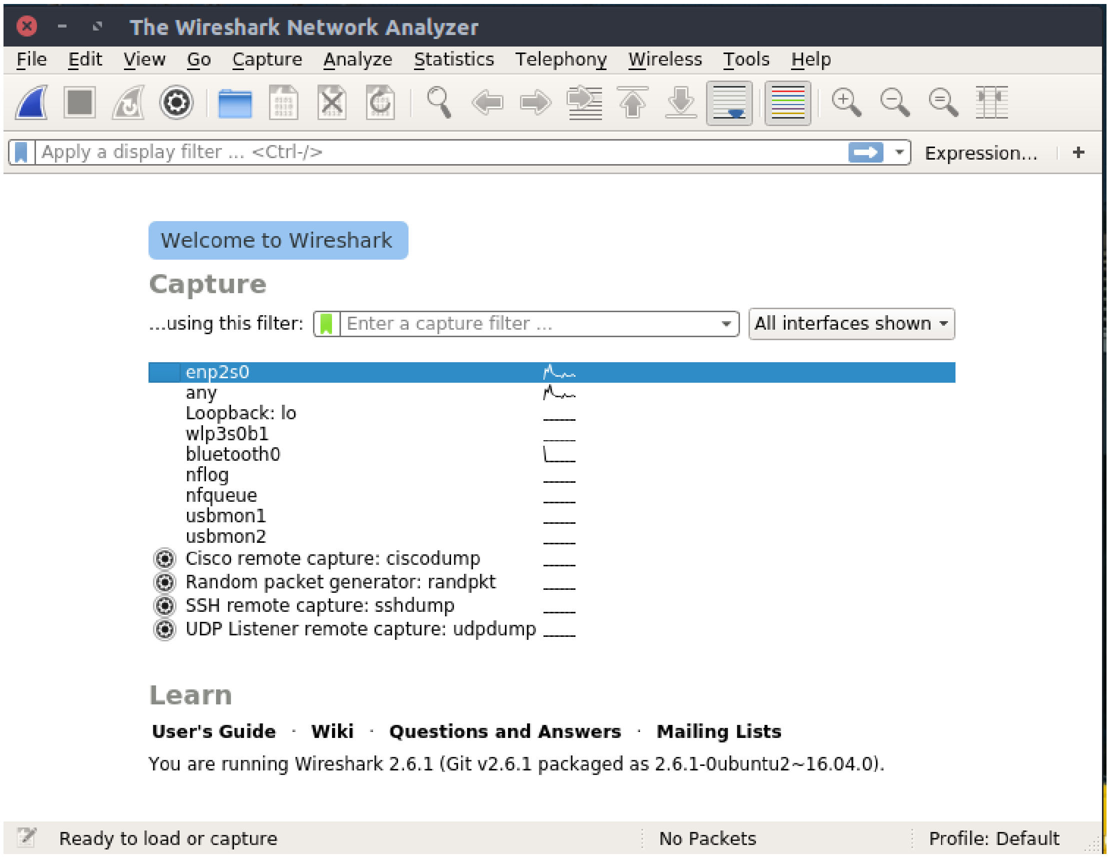
Question 1 What are the network interfaces available on your computer? Which network did you eventually select in your experiments.

Answer The following network interfaces are available

- enp2s0
- any
- Loopback:io
- wlp3s0b1
- bluetooth0
- nflog
- nfqueue
- usbmon1
- usbmon2

enp2s0 network interface is selected


The Wireshark Network Analyzer
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Apply a display filter ... <Ctrl-/>
Expression...
+
Welcome to Wireshark
Capture
Enter a capture filter ...
Learn
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...using this filter: Enter a capture filter ... | All interfaces shown

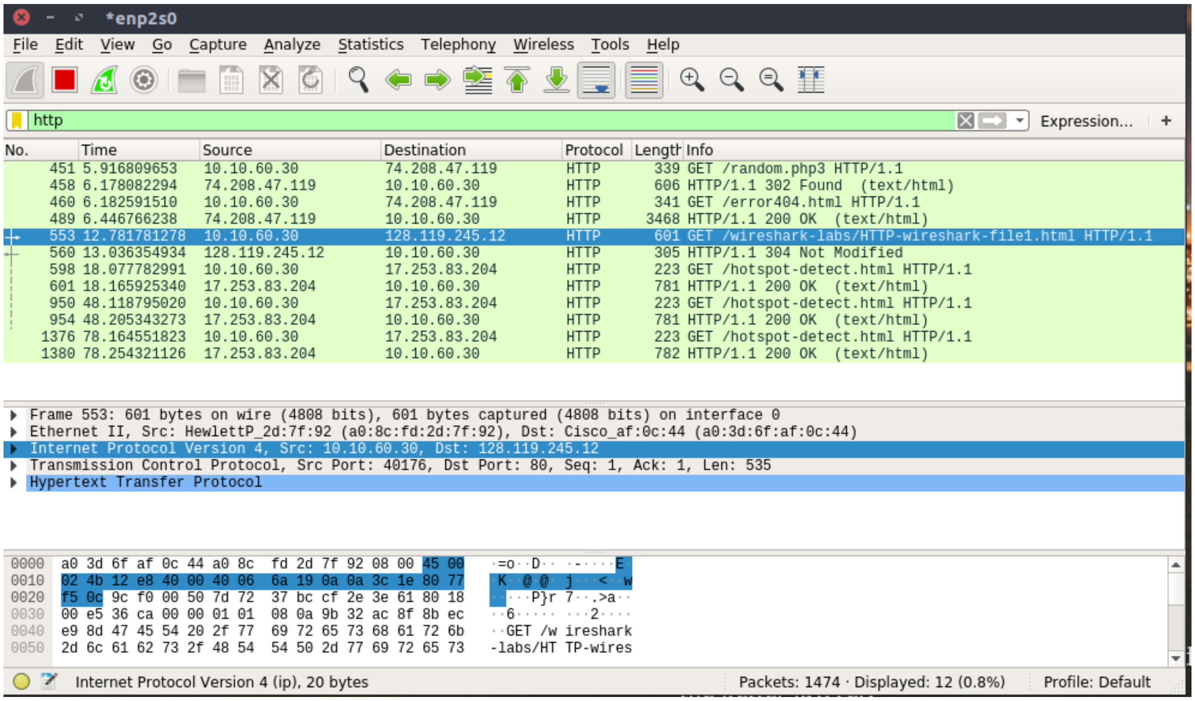
```
enp2s0
any
Loopback: lo
wlp3s0b1
bluetooth0
nflog
nfqueue
usbmon1
usbmon2
Cisco remote capture: ciscodump
Random packet generator: randpkt
SSH remote capture: sshdump
UDP Listener remote capture: udpdump
```

You are running Wireshark 2.6.1 (Git v2.6.1 packaged as 2.6.1-0ubuntu2~16.04.0).

Ready to load or capture | No Packets | Profile: Default

Question 2 Which application layer protocol is used in this case?

Answer HyperText Transfer Protocol(HTTP).


*enp2s0
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Expression...
+

```
http
```

```
No.   Time          Source          Destination     Protocol Length Info
  451 5.916809653   10.10.60.30     74.208.47.119   HTTP      339 GET /random.php3 HTTP/1.1
  458 6.178082294   74.208.47.119   10.10.60.30     HTTP      606 HTTP/1.1 302 Found  (text/html)
  460 6.182591510   10.10.60.30     74.208.47.119   HTTP      341 GET /error404.html HTTP/1.1
  489 6.446766238   74.208.47.119   10.10.60.30     HTTP     3468 HTTP/1.1 200 OK  (text/html)
  553 12.781781278  10.10.60.30     128.119.245.12  HTTP      601 GET /wireshark-labs/HTTP-wireshark-file1.html HTTP/1.1
  560 13.036354934  128.119.245.12  10.10.60.30     HTTP      305 HTTP/1.1 304 Not Modified
  598 18.077782991  10.10.60.30     17.253.83.204   HTTP      223 GET /hotspot-detect.html HTTP/1.1
  601 18.165925340  17.253.83.204   10.10.60.30     HTTP      781 HTTP/1.1 200 OK  (text/html)
  950 48.118795020  10.10.60.30     17.253.83.204   HTTP      223 GET /hotspot-detect.html HTTP/1.1
  954 48.205343273  17.253.83.204   10.10.60.30     HTTP      781 HTTP/1.1 200 OK  (text/html)
 1376 78.164551823  10.10.60.30     17.253.83.204   HTTP      223 GET /hotspot-detect.html HTTP/1.1
 1380 78.254321126  17.253.83.204   10.10.60.30     HTTP      782 HTTP/1.1 200 OK  (text/html)
```

```
▸ Frame 553: 601 bytes on wire (4808 bits), 601 bytes captured (4808 bits) on interface 0
▸ Ethernet II, Src: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
▸ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
▸ Transmission Control Protocol, Src Port: 40176, Dst Port: 80, Seq: 1, Ack: 1, Len: 535
▸ Hypertext Transfer Protocol
```

```
0000  a0 3d 6f af 0c 44 a0 8c  fd 2d 7f 92 08 00 45 00   ·=o··D·· ·-····E·
0010  02 4b 12 e8 40 00 40 06  6a 19 0a 0a 3c 1e 80 77   ·K··@·@· j···<··w
0020  f5 0c 9c f0 00 50 7d 72  37 bc cf 2e 3e 61 80 18   ·····P}r 7···.>a··
0030  00 e5 36 ca 00 00 01 01  08 0a 9b 32 ac 8f 8b ec   ··6····· ···2····
0040  e9 8d 47 45 54 20 2f 77  69 72 65 73 68 61 72 6b   ··GET /w ireshark
0050  2d 6c 61 62 73 2f 48 54  54 50 2d 77 69 72 65 73   -labs/HT TP-wires
```

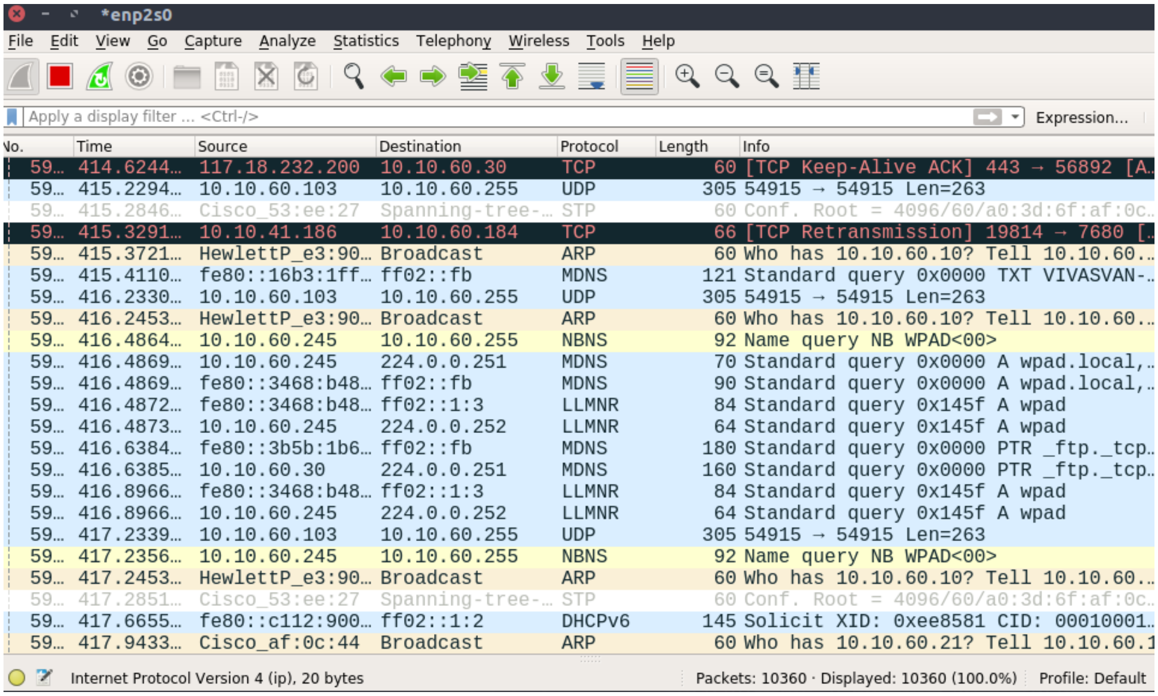
```
Internet Protocol Version 4 (ip), 20 bytes        Packets: 1474 · Displayed: 12 (0.8%)        Profile: Default
```

Question 3 What are the other protocols used and displayed in the unfiltered packet listing window of wireshark, besides the one that you answered in Q2?

Answer The other protocols in unfiltered packet listing windows are

- UDP
- TLS
- CDP
- TCP
- ARP
- STP
- SSDP
- DNS

- MDNS
- NBNS
- LLMNR
- DHCP


*enp2s0
File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Apply a display filter ... <Ctrl-/>
Expression...

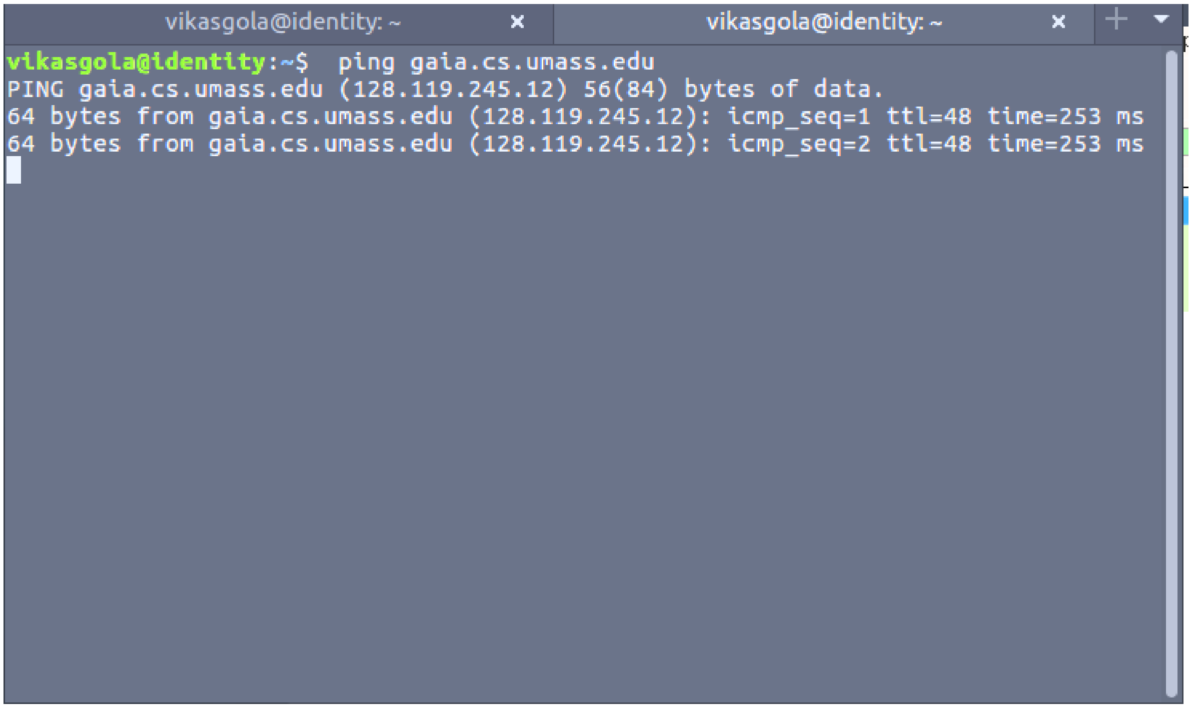
No.	Time	Source	Destination	Protocol	Length	Info
59…	414.6244…	117.18.232.200	10.10.60.30	TCP	60	[TCP Keep-Alive ACK] 443 → 56892 [A…
59…	415.2294…	10.10.60.103	10.10.60.255	UDP	305	54915 → 54915 Len=263
59…	415.2846…	Cisco_53:ee:27	Spanning-tree-…	STP	60	Conf. Root = 4096/60/a0:3d:6f:af:0c…
59…	415.3291…	10.10.41.186	10.10.60.184	TCP	66	[TCP Retransmission] 19814 → 7680 […
59…	415.3721…	HewlettP_e3:90…	Broadcast	ARP	60	Who has 10.10.60.10? Tell 10.10.60…
59…	415.4110…	fe80::16b3:1ff…	ff02::fb	MDNS	121	Standard query 0x0000 TXT VIVASVAN-…
59…	416.2330…	10.10.60.103	10.10.60.255	UDP	305	54915 → 54915 Len=263
59…	416.2453…	HewlettP_e3:90…	Broadcast	ARP	60	Who has 10.10.60.10? Tell 10.10.60…
59…	416.4864…	10.10.60.245	10.10.60.255	NBNS	92	Name query NB WPAD<00>
59…	416.4869…	10.10.60.245	224.0.0.251	MDNS	70	Standard query 0x0000 A wpad.local,…
59…	416.4869…	fe80::3468:b48…	ff02::fb	MDNS	90	Standard query 0x0000 A wpad.local,…
59…	416.4872…	fe80::3468:b48…	ff02::1:3	LLMNR	84	Standard query 0x145f A wpad
59…	416.4873…	10.10.60.245	224.0.0.252	LLMNR	64	Standard query 0x145f A wpad
59…	416.6384…	fe80::3b5b:1b6…	ff02::fb	MDNS	180	Standard query 0x0000 PTR _ftp._tcp…
59…	416.6385…	10.10.60.30	224.0.0.251	MDNS	160	Standard query 0x0000 PTR _ftp._tcp…
59…	416.8966…	fe80::3468:b48…	ff02::1:3	LLMNR	84	Standard query 0x145f A wpad
59…	416.8966…	10.10.60.245	224.0.0.252	LLMNR	64	Standard query 0x145f A wpad
59…	417.2339…	10.10.60.103	10.10.60.255	UDP	305	54915 → 54915 Len=263
59…	417.2356…	10.10.60.245	10.10.60.255	NBNS	92	Name query NB WPAD<00>
59…	417.2453…	HewlettP_e3:90…	Broadcast	ARP	60	Who has 10.10.60.10? Tell 10.10.60…
59…	417.2851…	Cisco_53:ee:27	Spanning-tree-…	STP	60	Conf. Root = 4096/60/a0:3d:6f:af:0c…
59…	417.6655…	fe80::c112:900…	ff02::1:2	DHCPv6	145	Solicit XID: 0xee8581 CID: 00010001…
59…	417.9433…	Cisco_af:0c:44	Broadcast	ARP	60	Who has 10.10.60.21? Tell 10.10.60.1

Internet Protocol Version 4 (ip), 20 bytes

Packets: 10360 · Displayed: 10360 (100.0%)   Profile: Default

Question 4 What is the IPA of your machine? What is the IPA of the destination machine? Is there any way by which you can ascertain that the IPA of the destination indeed is the same as that you observed in wireshark? If so, how ?

Answer IPA of my machine is 10.10.60.30. IP address of destination is 128.119.245.12. IPA of destination can be verified by using the ping on the host of website which is **gaia.cs.umass.edu**.



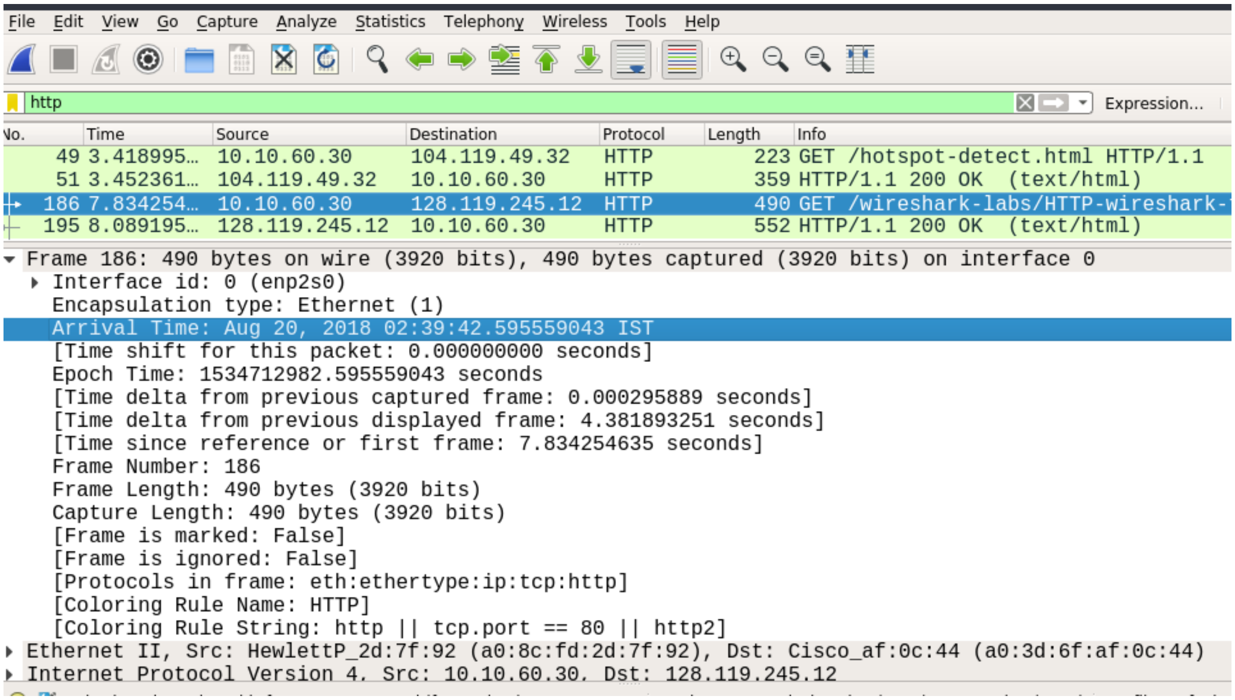
```
vikasgola@identity:~$  ping gaia.cs.umass.edu
PING gaia.cs.umass.edu (128.119.245.12) 56(84) bytes of data.
64 bytes from gaia.cs.umass.edu (128.119.245.12): icmp_seq=1 ttl=48 time=253 ms
64 bytes from gaia.cs.umass.edu (128.119.245.12): icmp_seq=2 ttl=48 time=253 ms
```

Question 5 What is the class of the IPA of the source machine ? That of destination machine?

Answer class A, class B

Question 6 How many bits were captured in this packet? At what time was this packet captured?

Answer 490 bytes were captured in this packet on date Aug 20,2018 at time 02:39:42.595559043 IST.

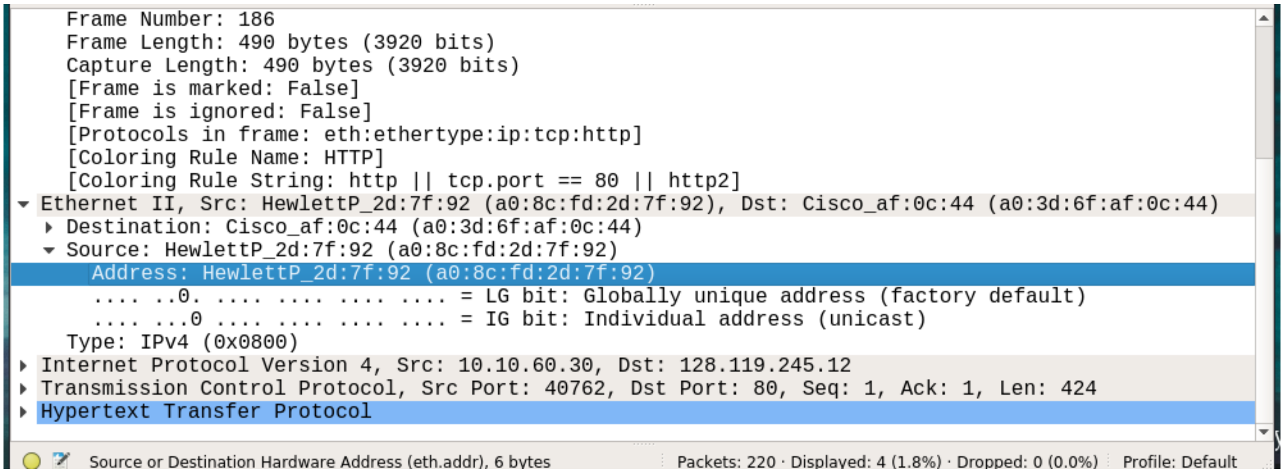

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
http
Expression...

```
No.  Time          Source           Destination      Protocol  Length  Info
  49 3.418995...  10.10.60.30      104.119.49.32    HTTP         223  GET /hotspot-detect.html HTTP/1.1
  51 3.452361...  104.119.49.32    10.10.60.30      HTTP         359  HTTP/1.1 200 OK  (text/html)
 186 7.834254...  10.10.60.30      128.119.245.12   HTTP         490  GET /wireshark-labs/HTTP-wireshark-
 195 8.089195...  128.119.245.12   10.10.60.30      HTTP         552  HTTP/1.1 200 OK  (text/html)
```

```
▾ Frame 186: 490 bytes on wire (3920 bits), 490 bytes captured (3920 bits) on interface 0
  ▸ Interface id: 0 (enp2s0)
    Encapsulation type: Ethernet (1)
    Arrival Time: Aug 20, 2018 02:39:42.595559043 IST
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1534712982.595559043 seconds
    [Time delta from previous captured frame: 0.000295889 seconds]
    [Time delta from previous displayed frame: 4.381893251 seconds]
    [Time since reference or first frame: 7.834254635 seconds]
    Frame Number: 186
    Frame Length: 490 bytes (3920 bits)
    Capture Length: 490 bytes (3920 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: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
▸ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
```

Question 7 What is the interface id used? What is the address of the interface?

Answer Interface id is 0 (enp2s0) and address of this interface is a0:8c:fd:2d:7f:92.



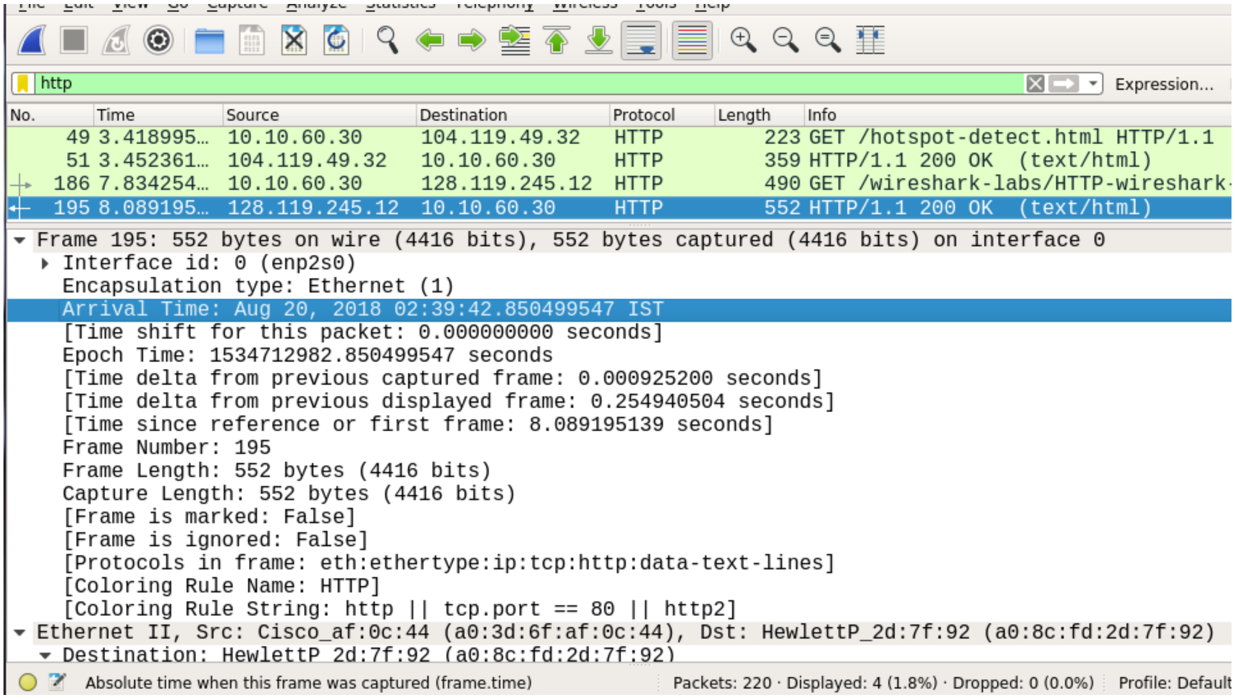
```
    Frame Number: 186
    Frame Length: 490 bytes (3920 bits)
    Capture Length: 490 bytes (3920 bits)
    [Frame is marked: False]
    [Frame is ignored: False]
    [Protocols in frame: eth:ethertype:ip:tcp:http]
    [Coloring Rule Name: HTTP]
    [Coloring Rule String: http || tcp.port == 80 || http2]
▾ Ethernet II, Src: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
  ▸ Destination: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
  ▾ Source: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
      Address: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
      .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
      .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
▸ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
▸ Transmission Control Protocol, Src Port: 40762, Dst Port: 80, Seq: 1, Ack: 1, Len: 424
▸ Hypertext Transfer Protocol
```

```
Source or Destination Hardware Address (eth.addr), 6 bytes    Packets: 220 · Displayed: 4 (1.8%) · Dropped: 0 (0.0%)    Profile: Default
```

Question 8 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. 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.)

Answer HTTP GET message was sent at 02:39:42.595559043 IST and HTTP OK was received at 02:39:42.850499547 IST.

Time taken = received time - sent time
= 42.850499547 - 42.595559043
= 0.254940504 seconds.



```
No.      Time          Source           Destination      Protocol   Length  Info
      49 3.418995…   10.10.60.30      104.119.49.32    HTTP          223 GET /hotspot-detect.html HTTP/1.1
      51 3.452361…   104.119.49.32    10.10.60.30      HTTP          359 HTTP/1.1 200 OK  (text/html)
     186 7.834254…   10.10.60.30      128.119.245.12   HTTP          490 GET /wireshark-labs/HTTP-wireshark-
     195 8.089195…   128.119.245.12   10.10.60.30      HTTP          552 HTTP/1.1 200 OK  (text/html)

▾ Frame 195: 552 bytes on wire (4416 bits), 552 bytes captured (4416 bits) on interface 0
  ▸ Interface id: 0 (enp2s0)
    Encapsulation type: Ethernet (1)
    Arrival Time: Aug 20, 2018 02:39:42.850499547 IST
    [Time shift for this packet: 0.000000000 seconds]
    Epoch Time: 1534712982.850499547 seconds
    [Time delta from previous captured frame: 0.000925200 seconds]
    [Time delta from previous displayed frame: 0.254940504 seconds]
    [Time since reference or first frame: 8.089195139 seconds]
    Frame Number: 195
    Frame Length: 552 bytes (4416 bits)
    Capture Length: 552 bytes (4416 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: Cisco_af:0c:44 (a0:3d:6f:af:0c:44), Dst: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
  ▾ Destination: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
```

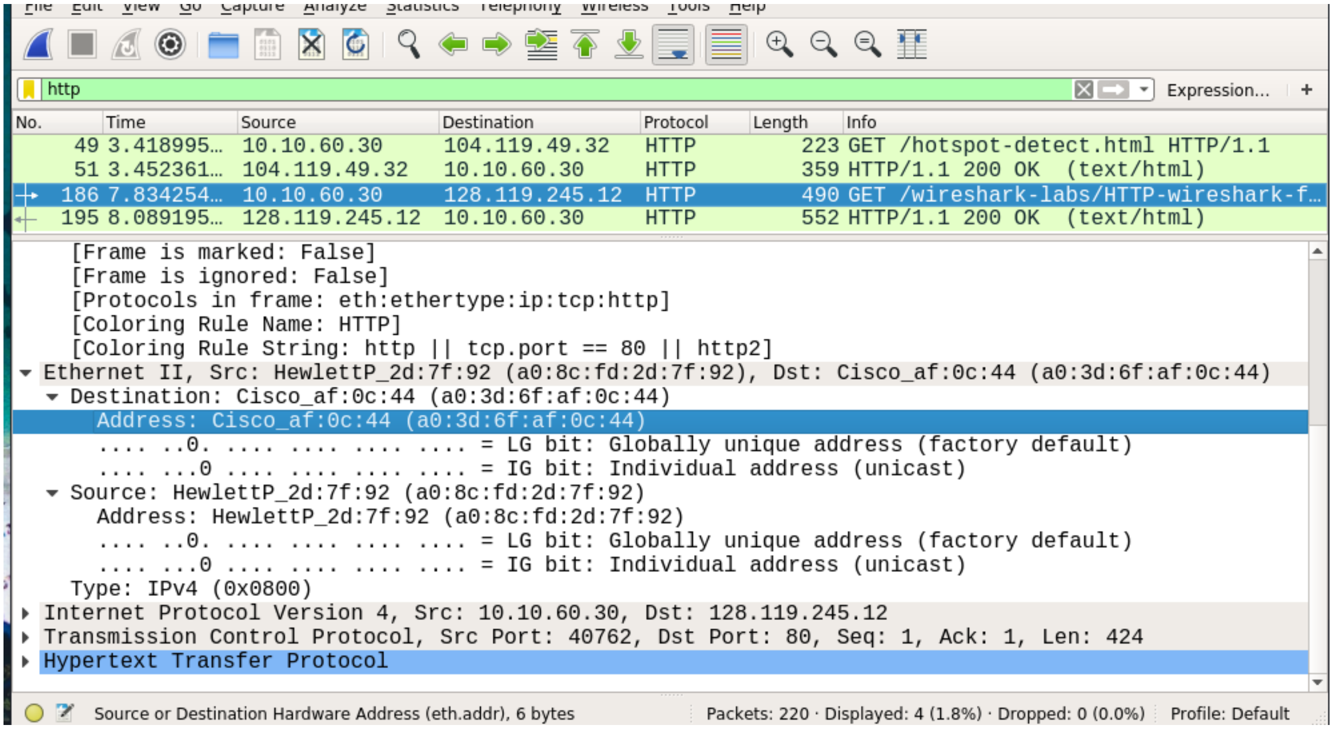
Absolute time when this frame was captured (frame.time) Packets: 220 · Displayed: 4 (1.8%) · Dropped: 0 (0.0%) Profile: Default

Question 10 Print the two HTTP messages (GET and OK) referred to in question above. To do so, select Print from the Wireshark File command menu, and select the ”Selected Packet Only” and ”Print as displayed” radial buttons, and then click OK.

Answer HTTP GET message and OK message can be checked at last of the pdf file respectively.

Question 11 What is the destination physical address of the first packet captured? What device does it belong to? Show where in the capture would you find this information.

Answer Physical address of the destination in the first packet is a0:3d:6f:af:0c:44 which is find in the destination tab of Ethernet Block.


File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
http
Expression...
+

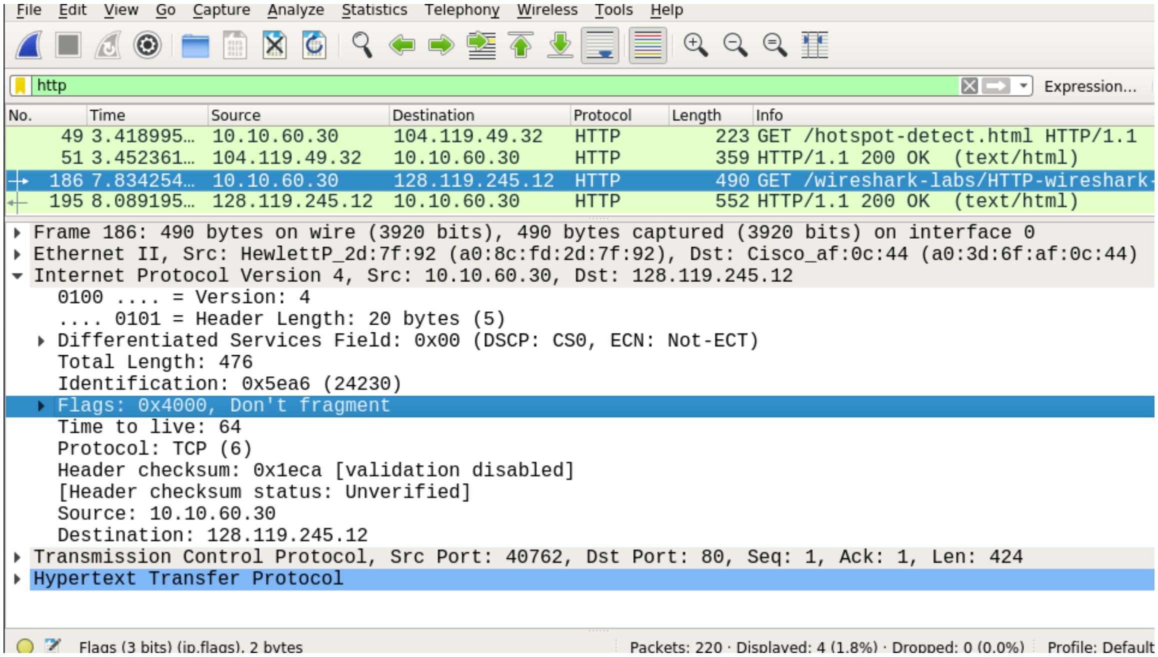
```
No.    Time         Source          Destination      Protocol  Length  Info
    49 3.418995…  10.10.60.30     104.119.49.32    HTTP         223 GET /hotspot-detect.html HTTP/1.1
    51 3.452361…  104.119.49.32   10.10.60.30      HTTP         359 HTTP/1.1 200 OK  (text/html)
   186 7.834254…  10.10.60.30     128.119.245.12   HTTP         490 GET /wireshark-labs/HTTP-wireshark-f…
   195 8.089195…  128.119.245.12  10.10.60.30      HTTP         552 HTTP/1.1 200 OK  (text/html)
```

```
    [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: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
  ▾ Destination: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
      Address: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
      .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
      .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
  ▾ Source: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
      Address: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92)
      .... ..0. .... .... .... .... = LG bit: Globally unique address (factory default)
      .... ...0 .... .... .... .... = IG bit: Individual address (unicast)
    Type: IPv4 (0x0800)
▸ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
▸ Transmission Control Protocol, Src Port: 40762, Dst Port: 80, Seq: 1, Ack: 1, Len: 424
▸ Hypertext Transfer Protocol
```

Source or Destination Hardware Address (eth.addr), 6 bytes   Packets: 220 · Displayed: 4 (1.8%) · Dropped: 0 (0.0%)   Profile: Default

Question 12 How many bytes of header does the first frame sent have? Show where in the capture would you find this information.

Answer 20 bytes of header have been sent and this information is find in Internet Protocol Version 4 block.


File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help
Expression...

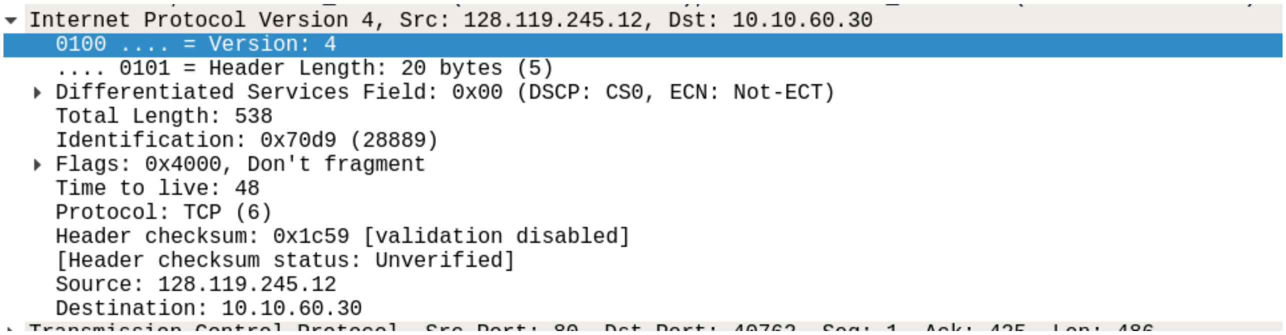
```
http
No.   Time          Source          Destination     Protocol  Length Info
   49 3.418995…  10.10.60.30     104.119.49.32   HTTP      223 GET /hotspot-detect.html HTTP/1.1
   51 3.452361…  104.119.49.32   10.10.60.30     HTTP      359 HTTP/1.1 200 OK  (text/html)
  186 7.834254…  10.10.60.30     128.119.245.12  HTTP      490 GET /wireshark-labs/HTTP-wireshark-
  195 8.089195…  128.119.245.12  10.10.60.30     HTTP      552 HTTP/1.1 200 OK  (text/html)

▸ Frame 186: 490 bytes on wire (3920 bits), 490 bytes captured (3920 bits) on interface 0
▸ Ethernet II, Src: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
▾ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
  ▸ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 476
    Identification: 0x5ea6 (24230)
  ▸ Flags: 0x4000, Don't fragment
    Time to live: 64
    Protocol: TCP (6)
    Header checksum: 0x1eca [validation disabled]
    [Header checksum status: Unverified]
    Source: 10.10.60.30
    Destination: 128.119.245.12
▸ Transmission Control Protocol, Src Port: 40762, Dst Port: 80, Seq: 1, Ack: 1, Len: 424
▸ Hypertext Transfer Protocol

Flags (3 bits) (ip.flags), 2 bytes      Packets: 220 · Displayed: 4 (1.8%) · Dropped: 0 (0.0%)   Profile: Default
```

Question 13 By looking at the Ethernet header of a frame, can we determine if it contains an IP packet? Show where in the capture would you find this information.

Answer Yes, we can easily determine it by looking at the "type" in Ethernet header of a frame.

Question 14 Is it possible to know if the first packet captured has TCP or UDP as transport protocol by looking at the IP header? Explain and show where in the capture would you find this information.

Answer Yes, it is possible to find the transport protocol type of first captured packet which is visible in IP header written as "Protocol: TCP" indicates the TCP transport protocol.



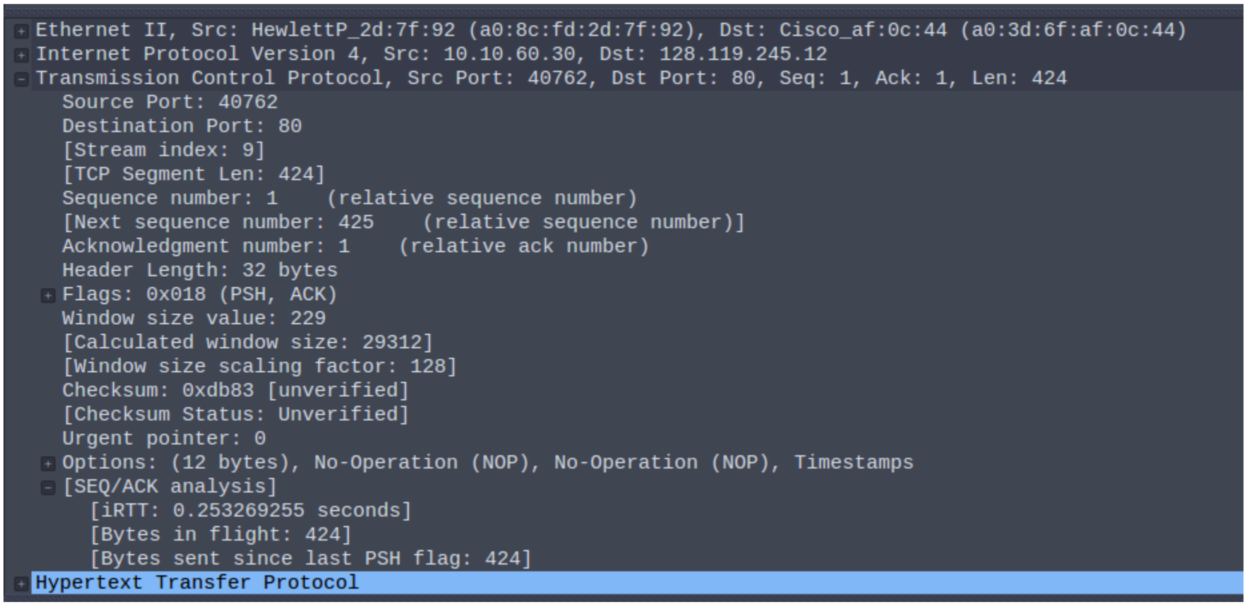
```
▾ Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.10.60.30
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
  ▸ Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
    Total Length: 538
    Identification: 0x70d9 (28889)
  ▸ Flags: 0x4000, Don't fragment
    Time to live: 48
    Protocol: TCP (6)
    Header checksum: 0x1c59 [validation disabled]
    [Header checksum status: Unverified]
    Source: 128.119.245.12
    Destination: 10.10.60.30
▸ Transmission Control Protocol, Src Port: 80, Dst Port: 40762, Seq: 1, Ack: 425, Len: 486
```

Question 15 In the SYN, ACK. What are the source and destination ports? Are these the same for the client and the server? Explain why.

Answer Source Port: 40762 and Destination Port:80
No, these are not same for client and server as same port indicates same process and also there are some fix ports for handling specific type requests.

Question 16 Why does the Server Hello message sent by the server have 1 as a relative sequence number and 185 as a relative acknowledgement number.

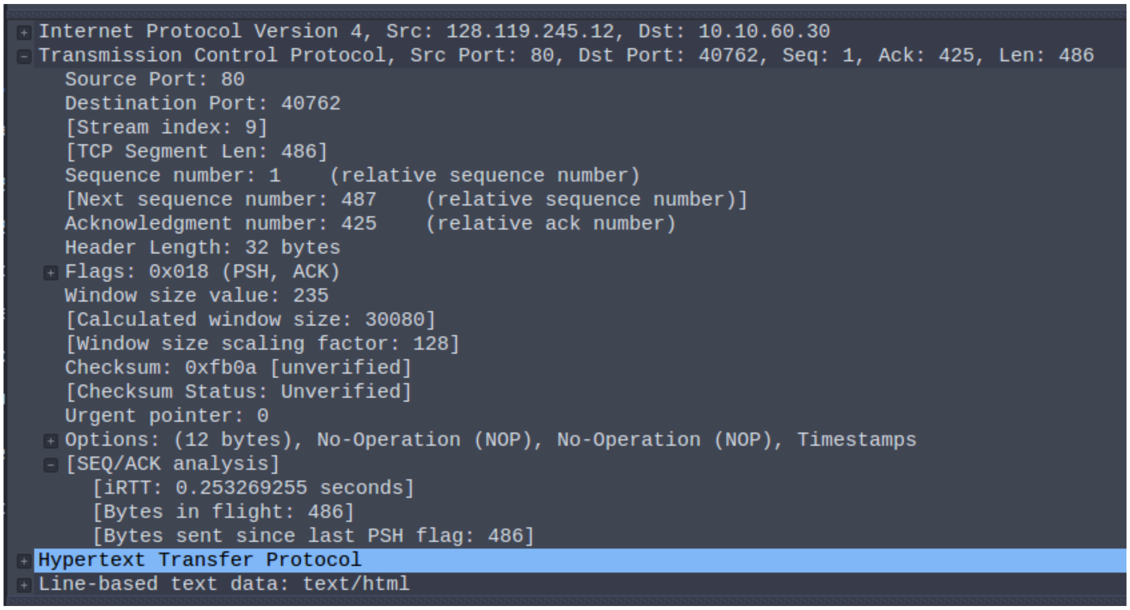
Answer Wireshark always displayed a SYN(Sequence) and ACK(Acknowledgement) number relative to the first seen segment for that conversation. Thats why all SYN and ACK numbers always startat 0 for the first packet seen in each conversation. After setting up the connection between client and server, when server start transmitting data,relative ACK number is equal to (Bytes sent +1). Thats why in this example, relative SEQnumber is 1 and relative ACK is (184+1=185), because packet sent till Server Hello message are 184.



```
⊞ Ethernet II, Src: HewlettP_2d:7f:92 (a0:8c:fd:2d:7f:92), Dst: Cisco_af:0c:44 (a0:3d:6f:af:0c:44)
⊞ Internet Protocol Version 4, Src: 10.10.60.30, Dst: 128.119.245.12
⊟ Transmission Control Protocol, Src Port: 40762, Dst Port: 80, Seq: 1, Ack: 1, Len: 424
    Source Port: 40762
    Destination Port: 80
    [Stream index: 9]
    [TCP Segment Len: 424]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 425    (relative sequence number)]
    Acknowledgment number: 1    (relative ack number)
    Header Length: 32 bytes
  ⊞ Flags: 0x018 (PSH, ACK)
    Window size value: 229
    [Calculated window size: 29312]
    [Window size scaling factor: 128]
    Checksum: 0xdb83 [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
  ⊞ Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
  ⊟ [SEQ/ACK analysis]
      [iRTT: 0.253269255 seconds]
      [Bytes in flight: 424]
      [Bytes sent since last PSH flag: 424]
⊞ Hypertext Transfer Protocol
```

Question 17 What is the first sequence number sent by the server to the client. Why is it not the 0 displayed by wireshark?

Answer As explained in answer of last question, Wireshark always displayed a SYN(Sequence) and ACK(Acknowledgement) number relative to the first seen segment for that conversation. Because, client has already sent some packets to server and hence packets sent by server is not the first in communication and it's not 0.



```
+ Internet Protocol Version 4, Src: 128.119.245.12, Dst: 10.10.60.30
- Transmission Control Protocol, Src Port: 80, Dst Port: 40762, Seq: 1, Ack: 425, Len: 486
    Source Port: 80
    Destination Port: 40762
    [Stream index: 9]
    [TCP Segment Len: 486]
    Sequence number: 1    (relative sequence number)
    [Next sequence number: 487    (relative sequence number)]
    Acknowledgment number: 425    (relative ack number)
    Header Length: 32 bytes
  + Flags: 0x018 (PSH, ACK)
    Window size value: 235
    [Calculated window size: 30080]
    [Window size scaling factor: 128]
    Checksum: 0xfb0a [unverified]
    [Checksum Status: Unverified]
    Urgent pointer: 0
  + Options: (12 bytes), No-Operation (NOP), No-Operation (NOP), Timestamps
  - [SEQ/ACK analysis]
      [iRTT: 0.253269255 seconds]
      [Bytes in flight: 486]
      [Bytes sent since last PSH flag: 486]
+ Hypertext Transfer Protocol
+ Line-based text data: text/html
```