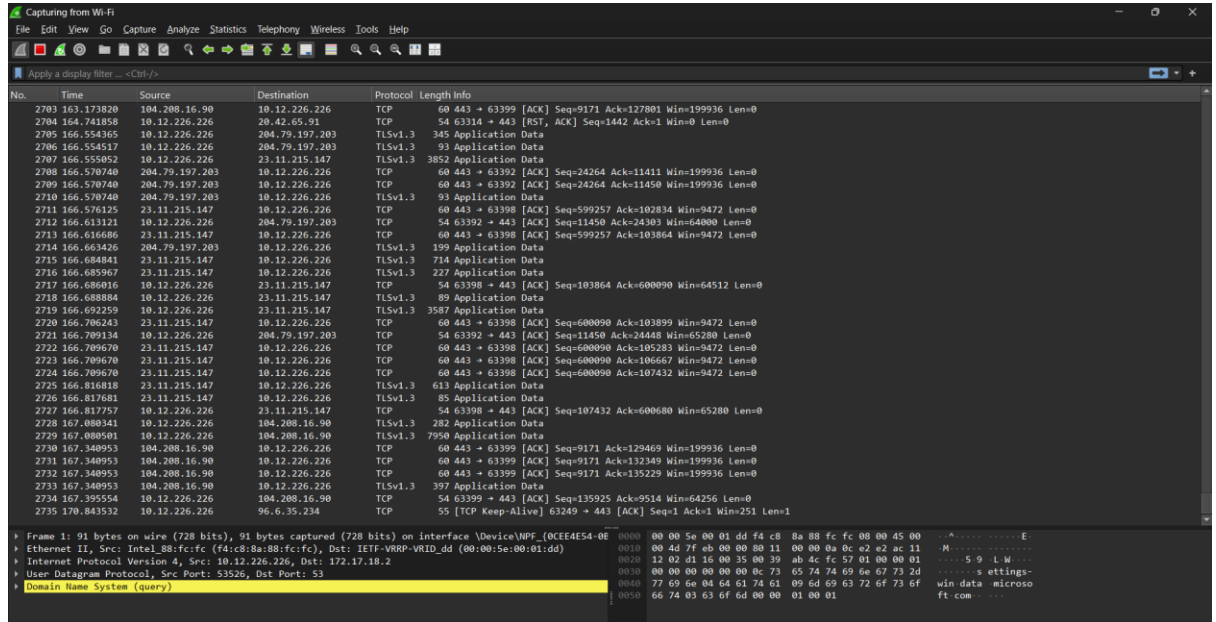


Task 5:

By Niranjana Manoj

1. Beginning packet capture on active network:



2. We generate traffic by pingg a website:

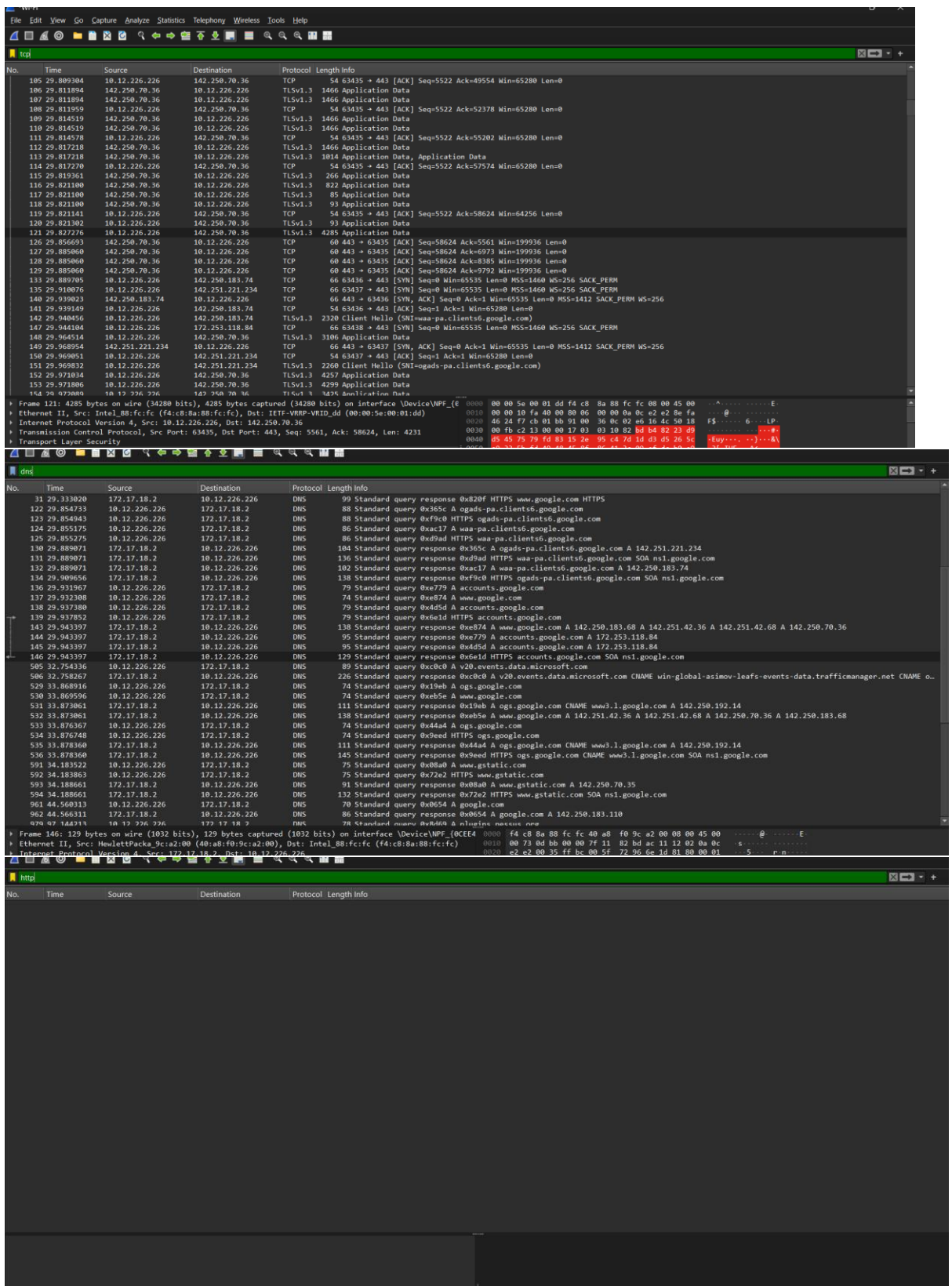
```
C:\Users\Niran>ping google.com

Pinging google.com [142.251.220.46] with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 142.251.220.46:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\Niran>
```

3. After a minute we stop packet capture and see the types of protocols:



Here we have checked tcp dns and http protocols respectively another protocol was the tls protocol:

No.	Time	Source	Destination	Protocol	Length	Info
1	0.000000	172.217.174.68	10.12.226.226	TLSv1.2	127	Application Data
6	1.325318	172.253.118.84	10.12.226.226	TLSv1.2	127	Application Data
10	2.429301	142.251.42.14	10.12.226.226	TLSv1.2	131	Application Data
14	3.055042	142.250.207.163	10.12.226.226	TLSv1.2	127	Application Data
34	29.391045	23.53.118.112	10.12.226.226	TLSv1.2	78	Application Data
38	29.392168	10.12.226.226	142.250.70.36	TLSv1.3	2293	Client Hello (SHA=www.google.com)
41	29.498171	142.250.70.36	10.12.226.226	TLSv1.3	1466	Server Hello, Change Cipher Spec
42	29.498171	142.250.70.36	10.12.226.226	TLSv1.3	134	Application Data
44	29.500500	10.12.226.226	142.250.70.36	TLSv1.3	128	Change Cipher Spec, Application Data
45	29.501014	10.12.226.226	142.250.70.36	TLSv1.3	146	Application Data
46	29.501779	10.12.226.226	142.250.70.36	TLSv1.3	3139	Application Data
49	29.553230	142.250.70.36	10.12.226.226	TLSv1.3	1070	Application Data, Application Data
50	29.553230	142.250.70.36	10.12.226.226	TLSv1.3	85	Application Data
54	29.554086	10.12.226.226	142.250.70.36	TLSv1.3	85	Application Data
56	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
57	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	101	Application Data
58	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
59	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
60	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	883	Application Data
61	29.700038	142.250.70.36	10.12.226.226	TLSv1.3	139	Application Data
63	29.760470	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
64	29.762114	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
66	29.763732	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
67	29.763732	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
69	29.765354	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
70	29.765354	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
72	29.768126	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
73	29.768126	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
75	29.773330	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
76	29.773330	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
77	29.773330	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
79	29.773983	142.250.70.36	10.12.226.226	TLSv1.3	1173	Application Data
81	29.781057	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
83	29.785474	142.250.70.36	10.12.226.226	TLSv1.3	1466	Application Data
> Frame 1: 127 bytes on wire (1016 bits), 127 bytes captured (1016 bits) on interface \Device\NPF_{0CEE4E5-0000-f4-c8-8a-88-fc-fc-40-a8-f0-9c-a2-00-08-00-45-00}						
> Ethernet II, Src: Hewlett-Packard 9c:a2:00 (40:a8:f0:9c:a2:00), Dst: Intel_88:fc:fc (f4:c8:8a:88:fc:fc)						
> Internet Protocol Version 4, Src: 172.217.174.68, Dst: 10.12.226.226						
> Transmission Control Protocol, Src Port: 443, Dst Port: 63394, Seq: 1, Ack: 1, Len: 73						
> Transport Layer Security						

From this we have learned about various protocols and how it affects the packet capture