

terminal

python client.py

received pong from
(127.0.0.1, 12345) in
0.00 seconds

Exp No: 14

Packet Sniffing

Aim:

= To write a code using RAW sockets
to implement packet sniffing.

Source code:

```
from scapy.all import sniff
from scapy.layers.inet import IP, TCP, UDP, ICMP

def packet_callback(packet):
    if IP in packet:
        ip_layer = packet[IP]
        protocol = ip_layer.proto
        src_ip = ip_layer.src
        dst_ip = ip_layer.dst

        # Determine the protocol
        protocol_name = ""
        if protocol == 1:
            protocol_name = "ICMP"
        elif protocol == 6:
            protocol_name = "TCP"
        elif protocol == 17:
            protocol_name = "UDP"
        else:
            protocol_name = "Unknown Protocol"

        # Print packet details
        print(f"Protocol: {protocol_name}")
        print(f"Source IP: {src_ip}")
        print(f"Destination IP: {dst_ip}")
        print("-" * 50)
```

A ping program
and the output


```
def main():
    sniffer = 'Wi-Fi', p2n = packet_callback,
    filter = "ip", store = 0
```

```
if __name__ == "__main__":
    main()
```

output:

Protocol: TCP

Source IP: 20.247.184.142

Destination IP: 172.20.10.2

Protocol: TCP

Source IP: 172.20.10.2

Destination IP: 20.247.184.142

Result:

Thus, the program for packet sniffing was successfully executed.

Exp No.: 15

Aim:

To analyze logs using Wireshark

Procedure:

1. Run the program
2. Input the IP address
3. Press the Enter key

Thus logs were analyzed.