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Lớp : L01

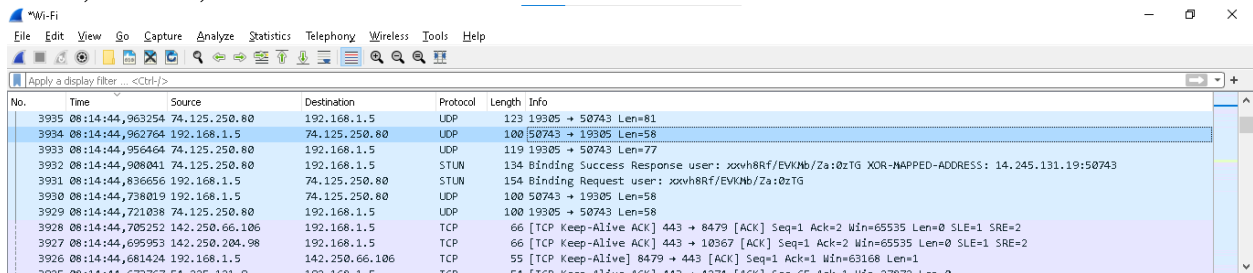
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### LAB 1a

**Question 1:** List 3 different protocols that appear in the protocol column in the unfiltered packet-listing window in step 7 above.

**ANSWER:**

UDP, STUN, TCP

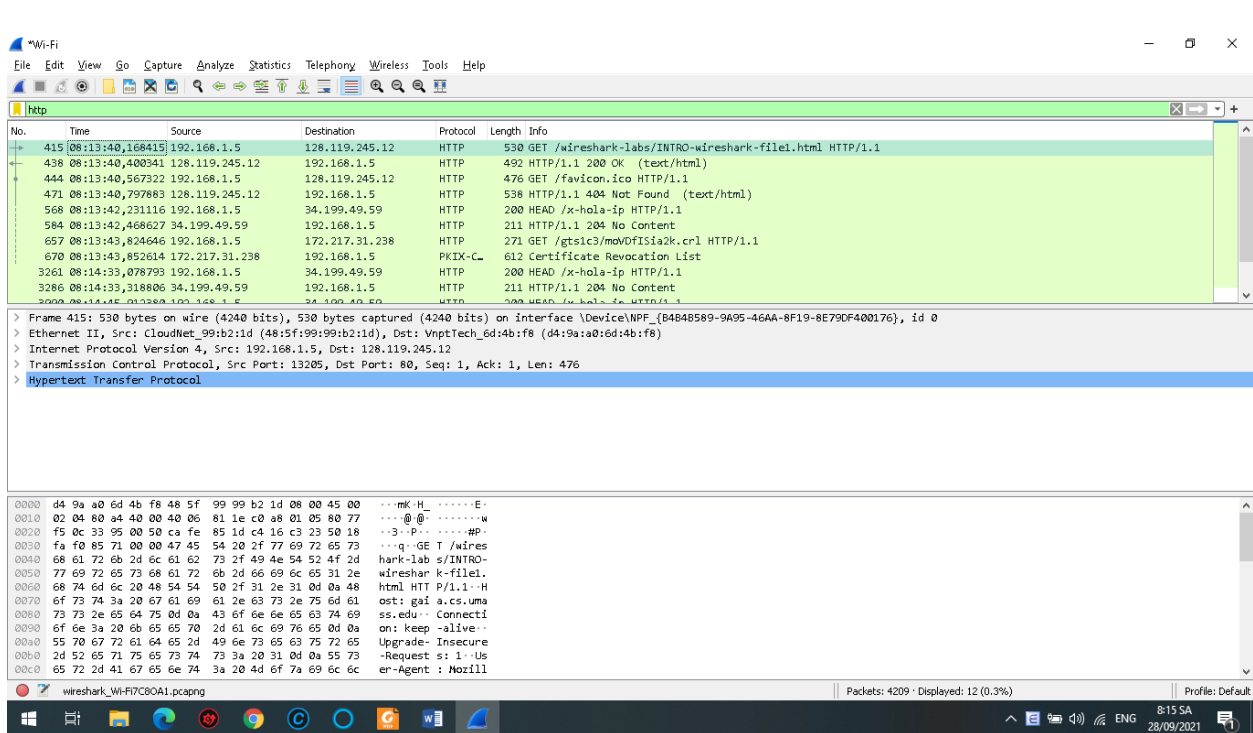


No.	Time	Source	Destination	Protocol	Length	Info
3995	08:14:44,963254	74.125.250.80	192.168.1.5	UDP	123	19305 → 50743 Len=81
3994	08:14:44,962764	192.168.1.5	74.125.250.80	UDP	100	50743 → 19305 Len=58
3993	08:14:44,956464	74.125.250.80	192.168.1.5	UDP	119	19305 → 50743 Len=77
3992	08:14:44,908041	74.125.250.80	192.168.1.5	STUN	134	Binding Success Response user: xxvh8Rf/EVKNb/Za:0zTG XOR-MAPPED-ADDRESS: 14.245.131.19:50743
3991	08:14:44,836656	192.168.1.5	74.125.250.80	STUN	154	Binding Request user: xxvh8Rf/EVKNb/Za:0zTG
3990	08:14:44,738019	192.168.1.5	74.125.250.80	UDP	100	50743 → 19305 Len=58
3929	08:14:44,721038	74.125.250.80	192.168.1.5	UDP	100	19305 → 50743 Len=58
3928	08:14:44,705252	142.250.66.106	192.168.1.5	TCP	66	[TCP Keep-Alive ACK] 443 → 8479 [ACK] Seq=1 Ack=2 Win=65535 Len=0 SLE=1 SRE=2
3927	08:14:44,695953	142.250.204.98	192.168.1.5	TCP	66	[TCP Keep-Alive ACK] 443 → 10367 [ACK] Seq=1 Ack=2 Win=65535 Len=0 SLE=1 SRE=2
3926	08:14:44,681424	192.168.1.5	142.250.66.106	TCP	55	[TCP Keep-Alive] 8479 → 443 [ACK] Seq=1 Ack=1 Win=63168 Len=1
3925	08:14:44,673367	142.250.204.98	192.168.1.5	TCP	54	[TCP Keep-Alive ACK] 443 → 443 [ACK] Seq=65 Ack=1 Win=32832 Len=0

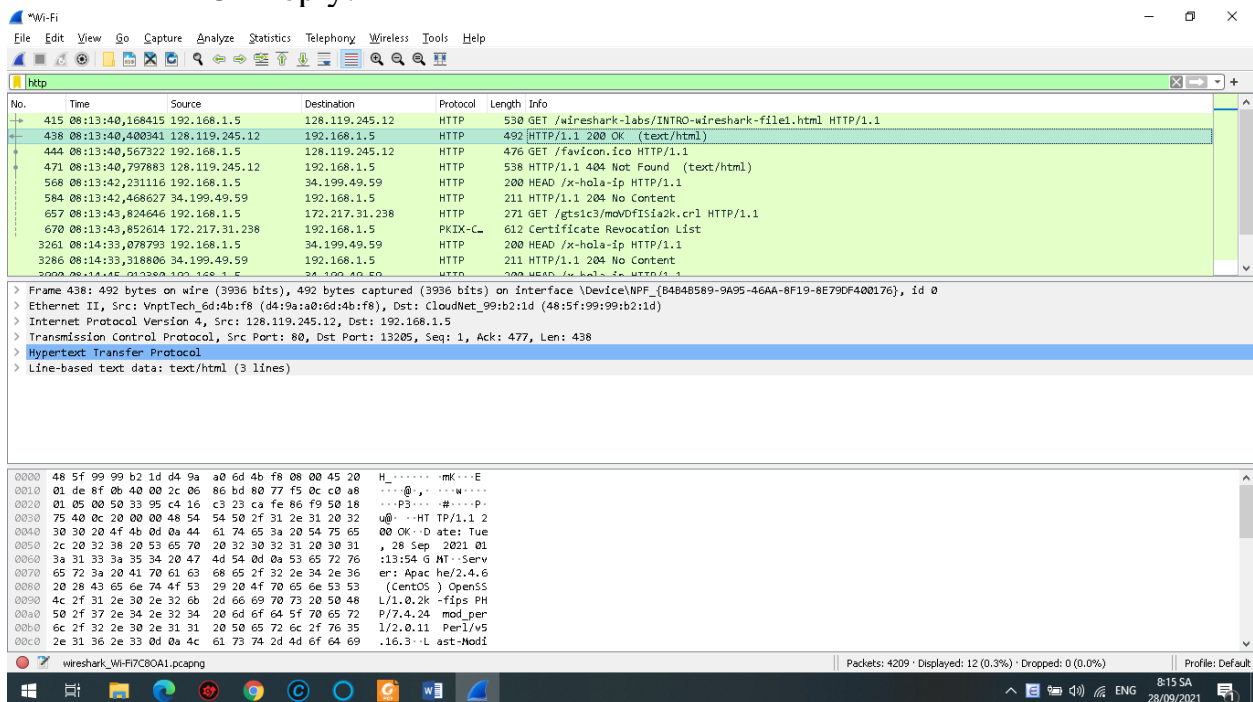
**Question 2:** How long did it take from when the HTTP GET message was sent until the HTTP OK reply was received? (By default, the value of the Time column in the packetlisting window is the amount of time, in seconds, since Wireshark tracing began. To display the Time field in time-of-day format, select the Wireshark View pull down menu, then select Time Display Format, then select Time-of-day.)

**ANSWER:**

- HTTP GET message:



⇒ Time to GET: 08:13:40,168415  
- HTTP OK reply:



⇒ Time to OK: 08:13:40,400341  
⇒ Interval from when the HTTP GET message was sent until the HTTP OK reply was received  
= 08:13:40,400341 - 08:13:40,168415

= 0,231926 s

**Question 3:** What is the Internet address of the gaia.cs.umass.edu (also known as wwwnet.cs.umass.edu)? What is the Internet address of your computer?

**ANSWER:**

IP of gaia.cs.umass.edu : 128.119.245.12

IP of my computer : 192.168.1.5

**Question 4:** Print the two HTTP messages (GET and OK) referred to in question 2 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:**

