EXPERIMENT NO 1

NAME: KOMAL MAHESH CHITNIS
MOODLE ID: 20102068
DIV: A
SEM: V
SUBJECT: COMPUTER NETWORKS

```
komalchitnis02@komal-virtual-machine:~$ ifconfig
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.71.130  netmask 255.255.255.0  broadcast 192.168.71.255
        inet6 fe80::c3bf:a2fb:e9c1:4e4e  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:5f:14:45  txqueuelen 1000  (Ethernet)
        RX packets 523024  bytes 770795472 (770.7 MB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 44955  bytes 4087465 (4.0 MB)
        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 2737  bytes 282527 (282.5 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 2737  bytes 282527 (282.5 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

komalchitnis02@komal-virtual-machine:~$
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```
komalchitnis02@komal-virtual-machine:~$ ifconfig -a
ens33: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.71.130  netmask 255.255.255.0  broadcast 192.168.71.255
        inet6 fe80::c3bf:a2fb:e9c1:4e4e  prefixlen 64  scopeid 0x20<link>
        ether 00:0c:29:5f:14:45  txqueuelen 1000  (Ethernet)
        RX packets 523109  bytes 770803518 (770.8 MB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 44982  bytes 4089791 (4.0 MB)
        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 2745  bytes 283263 (283.2 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 2745  bytes 283263 (283.2 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

komalchitnis02@komal-virtual-machine:~$
```

```
komalchitnis02@komal-virtual-machine:~$ ping www.google.com
PING www.google.com (172.217.166.36) 56(84) bytes of data.
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=1 ttl=128 time=10.5 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=2 ttl=128 time=7.41 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=3 ttl=128 time=46.9 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=4 ttl=128 time=8.02 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=5 ttl=128 time=5.48 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=6 ttl=128 time=7.68 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=7 ttl=128 time=114 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=8 ttl=128 time=7.12 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=9 ttl=128 time=5.64 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=10 ttl=128 time=5.77 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=11 ttl=128 time=5.85 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=12 ttl=128 time=5.80 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=13 ttl=128 time=7.78 ms
64 bytes from bom07s18-in-f4.1e100.net (172.217.166.36): icmp_seq=14 ttl=128 time=5.06 ms
^C
--- www.google.com ping statistics ---
14 packets transmitted, 14 received, 0% packet loss, time 13030ms
rtt min/avg/max/mdev = 5.062/17.341/113.734/28.678 ms
komalchitnis02@komal-virtual-machine:~$
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```
komalchitnis02@komal-virtual-machine:~$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address          Foreign Address         State
udp        0      0 komal-virtual-ma:bootpc 192.168.71.254:bootps   ESTABLISHED
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags       Type       State         I-Node   Path
unix  5      [ ]         DGRAM                     28145    /run/systemd/notify
unix  2      [ ]         DGRAM                     28159    /run/systemd/journal/syslog
unix  17     [ ]         DGRAM                     28169    /run/systemd/journal/dev-log
unix  2      [ ]         DGRAM                     48647    /run/user/1000/systemd/notify
unix  8      [ ]         DGRAM                     28173    /run/systemd/journal/socket
unix  3      [ ]         STREAM     CONNECTED      55945    /run/dbus/system_bus_socket
unix  3      [ ]         STREAM     CONNECTED      53152    /run/dbus/system_bus_socket
unix  3      [ ]         STREAM     CONNECTED      53695    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED      41841    /run/systemd/journal/stdout
unix  2      [ ]         DGRAM                     28848
unix  3      [ ]         STREAM     CONNECTED      556299
unix  3      [ ]         STREAM     CONNECTED      53892    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED      48977
unix  3      [ ]         STREAM     CONNECTED      53939    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED      49516
unix  2      [ ]         DGRAM                     38817
unix  3      [ ]         STREAM     CONNECTED      290789   /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED      52192
unix  3      [ ]         STREAM     CONNECTED      37075    /run/systemd/journal/stdout
unix  2      [ ]         DGRAM                     36005
unix  3      [ ]         STREAM     CONNECTED      52565    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED      51122
unix  3      [ ]         STREAM     CONNECTED      53881    /run/systemd/journal/stdout
unix  3      [ ]         STREAM     CONNECTED      55442
unix  3      [ ]         STREAM     CONNECTED      38024
unix  3      [ ]         STREAM     CONNECTED      89756    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED      62054
unix  3      [ ]         STREAM     CONNECTED      54576
unix  3      [ ]         STREAM     CONNECTED      52144    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED      553662
unix  3      [ ]         STREAM     CONNECTED      53704
unix  2      [ ]         DGRAM                     338980
unix  3      [ ]         STREAM     CONNECTED      58030
unix  3      [ ]         DGRAM                     40630
unix  3      [ ]         STREAM     CONNECTED      53047
unix  3      [ ]         STREAM     CONNECTED      52141
unix  3      [ ]         STREAM     CONNECTED      48766    /run/user/1000/bus
unix  3      [ ]         STREAM     CONNECTED      50087
unix  3      [ ]         STREAM     CONNECTED      51703
unix  2      [ ]         DGRAM                     48286
```

```
komalchitnis02@komal-virtual-machine:~$ dig google.com

; <<>> DiG 9.16.1-Ubuntu <<>> google.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 40346
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;google.com.                    IN      A

;; ANSWER SECTION:
google.com.             5       IN      A       142.250.183.174

;; Query time: 7 msec
;; SERVER: 127.0.0.53#53(127.0.0.53)
;; WHEN: Wed Jul 27 22:21:44 IST 2022
;; MSG SIZE  rcvd: 55

komalchitnis02@komal-virtual-machine:~$
```

```
komalc@operating:~$ nslookup www.google.com
Server:         127.0.0.53
Address:        127.0.0.53#53

Non-authoritative answer:
Name:   www.google.com
Address: 142.250.192.100
Name:   www.google.com
Address: 2404:6800:4009:82a::2004
```

```
komalc@operating:~$ traceroute www.google.com
traceroute to www.google.com (142.250.192.100), 30 hops max, 60 byte packets
 1  _gateway (10.0.2.2)  0.370 ms  0.339 ms  0.322 ms
 2  _gateway (10.0.2.2)  2.606 ms  2.586 ms  2.567 ms
```