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Completed				

Exp No: 14 RAW socket

Date:

Aim:

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

Program:

```
from scapy.all import sniff
from scapy.layers.net 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.dest
```

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

def main():

```
sniff(interface="eth0", prn=packet_callback,  
       store=0)
```

```
if __name__ == "__main__":  
    main()
```

O/P :

Protocol: TCP

Source IP: 20.247.184.142

Destination IP: 172.20.10.2

Protocol: TCP

Source IP: 20.247.184.142

Destination IP: 172.20.10.2

Protocol: TCP

Source IP: 172.20.10.2

Destination IP: 20.247.184.142

Result: Thus the packet sniffing program was executed
and successfully O/P is verified.