

```
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -w file1
10 file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -w file2
20 file2
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -c file1
21 file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -m file1
21 file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -
^C
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wc -L file1
2 file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test$ find -iname "File1"
./dir1/file1
samarth@samarth-Vostro-5402:~/Desktop/test$ find /path -size -50c
find: '/path': No such file or directory
samarth@samarth-Vostro-5402:~/Desktop/test$ find -size -50c
./dir1/file1
./dir1/file3
./dir2/demo3
./dir2/demo2
./dir2/demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test$ find -size +700M
samarth@samarth-Vostro-5402:~/Desktop/test$ find -mtime 1
samarth@samarth-Vostro-5402:~/Desktop/test$ find -atime -1
.
./dir1
./dir1/wget-log
./dir1/file4
./dir1/a.out
./dir1/test.c
./dir1/file1
./dir1/file3
./dir1/file2
./dir2
./dir2/demofiles.zip
./dir2/demo3
./dir2/demo2
./dir2/demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test$ find -ctime +3
samarth@samarth-Vostro-5402:~/Desktop/test$ find -mmin -1
samarth@samarth-Vostro-5402:~/Desktop/test$ find -perm 644
samarth@samarth-Vostro-5402:~/Desktop/test$ find -perm -644
.
./dir1
./dir1/wget-log
./dir1/file4
./dir1/a.out
./dir1/test.c
./dir1/file1
./dir1/file3
./dir1/file2
./dir2
./dir2/demofiles.zip
./dir2/demo3
./dir2/demo2
./dir2/demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test$ █
```

```
ls: cannot access 'file1': No such file or directory
samarth@samarth-Vostro-5402:~$ cd Desktop
samarth@samarth-Vostro-5402:~/Desktop$ cd test
samarth@samarth-Vostro-5402:~/Desktop/test$ ls -F
dir1/  dir2/
samarth@samarth-Vostro-5402:~/Desktop/test$ ls -l
total 8
drwxrwxr-x 2 samarth samarth 4096 Jan 22 11:56 dir1
drwxrwxr-x 2 samarth samarth 4096 Jan 22 11:41 dir2
samarth@samarth-Vostro-5402:~/Desktop/test$ ls -a
.  ..  dir1  dir2
samarth@samarth-Vostro-5402:~/Desktop/test$ ls *[0-9]*
dir1:
a.out  file1  file2  file3  file4  test.c  wget-log

dir2:
demo2  demo3  demofiles.zip  demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test$ mkdir temp1 temp2
samarth@samarth-Vostro-5402:~/Desktop/test$ pwd
/home/samarth/Desktop/test
samarth@samarth-Vostro-5402:~/Desktop/test$ rm -rf temp1
samarth@samarth-Vostro-5402:~/Desktop/test$ rem -rf temp2
Command 'rem' not found, but can be installed with:
sudo snap install rem      # version 0.16.2, or
sudo apt install remind    # version 03.04.01-1
See 'snap info rem' for additional versions.
samarth@samarth-Vostro-5402:~/Desktop/test$ rm -rf temp2
samarth@samarth-Vostro-5402:~/Desktop/test$ cd temp1
bash: cd: temp1: No such file or directory
samarth@samarth-Vostro-5402:~/Desktop/test$ cd temp2
bash: cd: temp2: No such file or directory
samarth@samarth-Vostro-5402:~/Desktop/test$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test$ ps
  PID TTY          TIME CMD
  6234 pts/0    00:00:00 bash
  8076 pts/0    00:00:00 ps
samarth@samarth-Vostro-5402:~/Desktop/test$ ps -T
  PID  SPID TTY          TIME CMD
  6234  6234 pts/0    00:00:00 bash
  8080  8080 pts/0    00:00:00 ps
samarth@samarth-Vostro-5402:~/Desktop/test$ ps -u
USER      PID %CPU %MEM    VSZ   RSS TTY      STAT START   TIME COMMAND
samarth   1789  0.0  0.0  171080  6316 tty2      Ssl+  10:44   0:00 /usr/libexec/gdm-x-sessi
samarth   1791  1.8  1.9 26852400 153348 tty2      Sl+   10:44   1:23 /usr/lib/xorg/Xorg vt2 -
samarth   1909  0.0  0.2  231680  15788 tty2      Sl+   10:44   0:00 /usr/libexec/gnome-sessi
samarth   6234  0.0  0.0   20436   5988 pts/0    Ss    11:01   0:00 bash
samarth   8081  0.0  0.0   21324   3556 pts/0    R+    11:59   0:00 ps -u
samarth@samarth-Vostro-5402:~/Desktop/test$ ps -A
  PID TTY          TIME CMD
    1 ?           00:00:01 systemd
    2 ?           00:00:00 kthreadd
    3 ?           00:00:00 rcu_gp
    4 ?           00:00:00 rcu_par_gp
    5 ?           00:00:00 netns
    7 ?           00:00:00 kworker/0:0H-events_highpri
    9 ?           00:00:00 mm_percpu_wq
   10 ?          00:00:00 rcu_tasks_rude_
   11 ?          00:00:00 rcu_tasks_trace
   12 ?          00:00:00 ksoftirqd/0
   13 ?          00:00:02 rcu_sched
   14 ?          00:00:00 migration/0
   15 ?          00:00:00 idle_inject/0
   17 ?          00:00:00 cpuhp/0
   18 ?          00:00:00 cpuhp/1
   19 ?          00:00:00 idle_inject/1
   20 ?          00:00:00 migration/1
   21 ?          00:00:00 ksoftirqd/1
   23 ?          00:00:00 kworker/1:0H-events_highpri
   24 ?          00:00:00 cpuhp/2
   25 ?          00:00:00 idle_inject/2
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ alias go='cd'
Hello worldsamarth@samarth-Vostro-5402:~/Desktop/test/dir1$ go ..
samarth@samarth-Vostro-5402:~/Desktop/test$ go dir1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ unalias go
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ go ..
Command 'go' not found, but can be installed with:
sudo snap install go          # version 1.19.5, or
sudo apt install golang-go    # version 2:1.18~0ubuntu2
sudo apt install gccgo-go     # version 2:1.18~0ubuntu2
See 'snap info go' for additional versions.
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cd ..
samarth@samarth-Vostro-5402:~/Desktop/test$
```

```
Let's create a directory to store the pkg frontend lock (/var/lib/pkg/lock/frontend), are you root?
samarth@samarth-Vostro-5402:~$ cd Desktop
samarth@samarth-Vostro-5402:~/Desktop$ cd test
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ vi test.c
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cc test.c
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ ./a.out
Hello world
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ hostname -a
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ hostname
samarth-Vostro-5402
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ hostname -A
samarth-Vostro-5402 samarth-Vostro-5402 samarth-Vostro-5402
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ hostname -i
127.0.1.1
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ hostname -l
hostname: invalid option -- 'l'
Usage: hostname [-b] {hostname|-F file}      set host name (from file)
          hostname [-a|-A|-d|-f|-i|-I|-s|-y]  display formatted name
          hostname                                display host name

          {yp,nis,}domainname {nisdomain|-F file}  set NIS domain name (from file)
          {yp,nis,}domainname                    display NIS domain name

          dnsdomainname                          display dns domain name

          hostname -V|--version|-h|--help        print info and exit

Program name:
  {yp,nis,}domainname=hostname -y
  dnsdomainname=hostname -d

Program options:
  -a, --alias          alias names
  -A, --all-fqdns      all long host names (FQDNs)
  -b, --boot           set default hostname if none available
  -d, --domain         DNS domain name
  -f, --fqdn, --long   long host name (FQDN)
  -F, --file           read host name or NIS domain name from given file
  -i, --ip-address     addresses for the host name
  -I, --all-ip-addresses all addresses for the host
  -s, --short          short host name
  -y, --yp, --nis      NIS/YP domain name

Description:
  This command can get or set the host name or the NIS domain name. You can
  also get the DNS domain or the FQDN (fully qualified domain name).
  Unless you are using bind or NIS for host lookups you can change the
  FQDN (Fully Qualified Domain Name) and the DNS domain name (which is
  part of the FQDN) in the /etc/hosts file.
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir2
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ zip demofiles.zip demo1 demo2 demo3
  zip warning: name not matched: demo1
  adding: demo2 (stored 0%)
  adding: demo3 (stored 0%)
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$
```

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 specified.

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

Manual page ls(1) line 1 (press h for help or q to quit)

```

top - 11:36:47 up 52 min,  1 user,  load average: 0.03, 0.16, 0.18
Tasks: 275 total,  2 running, 273 sleeping,  0 stopped,  0 zombie
%Cpu(s):  2.0 us,  2.3 sy,  0.0 ni, 95.4 id,  0.0 wa,  0.0 hi,  0.3 si,  0.0 st
MiB Mem :  7677.1 total,  2937.6 free,  1893.8 used,  2845.7 buff/cache
MiB Swap:  7629.0 total,  7629.0 free,  0.0 used.  4857.3 avail Mem

```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
2041	samarth	20	0	5885316	267408	117308	S	13.6	3.4	1:09.18	gnome-shell
1791	samarth	20	0	25.6g	153376	101080	R	11.4	2.0	1:08.87	Xorg
6214	samarth	20	0	828316	56628	41536	S	9.1	0.7	0:10.33	gnome-terminal-
236	root	-51	0	0	0	0	S	2.3	0.0	1:09.23	irq/175-DLL09D9
1	root	20	0	166788	12012	8232	S	0.0	0.2	0:01.12	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	netns
7	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
9	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
10	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tasks_rude_
11	root	20	0	0	0	0	S	0.0	0.0	0:00.00	rcu_tasks_trace
12	root	20	0	0	0	0	S	0.0	0.0	0:00.03	ksoftirqd/0
13	root	20	0	0	0	0	I	0.0	0.0	0:01.62	rcu_sched
14	root	rt	0	0	0	0	S	0.0	0.0	0:00.01	migration/0
15	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/0
17	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
18	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/1
19	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/1
20	root	rt	0	0	0	0	S	0.0	0.0	0:00.08	migration/1
21	root	20	0	0	0	0	S	0.0	0.0	0:00.02	ksoftirqd/1

```

samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ uname -s
Linux
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ uname -n
samarth-Vostro-5402
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ uname -a
Linux samarth-Vostro-5402 5.15.0-53-generic #59-Ubuntu SMP Mon Oct 17 18:53:30 UTC 2022 x86_64 x86_64 x
86_64 GNU/Linux
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ 

```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ wget ^[[200~https://www.google.com/url?sa=t&rct=j&q=&e
src=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjynd05wNr8AhXmtWMGHUrXCcQQFnoECAQQAQ&url=https%3A%2F%2Fs
ites.tufts.edu%2Fcbi%2Ffiles%2F2013%2F01%2Flinux_cheat_sheet.pdf&usg=A0vVaw0LNFIb5UQ7B2Yi8JpgpSc~
[1] 7454
[2] 7455
[3] 7456
[4] 7457
[5] 7458
[6] 7459
[7] 7460
[8] 7461
[9] 7462
[10] 7463
[2] Done rct=j
[3] Done q=
[4] Done esrc=s
[5] Done source=web
[6] Done cd=
[7] Done cad=rja
[8] Done uact=8
[9]- Done ved=2ahUKEwjynd05wNr8AhXmtWMGHUrXCcQQFnoECAQQAQ
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
Redirecting output to 'wget-log'.
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ chown samarth file3
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ diff file1 file2
0a1,10
> 11
> 12
> 13
> 14
> 15
> 16
> 17
> 18
> 19
> 20
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ tail file4
hello coep
i am from coep
i study in coep
coep is college of engineering pune
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ tail -1 file4
coep is college of engineering pune
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ tail -2 file4
tail-2: command not found
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ head file4
hello coep
i am from coep
i study in coep
coep is college of engineering pune
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ head -2 file4
hello coep
i am from coep
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ head -3 file4
hello coep
i am from coep
i study in coep
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```



```
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ cd ..
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ touch file4
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ grep coep file4
hello coep
i am from coep
i study in coep
coep is college of engineering pune
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ df -h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs           768M  2.4M  766M   1% /run
/dev/nvme0n1p9   69G   13G   53G  20% /
tmpfs           3.8G    0  3.8G   0% /dev/shm
tmpfs           5.0M  4.0K  5.0M   1% /run/lock
/dev/nvme0n1p1  146M  104M   43M  71% /boot/efi
tmpfs           768M  112K  768M   1% /run/user/1000
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ du -s file4
4      file4
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ du -m file4
1      file4
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ du -k file4
4      file4
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir2
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ mv demo1 demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ cd demorenamed1
bash: cd: demorenamed1: Not a directory
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ find demorenamed1
demorenamed1
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$
```

```
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cd ..
samarth@samarth-Vostro-5402:~/Desktop/test$ find dir1
dir1
dir1/file1
dir1/file3
dir1/file2
samarth@samarth-Vostro-5402:~/Desktop/test$
```

```
1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ chmod u+x file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ le -l
Command 'le' not found, but can be installed with:
sudo apt install le
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ ls -l
total 8
-rwxrw-r-- 1 samarth samarth 21 Jan 22 11:10 file1
-rw-rw-r-- 1 samarth samarth 51 Jan 22 11:13 file2
-rw-rw-r-- 1 samarth samarth  0 Jan 22 11:07 file3
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ chmod u+x file2
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ ls -l
total 8
-rwxrw-r-- 1 samarth samarth 21 Jan 22 11:10 file1
-rwxrw-r-- 1 samarth samarth 51 Jan 22 11:13 file2
-rw-rw-r-- 1 samarth samarth  0 Jan 22 11:07 file3
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$
```

```

5
6
7
8
9
10
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cat file2
11
12
13
14
15
16
17
18
19
20
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cat file1>>file2
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cat file2
11
12
13
14
15
16
17
18
19
20
1
2
3
4
5
6
7
8
9
10
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ tac file1
10
9
8
7
6
5
4
3
2
1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ 

```

```

samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ touch file1
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ touch file2
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ touch file3
samarth@samarth-Vostro-5402:~/Desktop/test/dir1$ cd ..
samarth@samarth-Vostro-5402:~/Desktop/test$ cd dir2
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ touch demo1
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ touch demo2
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ touch demo3
samarth@samarth-Vostro-5402:~/Desktop/test/dir2$ 

```

```

samarth@samarth-Vostro-5402:~/Desktop$ cd test
samarth@samarth-Vostro-5402:~/Desktop/test$ mkdir dir1
samarth@samarth-Vostro-5402:~/Desktop/test$ mkdir dir2
samarth@samarth-Vostro-5402:~/Desktop/test$ ls
dir1  dir2
samarth@samarth-Vostro-5402:~/Desktop/test$ 

```

```
samarth@samarth-Vostro-5402:~$  
samarth@samarth-Vostro-5402:~$  
samarth@samarth-Vostro-5402:~$  
samarth@samarth-Vostro-5402:~$ cd Desktop  
samarth@samarth-Vostro-5402:~/Desktop$ mkdir test  
samarth@samarth-Vostro-5402:~/Desktop$ cd test  
samarth@samarth-Vostro-5402:~/Desktop/test$ cd ..  
samarth@samarth-Vostro-5402:~/Desktop$
```

[illegible]

```
samarth@samarth-Vostro-5402:~$ ls
```

112103122_Samarth_Kanwate_Assignment2	Documents	'searching sorting methods'
112103122_Samarth_Kanwate_Assignment3	Downloads	shellscript.sh
112103122_Samarth_Kanwate_Assignment4-5	helloworld.sh	snap
112103122_Samarth_Kanwate_Assignment4-5.tar.xz	main	Templates
a.out	Music	twosum.c
Cfiles	Pictures	Videos
circularqueue.c	'PPL Assingsments'	void_check.c
Desktop	Public	

```
samarth@samarth-Vostro-5402:~$ □
```

samarth@samarth-Vostro-5402: ~

```
samarth@samarth-Vostro-5402:~$ pwd
/home/samarth
samarth@samarth-Vostro-5402:~$ cd samarth
bash: cd: samarth: No such file or directory
samarth@samarth-Vostro-5402:~$ 
samarth@samarth-Vostro-5402:~$
```

```
samarth@samarth-Vostro-5402:~$ ls
```

112103122_Samarth_Kanware_Assignment2	Documents	'searching sorting methods'
112103122_Samarth_Kanware_Assignment3	Downloads	snap
112103122_Samarth_Kanware_Assignment4-5	main	Templates
112103122_Samarth_Kanware_Assignment4-5.tar.xz	Music	Videos
a.out	Pictures	void_check.c
Cfiles	'PPL Assingments'	
Desktop	Public	

```
samarth@samarth-Vostro-5402:~$
```

```
samarth@samarth-Vostro-5402:~$ cat a.out
@@@@PP@@8      x8880hhhDDSdt8880Ptd  llQtdRtd=hh/
```