Experiment No. 6

- **Aim :** Write a bash/ C program to print Fibonacci Series
- **Program :**

```c
#include <stdio.h>
#include <stdlib.h>
int main()
{
int n,i,t1=0,t2=1, next=0;
printf("Enter the number of terms \n");
scanf("%d", &n);
printf("The fibonacci series is: \n");
for(i=1;i<=n;++i)
{
printf("%d \t", t1);
next=t1+t2;
t1=t2;
t2=next;
}
return 0;
}
```

- Output :

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sudo su
[sudo] password for dbms19:
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19# cd Desktop
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# gedit fibonacci.c

(gedit:4852): dconf-WARNING **: 09:08:25.626: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:4852): dconf-WARNING **: 09:08:25.626: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:4852): dconf-WARNING **: 09:08:25.626: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:4852): dconf-WARNING **: 09:08:50.645: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# gcc fibonacci.c
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# ./a.out
Enter the number of terms
10
The fibonacci series is:
0       1       1       2       3       5       8       13      21      34      root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# SS
```

- **Aim :** Write a bash/ C program to check whether the number is prime.
- **Program :**

```c
#include <stdio.h>
#include <stdlib.h>
int main()
{
int n, count=0,i;
printf("Enter any number:\n");
scanf("%d",&n);
for(i=1;i<=n;i++)
{
if(n%i==0)
count++;
}

if(count==2)
{
printf("It is a prime number.\n");
}
else
{
printf("It is not a prime number.\n");
}
return 0;
}
```

- **Output :**

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sudo su
[sudo] password for dbms19:
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19# cd Desktop
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# gedit primeno.c

(gedit:5322): dconf-WARNING **: 09:20:07.989: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:5322): dconf-WARNING **: 09:20:07.989: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:5322): dconf-WARNING **: 09:20:07.989: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)

(gedit:5322): dconf-WARNING **: 09:20:12.620: failed to commit changes to dconf: Failed to execute child process "dbus-launch" (No such file or directo
ry)
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# gcc primeno.c
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# ./a.out
Enter any number:
5
It is a prime number.
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# gcc primeno.c
root@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:/home/dbms19/Desktop# ./a.out
Enter any number:
16
It is not a prime number.
```
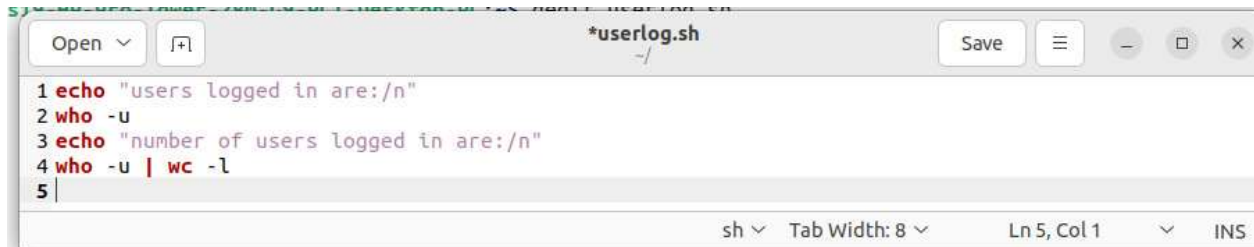
```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch userlog.sh
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ gedit userlog.sh
```

```
Open  ⊞                         *userlog.sh                    Save  ≡   _  □  ×
                                   ~/
1 echo "users logged in are:/n"
2 who -u
3 echo "number of users logged in are:/n"
4 who -u | wc -l
5 |
                                        sh ⌄   Tab Width: 8 ⌄      Ln 5, Col 1    ⌄    INS
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sh userlog.sh
users logged in are:/n
dbms19    tty2            2025-03-17 08:35 00:38            1667 (tty2)
number of users logged in are:/n
1
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch hello.sh
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ gedit hello.sh
```

```
Open  ⊞                         hello.sh                       Save  ≡   _  □  ×
                                   ~/
1 echo "Hello World!"
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sh hello.sh
Hello World!
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch basiccalc.sh
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ gedit basiccalc.sh
```

```
Open  ⊞                         *basiccalc.sh                  Save  ≡   _  □  ×
                                   ~/
1 echo "Enter number one:/n"
2 read n1
3 echo "Enter number two:/n"
4 read n2
5 echo "Addition =$(($n1+$n2))"
6 echo "Subtraction =$(($n1-$n2))"
7 echo "Multiplication = $(($n1 * $n2)) "
8 echo "Division = $(($n1/$n2)) "
9 echo "Modulus = $(($n1%$n2)) "
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sh basiccalc.sh
Enter number one:/n
10
Enter number two:/n
2
Addition =12
Subtraction =8
Multiplication = 20
Division = 5
Modulus = 0
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ touch evenodd.sh
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ gedit evenodd.sh
```

| Open ∨ | ⊡ | **evenodd.sh** ~/ | Save | ≡ | — | ▢ | ✕ |

```
1 echo -n "Enter the number: "
2 read n
3 rem=$(($n % 2))
4 if [ $rem -eq 0 ]
5 then
6 echo "Number is even."
7 else
8 echo "Number is odd."
9 fi |
```

sh ∨   Tab Width: 8 ∨   Ln 9, Col 4   ∨   INS

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sh evenodd.sh
Enter the number: 5
Number is odd.

dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sh evenodd.sh
Enter the number: 8
Number is even.
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ cd Desktop
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ mkdir UnixLab
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ rmdir UnixLab
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ pwd
/home/dbms19/Desktop
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ touch newfile.txt
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ gedit newfile.txt
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ touch file.txt
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ gedit file.txt
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ cat newfile.txt
Experiment No 2
This is unix lab
New file is created.
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ mv
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ mkdir UnixLab
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ mv file.txt /home/dbms19/Desktop/UnixLab
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ ls
449.txt  aish  ankita.txt  Arindam  aritra.txt  newfile.txt  PlayfairCipher.java  Unix  unix2.txt  unix34  UnixLab
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ cp newfile.txt file.txt
```
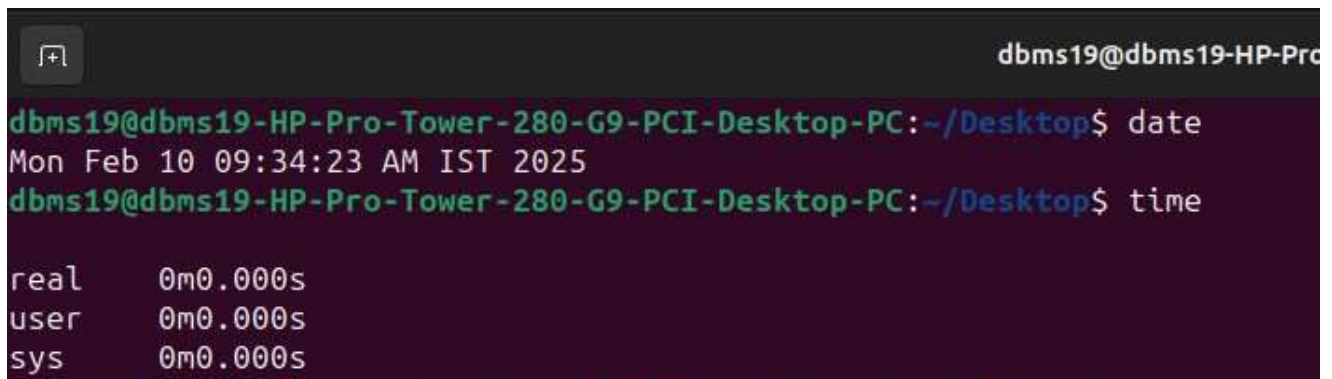
```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ ps
   PID TTY          TIME CMD
  8099 pts/0    00:00:00 bash
 11816 pts/0    00:00:00 ps
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ man
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ who
dbms19   seat0        2025-02-10 08:38 (login screen)
dbms19   tty2         2025-02-10 08:38 (tty2)
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ whoami
dbms19
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ man
What manual page do you want?
For example, try 'man man'.
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ man man
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ man ls
```
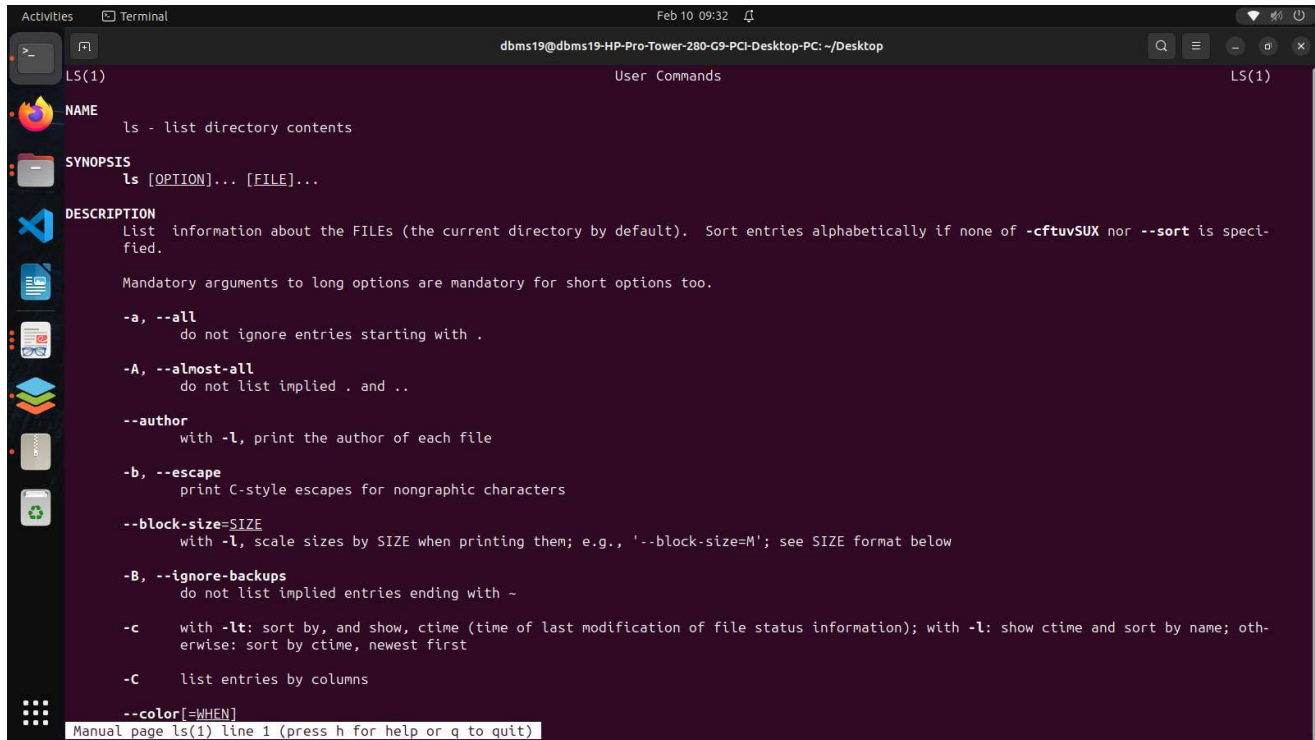
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC: ~/Desktop

```
LS(1)                              User Commands                              LS(1)

NAME
       ls - list directory contents

SYNOPSIS
       ls [OPTION]... [FILE]...

DESCRIPTION
       List  information about the FILEs (the current directory by default).  Sort entries alphabetically if none of -cftuvSUX nor --sort is speci-
       fied.

       Mandatory arguments to long options are mandatory for short options too.

       -a, --all
              do not ignore entries starting with .

       -A, --almost-all
              do not list implied . and ..

       --author
              with -l, print the author of each file

       -b, --escape
              print C-style escapes for nongraphic characters

       --block-size=SIZE
              with -l, scale sizes by SIZE when printing them; e.g., '--block-size=M'; see SIZE format below

       -B, --ignore-backups
              do not list implied entries ending with ~

       -c     with -lt: sort by, and show, ctime (time of last modification of file status information); with -l: show ctime and sort by name; oth-
              erwise: sort by ctime, newest first

       -C     list entries by columns

       --color[=WHEN]
 Manual page ls(1) line 1 (press h for help or q to quit)
```

dbms19@dbms19-HP-Pro

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ date
Mon Feb 10 09:34:23 AM IST 2025
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ time

real    0m0.000s
user    0m0.000s
sys     0m0.000s
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ cal
    February 2025
Su Mo Tu We Th Fr Sa
                   1
 2  3  4  5  6  7  8
 9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28
```

```
Desktop: No such file or directory
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ less Unix
Unix/     UnixLab/
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ less UnixLab/
UnixLab/ is a directory
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ bc
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software Foundation, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type `warranty'.
18+56
74
45-8
37
12/6
2
45*8
360
12%6
0
```

```
^C
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ head newfile.txt
Experiment No 2
This is unix lab
New file is created.
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ tail newfile.txt
Experiment No 2
This is unix lab
New file is created.
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ more
```

```
dbms19@dbms19-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~/Desktop$ history
    1  sudo su
    2  python
    3  python3
    4  sudo gedit /etc/profile
    5  cd Desktop
    6  cd 550
    7  javac Productcipher.java
    8  sudo su
    9  sudo apt install curl
   10  sudo curl -fsSLo /usr/share/keyrings/brave-browser-archive-keyring.gpg https://brave-browser-apt-release.s3.brave.com/brave-browser-archive-keyr
ing.gpg
   11  sudo apt install curl
   12  sudo curl -fsSLo /usr/share/keyrings/brave-browser-archive-keyring.gpg https://brave-browser-apt-release.s3.brave.com/brave-browser-archive-keyr
ing.gpg
   13  echo "deb [signed-by=/usr/share/keyrings/brave-browser-archive-keyring.gpg] https://brave-browser-apt-release.s3.brave.com/ stable main"|sudo te
e /etc/apt/sources.list.d/brave-browser-release.list
   14  sudo apt update
   15  sudo apt install brave-browser
   16  sudo su
   17  sudo  su
   18  sudo su
   19  java -v
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ ifconfig
enp1s0: flags=4099<UP,BROADCAST,MULTICAST>  mtu 1500
        ether e0:73:e7:10:65:c5  txqueuelen 1000  (Ethernet)
        RX packets 0  bytes 0 (0.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 0  bytes 0 (0.0 B)
        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 383  bytes 40946 (40.9 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 383  bytes 40946 (40.9 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

wlp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 192.168.2.129  netmask 255.255.255.0  broadcast 192.168.2.255
        inet6 fe80::bc64:408d:8ee4:a0f6  prefixlen 64  scopeid 0x20<link>
        ether cc:47:40:d7:e9:99  txqueuelen 1000  (Ethernet)
        RX packets 1902  bytes 663009 (663.0 KB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 481  bytes 88009 (88.0 KB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ ping -b 192.168.2.255
WARNING: pinging broadcast address
PING 192.168.2.255 (192.168.2.255) 56(84) bytes of data.
64 bytes from 192.168.2.1: icmp_seq=1 ttl=64 time=8.64 ms
64 bytes from 192.168.2.101: icmp_seq=1 ttl=64 time=37.1 ms
64 bytes from 192.168.2.1: icmp_seq=2 ttl=64 time=15.4 ms
64 bytes from 192.168.2.101: icmp_seq=2 ttl=64 time=270 ms
64 bytes from 192.168.2.1: icmp_seq=3 ttl=64 time=5.61 ms
64 bytes from 192.168.2.101: icmp_seq=3 ttl=64 time=195 ms
64 bytes from 192.168.2.1: icmp_seq=4 ttl=64 time=10.3 ms
64 bytes from 192.168.2.101: icmp_seq=4 ttl=64 time=222 ms
64 bytes from 192.168.2.1: icmp_seq=5 ttl=64 time=5.84 ms
64 bytes from 192.168.2.101: icmp_seq=5 ttl=64 time=27.7 ms
64 bytes from 192.168.2.1: icmp_seq=6 ttl=64 time=5.74 ms
64 bytes from 192.168.2.101: icmp_seq=6 ttl=64 time=162 ms
64 bytes from 192.168.2.1: icmp_seq=7 ttl=64 time=5.63 ms
64 bytes from 192.168.2.101: icmp_seq=7 ttl=64 time=390 ms
64 bytes from 192.168.2.1: icmp_seq=8 ttl=64 time=9.00 ms
64 bytes from 192.168.2.101: icmp_seq=8 ttl=64 time=204 ms
64 bytes from 192.168.2.1: icmp_seq=9 ttl=64 time=5.05 ms
64 bytes from 192.168.2.101: icmp_seq=9 ttl=64 time=17.1 ms
64 bytes from 192.168.2.1: icmp_seq=10 ttl=64 time=8.56 ms
64 bytes from 192.168.2.101: icmp_seq=10 ttl=64 time=39.7 ms
64 bytes from 192.168.2.1: icmp_seq=11 ttl=64 time=5.66 ms
64 bytes from 192.168.2.101: icmp_seq=11 ttl=64 time=174 ms
64 bytes from 192.168.2.1: icmp_seq=12 ttl=64 time=5.66 ms
64 bytes from 192.168.2.101: icmp_seq=12 ttl=64 time=402 ms
64 bytes from 192.168.2.1: icmp_seq=13 ttl=64 time=5.05 ms
64 bytes from 192.168.2.101: icmp_seq=13 ttl=64 time=319 ms
64 bytes from 192.168.2.1: icmp_seq=14 ttl=64 time=8.90 ms
64 bytes from 192.168.2.101: icmp_seq=14 ttl=64 time=38.6 ms
64 bytes from 192.168.2.1: icmp_seq=15 ttl=64 time=5.31 ms
64 bytes from 192.168.2.101: icmp_seq=15 ttl=64 time=163 ms
64 bytes from 192.168.2.1: icmp_seq=16 ttl=64 time=8.67 ms
64 bytes from 192.168.2.101: icmp_seq=16 ttl=64 time=186 ms
64 bytes from 192.168.2.1: icmp_seq=17 ttl=64 time=5.05 ms
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ traceroute google.com
traceroute to google.com (142.250.77.46), 30 hops max, 60 byte packets
 1  _gateway (192.168.2.1)  5.936 ms  5.898 ms  5.880 ms
 2  puppetmaster (192.168.0.1)  100.902 ms  100.886 ms  100.871 ms
 3  103.149.174.161 (103.149.174.161)  100.478 ms  100.445 ms  100.426 ms
 4  103.149.174.5 (103.149.174.5)  100.409 ms  100.391 ms  100.376 ms
 5  197.11.112.45.mipl.com (45.112.11.197)  100.735 ms  100.345 ms  100.703 ms
 6  172.16.2.202 (172.16.2.202)  100.686 ms * *
 7  22.188.100.175.mipl.com (175.100.188.22)  98.317 ms  104.263 ms  104.222 ms
 8  * * *
 9  216.239.46.136 (216.239.46.136)  104.149 ms 108.170.226.130 (108.170.226.130)  104.489 ms 142.251.69.102 (142.251.69.102)  104.107 ms
10  192.178.110.108 (192.178.110.108)  104.088 ms 192.178.110.110 (192.178.110.110)  104.070 ms 142.250.238.201 (142.250.238.201)  104.419 ms
11  bom07s26-in-f14.1e100.net (142.250.77.46)  104.037 ms  104.021 ms 192.178.110.249 (192.178.110.249)  104.346 ms
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0     34 dbms15-HP-Pro-Tow:52100 5.8.93.138:19092        ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:42458 a104-97-76-226.de:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:40308 bom07s27-in-f10.1:https ESTABLISHED
tcp        0      1 dbms15-HP-Pro-Tow:49310 ads.us.e-planning:https LAST_ACK
tcp        0      0 dbms15-HP-Pro-Tow:45680 163.184.100.175.m:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:45978 bom07s31-in-f3.1e:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:35572 bom07s31-in-f3.1e:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:36270 143.244.197.139:https   ESTABLISHED
tcp       32      0 dbms15-HP-Pro-Tow:42474 pare-many.psychef:https CLOSE_WAIT
tcp        0      0 dbms15-HP-Pro-Tow:35564 ec2-54-195-125-7.:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:38566 151.101.193.91:https    ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:40646 91.243.81.149:https     ESTABLISHED
tcp        0      1 dbms15-HP-Pro-Tow:46574 pare-many.psychef:https LAST_ACK
tcp        0      0 dbms15-HP-Pro-Tow:45678 163.184.100.175.m:https ESTABLISHED
tcp        0      1 dbms15-HP-Pro-Tow:40686 vista.secretprowe:https LAST_ACK
tcp        0      0 dbms15-HP-Pro-Tow:54182 bom07s31-in-f3.1e:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:43334 ec2-3-0-107-214.a:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:59880 bom07s32-in-f3.1e:https TIME_WAIT
tcp        0      0 dbms15-HP-Pro-Tow:48374 69.173.158.64:https     FIN_WAIT2
tcp        0      1 dbms15-HP-Pro-Tow:53942 ads.us.e-planning:https LAST_ACK
tcp        0      0 dbms15-HP-Pro-Tow:57410 90.7.213.35.bc.go:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:38028 151.101.2.49:https      ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:57050 8.154.244.35.bc.g:https ESTABLISHED
tcp        0      1 dbms15-HP-Pro-Tow:51938 ip81.ip-51-79-152:https LAST_ACK
tcp        0      0 dbms15-HP-Pro-Tow:57416 90.7.213.35.bc.go:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:53966 69.173.158.92:https     ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:55676 172.64.155.119:https    ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:40502 69.173.158.65:https     TIME_WAIT
tcp        0      0 dbms15-HP-Pro-Tow:40924 bom07s45-in-f1.1e:https ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:58924 104.18.27.216:https     ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:56448 172.64.144.50:https     ESTABLISHED
tcp        0      0 dbms15-HP-Pro-Tow:52186 88.199.214.35.bc.:https ESTABLISHED
tcp       64      0 dbms15-HP-Pro-Tow:50550 143-244-50-82.bun:https CLOSE_WAIT
tcp        0      0 dbms15-HP-Pro-Tow:57578 151.101.194.49:https    ESTABLISHED
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ nslookup
> google.com
Server:         127.0.0.53
Address:        127.0.0.53#53

Non-authoritative answer:
Name:   google.com
Address: 142.250.77.46
Name:   google.com
Address: 2404:6800:4009:81c::200e
```

```
-q [version|sources|types]  query specified server info
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ whois google.com
    Domain Name: GOOGLE.COM
    Registry Domain ID: 2138514_DOMAIN_COM-VRSN
    Registrar WHOIS Server: whois.markmonitor.com
    Registrar URL: http://www.markmonitor.com
    Updated Date: 2019-09-09T15:39:04Z
    Creation Date: 1997-09-15T04:00:00Z
    Registry Expiry Date: 2028-09-14T04:00:00Z
    Registrar: MarkMonitor Inc.
    Registrar IANA ID: 292
    Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
    Registrar Abuse Contact Phone: +1.2086851750
    Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
    Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
    Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhibited
    Domain Status: serverDeleteProhibited https://icann.org/epp#serverDeleteProhibited
    Domain Status: serverTransferProhibited https://icann.org/epp#serverTransferProhibited
    Domain Status: serverUpdateProhibited https://icann.org/epp#serverUpdateProhibited
    Name Server: NS1.GOOGLE.COM
    Name Server: NS2.GOOGLE.COM
    Name Server: NS3.GOOGLE.COM
    Name Server: NS4.GOOGLE.COM
    DNSSEC: unsigned
    URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of whois database: 2025-01-27T04:06:17Z <<<

For more information on Whois status codes, please visit https://icann.org/epp

NOTICE: The expiration date displayed in this record is the date the
registrar's sponsorship of the domain name registration in the registry is
currently set to expire. This date does not necessarily reflect the expiration
date of the domain name registrant's agreement with the sponsoring
registrar.  Users may consult the sponsoring registrar's Whois database to
view the registrar's reported date of expiration for this registration.

TERMS OF USE: You are not authorized to access or query our Whois
database through the use of electronic processes that are high-volume and
automated except as reasonably necessary to register domain names or
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ hostname
dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ host
Usage: host [-aCdilrTvVw] [-c class] [-N ndots] [-t type] [-W time]
            [-R number] [-m flag] [-p port] hostname [server]
        -a is equivalent to -v -t ANY
        -A is like -a but omits RRSIG, NSEC, NSEC3
        -c specifies query class for non-IN data
        -C compares SOA records on authoritative nameservers
        -d is equivalent to -v
        -l lists all hosts in a domain, using AXFR
        -m set memory debugging flag (trace|record|usage)
        -N changes the number of dots allowed before root lookup is done
        -p specifies the port on the server to query
        -r disables recursive processing
        -R specifies number of retries for UDP packets
        -s a SERVFAIL response should stop query
        -t specifies the query type
        -T enables TCP/IP mode
        -U enables UDP mode
        -v enables verbose output
        -V print version number and exit
        -w specifies to wait forever for a reply
        -W specifies how long to wait for a reply
        -4 use IPv4 query transport only
        -6 use IPv6 query transport only
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$
```

```
dbms15@dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC:~$ sudo tcpdump
[sudo] password for dbms15:
tcpdump: verbose output suppressed, use -v[v]... for full protocol decode
listening on wlp2s0, link-type EN10MB (Ethernet), snapshot length 262144 bytes
09:25:24.945347 IP 192.168.2.115 > 239.255.255.250: igmp v1 report 239.255.255.250
09:25:24.955101 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.56315 > _gateway.domain: 9454+ [1au] PTR? 250.255.255.239.in-addr.arpa. (57)
09:25:24.975304 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.56315: 9454 NXDomain 0/1/1 (114)
09:25:24.975832 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.40866 > _gateway.domain: 25097+ [1au] PTR? 115.2.168.192.in-addr.arpa. (55)
09:25:24.998781 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.40866: 25097 NXDomain 0/0/1 (55)
09:25:25.059067 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.50302 > _gateway.domain: 20647+ [1au] PTR? 1.2.168.192.in-addr.arpa. (53)
09:25:25.153960 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.50302: 20647 NXDomain 0/0/1 (53)
09:25:25.154753 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.56466 > _gateway.domain: 18517+ [1au] PTR? 129.2.168.192.in-addr.arpa. (55)
09:25:25.260271 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.56466: 18517 NXDomain 0/0/1 (55)
09:25:25.358280 IP 192.168.2.125.netbios-ns > 192.168.2.255.netbios-ns: UDP, length 50
09:25:25.372116 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.35313 > _gateway.domain: 56866+ [1au] PTR? 125.2.168.192.in-addr.arpa. (55)
09:25:25.384083 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.35313: 56866 NXDomain 0/0/1 (55)
09:25:25.866973 ARP, Request who-has 192.168.2.111 tell _gateway, length 28
09:25:25.866985 ARP, Request who-has 192.168.2.148 tell _gateway, length 28
09:25:25.891065 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.52336 > _gateway.domain: 28050+ [1au] PTR? 111.2.168.192.in-addr.arpa. (55)
09:25:25.914947 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.52336: 28050 NXDomain 0/0/1 (55)
09:25:25.915703 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.59528 > _gateway.domain: 54823+ [1au] PTR? 148.2.168.192.in-addr.arpa. (55)
09:25:25.969001 ARP, Request who-has 192.168.2.113 tell _gateway, length 28
09:25:25.972933 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.59528: 54823 NXDomain 0/0/1 (55)
09:25:25.995161 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.60854 > _gateway.domain: 27478+ [1au] PTR? 113.2.168.192.in-addr.arpa. (55)
09:25:26.071343 ARP, Request who-has _gateway tell 192.168.2.125, length 28
09:25:26.071361 IP 192.168.2.125 > 239.255.102.18: igmp v1 report 239.255.102.18
09:25:26.075262 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.60854: 27478 NXDomain 0/0/1 (55)
09:25:26.098804 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.39293 > _gateway.domain: 40198+ [1au] PTR? 18.102.255.239.in-addr.arpa. (56)
09:25:26.173982 IP 192.168.2.125.netbios-ns > 192.168.2.255.netbios-ns: UDP, length 50
09:25:26.280189 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.39293: 40198 NXDomain 0/1/1 (113)
09:25:26.379154 IP 192.168.2.137.mdns > mdns.mcast.net.mdns: 0 PTR (QM)? _googlecast._tcp.local. (40)
09:25:26.379155 IP6 fe80::a56c:63d4:3d71:a22a.mdns > ff02::fb.mdns: 0 PTR (QM)? _googlecast._tcp.local. (40)
09:25:26.379170 IP6 fe80::a56c:63d4:3d71:a22a.mdns > ff02::fb.mdns: 0 PTR (QM)? _googlecast._tcp.local. (40)
09:25:26.411026 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.50890 > _gateway.domain: 3354+ [1au] PTR? 251.0.0.224.in-addr.arpa. (53)
09:25:26.484857 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.50890: 3354 1/0/1 PTR mdns.mcast.net. (81)
09:25:26.485228 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.40173 > _gateway.domain: 30061+ [1au] PTR? 137.2.168.192.in-addr.arpa. (55)
09:25:26.494181 IP _gateway.domain > dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.40173: 30061 NXDomain 0/0/1 (55)
09:25:26.494713 IP dbms15-HP-Pro-Tower-280-G9-PCI-Desktop-PC.58163 > _gateway.domain: 13259+ [1au] PTR? b.f.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0
.0.0.0.0.2.0.f.f.ip6.arpa. (101)
```