

## EXPT: 13 TO CAPTURE, SAVE, AND ANALYZE NETWORK TRAFFIC ON TCP / UDP / IP / HTTP / ARP /DHCP /ICMP /DNS USING WIRESHARK TOOL

### Aim :

To study and analyze different network protocol packets such as TCP, UDP, IP, HTTP, ARP, DHCP, ICMP, and DNS by capturing live network traffic using **Wireshark** tool.

### Algorithm :

1. Open Wireshark application on the system.
2. Select the active network interface (Wi-Fi or Ethernet) to capture packets.
3. Click on Start Capturing Packets.
4. Open Command Prompt in Windows and execute the commands to generate various types of traffic
5. After running the commands, return to Wireshark and click Stop Capture.
6. Save the captured packets as a .pcap file.
7. Observe packet details such as Source & Destination IP, MAC addresses, ports, and payload.

### Output :

protocol	Percent Packets	Packets	Percent Bytes	Bytes	Bits/s	End Packets	End Bytes	End Bits/s	PDU's
▼ Frame	100.0	595	100.0	164402	4281	0	0	0	595
▼ Ethernet	100.0	595	5.1	8346	217	0	0	0	595
▼ Internet Protocol Version 6	92.8	552	13.4	22080	575	0	0	0	552
▼ User Datagram Protocol	5.4	32	0.2	256	6	0	0	0	32
Domain Name System	5.4	32	1.6	2561	66	32	2561	66	32
▼ Transmission Control Protocol	83.4	496	6.3	10316	268	292	6236	162	496
Transport Layer Security	32.1	191	74.4	122279	3184	191	122279	3184	191
▼ Hypertext Transfer Protocol	0.3	2	0.2	337	8	1	75	1	2
Line-based text data	0.2	1	0.3	513	13	1	513	13	1
Data	1.8	11	0.0	11	0	11	11	0	11
Internet Control Message Protocol v6	4.0	24	0.5	808	21	24	808	21	24
Address Resolution Protocol	7.2	43	0.7	1204	31	43	1204	31	43

### Result :

The experiment to capture and analyse network traffic using **Wireshark** was successfully performed.