Exp no: 01

Date: 09/08/24

Practical - 05

capturing and analysing packets using wireshark tool

To filter, capture, view packets in wireshark tool. Capture 100 packets from the ethernet : IEEE 802.3 LAN interface and save it.

Procedure :

Select Local Area Connection in wireshark

Go to capture - option

Select stop capture automatically after 100 packets.

Then click start capture

Save the packets.

OUTPUT :

Capturing from Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

Apply a display filter ... <Ctrl-/>

No.	Time	Source	Destination	Protocol	Length	Info
780	81.178037	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
781	81.191928	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
782	81.367523	192.168.137.221	13.107.42.20	TCP	54	49895 → 443 [RST, ACK] Seq=1718 Ack=3765 Win=0 Len=0
783	81.368080	192.168.137.221	152.199.40.167	TCP	54	49897 → 443 [RST, ACK] Seq=537 Ack=14111 Win=0 Len=0
784	81.368411	192.168.137.221	13.107.42.18	TCP	54	49898 → 443 [RST, ACK] Seq=1744 Ack=10360 Win=0 Len=0
785	81.409819	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
786	81.428378	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
787	81.644725	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
788	81.662794	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
789	81.880383	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
790	81.895029	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
791	82.312342	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
792	82.331554	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
793	83.140033	192.168.137.221	142.250.196.10	UDP	71	56755 → 443 Len=29
794	83.164630	192.168.137.180	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
795	83.164630	142.250.196.10	192.168.137.221	UDP	67	443 → 56755 Len=25
796	83.357172	192.168.137.1	192.168.137.255	BROWSER	243	Host Announcement DESKTOP-CF6UOBT, Workstation, Server, NT worksta
797	84.075680	192.168.137.180	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1

1) create a filter to display only TCP/UDP packets. inspect the packets and provide the flow graph:

Procedure:

select Local Area connection in wireshark.

Go to capture → option

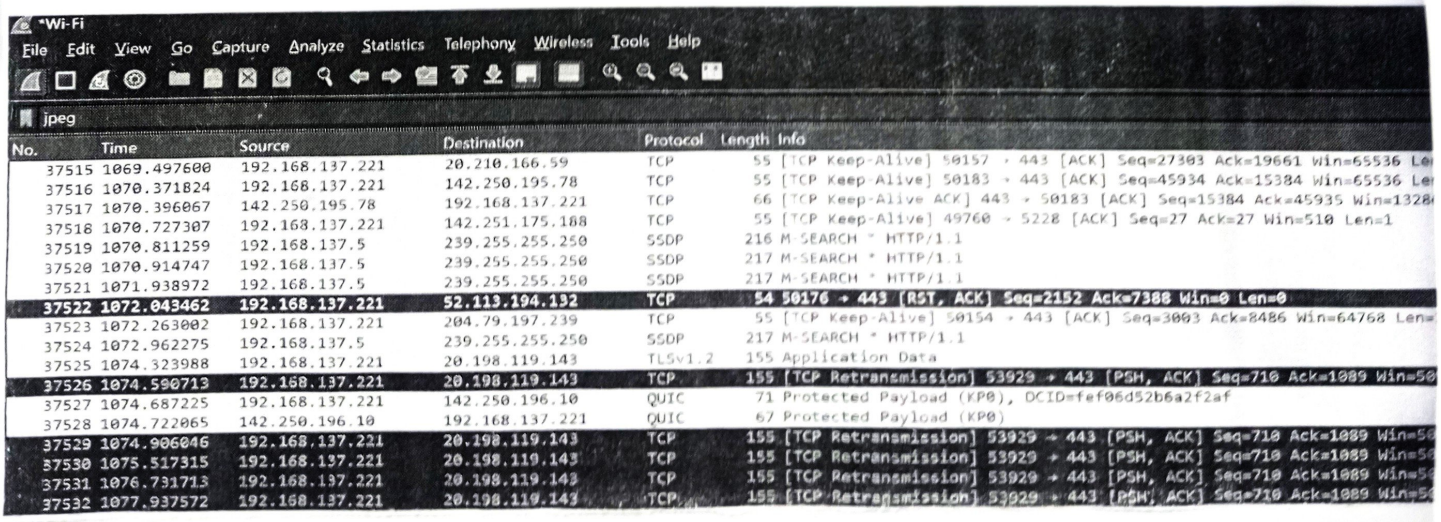
Select stop capture automatically after 100 packets

Then start capture.

Search TCP packets in search bar

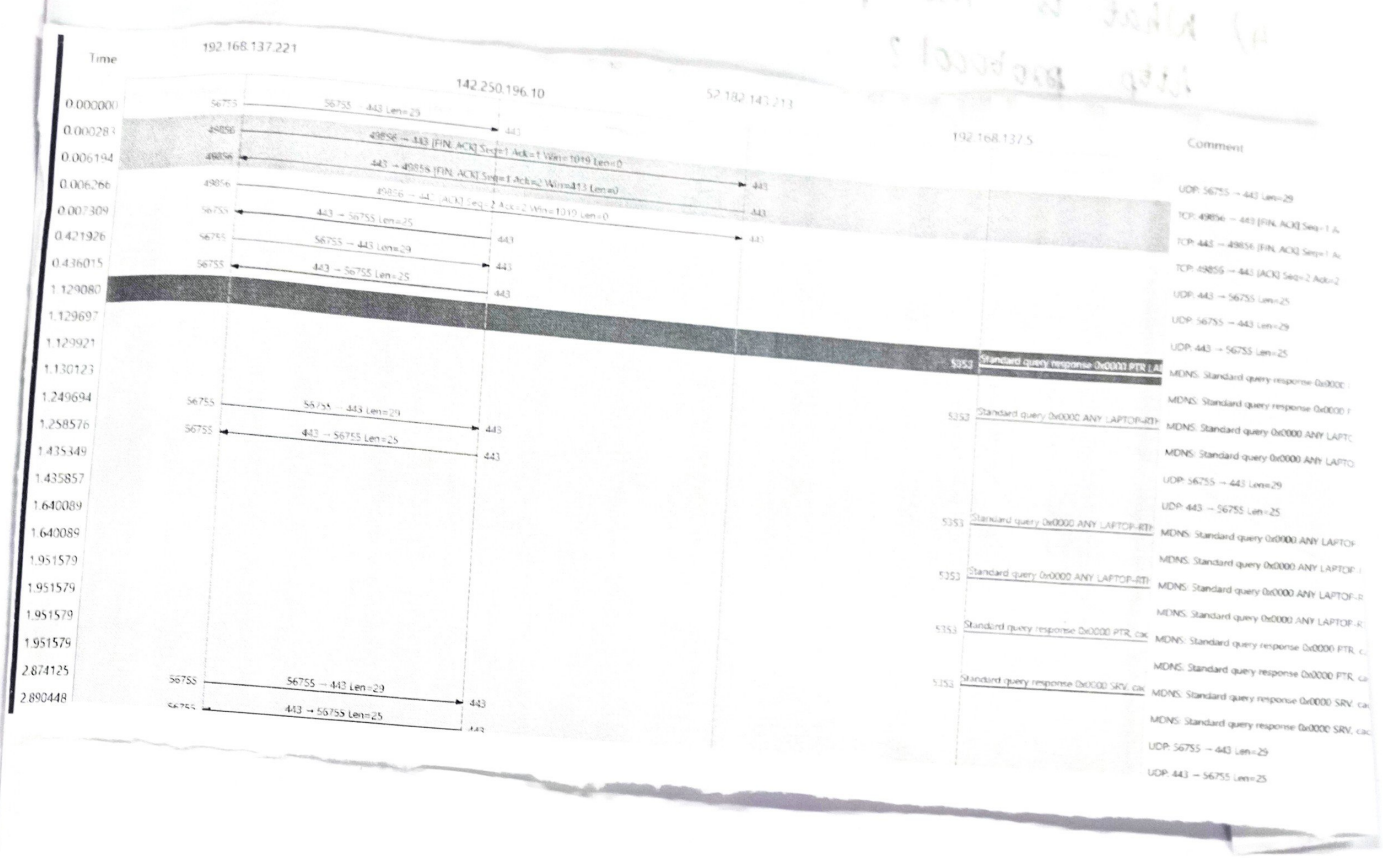
To see flow graph click statistics - flow graph.

Save the packets.



No.	Time	Source	Destination	Protocol	Length	Info
37515	1069.497600	192.168.137.221	20.210.166.59	TCP	55	[TCP Keep-Alive] 50157 → 443 [ACK] Seq=27303 Ack=19661 Win=65536 Le
37516	1070.371824	192.168.137.221	142.250.195.78	TCP	55	[TCP Keep-Alive] 50183 → 443 [ACK] Seq=45934 Ack=15384 Win=65536 Le
37517	1070.396067	142.250.195.78	192.168.137.221	TCP	66	[TCP Keep-Alive ACK] 443 → 50183 [ACK] Seq=15384 Ack=45935 Win=1328
37518	1070.727307	192.168.137.221	142.251.175.188	TCP	55	[TCP Keep-Alive] 49760 → 5228 [ACK] Seq=27 Ack=27 Win=510 Len=1
37519	1070.811259	192.168.137.5	239.255.255.250	SSDP	216	M-SEARCH * HTTP/1.1
37520	1070.914747	192.168.137.5	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
37521	1071.938972	192.168.137.5	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
37522	1072.043462	192.168.137.221	52.113.194.132	TCP	54	50176 → 443 [RST, ACK] Seq=2152 Ack=7388 Win=0 Len=0
37523	1072.263002	192.168.137.221	204.79.197.239	TCP	55	[TCP Keep-Alive] 50154 → 443 [ACK] Seq=3003 Ack=8486 Win=64768 Len=
37524	1072.962275	192.168.137.5	239.255.255.250	SSDP	217	M-SEARCH * HTTP/1.1
37525	1074.323988	192.168.137.221	20.198.119.143	TLSv1.2	155	Application Data
37526	1074.590713	192.168.137.221	20.198.119.143	TCP	155	[TCP Retransmission] 53929 → 443 [PSH, ACK] Seq=710 Ack=1089 Win=50
37527	1074.687225	192.168.137.221	142.250.196.10	QUIC	71	Protected Payload (KP0), DCID=fef06d52b6a2f2af
37528	1074.722065	142.250.196.10	192.168.137.221	QUIC	67	Protected Payload (KP0)
37529	1074.906046	192.168.137.221	20.198.119.143	TCP	155	[TCP Retransmission] 53929 → 443 [PSH, ACK] Seq=710 Ack=1089 Win=50
37530	1075.517315	192.168.137.221	20.198.119.143	TCP	155	[TCP Retransmission] 53929 → 443 [PSH, ACK] Seq=710 Ack=1089 Win=50
37531	1076.731713	192.168.137.221	20.198.119.143	TCP	155	[TCP Retransmission] 53929 → 443 [PSH, ACK] Seq=710 Ack=1089 Win=50
37532	1077.937572	192.168.137.221	20.198.119.143	TCP	155	[TCP Retransmission] 53929 → 443 [PSH, ACK] Seq=710 Ack=1089 Win=50

FLOW GRAPH :



Student observation :

1) What is promiscuous mode ?

promiscuous mode is a network interface card setting that allows card to intercept and read all network packets on network segments.

2) ~~What~~ Does ARP Layer has transport layer headers ? Explain ?

No, ARP Layer has no transport layer headers.

3) Which transport layer is used by DNS?

VDP (virtual station Interface ~~Dis~~ Discovery Protocol)

4) What is the port number used by http protocol?

Port 443.

5) What is a broadcast IP address?

It is a broadcast IP address which is used to send packets to all devices on a specific network segment.

9/8/24

RESULT:

Thus the packet capturing, filtering and flow graph are observed using wireshark