PRACTICAL 14

Expt 14
Date : 9.10.25

AIM: Write a code using RAW sockets to implement packet sniffing

PROGRAM:

```
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)
```

```
sniff (iface = 'Wi-Fi', prn = packet_callback,
       filter = "ip", store = 0)
```

OUTPUT:

```
Protocol : TCP
Source IP : 192.168.1.5
Destination IP : 142.250.183.238
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Protocol : UDP
Source IP : 192.168.1.5
Destination IP : 8.8.8.8
-----------------------
Protocol : ICMP
Source IP : 192.168.1.5
Destination IP : 192.168.1.1
-----------------------
```

RESULT:

The program was implemented and it successfully captured and displayed live network packets.