Ex: No: 14

25/9/25

Practical - 14

write a code using RAW sockets to implement packet sniffing

Aim:

To write a code using RAW sockets to implement packet sniffing.

Algorithm:

```
From scapy all import sniff
from scapy.layers inet import IP, TCP, UDP, ICM
def packet callback (packet):
  if IP in packets:
  ip_layer = packet [IP]
  protocol = ip_layer.proto
  src_ip = ip_layer.src
  dist_ip = ip_layer dist
  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 packet details
  print(f"protocol: {protocol_name}")
  print (f"Source Ip: {src_ip}")
  print (f"Destination Ip: {dist_ip}")
  print ("-" * 50)
```

interface

```
Sniff( iface = 'wifi', prn = packet_callback,
    filter = "ip", store = 0)
```

Input: pinging a server (ping)

output:

protocol : TCP
Source Ip : 192.168.1.5
Destination Ip : 172.217.65.78

protocol : ICMP
source Ip : 192.168.1.5
Destination Ip : 8.8.8.8

protocol : UDP
source Ip : 192.168.1.5
Destination Ip : 224.0.0.251

Result:

This code using RAW sockets to implement packet sniffing executed successfully.