

Ex.no:14

Date:

Packet Sniffing.

Atm:

- Write a Code using RAW Sockets to implement Packet Sniffing.

```
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
```

```
        dest_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():  
    # Capture packets w/ the default  
    # network interface  
    sniff(iface='wi-fi', prn=packet_callback,  
          filter="tcp", store=0)  
  
if __name__ == "__main__":  
    main()
```

Output:

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:

Thus the packet sniffing program
is successfully executed and verified.