

Ex. No : 14

DATE : 16.10.25

WRITE A CODE USING RAW SOCKETS TO
IMPLEMENT PACKET SNIFFING.

AIM:

To 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:
        if layer == packet[IP]:
            Protocol = ip_layer.protocol
            Src_ip = ip_layer.ssrc_ip
            Dest_ip = ip_layer.dst_ip
            # Determine the protocol
            Protocol_name = "Unknown Protocol"
            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: {Dest_ip}")
            print("-" * 50)
    # Capture packets on the default network interface
    Sniff(iface = "wlan0", fn = Packet_callback,
          filter = "tcp")
```

Input and output :

Protocol : TCP

Source IP : 192.168.1.10

Destination IP : 172.217.16.78

Protocol : ICMP

Source IP : 192.168.1.10

Destination IP : 224.0.0.251

Protocol : UDP

Source IP : 192.168.1.10

Destination IP : 224.0.0.251

Protocol : TCP

Source IP : 192.168.1.10

Destination IP : 192.168.1.69

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RESULT :

Therefore the code is written and executed
for implementing packet sniffing.