Comparing First 10 packets and Last 10 packets

No.	Time	Source	Destination	Protocol	Length Info
1	0.000000	192.168.1.121	23.218.1.5	TCP	55 61560 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1
2	0.037854	23.218.1.5	192.168.1.121	TCP	66 443 → 61560 [ACK] Seq=1 Ack=2 Win=501 Len=0 SLE=1 SRE=2
3	0.608069	192.168.1.121	108.138.106.93	TCP	55 61613 → 443 [ACK] Seq=1 Ack=1 Win=252 Len=1
4	0.637330	108.138.106.93	192.168.1.121	TCP	66 443 → 61613 [ACK] Seq=1 Ack=2 Win=145 Len=0 SLE=1 SRE=2
5	1.562627	192.168.1.1	239.255.255.250	SSDP	412 NOTIFY * HTTP/1.1
6	1.562627	192.168.1.1	239.255.255.250	SSDP	484 NOTIFY * HTTP/1.1
7	1.563300	192.168.1.1	239.255.255.250	SSDP	480 NOTIFY * HTTP/1.1
8	1.563300	192.168.1.1	239.255.255.250	SSDP	460 NOTIFY * HTTP/1.1
9	1.563300	192.168.1.1	239.255.255.250	SSDP	492 NOTIFY * HTTP/1.1
10	1.563300	192.168.1.1	239.255.255.250	SSDP	474 NOTIFY * HTTP/1.1

No.	Time	Source	Destination	Protocol	Length Info
310	33.147617	2603:7080:9600:c726…	2607:f8b0:4006:81f:…	TCP	75 61588 → 443 [ACK] Seq=1 Ack=1 Win=254 Len=1
311	33.187742	2607:f8b0:4006:81f:…	2603:7080:9600:c726…	TCP	86 443 → 61588 [ACK] Seq=1 Ack=2 Win=1044 Len=0 SLE=1 SRE=2
312	35.046019	fe80::8269:1aff:fe6…	2603:7080:9600:c726…	ICMPv6	86 Neighbor Solicitation for 2603:7080:9600:c726:601d:271:36b0:120b from 80:69:1a:68:d8:c2
313	35.046115	2603:7080:9600:c726…	fe80::8269:1aff:fe6…	ICMPv6	86 Neighbor Advertisement 2603:7080:9600:c726:601d:271:36b0:120b (sol, ovr) is at 68:c6:ac:99:36:da
314	36.144464	192.168.1.121	20.44.229.112	TCP	54 61611 → 443 [FIN, ACK] Seq=1 Ack=1 Win=254 Len=0
315	36.478983	20.44.229.112	192.168.1.121	TCP	54 443 → 61611 [FIN, ACK] Seq=1 Ack=2 Win=16385 Len=0
316	36.479068	192.168.1.121	20.44.229.112	TCP	54 61611 → 443 [ACK] Seq=2 Ack=2 Win=254 Len=0
317	37.712895	BelkinIntern_68:d8:…	Intel_99:36:da	ARP	42 Who has 192.168.1.121? Tell 192.168.1.1
318	37.712926	Intel_99:36:da	BelkinIntern_68:d8:…	ARP	42 192.168.1.121 is at 68:c6:ac:99:36:da
319	37.959850	2603:7080:9600:c726…	2607:f8b0:4002:c03:…	TCP	75 61606 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1
320	38.004489	2607:f8b0:4002:c03:…	2603:7080:9600:c726…	TCP	86 443 → 61606 [ACK] Seq=1 Ack=2 Win=1044 Len=0 SLE=1 SRE=2

```
(venv) PS C:\Users\ajink\ajinkya_shetty_hw1> python pktsniffer.py -r packets.pcap -c 10

Packet 1:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=22977, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=23.218.1.5
  TCP: Src Port=61560, Dst Port=443, Flags=A

Packet 2:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=24627, Flags=DF, Fragment Offset=0, TTL=55, Protocol=6, Checksum=2193, Src=23.218.1.5, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61560, Flags=A

Packet 3:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=45425, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=108.138.106.93
  TCP: Src Port=61613, Dst Port=443, Flags=A

Packet 4:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=46654, Flags=, Fragment Offset=0, TTL=247, Protocol=6, Checksum=29820, Src=108.138.106.93, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61613, Flags=A

Packet 5:
  Ethernet: Size=412 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=398, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50875, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 6:
  Ethernet: Size=484 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=470, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50803, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 7:
  Ethernet: Size=480 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=466, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50807, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 8:
  Ethernet: Size=460 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=446, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50827, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 9:
  Ethernet: Size=492 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=478, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50795, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 10:
  Ethernet: Size=474 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=460, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50813, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900
```

```
Packet 310:
    Ethernet: Size=75 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x86dd
    TCP: Src Port=61588, Dst Port=443, Flags=A

Packet 311:
    Ethernet: Size=86 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x86dd
    TCP: Src Port=443, Dst Port=61588, Flags=A

Packet 312:
    Ethernet: Size=86 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x86dd
    Unknown Transport Protocol

Packet 313:
    Ethernet: Size=86 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x86dd
    Unknown Transport Protocol

Packet 314:
    Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
    IP: Version=4, IHL=5, TOS=0, Length=40, ID=53111, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.44.229.112
    TCP: Src Port=61611, Dst Port=443, Flags=FA

Packet 315:
    Ethernet: Size=54 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
    IP: Version=4, IHL=5, TOS=0, Length=40, ID=27747, Flags=DF, Fragment Offset=0, TTL=107, Protocol=6, Checksum=59310, Src=20.44.229.112, Dst=192.168.1.121
    TCP: Src Port=443, Dst Port=61611, Flags=FA

Packet 316:
    Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
    IP: Version=4, IHL=5, TOS=0, Length=40, ID=53112, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.44.229.112
    TCP: Src Port=61611, Dst Port=443, Flags=A

Packet 317:
    Ethernet: Size=42 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x806
    Unknown Transport Protocol

Packet 318:
    Ethernet: Size=42 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x806
    Unknown Transport Protocol

Packet 319:
    Ethernet: Size=75 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x86dd
    TCP: Src Port=61606, Dst Port=443, Flags=A

Packet 320:
    Ethernet: Size=86 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x86dd
    TCP: Src Port=443, Dst Port=61606, Flags=A
(venv) PS C:\Users\ajink\ajinkya_shetty_hw1> python pktsniffer.py -r packets.pcap -c 10
```

Filtering based on –host 192.168.1.1 for first 10

1 0.000000	192.168.1.121	23.218.1.5	TCP	55 61560 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1
2 0.037854	23.218.1.5	192.168.1.121	TCP	66 443 → 61560 [ACK] Seq=1 Ack=2 Win=501 Len=0 SLE=1 SRE=2
3 0.608069	192.168.1.121	108.138.106.93	TCP	55 61613 → 443 [ACK] Seq=1 Ack=1 Win=252 Len=1
4 0.637330	108.138.106.93	192.168.1.121	TCP	66 443 → 61613 [ACK] Seq=1 Ack=2 Win=145 Len=0 SLE=1 SRE=2
5 1.562627	192.168.1.1	239.255.255.250	SSDP	412 NOTIFY * HTTP/1.1
6 1.562627	192.168.1.1	239.255.255.250	SSDP	484 NOTIFY * HTTP/1.1
7 1.563300	192.168.1.1	239.255.255.250	SSDP	480 NOTIFY * HTTP/1.1
8 1.563300	192.168.1.1	239.255.255.250	SSDP	460 NOTIFY * HTTP/1.1
9 1.563300	192.168.1.1	239.255.255.250	SSDP	492 NOTIFY * HTTP/1.1
10 1.563300	192.168.1.1	239.255.255.250	SSDP	474 NOTIFY * HTTP/1.1
11 1.563300	192.168.1.1	239.255.255.250	SSDP	476 NOTIFY * HTTP/1.1
12 1.563300	192.168.1.1	239.255.255.250	SSDP	476 NOTIFY * HTTP/1.1
13 1.563300	192.168.1.1	239.255.255.250	SSDP	312 NOTIFY * HTTP/1.1
14 1.563300	192.168.1.1	239.255.255.250	SSDP	376 NOTIFY * HTTP/1.1
15 1.563300	192.168.1.1	239.255.255.250	SSDP	386 NOTIFY * HTTP/1.1
16 1.563300	192.168.1.1	239.255.255.250	SSDP	312 NOTIFY * HTTP/1.1
17 1.563300	192.168.1.1	239.255.255.250	SSDP	376 NOTIFY * HTTP/1.1
18 1.563300	192.168.1.1	239.255.255.250	SSDP	386 NOTIFY * HTTP/1.1
19 2.260740	192.168.1.121	35.182.193.149	TCP	55 60290 → 443 [ACK] Seq=1 Ack=1 Win=254 Len=1
20 2.300080	35.182.193.149	192.168.1.121	TCP	66 443 → 60290 [ACK] Seq=1 Ack=2 Win=442 Len=0 SLE=1 SRE=2

```
(venv) PS C:\Users\ajink\ajinkya_shetty_hw1> python pktsniffer.py -r packets.pcap -c 10 --host 192.168.1.1

Packet 5:
  Ethernet: Size=412 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=398, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50875, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 6:
  Ethernet: Size=484 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=470, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50803, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 7:
  Ethernet: Size=480 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=466, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50807, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 8:
  Ethernet: Size=460 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=446, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50827, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 9:
  Ethernet: Size=492 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=478, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50795, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 10:
  Ethernet: Size=474 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=460, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50813, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 11:
  Ethernet: Size=476 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=462, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50811, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 12:
  Ethernet: Size=476 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=462, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50811, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 13:
  Ethernet: Size=312 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=298, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50975, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900

Packet 14:
  Ethernet: Size=376 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=362, ID=0, Flags=DF, Fragment Offset=0, TTL=1, Protocol=17, Checksum=50911, Src=192.168.1.1, Dst=239.255.255.250
  UDP: Src Port=60876, Dst Port=1900
```

Filtering based on –tcp for first 10

```
     1 0.000000    192.168.1.121      23.218.1.5         TCP     55 61560 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1
     2 0.037854    23.218.1.5         192.168.1.121      TCP     66 443 → 61560 [ACK] Seq=1 Ack=2 Win=501 Len=0 SLE=1 SRE=2
     3 0.608069    192.168.1.121      108.138.106.93     TCP     55 61613 → 443 [ACK] Seq=1 Ack=1 Win=252 Len=1
     4 0.637330    108.138.106.93     192.168.1.121      TCP     66 443 → 61613 [ACK] Seq=1 Ack=2 Win=145 Len=0 SLE=1 SRE=2
     5 1.562627    192.168.1.1        239.255.255.250    SSDP   412 NOTIFY * HTTP/1.1
     6 1.562627    192.168.1.1        239.255.255.250    SSDP   484 NOTIFY * HTTP/1.1
     7 1.563300    192.168.1.1        239.255.255.250    SSDP   480 NOTIFY * HTTP/1.1
     8 1.563300    192.168.1.1        239.255.255.250    SSDP   460 NOTIFY * HTTP/1.1
     9 1.563300    192.168.1.1        239.255.255.250    SSDP   492 NOTIFY * HTTP/1.1
    10 1.563300    192.168.1.1        239.255.255.250    SSDP   474 NOTIFY * HTTP/1.1
    11 1.563300    192.168.1.1        239.255.255.250    SSDP   476 NOTIFY * HTTP/1.1
    12 1.563300    192.168.1.1        239.255.255.250    SSDP   476 NOTIFY * HTTP/1.1
    13 1.563300    192.168.1.1        239.255.255.250    SSDP   312 NOTIFY * HTTP/1.1
    14 1.563300    192.168.1.1        239.255.255.250    SSDP   376 NOTIFY * HTTP/1.1
    15 1.563300    192.168.1.1        239.255.255.250    SSDP   386 NOTIFY * HTTP/1.1
    16 1.563300    192.168.1.1        239.255.255.250    SSDP   312 NOTIFY * HTTP/1.1
    17 1.563300    192.168.1.1        239.255.255.250    SSDP   376 NOTIFY * HTTP/1.1
    18 1.563300    192.168.1.1        239.255.255.250    SSDP   386 NOTIFY * HTTP/1.1
    19 2.260740    192.168.1.121      35.182.193.149     TCP     55 60290 → 443 [ACK] Seq=1 Ack=1 Win=254 Len=1
    20 2.300080    35.182.193.149     192.168.1.121      TCP     66 443 → 60290 [ACK] Seq=1 Ack=2 Win=442 Len=0 SLE=1 SRE=2
```

```
(venv) PS C:\Users\ajink\ajinkya_shetty_hw1> python pktsniffer.py -r packets.pcap -c 10 --tcp

Packet 1:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=22977, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=23.218.1.5
  TCP: Src Port=61560, Dst Port=443, Flags=A

Packet 2:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=24627, Flags=DF, Fragment Offset=0, TTL=55, Protocol=6, Checksum=2193, Src=23.218.1.5, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61560, Flags=A

Packet 3:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=45425, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=108.138.106.93
  TCP: Src Port=61613, Dst Port=443, Flags=A

Packet 4:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=46654, Flags=, Fragment Offset=0, TTL=247, Protocol=6, Checksum=29820, Src=108.138.106.93, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61613, Flags=A

Packet 19:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=34577, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=35.182.193.149
  TCP: Src Port=60290, Dst Port=443, Flags=A

Packet 20:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=38623, Flags=DF, Fragment Offset=0, TTL=117, Protocol=6, Checksum=51063, Src=35.182.193.149, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=60290, Flags=A

Packet 21:
  Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=13269, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.42.73.28
  TCP: Src Port=61602, Dst Port=443, Flags=FA

Packet 22:
  Ethernet: Size=54 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=46386, Flags=DF, Fragment Offset=0, TTL=111, Protocol=6, Checksum=14134, Src=20.42.73.28, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61602, Flags=FA

Packet 23:
  Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=13270, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.42.73.28
  TCP: Src Port=61602, Dst Port=443, Flags=A

Packet 24:
  Ethernet: Size=75 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x86dd
  TCP: Src Port=61582, Dst Port=443, Flags=A
```

Filtering based on – net for 192.168.1.121 for first 10

```
 1 0.000000      192.168.1.121    23.218.1.5       TCP    55 61560 → 443 [ACK] Seq=1 Ack=1 Win=255 Len=1
 2 0.037854      23.218.1.5       192.168.1.121    TCP    66 443 → 61560 [ACK] Seq=1 Ack=2 Win=501 Len=0 SLE=1 SRE=2
 3 0.608069      192.168.1.121    108.138.106.93   TCP    55 61613 → 443 [ACK] Seq=1 Ack=1 Win=252 Len=1
 4 0.637330      108.138.106.93   192.168.1.121    TCP    66 443 → 61613 [ACK] Seq=1 Ack=2 Win=145 Len=0 SLE=1 SRE=2
 5 1.562627      192.168.1.1      239.255.255.250  SSDP  412 NOTIFY * HTTP/1.1
 6 1.562627      192.168.1.1      239.255.255.250  SSDP  484 NOTIFY * HTTP/1.1
 7 1.563300      192.168.1.1      239.255.255.250  SSDP  480 NOTIFY * HTTP/1.1
 8 1.563300      192.168.1.1      239.255.255.250  SSDP  460 NOTIFY * HTTP/1.1
 9 1.563300      192.168.1.1      239.255.255.250  SSDP  492 NOTIFY * HTTP/1.1
10 1.563300      192.168.1.1      239.255.255.250  SSDP  474 NOTIFY * HTTP/1.1
11 1.563300      192.168.1.1      239.255.255.250  SSDP  476 NOTIFY * HTTP/1.1
12 1.563300      192.168.1.1      239.255.255.250  SSDP  476 NOTIFY * HTTP/1.1
13 1.563300      192.168.1.1      239.255.255.250  SSDP  312 NOTIFY * HTTP/1.1
14 1.563300      192.168.1.1      239.255.255.250  SSDP  376 NOTIFY * HTTP/1.1
15 1.563300      192.168.1.1      239.255.255.250  SSDP  386 NOTIFY * HTTP/1.1
16 1.563300      192.168.1.1      239.255.255.250  SSDP  312 NOTIFY * HTTP/1.1
17 1.563300      192.168.1.1      239.255.255.250  SSDP  376 NOTIFY * HTTP/1.1
18 1.563300      192.168.1.1      239.255.255.250  SSDP  386 NOTIFY * HTTP/1.1
19 2.260740      192.168.1.121    35.182.193.149   TCP    55 60290 → 443 [ACK] Seq=1 Ack=1 Win=254 Len=1
20 2.300080      35.182.193.149   192.168.1.121    TCP    66 443 → 60290 [ACK] Seq=1 Ack=2 Win=442 Len=0 SLE=1 SRE=2
```

```
(venv) PS C:\Users\ajink\ajinkya_shetty_hw1> python pktsniffer.py -r packets.pcap -c 10 --net 192.168.1.121

Packet 1:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=22977, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=23.218.1.5
  TCP: Src Port=61560, Dst Port=443, Flags=A

Packet 2:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=24627, Flags=DF, Fragment Offset=0, TTL=55, Protocol=6, Checksum=2193, Src=23.218.1.5, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61560, Flags=A

Packet 3:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=45425, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=108.138.106.93
  TCP: Src Port=61613, Dst Port=443, Flags=A

Packet 4:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=46654, Flags=, Fragment Offset=0, TTL=247, Protocol=6, Checksum=29820, Src=108.138.106.93, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61613, Flags=A

Packet 19:
  Ethernet: Size=55 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=41, ID=34577, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=35.182.193.149
  TCP: Src Port=60290, Dst Port=443, Flags=A

Packet 20:
  Ethernet: Size=66 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=52, ID=38623, Flags=DF, Fragment Offset=0, TTL=117, Protocol=6, Checksum=51063, Src=35.182.193.149, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=60290, Flags=A

Packet 21:
  Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=13269, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.42.73.28
  TCP: Src Port=61602, Dst Port=443, Flags=FA

Packet 22:
  Ethernet: Size=54 bytes, Dst MAC=68:c6:ac:99:36:da, Src MAC=80:69:1a:68:d8:c2, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=46386, Flags=DF, Fragment Offset=0, TTL=111, Protocol=6, Checksum=14134, Src=20.42.73.28, Dst=192.168.1.121
  TCP: Src Port=443, Dst Port=61602, Flags=FA

Packet 23:
  Ethernet: Size=54 bytes, Dst MAC=80:69:1a:68:d8:c2, Src MAC=68:c6:ac:99:36:da, Type=0x800
  IP: Version=4, IHL=5, TOS=0, Length=40, ID=13270, Flags=DF, Fragment Offset=0, TTL=128, Protocol=6, Checksum=0, Src=192.168.1.121, Dst=20.42.73.28
  TCP: Src Port=61602, Dst Port=443, Flags=A
```