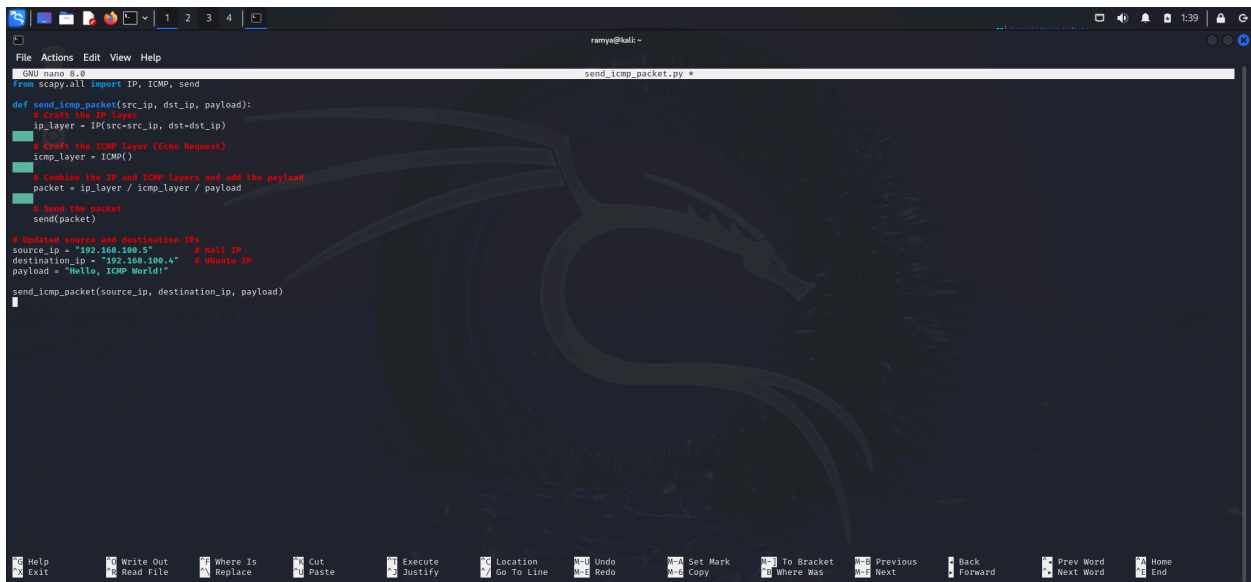


Create and Send ping message using ICMP packets

Opened kali and installed scapy module

- Opened nano file name nano send_icmp_packets.py
- Saved it and came to terminal
- Run it by cmd sudo python3 send_icmp_packets.py
- Got an output that sent 1 packet

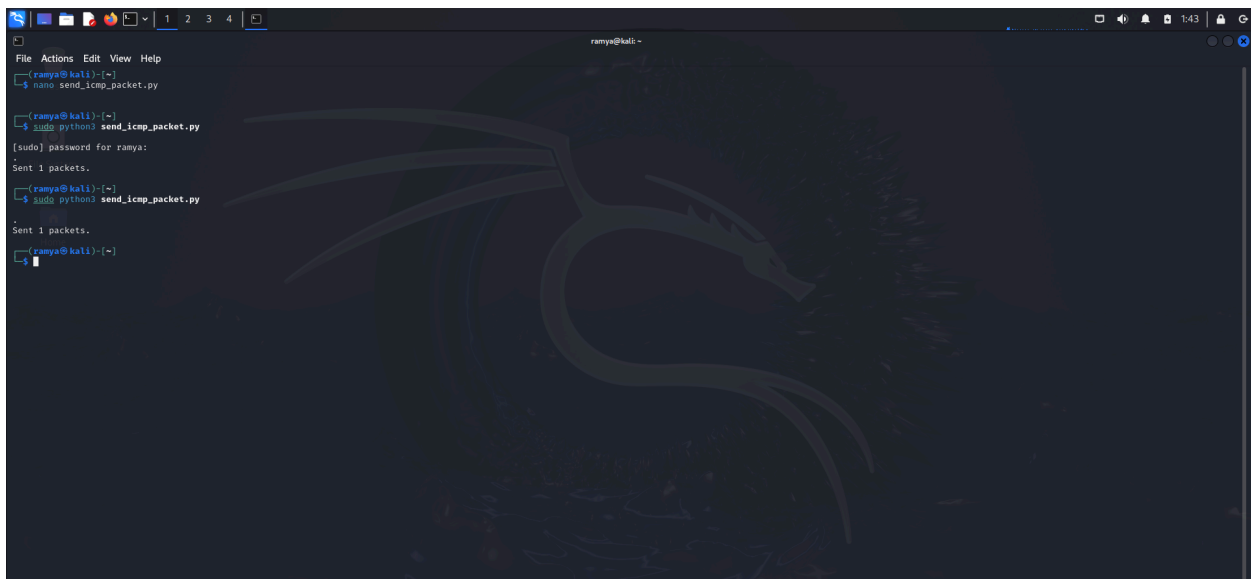


```
GNU nano 2.9.3 send_icmp_packet.py
from scapy.all import IP, ICMP, send

def send_icmp_packet(src_ip, dst_ip, payload):
    # Craft the IP layer
    ip_layer = IP(src=src_ip, dst=dst_ip)
    # Craft the ICMP layer (Echo Request)
    icmp_layer = ICMP()
    # Combine the IP and ICMP layers and add the payload
    packet = ip_layer / icmp_layer / payload
    # Send the packet
    send(packet)

# Updated source and destination IPs
source_ip = "192.168.100.5" # Kali IP
destination_ip = "192.168.100.4" # Ubuntu IP
payload = "Hello, ICMP World!"

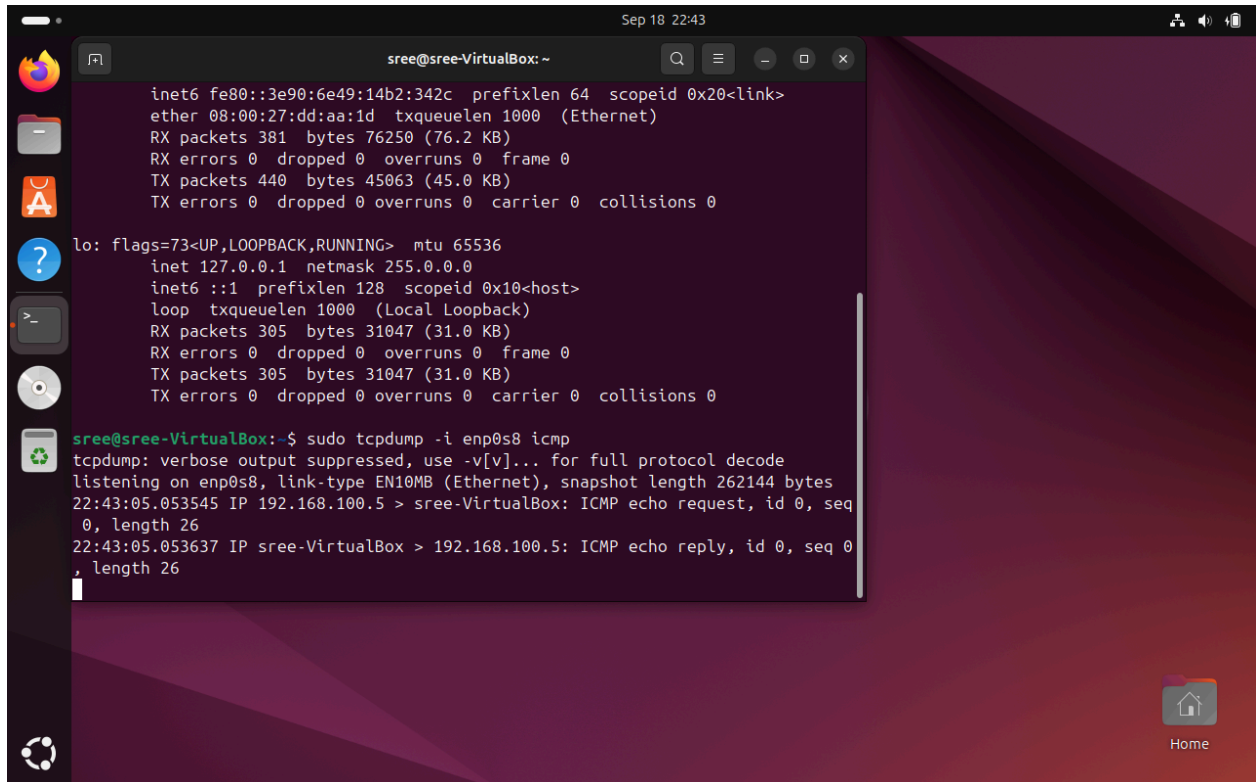
send_icmp_packet(source_ip, destination_ip, payload)
```



```
(ramya@kali):~$ nano send_icmp_packet.py
[ramya@kali]:~$ sudo python3 send_icmp_packet.py
[sudo] password for ramya:
Sent 1 packets.
[ramya@kali]:~$ sudo python3 send_icmp_packet.py
Sent 1 packets.
[ramya@kali]:~$
```

Open ubuntu terminal

- We can observe the sent packet by wireshark or tcpdump
- I took tcpdump with cmd :`sudo tcpdump -i enp0s8 icmp`
- It display the packet which is received



The screenshot shows a terminal window titled 'sree@sree-VirtualBox: ~' with a search bar and window controls. The terminal output displays network statistics for the 'lo' (loopback) interface. It shows RX and TX packets, bytes, and errors. Below this, it shows the output of the 'sudo tcpdump -i enp0s8 icmp' command, which is listening on the 'enp0s8' interface. The output shows two ICMP echo requests and replies from 192.168.100.5 to sree-VirtualBox.

```
sree@sree-VirtualBox: ~  
inet6 fe80::3e90:6e49:14b2:342c prefixlen 64 scopeid 0x20<link>  
ether 08:00:27:dd:aa:1d txqueuelen 1000 (Ethernet)  
RX packets 381 bytes 76250 (76.2 KB)  
RX errors 0 dropped 0 overruns 0 frame 0  
TX packets 440 bytes 45063 (45.0 KB)  
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536  
inet 127.0.0.1 netmask 255.0.0.0  
inet6 ::1 prefixlen 128 scopeid 0x10<host>  
loop txqueuelen 1000 (Local Loopback)  
RX packets 305 bytes 31047 (31.0 KB)  
RX errors 0 dropped 0 overruns 0 frame 0  
TX packets 305 bytes 31047 (31.0 KB)  
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0  
  
sree@sree-VirtualBox:~$ sudo tcpdump -i enp0s8 icmp  
tcpdump: verbose output suppressed, use -v[v]... for full protocol decode  
listening on enp0s8, link-type EN10MB (Ethernet), snapshot length 262144 bytes  
22:43:05.053545 IP 192.168.100.5 > sree-VirtualBox: ICMP echo request, id 0, seq 0, length 26  
22:43:05.053637 IP sree-VirtualBox > 192.168.100.5: ICMP echo reply, id 0, seq 0, length 26
```