

EXPERIMENT – 14

AIM: - Write a code using RAW sockets to implement packet sniffing.

CODE: -

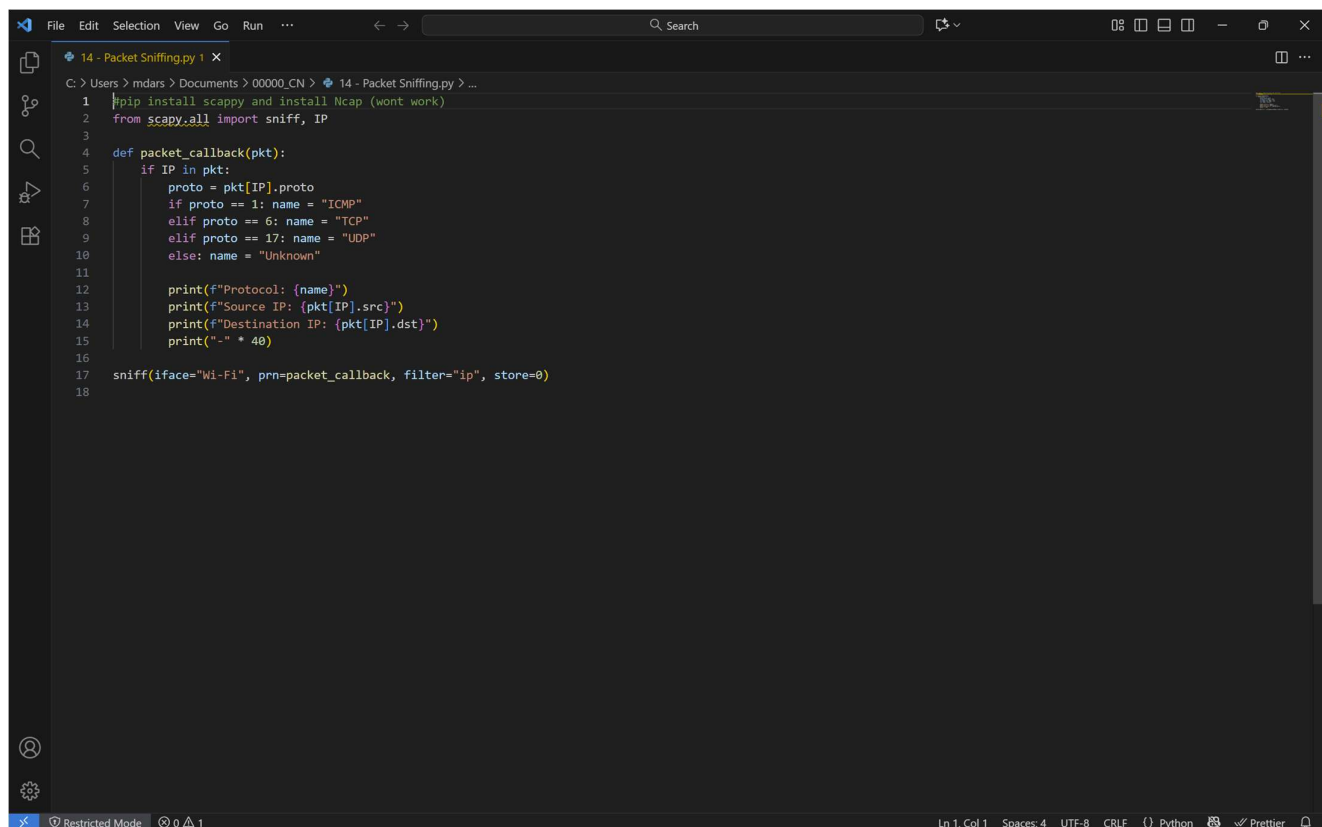
```
from scapy.all import sniff, IP

def packet_callback(pkt):
    if IP in pkt:
        proto = pkt[IP].proto
        if proto == 1: name = "ICMP"
        elif proto == 6: name = "TCP"
        elif proto == 17: name = "UDP"
        else: name = "Unknown"

        print(f"Protocol: {name}")
        print(f"Source IP: {pkt[IP].src}")
        print(f"Destination IP: {pkt[IP].dst}")
        print("-" * 40)

sniff(iface="Wi-Fi", prn=packet_callback, filter="ip", store=0)
```

OUTPUT: -

A screenshot of a code editor window titled "14 - Packet Sniffing.py". The editor shows the same Python code as in the previous block. The code is written in a dark-themed editor with syntax highlighting. The file path in the top bar is "C:\> Users > mdars > Documents > 00000_CN > 14 - Packet Sniffing.py > ...". The status bar at the bottom shows "Ln 1, Col 1", "Spaces: 4", "UTF-8", "CRLF", "Python", and "Prettier".

```
File Edit Selection View Go Run ... Search
14 - Packet Sniffing.py X
C:\> Users > mdars > Documents > 00000_CN > 14 - Packet Sniffing.py > ...
1 | pip install scapy and install Ncap (wont work)
2 | from scapy.all import sniff, IP
3 |
4 | def packet_callback(pkt):
5 |     if IP in pkt:
6 |         proto = pkt[IP].proto
7 |         if proto == 1: name = "ICMP"
8 |         elif proto == 6: name = "TCP"
9 |         elif proto == 17: name = "UDP"
10 |        else: name = "Unknown"
11 |
12 |        print(f"Protocol: {name}")
13 |        print(f"Source IP: {pkt[IP].src}")
14 |        print(f"Destination IP: {pkt[IP].dst}")
15 |        print("-" * 40)
16 |
17 | sniff(iface="Wi-Fi", prn=packet_callback, filter="ip", store=0)
18 |
```

Ln 1, Col 1 Spaces: 4 UTF-8 CRLF Python Prettier

RESULT: -

Implemented RAW sockets using packet sniffing.