

Ex: 14

Date: 6/11/24 Practical-14

Date: \_\_\_\_\_

AIM: To Implement a code using RAW Sockets to implement packet sniffing

code:

```
from scapy.all import sniff
from scapy.layers 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: {dest_ip}")
```

```
    print("-" * 50)
```

```
def main():
```

```
    sniff(filter='USFF', prn=packet_callback, Pkts=
```

```
    "ip", store=0)
```

```
if __name__ == "__main__":
```

```
    main()
```

Output :-

protocol : TCP

Source IP : 20.247.124.142

Destination IP : 172.20.10.2

Protocol : TCP

Source IP : 20.247.124.142

Destination IP : 172.20.10.2

Protocol : TCP

Source IP : 172.20.10.2

Destination IP : 20.247.124.142

Result:

Thus the program is successfully executed & the output is verified.