```
    □ varun@Varun: ~/Demo

                                    -h[uman-readable] | -iec | -j[son] | -p[retty] |
-f[amily] { inet | inet6 | mpls | bridge | link } |
-4 | -6 | -M | -B | -0 |
-l[oops] { maximum-addr-flush-attempts } | -br[ief] |
-o[neline] | -t[imestamp] | -ts[hort] | -b[atch] [filename] |
-rc[vbuf] [size] | -n[etns] name | -N[umeric] | -a[ll] |
-c[olor]}
varun@Varun:~/Demo$ echo text.txt
    text.txt
   niraj
kartik
shiv
vilas
    varun@Varun:~/Demo$ head
^C
    varun@Varun:~/Demo$ head text.txt
Hello varun
    How are U
where was Uhello linux
varun
    sanket
    vipul
    suraj
rohan
    sachin
     varun@Varun:~/Demo$ head -5 text.txt
    Hello varun
    How are U where was Uhello linux
    varun
sanket
    varun@Varun:~/Demo$ tail text.txt
vipul
    suraj
rohan
    sachin
    om
niraj
kartik
```

```
    varun@Varun: ∼/Demo

    top - 16:27:38 up 28 min, 0 users, load average: 0.00, 0.00, 0.00
Tasks: 5 total, 1 running, 4 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 3850.5 total, 3710.7 free, 80.7 used, 59.0 buff/cache
MiB Swap: 1024.0 total, 1023.0 free, 1.0 used. 3626.9 avail Mem
                                                                                                          VIRT
                                                                                                                                      RES
                                                                                                                                                                     SHR S %CPU %MEM
                                                                                                                                                                                                                                                        TIME+ COMMAND
           PID USER
                                                                                                                                                                1108 S 0.0 0.0 0:00.02 init
0 S 0.0 0.0 0:00.00 init
0 S 0.0 0.0 0:00.08 init
3392 S 0.0 0.1 0:00.23 bash
3108 R 0.0 0.1 0:00.00 top
                                                                   20 0
20 0
20 0
20 0
                                                                                                          1816
2164
2172
6072
                                                                                                                                     1184
368
368
5108
                 1 root
56 root
                  57 root
58 varun
             129 varun
                                                                                                          7808
                                                                                                                                      3708
         varun@Varun: ~/Demo
     varun@Varun:~/Demo$ ln
ln: missing file operand
Try 'ln --help' for more information.
varun@Varun:~/Demo$ stat
      stat: missing operand
Try 'stat --help' for more information.
varun@Varun:~/Demo$ time
                           0m0.000s
0m0.000s
0m0.000s
      real
      sys
    sys 0m0.000s

varun@Varun:~/Demo$ w
16:34:16 up 34 min, 0 users, load average: 0.00, 0.00, 0.00

USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT

varun@Varun:~/Demo$ halt

System has not been booted with systemd as init system (PID 1). Can't operate.

Failed to connect to bus: Host is down

varun@Varun:~/Demo$ is

Command 'is' not found, but can be installed with:

sudo apt install ironseed

varun@Varun:~/Demo$ ip
Command 'is not rouned sudo apt install ironseed varun@Varun:~/Demo$ ip

Usage: ip [ OPTIONS ] OBJECT { COMMAND | help } ip [ -force ] -batch filename

where OBJECT := { address | addrlabel | fou | help | ila | ioam | l2tp | link | macsec | maddress | monitor | mptcp | mroute | mrule | neighbor | neighbour | netconf | netns | nexthop | ntable | ntbl | route | rule | sr | tap | tcpmetrics | token | tunnel | tuntap | vrf | xfrm }

OPTIONS := { -V[ersion] | -s[tatistics] | -d[etails] | -r[esolve] | -h[uman-readable] | -iec | -j[son] | -p[retty] | -f[amily] { inet | inet6 | mpls | bridge | link } | -4 | -6 | -M | -B | -0 | -1[oops] { maximum-addr-flush-attempts } | -br[ief] |
```

```
ि varun@Varun: ~/Demo
                        /sys/fs/cgroup/cpu
                                                                                                                       cgroup
                                                                                                                                                                                                       rw,nosuid,nodev,noexec,relatime,cpu
                                                                                                                                                         cgroup
                                                                                                                                                                                                    rw, nosuid, nodev, noexec, relatime, cpu
rw, nosuid, nodev, noexec, relatime, cpuacct
rw, nosuid, nodev, noexec, relatime, blkio
rw, nosuid, nodev, noexec, relatime, memory
rw, nosuid, nodev, noexec, relatime, devices
rw, nosuid, nodev, noexec, relatime, freezer
rw, nosuid, nodev, noexec, relatime, net_cls
rw, nosuid, nodev, noexec, relatime, perf_event
rw, nosuid, nodev, noexec, relatime, hugetlb
rw, nosuid, nodev, noexec, relatime, hugetlb
rw, nosuid, nodev, noexec, relatime, pids
rw, nosuid, nodev, noexec, relatime, rdma
rw, nosuid, nodev, noexec, relatime, rdma
rw, nosuid, nodev, noexec, roatime
                       -/sys/fs/cgroup/cpuacct
-/sys/fs/cgroup/blkio
                                                                                                                       cgroup
                                                                                                                                                         cgroup
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                     -/sys/fs/cgroup/memory
-/sys/fs/cgroup/devices
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                    //sys/fs/cgroup/freezer
//sys/fs/cgroup/net_cls
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                    _/sys/fs/cgroup/perf_event
_/sys/fs/cgroup/net_prio
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                       /sys/fs/cgroup/hugetlb
/sys/fs/cgroup/pids
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                                                                                                                       cgroup
                                                                                                                                                          cgroup
                  _/sys/fs/cgroup/rdma
                                                                                                                        cgroup
                                                                                                                                                          cgroup
           /proc
                                                                                                                       proc
                                                                                                                                                         proc
                                                                                                                       binfmt_misc
binfmt_misc rw,relatime
          └/proc/sys/fs/binfmt_misc
                                                                                                                                                                                                     rw,relatime
rw,nosuid,noexec,noatime,mode=755
rw,nosuid,nodev,noexec,noatime
rw,nosuid,nodev,noatime
rw,nosuid,nodev,noexec,noatime,mode=755
ro,nosuid,nodev,noatime,dirsync,aname=drivers;fmask=222;dmask=222,mmap,acc
ro,nosuid,nodev,noatime,dirsync,aname=lib;fmask=222;dmask=222,mmap,acc
ro,nosuid,nodev,noatime,dirsync,aname=lib;fmask=222;dmask=222,mmap,access=
rw,noatime,dirsync,aname=drvfs;path=C:\;uid=1000;gid=1000;symlinkroot=/mnt
rw,noatime,dirsync,aname=drvfs;path=D:\;uid=1000;gid=1000;symlinkroot=/mnt
                                                                                                                                                          tmpfs
tmpfs
           —/run/lock
                                                                                                                       none
              -/run/shm
         _/run/user
                                                                                                                                                          tmpfs
                                                                                                                       none
      -/usr/lib/wsl/drivers
-/usr/lib/wsl/lib
                                                                                                                       drivers
lib
                                                                                                                                                          9p
                                                                                                                                                         9p
9p
                                                                                                                        drvfs
      -/mnt/d
                                                                                                                       drvfs
                                                                                                                                                          9p
      arun@Varun:~/Demo$ tee
   ^C
              un@Varun:~/Demo$ tee suraj.txt
 hello suraj
hello suraj
   ^C
              un@Varun:<mark>~/Demo$ cat suraj.txt</mark>
hello suraj
varun@Varun:~/Demo$ bc
Command 'bc' not found, but can be installed with:
sudo apt install bc
   varun@Varun: ~/Demo
            fs 123857916 80925264 42932652 66% /mnt/c
fs 976757756 98502668 878255088 11% /mnt/d
run@Varun:~/Demo$ df -h
esystem Size Used Avail Use% Mounted on
v/sdb 251G 1.1G 238G 1% /
 drvfs
drvfs
 Filesystem
/dev/sdb
                                                                             Used Avail Use% Mounted of 1.1G 238G 1% // Mnrt/wsl 4.0K 1.9G 1% /mnrt/wsl 4.0K 1.9G 1% /run 0 1.9G 0% /run/lock 0 1.9G 0% /run/lock 0 1.9G 0% /run/user 0 1.9G 0% /sys/fs/cr 1.9G 0% /sys/fs/cr 1.9G 0% /run/user 0 1.9G 0% /run/user 0 1.9G 0% /sys/fs/cr 1.9G 0% /run/user 0 1.9G 0% /run/user 
                                                            1.9G
119G
1.9G
 none
 tools
 none
                                                            1.9G
1.9G
                                                                                   0
0
0
78G
78G
78G
94G
 none
                                                            1.9G
1.9G
1.9G
 none
                                                                                                      1.96 0% /sys/fs/cgroup

1.96 0% /sys/fs/cgroup

416 66% /usr/lib/wsl/drivers

416 66% /usr/lib/wsl/lib

416 66% /mnt/c

838G 11% /mnt/d
 tmpfs
 drivers
                                                            119G
119G
932G
 lib
 drvfs
drvfs
   varun@Varun:~/Demo$ df -l
Filesystem
/dev/sdb
                                                        1K-blocks
263174212
                                                                                                Used Available Use% Mounted on
1114492 248621564 1% /
                                                                                                                                                                     Use% Mounted or
1% /
1% /mnt/wsl
66% /init
1% /run
0% /run/lock
0% /run/shm
0% /run/user
                                                        1971452 4
123857916 80925264
1971452 4
1971452 0
                                                                                                                                1971448
42932652
none
tools
none
none
                                                                                                                                    1971448
1971452
                                                                1971452
1971452
                                                                                                                                     1971452
1971452
 none
 none
                                                                                                                                                                     0% /run/user
0% /sys/fs/cgroup
66% /usr/lib/wsl/drivers
66% /usr/lib/wsl/lib
66% /mnt/c
tmpfs
drivers
                                                        1971452 0 1971452
123857916 80925264 42932652
   Lib 123857916 80925264 42932652
drvfs 123857916 80925264 42932652
drvfs 976757756 98502668 878255088
varun@Varun:~/Demo$ findmnt
 lib
drvfs
                                                                                                                                                                      11% /mnt/d
drvfs
  TARGET
                                                                                                                        SOURCE
                                                                                                                                                      FSTYPE
                                                                                                                                                                                                     OPTIONS
                                                                                                                         /dev/sdb ext4
                                                                                                                                                                                                      rw,relatime,discard,errors=remount-ro,data=ordered
```

```
    varun@Varun: ∼/Demo

                                                                                                                                                       0 295 /proc/196/fd
0t0 300 pipe
0t0 301 pipe
4096 29342 /home/varun/Demo
4096 2 /
67544 1540 /usr/bin/lsof
27002 6259 /usr/lib/x86_64-linux-gnu/gconv/gconv-modules.cache
68552 6768 /usr/lib/x86_64-linux-gnu/libresolv.so.2
22600 6629 /usr/lib/x86_64-linux-gnu/libresolv.so.1
282080 6635 /usr/lib/x86_64-linux-gnu/libresorer.so.2.1
882928 6627 /usr/lib/x86_64-linux-gnu/libcom_err.so.2.1
882928 6627 /usr/lib/x86_64-linux-gnu/libcom_err.so.2.1
882928 6627 /usr/lib/x86_64-linux-gnu/libresorer.so.3.1
828000 6633 /usr/lib/x86_64-linux-gnu/libresorer.so.3.1
828000 6638 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.1
828000 6638 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.1
828010 6638 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.1
828020 6736 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.0
82823 6829 6775 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.0
82902 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.0
82902 /usr/lib/x86_64-linux-gnu/libresorer.so.3.0.0
82903 000 pipe
82904 8201 pipe
                                                                                                                                                                            295 /proc/196/fd
                                                                  varun
                                                                                                                               0,10
0,10
8,16
8,16
8,16
8,16
                                                                                                             FIF0
  1sof
                       196
                                                                  varun
                                                                                          5w
                                                                                                              FIFO
FIFO
DIR
                                                                                          6r
                                                                   varun
  lsof
                       197
                                                                  varun cwd
varun rtd
                                                                                                                DIR
   lsof
                       197
197
  lsof
lsof
                                                                                                                REG
REG
                                                                                                                                                   167544
27002
                                                                   varun
                                                                                      txt
                                                                   varun
                                                                                    mem
                                                                                                                                                    353616
68552
  lsof
lsof
                       197
197
                                                                                   mem
mem
                                                                                                                REG
REG
                                                                                                                               varun
                       197
197
                                                                                                                REG
REG
                                                                                                                                                      22600
52080
  lsof
                                                                  varun
                                                                                    mem
   lsof
                                                                                    mem
                                                                   varun
  lsof
                       197
197
                                                                                    mem
                                                                                                                REG
REG
                                                                                                                                                   18504
182928
   lsof
                                                                                   mem
                                                                  varun
  lsof
lsof
                                                                                                                REG
REG
                                                                                                                                                   828000
613064
                       197
                                                                  varun
                                                                                    mem
                       197
                                                                                    mem
                                                                  varun
                       197
197
                                                                                                                REG
REG
                                                                                                                                                 338712
2216304
                                                                   varun
   lsof
                                                                                   mem
                                                                 varun
  lsof
lsof
                       197
197
                                                                                                                                                    166280
182912
                                                                                                                REG
                                                                  varun
                                                                                    mem
                                                                                   mem
4r
7w
  lsof
lsof
                       197
197
                                                                                                             REG
FIFO
                                                                                                                                                    240936
0t0
 varun 4r
varun@Varun:~/Demo$ chmod 777 text.txt
varun@Varun:~/Demo$ ls -l
total 8
                                                                                                                                                                           300 pipe
 Demos d+

IK-blocks Used Available Use% Mounted on

263174212 1114492 248621564 1% /

1971452 4 1971448 1% /mnt/wsl

123857916 80925264 42932652 66% /init

1971452 4 1971448 1% /run

1971452 0 1971452 0% /run/lock
  none
  tools
  none
  none
                                                            × + -

    varun@Varun: ∼/Demo
 ;; Query time: 20 msec
;; SERVER: 172.31.176.1#53(172.31.176.1) (UDP)
;; WHEN: Wed Apr 12 16:29:32 IST 2023
;; MSG SIZE rcvd: 86
varun@Varun:~/Demo$ unam
Command 'unam' not found, did you mean:
  command 'unar' from deb unar (1.10.1-2build11)
  command 'uname' from deb coreutils (8.32-4.1ubuntu1)
  command 'nam' from deb nam (1.15-5.2)
Try: sudo apt install <deb name>
  varun@Varun:~/Demo$ uname
   varun@Varun:~/Demo$ hostname
  Varun
  Varun@Varun:~/Demo$ free -m total
Mem: 3850
Swap: 1024
                                                                                                                                        shared buff/cache
                                                                               83
1
 Mem:
                                                                                                              3643
                                                                                                                                                                                                                3591
    varun@Varun:~/Demo$ wc text.txt
15 21 119 text.txt
  varun@Varun:~/Demo$ wc -l text.txt
15 text.txt
    /arun@Varun:~/Demo$ ps
PID TTY TIME CMD
                                   TIME CMD
00:00:00 bash
00:00:00 ps
      58 pts/0
195 pts/0
 varun@Varun:~/Demo$ lsof
COMMAND PID TID TASKCMD USER
                                                                                                             TYPE DEVICE SIZE/OFF NODE NAME
                                                                                                                                                                                       //proc/1/cwd (readlink: Permission denied)
/proc/1/root (readlink: Permission denied)
/proc/1/exe (readlink: Permission denied)
/proc/1/fd (opendir: Permission denied)
/proc/1/task/5/cwd (readlink: Permission denied)
                                                                    root cwd
root rtd
root txt
root NOFD
 init
init
                                                                                                     unknown
unknown
 init
init
                                                                                                     unknown
```

```
varun@Varun: ~/Demo
  Command 'cal' not found, but can be installed with:
varun@Varun:~/Demo$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
varun@Varun:~/Demo$ sudo apt install ncal
varun@Varun:~/Demo$ sudo apt install ncal
[sudo] password for varun:
Pandiam pandene lists
[sudo] password for varun:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ncal
varun@Varun:~/Demo$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
varun@Varun:~/Demo$ w
16:28:50 up 29 min, 0 users, load average: 0.00, 0.00, 0.00
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
varun@Varun:~/Demo$ finger user
Command 'finger' not found, but can be installed with:
sudo apt install finger
varun@Varun:~/Demo$ sudo finger user
sudo: finger: command not found
   sudo: finger: command not found
varun@Varun:~/Demo$ dig amazon.com
    ; <<>> DiG 9.18.1-1ubuntu1.2-Ubuntu <<>> amazon.com
  ; <<> DIG 9.18.1-1UDURTUI.2-UDURTUI <<>> amazon.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 14669
;; flags: qr rd ad; QUERY: 1, ANSWER: 3, AUTHORITY: 0, ADDITIONAL: 0
;; WARNING: recursion requested but not available
   ;; QUESTION SECTION:
                                                                                                                     TN

    varun@Varun: ∼/Demo
   varun@Varun:~/Demo$ bg
  -bash: bg: current: no such job
varun@Varun:~/Demo$ fg
varun@Warun:~/Demo$ +g
-bash: fg: current: no such job
varun@Varun:~/Demo$ date
Wed Apr 12 16:28:22 IST 2023
varun@Varun:~/Demo$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
varun@Varun:~/Demo$ cal
sudo apt install ncal
varun@Varun:~/Demo$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
varun@Varun:~/Demo$ sudo apt install ncal
[sudo] password for varun:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package ncal
varun@Varun:~/Demo$ cal
Command 'cal' not found, but can be installed with:
sudo apt install ncal
varun@Varun:~/Demo$ w
sudo apt insatt heat
varun@Varun:~/Demo$ w
16:28:50 up 29 min, 0 users, load average: 0.00, 0.00, 0.00
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT
varun@Varun:~/Demo$ finger user
Command 'finger' not found, but can be installed with:
```