Ex: 14 Implementation of Packet sniffing using RAW sockets

Aim:

To implement packets 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
        dst_ip = ip_layer.dst
        protocol_name = ""

        if protocol == 1:
            protocol_name = "TCP"
        elif protocol == 6:
            protocol_name = "TCP"
        elif protocol = 17:
            protocol_name = "UDP".

        else:
            protocol_name = "unknown protocol"
        print(f" protocol {protocol_name}")
```

printf ("\n Source IP = %s", src_ip);
printf ("\n Destination IP = %s", dest_ip);
print ("-", 50)

Sample input:

Step 1: open a web browser and insets https://www.google.com

step 2: Run the command 8.8.8.8 in another terminal

Sample output:

Protocol: TCP

Source IP: 192.168.1.5

Destination IP: 142.250.185.110

Result:

Here the experiment has been executed successfully.