

Ex: no: 14

# Packet Sniffing.

Date: 8/11/24

Aim:

to write a code using RAW sockets to implement packet sniffing

Program:

```
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
```

```
        dst_ip = ip_layer.dst
```

```
    # Determine the protocol
```

```
    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: {dst_ip}")  
print("-" * 50)
```

```
def main():
```

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

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

```
    main()
```

O/P:

Protocol : TCP

Source IP : 20.247.164.142

Destination IP : 172.20.10.2

Protocol : TCP

Source IP : 20.247.164.142

Destination IP : 172.20.10.2

Result:

The program was successfully executed  
and the O/P is verified