ADVANCED COMPUTER NETWORKS - LAB: ASSIGNMENT 2

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Problem 1

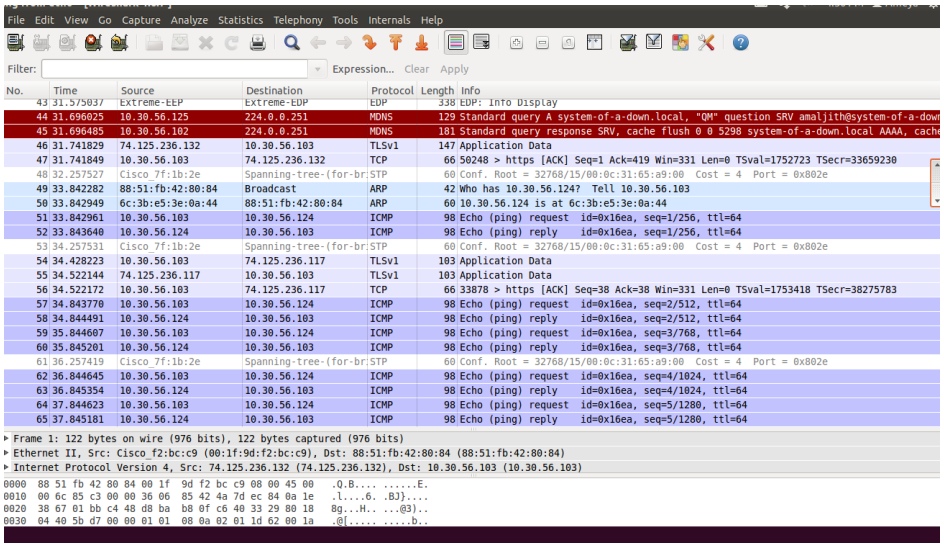
1. Install wireshark to sniffer capture
Wireshark is a open source network packet analyzer. It is used for netwrok troubleshooting and analysis.
1) command used : sudo apt-get install wireshark
Installed wireshark
2) sudo wireshark
Run wireshark for capturing packets.
3) arp -n : to list arp table

```
jennie@ameyavp:~$ arp -n
Address                  HWtype  HWaddress           Flags Mask            Iface
10.30.56.124                     (incomplete)                              eth0
10.30.56.1               ether   00:1f:9d:f2:bc:c9   C                     eth0
jennie@ameyavp:~$
```

4) capturing network packets by pinging 10.30.56.124
ping 10.30.56.124

```
jennie@ameyavp:~$ ping 10.30.56.124
PING 10.30.56.124 (10.30.56.124) 56(84) bytes of data.
64 bytes from 10.30.56.124: icmp_req=1 ttl=64 time=1.38 ms
64 bytes from 10.30.56.124: icmp_req=2 ttl=64 time=0.736 ms
64 bytes from 10.30.56.124: icmp_req=3 ttl=64 time=0.612 ms
64 bytes from 10.30.56.124: icmp_req=4 ttl=64 time=0.732 ms
64 bytes from 10.30.56.124: icmp_req=5 ttl=64 time=0.573 ms
64 bytes from 10.30.56.124: icmp_req=6 ttl=64 time=0.658 ms
64 bytes from 10.30.56.124: icmp_req=7 ttl=64 time=0.549 ms
64 bytes from 10.30.56.124: icmp_req=8 ttl=64 time=0.311 ms
64 bytes from 10.30.56.124: icmp_req=9 ttl=64 time=0.486 ms
64 bytes from 10.30.56.124: icmp_req=10 ttl=64 time=0.517 ms
64 bytes from 10.30.56.124: icmp_req=11 ttl=64 time=0.551 ms
64 bytes from 10.30.56.124: icmp_req=12 ttl=64 time=0.702 ms
64 bytes from 10.30.56.124: icmp_req=13 ttl=64 time=0.546 ms
64 bytes from 10.30.56.124: icmp_req=14 ttl=64 time=0.713 ms
64 bytes from 10.30.56.124: icmp_req=15 ttl=64 time=0.772 ms
64 bytes from 10.30.56.124: icmp_req=16 ttl=64 time=0.726 ms
64 bytes from 10.30.56.124: icmp_req=17 ttl=64 time=0.790 ms
64 bytes from 10.30.56.124: icmp_req=18 ttl=64 time=0.806 ms
64 bytes from 10.30.56.124: icmp_req=19 ttl=64 time=0.756 ms
64 bytes from 10.30.56.124: icmp_req=20 ttl=64 time=0.796 ms
64 bytes from 10.30.56.124: icmp_req=21 ttl=64 time=0.538 ms
64 bytes from 10.30.56.124: icmp_req=22 ttl=64 time=0.737 ms
64 bytes from 10.30.56.124: icmp_req=23 ttl=64 time=0.553 ms
64 bytes from 10.30.56.124: icmp_req=24 ttl=64 time=0.700 ms
64 bytes from 10.30.56.124: icmp_req=25 ttl=64 time=0.586 ms
64 bytes from 10.30.56.124: icmp_req=26 ttl=64 time=0.821 ms
64 bytes from 10.30.56.124: icmp_req=27 ttl=64 time=0.771 ms
64 bytes from 10.30.56.124: icmp_req=28 ttl=64 time=0.803 ms
64 bytes from 10.30.56.124: icmp_req=29 ttl=64 time=0.560 ms
64 bytes from 10.30.56.124: icmp_req=30 ttl=64 time=0.711 ms
64 bytes from 10.30.56.124: icmp_req=31 ttl=64 time=0.707 ms
64 bytes from 10.30.56.124: icmp_req=32 ttl=64 time=0.653 ms
^C
--- 10.30.56.124 ping statistics ---
32 packets transmitted, 32 received, 0% packet loss, time 31002ms
rtt min/avg/max/mdev = 0.311/0.682/1.382/0.174 ms
```

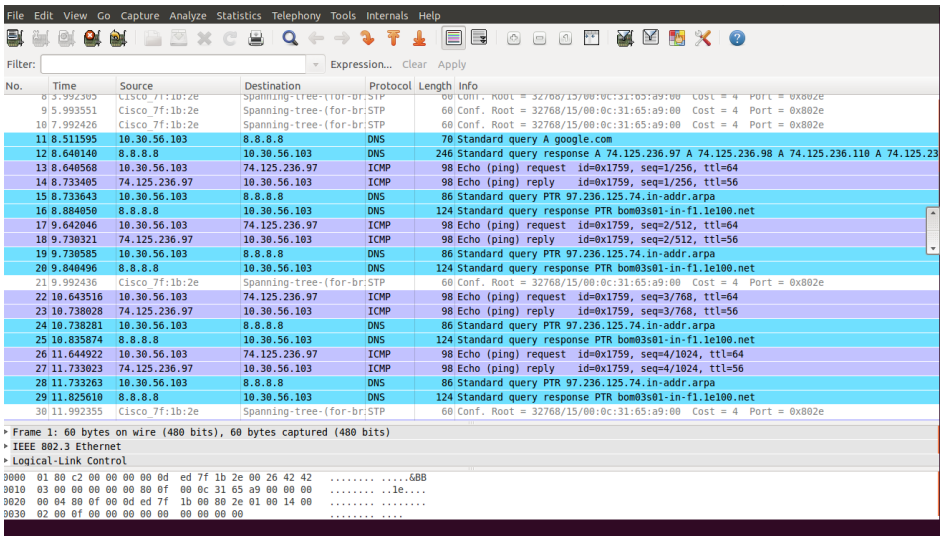
Table is stored



5) capturing network packets by pinging with google.com
ping google.com

```
jennie@ameyavp:~$ ping google.com
PING google.com (74.125.236.97) 56(84) bytes of data.
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=1 ttl=56 time=9
2.8 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=2 ttl=56 time=8
8.2 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=3 ttl=56 time=94.5 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=4 ttl=56 time=88.1 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=5 ttl=56 time=119 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=6 ttl=56 time=95.0 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=7 ttl=56 time=111 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=8 ttl=56 time=93.0 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=9 ttl=56 time=134 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=10 ttl=56 time=88.5 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=11 ttl=56 time=92.9 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=12 ttl=56 time=132 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=13 ttl=56 time=154 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=14 ttl=56 time=156 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=15 ttl=56 time=149 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=16 ttl=56 time=176 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=17 ttl=56 time=97.5 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=18 ttl=56 time=142 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=19 ttl=56 time=122 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=20 ttl=56 time=107 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=21 ttl=56 time=96.5 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=22 ttl=56 time=155 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=23 ttl=56 time=143 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=24 ttl=56 time=155 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=26 ttl=56 time=150 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=27 ttl=56 time=148 ms
64 bytes from bom03s01-in-f1.1e100.net (74.125.236.97): icmp_req=28 ttl=56 time=103 ms
^C
--- google.com ping statistics ---
28 packets transmitted, 27 received, 3% packet loss, time 27043ms
rtt min/avg/max/mdev = 88.118/121.948/176.667/27.358 ms
jennie@ameyavp:~$
```

Table is stored.



6) Updated arp table.