Ex- 14)
Date : 23/10/24

Packet Sniffing.

AIM:

Write 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

#determine the protocol
    protocol_name = " "
    if protocol == 1:
        protocol_name = "ICMP"
    else 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)

def Main():
    # Capture packets on the default
network interface.
    sniff(iface='wifi', prn=packet_callback,
filter="ip", store=0)

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

OUTPUT:

```
Protocol: TCP
Source IP: 20.247.104.142
Destination IP: 172.20.10.2
```

RESULT:

The code for packet sniffing is implemented & executed ~~and~~ successfully.