

**TUGAS II
JARINGAN KOMPUTER**



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**JURUSAN SISTEM KOMPUTER
FAKULTAS ILMU KOMPUTER
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I. JUDUL TUGAS

Capturing Data Browsing dan Online Streaming menggunakan Wireshark dan Command Prompt.

II. PROSEDUR

Adapun prosedur dalam melakukan capturing data kali ini adalah sebagai berikut:

1. Install aplikasi Wireshark.
2. Capturing data :
 - a. Web browsing.
 - b. Online streaming (selain youtube).
3. Capturing data menggunakan aplikasi Wireshark.
4. Capturing data menggunakan Command Prompt (*netstat -a*) lalu gunakan Ctrl + C untuk perintah break.
5. Analisa IP dan MAC address source dan destination.
6. Filter berdasarkan IP address kita.
7. Buatlah tabel yang berisikan IP dan Info dari paket data yang di capture setelah di filter.

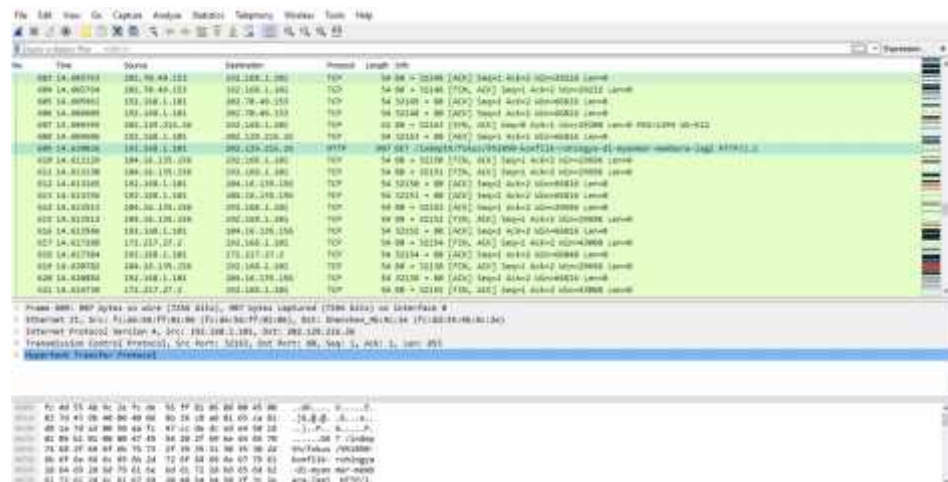
III. DASAR TEORI

Wireshark merupakan salah satu program untuk menganalisis suatu jaringan, baik jaringan kabel ataupun nirkabel. Wireshark sering digunakan untuk troubleshooting, memeriksa keamanan jaringan dan lain-lain. Wireshark akan menangkap paket data pada jaringan yang kemudian, data yang ditangkap tersebut ditampilkan sedetail mungkin. Sedangkan Command Prompt atau CMD merupakan command line interpreter pada sebuah Operating System yang digunakan untuk mengeksekusi suatu hal tertentu dengan cara menuliskan perintahnya pada Command Prompt.

IV. ANALISA PAKET DATA : WEB BROWSING MENGGUNAKAN WIRESHARK DAN CMD

Adapun website yang akan dibrowsing yang kemudian paket datanya di analisa adalah www.viva.co.id yang merupakan salah satu situs berita online Indonesia.

Berikut adalah hasil capturing data ke www.viva.co.id menggunakan Wireshark:



Gambar 1. Hasil capturing data ke www.viva.co.id menggunakan Wireshark

Dan berikut adalah hasil capturing data ke www.viva.co.id menggunakan CMD (netstat -a):

```

C:\Users\rofby>netstat -a

Active Connections

Proto Local Address           Foreign Address         State
TCP   0.0.0.0:135             LENOVO-PC:0           LISTENING
TCP   0.0.0.0:445             LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1536            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1537            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1538            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1539            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1540            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1541            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:5357            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:7680            LENOVO-PC:0           LISTENING
TCP   127.0.0.1:1001          LENOVO-PC:0           LISTENING
TCP   127.0.0.1:6543          LENOVO-PC:0           LISTENING
TCP   127.0.0.1:30409         LENOVO-PC:0           LISTENING
TCP   127.0.0.1:30409         www:31880              ESTABLISHED
TCP   127.0.0.1:31880         www:30409              ESTABLISHED
TCP   192.168.1.101:139       LENOVO-PC:0           LISTENING
TCP   192.168.1.101:14277    LENOVO-PC:0           LISTENING
TCP   192.168.1.101:31802    hk2sch130021958:https ESTABLISHED
TCP   192.168.1.101:32017    sc-in-f188:5228        ESTABLISHED
TCP   192.168.1.101:32019    104.20.159.22:http     ESTABLISHED
TCP   192.168.1.101:32130    www:http                ESTABLISHED
TCP   192.168.1.101:32131    www:http                ESTABLISHED
TCP   192.168.1.101:32132    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32133    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32134    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32135    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32136    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32137    174.138.36.153:http    ESTABLISHED
TCP   192.168.1.101:32138    104.16.135.156:http    ESTABLISHED
TCP   192.168.1.101:32139    104.16.135.156:http    ESTABLISHED
TCP   192.168.1.101:32140    104.16.135.156:http    ESTABLISHED
^C
C:\Users\rofby>

```

Gambar 2. Hasil capturing data ke www.viva.co.id menggunakan CMD

Setelah dilakukan capturing data proses ke www.viva.co.id kita dapat mengetahui IP dan MAC Address milik perangkat kita dan IP dan MAC address milik perangkat website yang menjadi tujuan kita.

Tabel 1. IP dan MAC Address

Source		Destination	
IP	MAC	IP	MAC
192.168.1.101	FC:DE:56:FF:01:06	202.129.216.26	FC:DD:55:4B:9C:2E

Kemudian, hasil capturing data yang telah diperoleh, kita filter berdasarkan IP dan MAC address pada tabel 1. Didapatlah hasilnya sebagai berikut:

No.	Time	Source	Destination	Protocol	Length
1	0.000000	192.168.1.101	192.168.1.102	TCP	60
2	0.000000	192.168.1.101	192.168.1.102	TCP	60
3	0.000000	192.168.1.101	192.168.1.102	TCP	60
4	0.000000	192.168.1.101	192.168.1.102	TCP	60
5	0.000000	192.168.1.101	192.168.1.102	TCP	60
6	0.000000	192.168.1.101	192.168.1.102	TCP	60
7	0.000000	192.168.1.101	192.168.1.102	TCP	60
8	0.000000	192.168.1.101	192.168.1.102	TCP	60
9	0.000000	192.168.1.101	192.168.1.102	TCP	60
10	0.000000	192.168.1.101	192.168.1.102	TCP	60

Gambar 3.1. Hasil capturing data setelah di filter

No.	Time	Source	Destination	Protocol	Length
11	0.000000	192.168.1.101	192.168.1.102	TCP	60
12	0.000000	192.168.1.101	192.168.1.102	TCP	60
13	0.000000	192.168.1.101	192.168.1.102	TCP	60
14	0.000000	192.168.1.101	192.168.1.102	TCP	60
15	0.000000	192.168.1.101	192.168.1.102	TCP	60
16	0.000000	192.168.1.101	192.168.1.102	TCP	60
17	0.000000	192.168.1.101	192.168.1.102	TCP	60
18	0.000000	192.168.1.101	192.168.1.102	TCP	60
19	0.000000	192.168.1.101	192.168.1.102	TCP	60
20	0.000000	192.168.1.101	192.168.1.102	TCP	60

Gambar 3.2. Hasil capturing data setelah di filter

No.	Time	Source	Destination	Protocol	Length
21	0.000000	192.168.1.101	192.168.1.102	TCP	60
22	0.000000	192.168.1.101	192.168.1.102	TCP	60
23	0.000000	192.168.1.101	192.168.1.102	TCP	60
24	0.000000	192.168.1.101	192.168.1.102	TCP	60
25	0.000000	192.168.1.101	192.168.1.102	TCP	60
26	0.000000	192.168.1.101	192.168.1.102	TCP	60
27	0.000000	192.168.1.101	192.168.1.102	TCP	60
28	0.000000	192.168.1.101	192.168.1.102	TCP	60
29	0.000000	192.168.1.101	192.168.1.102	TCP	60
30	0.000000	192.168.1.101	192.168.1.102	TCP	60

Gambar 3.3. Hasil capturing data setelah di filter

Dari ketiga gambar tersebut dapat kita ketahui bahwa paket data berdasarkan IP dan MAC address source dan destination adalah sebanyak 66 paket data dari 932 paket data secara keseluruhan.

Tabel 2. Info paket data setelah di filter

IP Source	IP Destination	Info
192.168.1.101	202.129.216.26	32129 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	202.129.216.26	32130 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	202.129.216.26	32131 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	202.129.216.26	32129 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	202.129.216.26	32131 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	202.129.216.26	GET / HTTP/1.1
192.168.1.101	202.129.216.26	32129 80 [FIN, ACK] Seq=738 Ack=1120 Win=65792 Len=0
192.168.1.101	202.129.216.26	GET / HTTP/1.1
192.168.1.101	202.129.216.26	[TCP Retransmission] 32130 80 [PSH, ACK] Seq=1 Ack=1 Win=66816 Len=770
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 253#1] 32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 253#2] 32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 253#3] 32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 253#4] 32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0

192.168.1.101	202.129.216.26	[TCP Dup ACK 253#5] 32130 80 [ACK] Seq=771 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=2789 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=4183 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=6971 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 311#1] 32130 80 [ACK] Seq=771 Ack=6971 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 311#2] 32130 80 [ACK] Seq=771 Ack=6971 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=9759 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=11153 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=12547 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=16729 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=18326 Win=66816 Len=0
192.168.1.101	202.129.216.26	32131 80 [ACK] Seq=1 Ack=2 Win=66816 Len=0
192.168.1.101	202.129.216.26	32131 80 [FIN, ACK] Seq=1 Ack=2 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 462#1] 32131 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Retransmission] 32131 80 [FIN, ACK] Seq=1 Ack=2 Win=66816 Len=0
192.168.1.101	202.129.216.26	32130 80 [ACK] Seq=771 Ack=18327 Win=66560 Len=0

192.168.1.101	202.129.216.26	32130 80 [FIN, ACK] Seq=771 Ack=18327 Win=66560 Len=0
192.168.1.101	202.129.216.26	32163 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	202.129.216.26	GET /indepth/fokus/951050-konflik- rohingya-di-myanmar-membara-lagi HTTP/1.1
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#1] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#2] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#3] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#4] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#5] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#6] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 635#7] 32163 80 [ACK] Seq=854 Ack=1395 Win=66816 Len=0
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=12547 Win=66816 Len=0
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=13941 Win=66816 Len=0

192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=16729 Win=66816 Len=0
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#1] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#2] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#3] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#4] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#5] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	[TCP Dup ACK 663#6] 32163 80 [ACK] Seq=854 Ack=18123 Win=66816 Len=0
192.168.1.101	202.129.216.26	32168 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	202.129.216.26	32168 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	202.129.216.26	POST /request/comment HTTP/1.1 (application/x-www-form-urlencoded)
192.168.1.101	202.129.216.26	[TCP Retransmission] 32168 80 [PSH, ACK] Seq=1 Ack=1 Win=66816 Len=1069
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=19517 Win=66816 Len=0
192.168.1.101	202.129.216.26	32168 80 [ACK] Seq=1070 Ack=1267 Win=65536 Len=0
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=21858 Win=66816 Len=0

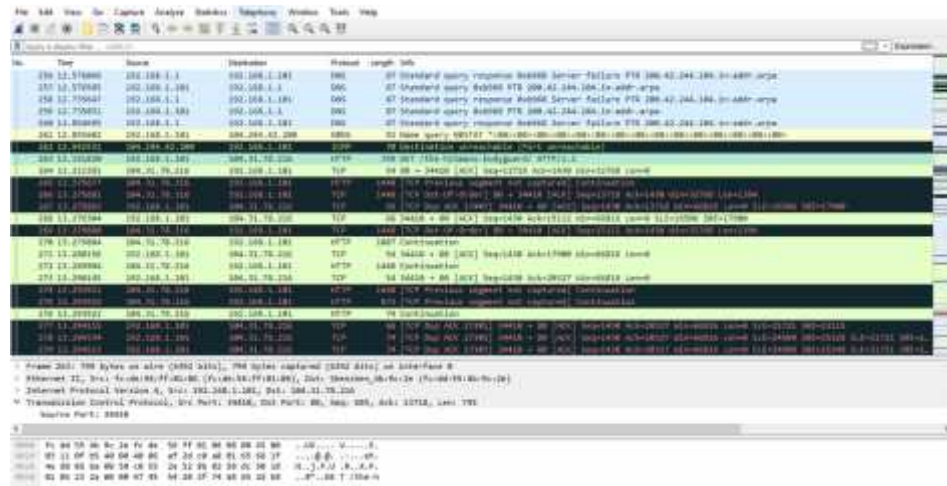
		[TCP Dup ACK 764#1] 32163 80
192.168.1.101	202.129.216.26	[ACK] Seq=854 Ack=21858 Win=66816 Len=0
192.168.1.101	202.129.216.26	32163 80 [ACK] Seq=854 Ack=21859 Win=66816 Len=0
192.168.1.101	202.129.216.26	32163 80 [FIN, ACK] Seq=854 Ack=21859 Win=66816 Len=0
192.168.1.101	202.129.216.26	32168 80 [ACK] Seq=1070 Ack=1268 Win=65536 Len=0
192.168.1.101	202.129.216.26	32168 80 [FIN, ACK] Seq=1070 Ack=1268 Win=65536 Len=0

Dari tabel tersebut dapat kita ketahui bahwa, tabel yang berwarna hitam merupakan paket data yang bermasalah. Sedangkan tabel yang berwarna hijau merupakan paket data dengan protokol HTTP, dan tabel yang putih merupakan paket data dengan protokol TCP.

V. ANALISA PAKET DATA : ONLINE STREAMING MENGGUNAKAN WIRESHARK DAN CMD

Adapun website online streaming yang akan dibrowsing yang kemudian paket datanya di analisa adalah www.indomovie.tv yang merupakan salah satu situs online streaming Indonesia.

Berikut adalah hasil capturing data ke www.indomovie.tv menggunakan Wireshark:



Gambar 4. Hasil capturing data ke www.indomovie.tv menggunakan Wireshark

Dan berikut adalah hasil capturing data ke www.indomovie.tv menggunakan CMD (netstat -a):

```

C:\Users\rofby>netstat -a

Active Connections

Proto Local Address           Foreign Address         State
TCP   0.0.0.0:135             LENOVO-PC:0           LISTENING
TCP   0.0.0.0:445             LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1536            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1537            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1538            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1539            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1540            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:1541            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:5357            LENOVO-PC:0           LISTENING
TCP   0.0.0.0:27036           LENOVO-PC:0           LISTENING
TCP   127.0.0.1:1001          LENOVO-PC:0           LISTENING
TCP   127.0.0.1:6543          LENOVO-PC:0           LISTENING
TCP   127.0.0.1:27060         LENOVO-PC:0           LISTENING
TCP   127.0.0.1:30409         LENOVO-PC:0           LISTENING
TCP   127.0.0.1:30409         www:34316              ESTABLISHED
TCP   127.0.0.1:34316         www:30409              ESTABLISHED
TCP   192.168.1.101:139       LENOVO-PC:0           LISTENING
TCP   192.168.1.101:14277     LENOVO-PC:0           LISTENING
TCP   192.168.1.101:33477     hk2sch130021929:https  ESTABLISHED
TCP   192.168.1.101:33583     103.28.54.12:27021     ESTABLISHED
TCP   192.168.1.101:34314     sc-in-f188:5228        ESTABLISHED
TCP   192.168.1.101:34315     104.20.158.22:http     ESTABLISHED
TCP   192.168.1.101:34341     104.244.42.200:https   ESTABLISHED
TCP   192.168.1.101:34357     sc-in-f103:https       ESTABLISHED
TCP   192.168.1.101:34371     104.16.61.155:https    ESTABLISHED
TCP   192.168.1.101:34378     sb-in-f94:https        ESTABLISHED
TCP   192.168.1.101:34382     104.28.8.5:https       ESTABLISHED
TCP   192.168.1.101:34383     104.20.70.47:https     ESTABLISHED
TCP   192.168.1.101:34389     104.18.59.68:https     ESTABLISHED
TCP   192.168.1.101:34395     151.101.24.193:http    ESTABLISHED
TCP   192.168.1.101:34397     104.20.69.47:https     ESTABLISHED
TCP   192.168.1.101:34399     68.232.45.48:https     ESTABLISHED
TCP   192.168.1.101:34402     arn02s05-in-f131:https ESTABLISHED
TCP   192.168.1.101:34404     ec2-52-207-92-154:https CLOSE_WAIT
TCP   192.168.1.101:34406     sa-in-f94:https        ESTABLISHED
TCP   192.168.1.101:34408     sin11s03-in-f46:http   ESTABLISHED

```

Gambar 5.1. Hasil capturing data ke www.indomovie.tv menggunakan CMD

```

TCP [::]:445 LENOVO-PC:0 LISTENING
TCP [::]:1536 LENOVO-PC:0 LISTENING
TCP [::]:1537 LENOVO-PC:0 LISTENING
TCP [::]:1538 LENOVO-PC:0 LISTENING
TCP [::]:1539 LENOVO-PC:0 LISTENING
TCP [::]:1540 LENOVO-PC:0 LISTENING
TCP [::]:1541 LENOVO-PC:0 LISTENING
TCP [::]:5357 LENOVO-PC:0 LISTENING
UDP 0.0.0.0:123 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:3702 *: *
UDP 0.0.0.0:5050 *: *
UDP 0.0.0.0:5353 *: *
UDP 0.0.0.0:5353 *: *
UDP 0.0.0.0:5353 *: *
UDP 0.0.0.0:5355 *: *
UDP 0.0.0.0:27036 *: *
UDP 0.0.0.0:49830 *: *
UDP 0.0.0.0:51168 *: *
UDP 0.0.0.0:52370 *: *
UDP 0.0.0.0:55566 *: *
UDP 0.0.0.0:55619 *: *
UDP 0.0.0.0:55622 *: *
UDP 0.0.0.0:57965 *: *
UDP 0.0.0.0:62176 *: *
UDP 0.0.0.0:63470 *: *
UDP 127.0.0.1:1900 *: *
UDP 127.0.0.1:53382 *: *
UDP 127.0.0.1:57762 *: *
UDP 192.168.1.101:137 *: *
UDP 192.168.1.101:138 *: *
UDP 192.168.1.101:1900 *: *
UDP 192.168.1.101:14277 *: *
UDP 192.168.1.101:57761 *: *
UDP [::]:123 *: *
UDP [::]:3702 *: *
UDP [::]:3702 *: *
UDP [::]:3702 *: *
UDP [::]:3702 *: *
UDP [::]:3702 *: *

```

Gambar 5.2. Hasil capturing data ke www.indomovie.tv menggunakan CMD

```

UDP [::]:3702 *:*
UDP [::]:5353 *:*
UDP [::]:5353 *:*
UDP [::]:5355 *:*
UDP [::]:55567 *:*
UDP [::]:57966 *:*
UDP [::]:62177 *:*
UDP [::]:63470 *:*
UDP [::1]:1900 *:*
UDP [::1]:57760 *:*
UDP [fe80::a429:32c5:b626:c7ce%21]:1900 *:*
UDP [fe80::a429:32c5:b626:c7ce%21]:57759 *:*

```

Gambar 5.3. Hasil capturing data ke www.indomovie.tv menggunakan CMD

Setelah dilakukan capturing data proses ke www.indomovie.tv kita dapat mengetahui IP dan MAC Address milik perangkat kita dan IP dan MAC address milik perangkat website online streaming yang menjadi tujuan kita.

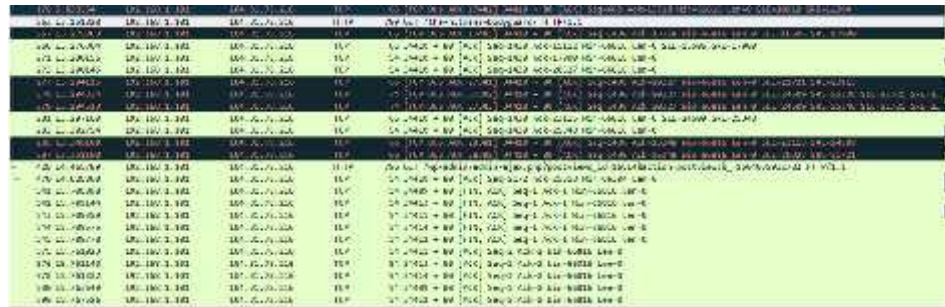
Tabel 3. IP dan MAC Address

Source		Destination	
IP	MAC	IP	MAC
192.168.1.101	FC:DE:56:FF:01:06	104.31.78.216	FC:DD:55:4B:9C:2E

Kemudian, hasil capturing data yang telah diperoleh, kita filter berdasarkan IP dan MAC address pada tabel 3. Didapatlah hasilnya sebagai berikut:

No.	Time	Source	Destination	Source MAC	Destination MAC	Protocol	Length	Info
68	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:3702 → 104.31.78.216:1900 [Len=38] Seq=1411045896 Win=0 Len=38
69	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:5353 → 104.31.78.216:1900 [Len=38] Seq=1411045897 Win=0 Len=38
70	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:5353 → 104.31.78.216:1900 [Len=38] Seq=1411045898 Win=0 Len=38
71	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:5355 → 104.31.78.216:1900 [Len=38] Seq=1411045899 Win=0 Len=38
72	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:55567 → 104.31.78.216:1900 [Len=38] Seq=1411045900 Win=0 Len=38
73	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:57966 → 104.31.78.216:1900 [Len=38] Seq=1411045901 Win=0 Len=38
74	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:62177 → 104.31.78.216:1900 [Len=38] Seq=1411045902 Win=0 Len=38
75	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:63470 → 104.31.78.216:1900 [Len=38] Seq=1411045903 Win=0 Len=38
76	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:1900 → 104.31.78.216:1900 [Len=38] Seq=1411045904 Win=0 Len=38
77	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:57760 → 104.31.78.216:1900 [Len=38] Seq=1411045905 Win=0 Len=38
78	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:1900 → 104.31.78.216:1900 [Len=38] Seq=1411045906 Win=0 Len=38
79	0.000000	192.168.1.101	104.31.78.216	FC:DE:56:FF:01:06	FC:DD:55:4B:9C:2E	UDP	38	192.168.1.101:57759 → 104.31.78.216:1900 [Len=38] Seq=1411045907 Win=0 Len=38

Gambar 6.1. Hasil capturing data setelah di filter



Gambar 6.2. Hasil capturing data setelah di filter

Dari ketiga gambar tersebut dapat kita ketahui bahwa paket data berdasarkan IP dan MAC address source dan destination adalah sebanyak 49 paket data dari 4.888 paket data secara keseluruhan.

Tabel 4. Info paket data setelah di filter

IP Source	IP Destination	Info
192.168.1.101	104.31.78.216	34409 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34410 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34411 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34412 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34413 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34414 80 [SYN] Seq=0 Win=64240 Len=0 MSS=1460 WS=256 SACK_PERM=1
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34409 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0

192.168.1.101	104.31.78.216	34411 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34413 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34414 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34412 80 [ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	GET / HTTP/1.1
192.168.1.101	104.31.78.216	[TCP Dup ACK 68#1] 34410 80 [ACK] Seq=685 Ack=1 Win=66816 Len=0 SLE=1395 SRE=2789
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=685 Ack=2789 Win=66816 Len=0
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=685 Ack=5334 Win=66816 Len=0
192.168.1.101	104.31.78.216	[TCP Dup ACK 159#1] 34410 80 [ACK] Seq=685 Ack=5334 Win=66816 Len=0 SLE=6728 SRE=8122
192.168.1.101	104.31.78.216	[TCP Dup ACK 159#2] 34410 80 [ACK] Seq=685 Ack=5334 Win=66816 Len=0 SLE=9516 SRE=10910 SLE=6728 SRE=8122
192.168.1.101	104.31.78.216	[TCP Dup ACK 159#3] 34410 80 [ACK] Seq=685 Ack=5334 Win=66816 Len=0 SLE=12304 SRE=13698 SLE=9516 SRE=10910 SLE=6728 SRE=8122
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=685 Ack=8122 Win=66816 Len=0 SLE=12304 SRE=13698 SLE=9516 SRE=10910
192.168.1.101	104.31.78.216	[TCP Dup ACK 167#1] 34410 80 [ACK] Seq=685 Ack=8122 Win=66816 Len=0 SLE=9516 SRE=13698
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=685 Ack=13698 Win=66816 Len=0
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=685 Ack=13718 Win=66816 Len=0 SLE=5334 SRE=6728

192.168.1.101	104.31.78.216	[TCP Dup ACK 174#1] 34410 80 [ACK] Seq=685 Ack=13718 Win=66816 Len=0 SLE=8122 SRE=9516
192.168.1.101	104.31.78.216	[TCP Dup ACK 174#2] 34410 80 [ACK] Seq=685 Ack=13718 Win=66816 Len=0 SLE=10910 SRE=12304
192.168.1.101	104.31.78.216	GET /the-hitmans-bodyguard/ HTTP/1.1
192.168.1.101	104.31.78.216	[TCP Dup ACK 174#3] 34410 80 [ACK] Seq=1430 Ack=13718 Win=66816 Len=0 SLE=16506 SRE=17900
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1430 Ack=15112 Win=66816 Len=0 SLE=16506 SRE=17900
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1430 Ack=17900 Win=66816 Len=0
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1430 Ack=20327 Win=66816 Len=0
192.168.1.101	104.31.78.216	[TCP Dup ACK 273#1] 34410 80 [ACK] Seq=1430 Ack=20327 Win=66816 Len=0 SLE=21721 SRE=23115
192.168.1.101	104.31.78.216	[TCP Dup ACK 273#2] 34410 80 [ACK] Seq=1430 Ack=20327 Win=66816 Len=0 SLE=24509 SRE=25328 SLE=21721 SRE=23115
192.168.1.101	104.31.78.216	[TCP Dup ACK 273#3] 34410 80 [ACK] Seq=1430 Ack=20327 Win=66816 Len=0 SLE=24509 SRE=25348 SLE=21721 SRE=23115
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1430 Ack=23115 Win=66816 Len=0 SLE=24509 SRE=25348
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=1430 Ack=25348 Win=66816 Len=0
192.168.1.101	104.31.78.216	[TCP Dup ACK 283#1] 34410 80 [ACK] Seq=1430 Ack=25348 Win=66816 Len=0 SLE=23115 SRE=24509

192.168.1.101	104.31.78.216	[TCP Dup ACK 283#2] 34410 80 [ACK] Seq=1430 Ack=25348 Win=66816 Len=0 SLE=20327 SRE=21721
192.168.1.101	104.31.78.216	GET /wp-admin/admin- ajax.php?postviews_id=16814&action=po stviews&_=1504035932782 HTTP/1.1
192.168.1.101	104.31.78.216	34410 80 [ACK] Seq=2172 Ack=25818 Win=66304 Len=0
192.168.1.101	104.31.78.216	34409 80 [FIN, ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34413 80 [FIN, ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34411 80 [FIN, ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34414 80 [FIN, ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34412 80 [FIN, ACK] Seq=1 Ack=1 Win=66816 Len=0
192.168.1.101	104.31.78.216	34411 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0
192.168.1.101	104.31.78.216	34413 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0
192.168.1.101	104.31.78.216	34414 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0
192.168.1.101	104.31.78.216	34409 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0
192.168.1.101	104.31.78.216	34412 80 [ACK] Seq=2 Ack=2 Win=66816 Len=0

Dari tabel tersebut dapat kita ketahui bahwa, tabel yang berwarna hitam merupakan paket data yang bermasalah. Sedangkan tabel yang berwarna hijau merupakan paket data dengan protokol HTTP, dan tabel yang putih merupakan paket data dengan protokol TCP.