

Part1:-

Task1:-

The screenshot shows a Wireshark capture of a Wi-Fi network. The top menu bar includes File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, and Help. The toolbar contains icons for file operations, capture control, and analysis. The display filter is set to "Apply a display filter ... <Ctrl-/>". The packet list on the left shows a series of packets, with the selected packet (No. 33) being a DNS query. The packet details pane on the right shows the structure of the selected packet, including Ethernet II, Internet Protocol Version 4, and Hypertext Transfer Protocol. The packet bytes pane at the bottom shows the raw data of the selected packet.

No.	Time	Source	Destination	Protocol	Length	Info
11	3.298365	34.98.110.65	192.168.0.178	TLSv1.2	344	Application Data
12	3.354206	192.168.0.178	34.98.110.65	TCP	54	50124 → 443 [ACK] Seq=2518 Ack=581 Win=514 Len=0
13	5.584977	zte_57:a9:85	Broadcast	ARP	42	Who has 192.168.0.212? Tell 192.168.0.1
14	4.003202	zte_57:a9:85	Intel_5d:07:05	ARP	42	Who has 192.168.0.178? Tell 192.168.0.1
15	4.003275	Intel_5d:07:05	zte_57:a9:85	ARP	42	192.168.0.178 is at dc:21:5c:5d:07:05
16	5.121999	192.168.0.178	34.98.110.65	TLSv1.2	1323	Application Data
17	5.315210	192.168.0.178	34.98.110.65	TCP	1372	50125 → 443 [ACK] Seq=1 Ack=1 Win=513 Len=1318 [TCP PDU reassembled in 18]
18	5.315210	192.168.0.178	34.98.110.65	TLSv1.2	184	Application Data
19	5.320812	34.98.110.65	192.168.0.178	TCP	54	443 → 50124 [ACK] Seq=581 Ack=3787 Win=489 Len=0
20	5.335944	Intel_5d:07:05	Broadcast	ARP	42	Who has 192.168.0.1? Tell 192.168.0.178
21	5.341357	zte_57:a9:85	Intel_5d:07:05	ARP	42	192.168.0.1 is at b0:0a:d5:57:a9:85
22	5.390007	34.98.110.65	192.168.0.178	TLSv1.2	346	Application Data
23	5.401901	192.168.0.178	34.98.110.65	TLSv1.2	1318	Application Data
24	5.466421	34.98.110.65	192.168.0.178	TCP	54	443 → 50125 [ACK] Seq=1 Ack=1319 Win=486 Len=0
25	5.470890	34.98.110.65	192.168.0.178	TCP	54	443 → 50125 [ACK] Seq=1 Ack=1449 Win=489 Len=0
26	5.548928	34.98.110.65	192.168.0.178	TCP	54	443 → 50124 [ACK] Seq=873 Ack=5051 Win=489 Len=0
27	5.583596	34.98.110.65	192.168.0.178	TLSv1.2	276	Application Data
28	5.588230	34.98.110.65	192.168.0.178	TLSv1.2	147	Application Data
29	5.588287	192.168.0.178	34.98.110.65	TCP	54	50125 → 443 [ACK] Seq=1449 Ack=316 Win=512 Len=0
30	5.675381	34.98.110.65	192.168.0.178	TLSv1.2	346	Application Data
31	5.731243	192.168.0.178	34.98.110.65	TCP	54	50124 → 443 [ACK] Seq=5051 Ack=1165 Win=512 Len=0
32	6.027963	fe80::ea0:86cb:d8fe...	fe80::b00a:d557:a98...	DNS	110	Standard query 0xb6b8 AAAA mobile.pipe.aria.microsoft.com
33	6.028085	fe80::ea0:86cb:d8fe...	fe80::b00a:d557:a98...	DNS	110	Standard query 0x41d8 A mobile.pipe.aria.microsoft.com

Frame 1: 42 bytes on wire (336 bits), 42 bytes captured (336 bits) on interface \Device\NPF_{A308367-96} Ethernet II, Src: zte_57:a9:85 (b0:0a:d5:57:a9:85), Dst: Broadcast (ff:ff:ff:ff:ff:ff) Address Resolution Protocol (request)

0000 ff ff ff ff ff ff b0 0a d5 57 a9 85 08 06 00 01 ...-W-...
0010 08 00 06 04 00 01 b0 0a d5 57 a9 85 c0 a8 00 01 ...-W-...
0020 00 00 00 00 00 00 c0 a8 00 c2

Wireshark شبكة Wi-FiU12CT2.pcapng Packets: 110019 - Dropped: 0 (0.0%) Profile: Default

Task2:-

The screenshot shows a Wireshark capture of an HTTP network. The top menu bar includes File, Edit, View, Go, Capture, Analyze, Statistics, Telephony, Wireless, Tools, and Help. The toolbar contains icons for file operations, capture control, and analysis. The display filter is set to "http". The packet list on the left shows a series of packets, with the selected packet (No. 1082) being an HTTP GET request. The packet details pane on the right shows the structure of the selected packet, including Ethernet II, Internet Protocol Version 4, and Hypertext Transfer Protocol. The packet bytes pane at the bottom shows the raw data of the selected packet.

No.	Time	Source	Destination	Protocol	Length	Info
4595	11.539618	192.168.0.178	34.149.149.62	HTTP	200	GET /v1/info HTTP/1.1
4845	11.772401	34.149.149.62	192.168.0.178	HTTP/1.1	388	HTTP/1.1 200 OK , JSON (application/json)
47107	28.632052	192.168.0.178	178.86.51.208	HTTP	165	GET /connecttest.txt HTTP/1.1
47116	28.694317	178.86.51.208	192.168.0.178	HTTP	241	HTTP/1.1 200 OK (text/plain)
1070...	54.432537	192.168.0.178	192.229.221.95	HTTP	457	GET /DigiCertGlobalG2TLRSASHA2562020CA1-1.crt HTTP/1.1
1070...	54.527215	192.229.221.95	192.168.0.178	HTTP	341	HTTP/1.1 304 Not Modified
1077...	67.054099	192.168.0.178	178.86.51.98	HTTP	405	HEAD /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1077...	67.080093	178.86.51.98	192.168.0.178	HTTP	672	HTTP/1.1 200 OK
1077...	67.119673	192.168.0.178	178.86.51.98	HTTP	477	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1077...	67.164296	178.86.51.98	192.168.0.178	HTTP	521	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1081...	72.234126	192.168.0.178	178.86.51.98	HTTP	480	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1081...	72.293705	178.86.51.98	192.168.0.178	HTTP	449	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1081...	73.397336	192.168.0.178	178.86.51.98	HTTP	480	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1082...	73.440804	178.86.51.98	192.168.0.178	HTTP	357	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1082...	73.611075	192.168.0.178	178.86.51.208	HTTP	165	GET /connecttest.txt HTTP/1.1
1082...	73.644328	178.86.51.208	192.168.0.178	HTTP	241	HTTP/1.1 200 OK (text/plain)
1083...	75.544844	192.168.0.178	178.86.51.98	HTTP	481	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1083...	75.583257	178.86.51.98	192.168.0.178	HTTP	369	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1084...	76.602030	192.168.0.178	178.86.51.98	HTTP	482	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1084...	76.666844	178.86.51.98	192.168.0.178	HTTP	146	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1086...	78.697709	192.168.0.178	178.86.51.98	HTTP	482	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...
1087...	78.749416	178.86.51.98	192.168.0.178	HTTP	1141	HTTP/1.1 206 Partial Content (application/x-chrome-extension)
1087...	79.747002	192.168.0.178	178.86.51.98	HTTP	482	GET /filestreamingservice/files/ea79963f-51af-4930-ab74-50e807a8950b?P1=1726209578&P2=404&P3=2&P4=LAZPoI4vwKULDH%2fJL3cHUPjMRu...

Frame 108219: 241 bytes on wire (1928 bits), 241 bytes captured (1928 bits) on interface \Device\NPF_{A308367-96} Ethernet II, Src: zte_57:a9:85 (b0:0a:d5:57:a9:85), Dst: Intel_5d:07:05 (dc:21:5c:5d:07:05) Internet Protocol Version 4, Src: 178.86.51.208, Dst: 192.168.0.178 Transmission Control Protocol, Src Port: 80, Dst Port: 33684, Seq: 1, Ack: 112, Len: 187 Hypertext Transfer Protocol

HTTP/1.1 200 OK\r\nContent-Length: 22\r\nDate: Fri, 06 Sep 2024 12:09:18 GMT\r\nConnection: close\r\nContent-Type: text/plain\r\nCache-Control: max-age=30, must-revalidate\r\n\r\n[Request in frame: 108217]

Hypertext Transfer Protocol (http), 165 bytes Packets: 110019 - Displayed: 79 (0.1%) - Dropped: 0 (0.0%) Profile: Default

Part2:-

Task1:-

The image shows a Wireshark packet capture analysis of a TCP stream. The left pane displays a list of packets, with packet 154 selected. The middle pane shows the details of the selected packet, including the Ethernet II header, Internet Protocol Version 6 header, and Transmission Control Protocol header. The right pane shows the raw packet data in hexadecimal and ASCII. The packet is a TCP segment from source 2001:16a2:c023:5be9::1 to destination 2001:16a2:c023:5be9::1, with sequence number 6694 and length 74 bytes.

Packet 154: 74 bytes on wire (592 bits) captured (592 bits) on interface \\Device\\NPF_{A350836...}

Ethernet II, Src: Intel_Nd5d:07:05 (dc:21:5d:07:05), Dst: zte_57:a9:85 (b0:0a:d5:57:a9:85)

Internet Protocol Version 6, Src: 2001:16a2:c023:5be9:29f1:b5fc:dfb8:d984, Dst: 2001:16a2:c023:5be9:4005:812:2

Transmission Control Protocol, Src Port: 5390, Dst Port: 443, Seq: 2279, Ack: 6624, Win: 129792, Len: 0

[Stream Index: 4]

[Stream Packet Number: 33]

[Conversation completeness: Complete, WITH_DATA (31)]

[TCP Segment Len: 0]

Sequence Number: 6694 (relative sequence number)

Sequence Number (raw): 52731

[Next Sequence Number: 6694]

Task2:-

The image shows a Wireshark packet capture analysis of a TCP stream. The left pane displays a list of packets, with packet 81 selected. The middle pane shows the details of the selected packet, including the Ethernet II header, Internet Protocol Version 6 header, and Transmission Control Protocol header. The right pane shows the raw packet data in hexadecimal and ASCII. The packet is a TCP segment from source 192.168.0.178 to destination 192.168.0.178, with sequence number 5394 and length 105 bytes.

Packet 81: 74 bytes on wire (592 bits) captured (592 bits) on interface \\Device\\NPF_{A350836...}

Ethernet II, Src: Intel_Nd5d:07:05 (dc:21:5d:07:05), Dst: zte_57:a9:85 (b0:0a:d5:57:a9:85)

Internet Protocol Version 6, Src: 2001:16a2:c023:5be9:29f1:b5fc:dfb8:d984, Dst: 2001:16a2:c023:5be9:4005:812:2

Transmission Control Protocol, Src Port: 5390, Dst Port: 443, Seq: 2314, Ack: 6694, Len: 0

[Stream Index: 4]

[Stream Packet Number: 26]

[Conversation completeness: Complete, WITH_DATA (31)]

[TCP Segment Len: 0]

Sequence Number: 2314 (relative sequence number)

Sequence Number (raw): 2759142623

[Next Sequence Number: 2314 (relative sequence number)]

Part3:-

شبكة Wi-Fi

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

udp.stream eq 2

No.	Time	Source	Destination	Protocol	Length	Info
336	5.656437	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	93	58088 → 443 Len=31
337	5.662051	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
338	5.670142	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	259	58088 → 443 Len=197
339	5.671654	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
340	5.674066	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
341	5.674472	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	93	58088 → 443 Len=31
342	5.680175	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
343	5.680175	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	297	443 → 58088 Len=235
344	5.686193	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
345	5.686193	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	83	443 → 58088 Len=21
346	5.686900	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	99	58088 → 443 Len=37
347	5.692000	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
348	5.698036	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
349	5.698522	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	93	58088 → 443 Len=31
350	5.704149	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
351	5.710147	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	1292	443 → 58088 Len=1230
352	5.710547	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	93	58088 → 443 Len=31
353	5.716002	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	924	443 → 58088 Len=862
354	5.756921	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	94	58088 → 443 Len=32
355	5.799288	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	90	443 → 58088 Len=28
356	5.820135	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	461	443 → 58088 Len=399
357	5.820717	2001:16a2:c023:5be9::...	2001:4860:4802:32::...	UDP	97	58088 → 443 Len=35
358	5.824081	2001:4860:4802:32::...	2001:16a2:c023:5be9::...	UDP	149	443 → 58088 Len=87

▼ User Datagram Protocol, Src Port: 443, Dst Port: 58088

Source Port: 443

Destination Port: 58088

Length: 1238

Checksum: 0xfaad [unverified]

[Checksum Status: Unverified]

[Stream Index: 2]

[Stream Packet Number: 63]

> [Timestamps]

UDP payload (1230 bytes)

▼ Data (1230 bytes)

Data [...]: 51940e3cab45229ec6b2475838607e61fbf2be5e1296baec6ac6e603499a14c0e7aa062a1a9dec7b7a1dcbb281

[Length: 1230]

0000 dc 21 5c 5d 07 05 b0 0a d5 57 a9 85 86 dd 60 00

0010 00 00 04 d6 11 37 20 01 48 60 48 02 00 32 00 00

0020 00 00 00 00 00 78 20 01 16 a2 c0 23 5b e9 29 f1

0030 b5 fc df b8 d9 84 01 bb e2 e8 04 d6 fa ad 51 94

0040 0e 3c ab 45 22 9e c6 b2 47 58 38 60 7e 61 fb f2

0050 be 5e 12 96 ba ec 6a c6 e6 03 49 9a 14 c0 e7 aa

0060 06 2a 1a 9d ec 7b 7a 1d cb 28 8b 57 02 14 9b a4

0070 42 c3 f8 d5 6a 48 ce df 2b 61 5e b8 15 aa 1f ba

0080 89 3c d0 97 2e 04 41 ba 8d 47 b6 b8 8d 32 96 92

0090 09 72 a2 cd 36 c8 3d a9 46 a2 67 a7 9d 25 f2 29

00a0 6d 35 ea 70 1a 5c ea f5 3f ca f4 a4 d8 63 0a 04

00b0 20 2b 74 66 94 4d 33 43 be 03 0e 50 a9 98 bf 63

00c0 f8 5c 1c c1 75 50 da d4 83 6d 66 c6 79 12 96 3b

00d0 ba ce 3f 04 61 fb 4d 0b 70 d6 55 10 9b 91 f0 94

00e0 ec 2e 2d 48 7a b3 23 9e 1f ca 2f 69 11 b3 cf 0c

00f0 91 ac 5c 92 27 db 9c b2 87 97 12 69 a2 17 96 47

0100 0a ec 1c fc d9 27 62 89 95 61 95 2f ce 4c 0f 2b

[...] ..W.....

[...] 7...H...2..

[...] x...#(...)

[...]Q...

[...] <:E"....GX8"na...

[...] ^.....j.....I.....

[...] *.....{.....(W.....

[...] B.....jH.....+g^.....

[...] <.....A.....G.....2.....

[...] n5:p\.....?.....c.....

[...] +tf-M3C...P.....c...

[...] \.....up.....mf.....y.....

[...] ~?aM...pU.....

[...] ~Hz#.../i.....

[...] \.....i.....G...

[...]b...a/-L+...

wireshark شبكة Wi-Fi:FIHPDLT2.pcapng

Packets: 61081 - Displayed: 982 (1.6%) - Dropped: 0 (0.0%)

Profile: Default