6.10.25

EXP: 14

Implementation of packets sniffing using RAW sockets

AIM:

To implement packet sniffing using RAW sockets.

Algorithm:

```
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
        dest_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)
```

Sample Input:

Step 1: Open a web browser and visit https://www.google.com.

Step 2: run the command 8.8.8.8 ping in another terminal.

Sample output:

protocol : TCP

source IP : 192.168.1.5

Destination IP: 142.250.183.110

RESULT:

Hence the experiment on the implementation of packet sniffing using RAW sockets has been executed successfully