Exp. No: 14

Date:

AIM:

To implement a code using RAW Sockets to implement Packet Sniffing.

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

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

```
def main():
    sniff ( iface = 'wifi' , prn = 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

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Source Ip : 20.247.184.142
Destination Ip : 172.20.10.2

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Source IP : 172.20.10.2
Destination Ip : 20.247.184.142

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Source Ip : 172.20.10.2
Destination Ip : 20.247.184.142
```

Result:

Thus the packet sniffing Program was executed successfully and the output is verified