Reg.No.: 2116220701518

Practical 14

AIM:

Write a code using RAW sockets to implement packet sniffing.

PROCEDURE:

🡪**Install Python and Scapy**:

* Ensure Python is installed on your system.
* Open a terminal or command prompt, and install the Scapy library by running pip install scapy.

🡪**Create the Program**:

* Open a text editor or IDE.
* Create a new file, name it packet\_sniffer.py, and add code to capture and analyze network packets.

🡪**Set Up Packet Processing**:

* Define a function that processes each captured packet.
* This function should:
  + Check if the packet has an IP layer.
  + Identify the packet’s protocol (such as TCP, UDP, or ICMP).
  + Display details like the protocol, source IP, and destination IP.

🡪**Capture Network Packets**:

* In the program, set up a function to capture network packets on the default network interface.
* Filter the captured packets to only show IP packets for simplicity.

🡪**Run the Packet Sniffer**:

* Open a terminal or command prompt and navigate to the directory where you saved packet\_sniffer.py.
* Run the program. On Unix-like systems (Linux, macOS), use sudo to run the program with the necessary permissions. On Windows, open the terminal with administrator privileges if needed.

🡪**Generate Network Traffic**:

* While the program is running, open a web browser and visit various websites.
* Use applications that communicate over the network, like email clients or chat applications.
* Use command-line tools, such as ping or curl, to send network requests and generate more packet traffic.

🡪**Observe Output**:

* As the packet sniffer captures network traffic, you’ll see output displaying details about each packet, including protocol, source IP, and destination IP

OUTPUT:

