```
alwin@AlwinMathew:~$ date
Fri 03 Mar 2023 10:22:59 AM EST
alwin@AlwinMathew:~$ date +%m
03

madhur@ubuntu:~$ cal
      May 2012
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 29 30 31

alwin@AlwinMathew:~$ ls
Documents  Downloads  hello.c  Music  Pictures  Public  Templates  Videos
alwin@AlwinMathew:~$ ls -s
total 32
4 Documents  4 hello.c  4 Pictures  4 Templates
4 Downloads  4 Music    4 Public    4 Videos
alwin@AlwinMathew:~$ ls -l
total 32
drwxr-xr-x 2 alwin alwin 4096 Mar  2 15:57 Documents
drwxr-xr-x 2 alwin alwin 4096 Mar  2 15:57 Downloads
-rw-r--r-- 1 alwin alwin   57 Mar  3 10:03 hello.c
drwxr-xr-x 3 alwin alwin 4096 Mar  2 16:02 Music
drwxr-xr-x 2 alwin alwin 4096 Mar  3 10:26 Pictures
drwxr-xr-x 2 alwin alwin 4096 Mar  2 15:57 Public
drwxr-xr-x 2 alwin alwin 4096 Mar  2 15:57 Templates
drwxr-xr-x 2 alwin alwin 4096 Mar  2 15:57 Videos
alwin@AlwinMathew:~$ man cat
alwin@AlwinMathew:~$ who
alwin     tty2         2023-03-03 09:59 (tty2)
alwin@AlwinMathew:~$ whoami
alwin
alwin@AlwinMathew:~$ uptime
 11:12:52 up  1:14,  1 user,  load average: 0.02, 0.04, 0.02
alwin@AlwinMathew:~$ uname
Linux
alwin@AlwinMathew:~$ hostname
AlwinMathew
alwin@AlwinMathew:~$ bc
bc 1.07.1
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software Foundati
on, Inc.
This is free software with ABSOLUTELY NO WARRANTY.
For details type `warranty'.
10/2
5
scale=1
2.251
2.251
2.251+1
3.251
quit
alwin@AlwinMathew:~$ cat>b.txt
Hello there I am using Linux!
alwin@AlwinMathew:~$ cat b.txt
Hello there I am using Linux!
alwin@AlwinMathew:~$ cat>>b.txt
CPU is the central processing unit
alwin@AlwinMathew:~$ cat b.txt
Hello there I am using Linux!
CPU is the central processing unit
alwin@AlwinMathew:~$ cat a.txt>b.txt
alwin@AlwinMathew:~$ cat b.txt
hello
```

```
alwin@AlwinMathew:~$ cat a.txt>>b.txt
alwin@AlwinMathew:~$ cat b.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ grep CPU b.txt
CPU is the central processing unit
alwin@AlwinMathew:~$ rm a.txt
alwin@AlwinMathew:~$ touch a.txt
alwin@AlwinMathew:~$ cpb.txt a.txt
bash: cpb.txt: command not found
alwin@AlwinMathew:~$ cp b.txt a.txt
alwin@AlwinMathew:~$ cat a.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ mv b.txt hello.txt
alwin@AlwinMathew:~$ cat hello.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ cut -c 1 hello.txt
h
H
C
h
alwin@AlwinMathew:~$ cut -f 3,6 hello.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ head hello.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ head -2 hello.txt
hello
Hello there I am using Linux!
alwin@AlwinMathew:~$ tail hello.txt
hello
Hello there I am using Linux!
CPU is the central processing unit
hello
alwin@AlwinMathew:~$ chmod u-wx hello.txt
alwin@AlwinMathew:~$ chmod g=rwx hello.txt
alwin@AlwinMathew:~$ wc
-l
^Z
[2]+  Stopped                    wc
```

```
alwin@AlwinMathew:~$ wc -l hello.txt
4 hello.txt
alwin@AlwinMathew:~$ wc -w hello.txt
14 hello.txt
alwin@AlwinMathew:~$ wc -c hello.txt
77 hello.txt
alwin@AlwinMathew:~$ ps
    PID TTY          TIME CMD
   5099 pts/0    00:00:00 bash
   5103 pts/0    00:00:00 ps
alwin@AlwinMathew:~$ ps aux
USER       PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
root         1  0.0  0.1 164196 10452 ?        Ss   09:58   0:02 /sbin/init
root         2  0.0  0.0      0     0 ?        S    09:58   0:00 [kthreadd]
root         3  0.0  0.0      0     0 ?        I<   09:58   0:00 [rcu_gp]
root         4  0.0  0.0      0     0 ?        I<   09:58   0:00 [rcu_par_gp]
root         6  0.0  0.0      0     0 ?        I<   09:58   0:00 [kworker/0:0H
root         8  0.0  0.0      0     0 ?        I<   09:58   0:00 [mm_percpu_wq
root         9  0.0  0.0      0     0 ?        S    09:58   0:00 [rcu_tasks_ru
root        10  0.0  0.0      0     0 ?        S    09:58   0:00 [rcu_tasks_tr
root        11  0.0  0.0      0     0 ?        S    09:58   0:00 [ksoftirqd/0]
root        12  0.0  0.0      0     0 ?        I    09:58   0:01 [rcu_sched]
alwin@AlwinMathew:~$ pgrep bash
5099
anitha@anitha-Aspire-ES1-523:~$ ps -T -p3045
  PID  SPID TTY          TIME CMD
 3045  3045 ?        00:00:05 firefox
 3045  3057 ?        00:00:00 gmain
 3045  3058 ?        00:00:00 gdbus
 3045  3060 ?        00:00:00 Gecko_IOThread
 3045  3061 ?        00:00:00 JS Watchdog
 3045  3062 ?        00:00:00 JS Helper
 3045  3063 ?        00:00:00 JS Helper
 3045  3064 ?        00:00:00 Timer
 3045  3065 ?        00:00:00 Link Monitor
 3045  3066 ?        00:00:00 Socket Thread
 3045  3067 ?        00:00:00 AudioIPC Callba
 3045  3068 ?        00:00:00 AudioIPC Callba
 3045  3069 ?        00:00:00 AudioIPC Server
 3045  3070 ?        00:00:00 AudioIPC Server
 3045  3075 ?        00:00:00 Cache2 I/O
 3045  3076 ?        00:00:00 Cookie
anitha@anitha-Aspire-ES1-523:~$ top -H -p3045

top - 09:56:09 up 31 min,  1 user,  load average: 0.37, 0.47, 0.36
Threads:  50 total,   0 running,  50 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.3 us,  0.3 sy,  0.0 ni, 99.3 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0 st
KiB Mem :  3485520 total,  1028324 free,  1005844 used,  1451352 buff/cache
KiB Swap:  7811068 total,  7811068 free,        0 used.  2188412 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM     TIME+ COMMAND
 3045 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:06.71 firefox
 3057 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 gmain
 3058 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.01 gdbus
 3060 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.12 Gecko_IOThread
 3061 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 JS Watchdog
 3062 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.23 JS Helper
 3063 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.29 JS Helper
 3064 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.06 Timer
 3065 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 Link Monitor
 3066 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.36 Socket Thread
 3067 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 AudioIPC Callba
 3068 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 AudioIPC Callba
 3069 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 AudioIPC Server
 3070 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.00 AudioIPC Server
 3075 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.08 Cache2 I/O
 3076 anitha    20   0 2046864 242120 130612 S  0.0  6.9   0:00.01 Cookie

anitha@anitha-Aspire-ES1-523:~$ kill 3045
```

```
alwin@AlwinMathew:~$ uname -r
5.10.0-20-amd64
alwin@AlwinMathew:~$ lsb_release -a
No LSB modules are available.
Distributor ID: Debian
Description:     Debian GNU/Linux 11 (bullseye)
Release:         11
Codename:        bullseye
alwin@AlwinMathew:~$ lscpu
Architecture:                 x86_64
CPU op-mode(s):               32-bit, 64-bit
Byte Order:                   Little Endian
Address sizes:                36 bits physical, 48 bits virtual
CPU(s):                       4
On-line CPU(s) list:          0-3
Thread(s) per core:           2
Core(s) per socket:           2
Socket(s):                    1
NUMA node(s):                 1
Vendor ID:                    GenuineIntel
CPU family:                   6
Model:                        58
Model name:                   Intel(R) Core(TM) i3-3240 CPU @ 3.40GHz
Stepping:                     9
CPU MHz:                      1832.674
CPU max MHz:                  3400.0000
CPU min MHz:                  1600.0000
BogoMIPS:                     6784.16
L1d cache:                    64 KiB
L1i cache:                    64 KiB
L2 cache:                     512 KiB
L3 cache:                     3 MiB
```

```
alan@alan-Ubuntu:~$ lsblk -f
NAME FSTYPE FSVER LABEL UUID                                FSAVAIL FSUSE% MOUNTPOINTS
loop0
     squash 4.0                                                   0    100% /snap/bare/5
loop1
     squash 4.0                                                   0    100% /snap/core/14784
loop2
     squash 4.0                                                   0    100% /snap/core20/1822
loop3
     squash 4.0                                                   0    100% /snap/geany-gtk/378
loop4
     squash 4.0                                                   0    100% /snap/firefox/2391
alan@alan-Ubuntu:~$ awk -F\' '/menuentry / {print $2}' /boot/grub/grub.cfg
Ubuntu
Ubuntu, with Linux 5.19.0-32-generic
Ubuntu, with Linux 5.19.0-32-generic (recovery mode)
Memory test (memtest86+.elf)
Memory test (memtest86+.bin, serial console)
alan@alan-Ubuntu:~$ sudo init 0
alan@alan-Ubuntu:~$ sudo init 6
```