



Programme	: BTech. CSE Core	Semester	: Win 2021-22
Course	: Operating Systems	Code	: CSE2005
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Directory related commands

1. **pwd** (Print Working Directory):

```
hariketsheth@HariketSheth: ~  
hariketsheth@HariketSheth:~$ pwd  
/home/hariketsheth  
hariketsheth@HariketSheth:~$  
hariketsheth@HariketSheth:~$
```

2. **mkdir** (Make Directory)

```
hariketsheth@HariketSheth: ~  
hariketsheth@HariketSheth:~$ mkdir hariket  
hariketsheth@HariketSheth:~$ ls  
Desktop  Downloads  Music  Public  Videos  
Documents hariket    Pictures Templates  
hariketsheth@HariketSheth:~$
```

3. **cd** (Change Directory)

```
hariketsheth@HariketSheth: ~/Documents  
hariketsheth@HariketSheth:~$ ls  
Desktop Documents Downloads Music Pictures Public Templates Videos  
hariketsheth@HariketSheth:~$ cd Documents  
hariketsheth@HariketSheth:~/Documents$
```

4. rmdir (Remove Directory)

```
hariketsheth@HariketSheth: ~  
hariketsheth@HariketSheth:~$ mkdir hariket  
hariketsheth@HariketSheth:~$ ls  
Desktop  Downloads  Music      Public      Videos  
Documents hariket    Pictures   Templates  
hariketsheth@HariketSheth:~$  
hariketsheth@HariketSheth:~$ rmdir hariket  
hariketsheth@HariketSheth:~$ ls  
Desktop Documents Downloads Music Pictures Public Templates Videos  
hariketsheth@HariketSheth:~$
```

5. ls {directory}

```
hariketsheth@HariketSheth: ~  
hariketsheth@HariketSheth:~$ mkdir lab1 lab2 lab3 lab4 lab5 lab6 lab7 lab8  
hariketsheth@HariketSheth:~$ ls  
Desktop  Downloads  lab2  lab4  lab6  lab8  Pictures  Templates  
Documents lab1       lab3  lab5  lab7  Music   Public   Videos  
hariketsheth@HariketSheth:~$  
hariketsheth@HariketSheth:~$ mkdir lab9 lab10 lab11 lab12 lab13 lab14 lab15  
hariketsheth@HariketSheth:~$ ls  
Desktop  lab1  lab12  lab15  lab4  lab7  Music  Templates  
Documents lab10  lab13  lab2   lab5  lab8  Pictures Videos  
Downloads lab11  lab14  lab3   lab6  lab9  Public  
hariketsheth@HariketSheth:~$ mkdir lab16 lab17 lab18 lab19 lab20 lab21 lab22  
hariketsheth@HariketSheth:~$ mkdir lab23 lab24 lab25 lab26 lab27 lab28 lab29  
hariketsheth@HariketSheth:~$ mkdir lab30 lab31 lab32 lab33 lab34 lab35 lab36  
hariketsheth@HariketSheth:~$ ls  
Desktop  lab11  lab16  lab20  lab25  lab3  lab34  lab6  Pictures  
Documents lab12  lab17  lab21  lab26  lab30  lab35  lab7  Public  
Downloads lab13  lab18  lab22  lab27  lab31  lab36  lab8  Templates  
lab1      lab14  lab19  lab23  lab28  lab32  lab4  lab9  Videos  
lab10     lab15  lab2   lab24  lab29  lab33  lab5  Music  
hariketsheth@HariketSheth:~$
```

File System Manipulation

1. cat {filename}

```
hariketsheth@HariketSheth:~$ touch file1.cpp  
hariketsheth@HariketSheth:~$ nano file1.cpp  
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth: ~  
GNU nano 5.6.1 file1.cpp  
#include <iostream>  
using namespace std;  
  
int main(){  
    int n, temp, sum=0;  
    cin >> n;  
    for(int i=0;i<n;i++){  
        cin >> temp;  
        sum += temp;  
    }  
    cout << "Sum of Numbers: "<<sum<<endl;  
    return 0;  
}
```

```
hariketsheth@HariketSheth: ~  
hariketsheth@HariketSheth:~$ touch file1.cpp  
hariketsheth@HariketSheth:~$ nano file1.cpp  
hariketsheth@HariketSheth:~$ cat file1.cpp  
#include <iostream>  
using namespace std;  
  
int main(){  
    int n, temp, sum=0;  
    cin >> n;  
    for(int i=0;i<n;i++){  
        cin >> temp;  
        sum += temp;  
    }  
    cout << "Sum of Numbers: "<<sum<<endl;  
    return 0;  
}  
hariketsheth@HariketSheth:~$
```

2. mv filename path

```
hariketsheth@HariketSheth: ~/Documents  
hariketsheth@HariketSheth:~$ ls  
Desktop Downloads Music Public Videos  
Documents file1.cpp Pictures Templates  
hariketsheth@HariketSheth:~$ mv file1.cpp Documents  
hariketsheth@HariketSheth:~$ ls  
Desktop Documents Downloads Music Pictures Public Templates Videos  
hariketsheth@HariketSheth:~$ cd Documents  
hariketsheth@HariketSheth:~/Documents$ ls  
file1.cpp  
hariketsheth@HariketSheth:~/Documents$
```

3. In -s {source} {dest}

```
hariketsheth@HariketSheth: ~/Downloads
hariketsheth@HariketSheth:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
hariketsheth@HariketSheth:~$ touch file1.txt
hariketsheth@HariketSheth:~$ ls
Desktop Downloads Music Public Videos
Documents file1.txt Pictures Templates
hariketsheth@HariketSheth:~$ mv file1.txt Documents
hariketsheth@HariketSheth:~$ ln -s Documents Downloads
hariketsheth@HariketSheth:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
hariketsheth@HariketSheth:~$ cd Documents
hariketsheth@HariketSheth:~/Documents$ ls
file1.cpp file1.txt
hariketsheth@HariketSheth:~/Documents$ cd ..
hariketsheth@HariketSheth:~$ cd Downloads
hariketsheth@HariketSheth:~/Downloads$ ls
Documents
hariketsheth@HariketSheth:~/Downloads$
```

4. rm filename(s)

```
hariketsheth@HariketSheth: ~
hariketsheth@HariketSheth:~$ ls
Desktop Downloads Music Public Videos
Documents file1.txt Pictures Templates
hariketsheth@HariketSheth:~$ rm file1.txt
hariketsheth@HariketSheth:~$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
hariketsheth@HariketSheth:~$
```

5. cmp {file1} {file2}

```
hariketsheth@HariketSheth: ~
hariketsheth@HariketSheth:~$ touch file1.txt
hariketsheth@HariketSheth:~$ nano file1.txt
hariketsheth@HariketSheth:~$ cat file1.txt
Hi, My name is Hariket
hariketsheth@HariketSheth:~$ touch file2.txt
hariketsheth@HariketSheth:~$ nano file2.txt
hariketsheth@HariketSheth:~$ cat file2.txt
Register No.: 20BCE1975

hariketsheth@HariketSheth:~$ cmp file1.txt file2.txt
file1.txt file2.txt differ: byte 1, line 1
hariketsheth@HariketSheth:~$
```

6. `diff {options}{file1} {file2}`

```
hariketsheth@HariketSheth:~$ diff -c file1.txt file2.txt
*** file1.txt      2022-01-21 18:51:41.588068559 +0530
--- file2.txt      2022-01-21 18:52:17.411365132 +0530
*****
*** 1 ****
! Hi, My name is Hariket
--- 1,2 ----
! Register No.: 20BCE1975
!
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ diff -u file1.txt file2.txt
--- file1.txt      2022-01-21 18:51:41.588068559 +0530
+++ file2.txt      2022-01-21 18:52:17.411365132 +0530
@@ -1 +1,2 @@
-Hi, My name is Hariket
+Register No.: 20BCE1975
+
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ diff -i file1.txt file2.txt
1c1,2
< Hi, My name is Hariket
---
> Register No.: 20BCE1975
>
hariketsheth@HariketSheth:~$
```

7. `comm{options} file1 file2`

```
hariketsheth@HariketSheth:~$ comm -1 file1.txt file2.txt
Register No.: 20BCE1975
comm: file 2 is not in sorted order

comm: input is not in sorted order
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ comm -2 file1.txt file2.txt
Hi, My name is Hariket
comm: file 2 is not in sorted order
comm: input is not in sorted order
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ comm -3 file1.txt file2.txt
Hi, My name is Hariket
Register No.: 20BCE1975
comm: file 2 is not in sorted order

comm: input is not in sorted order
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ comm --check-order file1.txt file2.txt
Hi, My name is Hariket
Register No.: 20BCE1975
comm: file 2 is not in sorted order
hariketsheth@HariketSheth:~$
```

```
comm: file 2 is not in sorted order
hariketsheth@HariketSheth:~$ comm --nocheck-order file1.txt file2.txt
Hi, My name is Hariket
Register No.: 20BCE1975

hariketsheth@HariketSheth:~$
```

8. `uniq {option}{file}`

```
hariketsheth@HariketSheth:~$ uniq -c file.txt
1 Hariket
1 Operating
1 Operating System'=
1 OS
1 CSE2005
1 Operating =
1 Operating
1 System
2 Operating System
2 OS
4 CSE2005
1
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ uniq -d file.txt
Operating System
OS
CSE2005
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ uniq -D file.txt
Operating System
Operating System
OS
OS
CSE2005
CSE2005
CSE2005
CSE2005
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ uniq -f 2 file.txt
Hariket
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ uniq -s 2 file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
OS
CSE2005
```

```
hariketsheth@HariketSheth:~$ uniq -w 2 file.txt
Hariket
Operating
OS
CSE2005
Operating =
System
Operating System
OS
CSE2005
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ uniq -i file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
OS
CSE2005
hariketsheth@HariketSheth:~$ S
```

Filters

1. head

```
hariketsheth@HariketSheth:~$ head file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
Operating System
hariketsheth@HariketSheth:~$ head -4 file.txt
Hariket
Operating
Operating System'=
OS
hariketsheth@HariketSheth:~$
```

2. tail

```
hariketsheth@HariketSheth:~$ tail file.txt
System
Operating System
Operating System
OS
OS
CSE2005
CSE2005
CSE2005
CSE2005

hariketsheth@HariketSheth:~$ tail -4 file.txt
CSE2005
CSE2005
CSE2005

hariketsheth@HariketSheth:~$
```

3. more

```
hariketsheth@HariketSheth:~$ more file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
Operating System
OS
OS
CSE2005
CSE2005
CSE2005
CSE2005

hariketsheth@HariketSheth:~$
```



```
hariketsheth@HariketSheth:~$ more -u file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
Operating System
OS
OS
CSE2005
CSE2005
CSE2005
CSE2005

hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ more -s file.txt
Hariket
Operating
Operating System'=
OS
CSE2005
Operating =
Operating
System
Operating System
Operating System
OS
OS
CSE2005
CSE2005
CSE2005
CSE2005

hariketsheth@HariketSheth:~$
```

4. grep

```
hariketsheth@HariketSheth:~$ grep -i "Hariket" file.txt
Hariket
hariketsheth@HariketSheth:~$ grep -c "Hariket" file.txt
1
hariketsheth@HariketSheth:~$ grep -c "CSE2005" file.txt
5
hariketsheth@HariketSheth:~$ grep -l "CSE2005" *
grep: Desktop: Is a directory
grep: Documents: Is a directory
grep: Downloads: Is a directory
file.txt
grep: Music: Is a directory
grep: Pictures: Is a directory
grep: Public: Is a directory
grep: Templates: Is a directory
grep: Videos: Is a directory
```

```
hariketsheth@HariketSheth:~$ grep -l "CSE2005" *
grep: Desktop: Is a directory
grep: Documents: Is a directory
grep: Downloads: Is a directory
file.txt
grep: Music: Is a directory
grep: Pictures: Is a directory
grep: Public: Is a directory
grep: Templates: Is a directory
grep: Videos: Is a directory
hariketsheth@HariketSheth:~$ grep -w "CSE2005" *
grep: Desktop: Is a directory
grep: Documents: Is a directory
grep: Downloads: Is a directory
file.txt:CSE2005
file.txt:CSE2005
file.txt:CSE2005
file.txt:CSE2005
file.txt:CSE2005
grep: Music: Is a directory
grep: Pictures: Is a directory
grep: Public: Is a directory
grep: Templates: Is a directory
grep: Videos: Is a directory
```

```
hariketsheth@HariketSheth:~$ grep -w "CSE2005" file.txt
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
hariketsheth@HariketSheth:~$ grep -o "CSE2005" file.txt
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
hariketsheth@HariketSheth:~$ grep -v "CSE2005" file.txt
Hariket
Operating
Operating System'=
OS
Operating =
Operating
System
Operating System
Operating System
OS
OS
```

5. sort

```
hariketsheth@HariketSheth:~$ sort file.txt
```

```
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
Hariket
Operating
Operating
Operating =
Operating System
Operating System
Operating System'=
OS
OS
OS
System
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ sort -o new.txt file.txt
```

```
hariketsheth@HariketSheth:~$ cat new.txt
```

```
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
Hariket
Operating
Operating
Operating =
Operating System
Operating System
Operating System'=
OS
OS
OS
System
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ sort -n file.txt
```

```
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
Hariket
Operating
Operating
Operating =
Operating System
Operating System
Operating System'=
OS
OS
OS
System
```

```
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ sort -r file.txt
```

```
System
OS
OS
OS
Operating System'=
Operating System
Operating System
Operating =
Operating
Operating
Hariket
CSE2005
CSE2005
CSE2005
CSE2005
CSE2005
```

```
hariketsheth@HariketSheth:~$
```

6. nl(no. of lines)

```
hariketsheth@HariketSheth:~$ nl file.txt
```

```
1 Hariket
2 Operating
3 Operating System'=
4 OS
5 CSE2005
6 Operating =
7 Operating
8 System
9 Operating System
10 Operating System
11 OS
12 OS
13 CSE2005
14 CSE2005
15 CSE2005
16 CSE2005
```

```
hariketsheth@HariketSheth:~$
```

7. cut

```
hariketsheth@HariketSheth:~$ cut -b -2 file.txt
```

```
Ha  
Op  
Op  
OS  
CS  
Op  
Op  
Sy  
Op  
Op  
OS  
OS  
CS  
CS  
CS  
CS
```

```
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ cut -b 2-4 file.txt
```

```
ari  
per  
per  
S  
SE2  
per  
per  
yst  
per  
per  
S  
S  
SE2  
SE2  
SE2  
SE2
```

```
hariketsheth@HariketSheth:~$
```

8. paste

```
hariketsheth@HariketSheth:~$ paste new.txt first.txt last.txt
```

```
Hariket Sheth  
Arun Kumar  
Aman Kapoor  
Bishnu Sharma  
Chirag Verma  
Dhruv Kapadia  
Gaurav Sinha
```

```
hariketsheth@HariketSheth:~$
```

9. wc (word count)

```
hariketsheth@HariketSheth:~$ wc new.txt
 16  15 100 new.txt
hariketsheth@HariketSheth:~$ wc -L new.txt
 7 new.txt
hariketsheth@HariketSheth:~$ wc -c new.txt
100 new.txt
hariketsheth@HariketSheth:~$ wc -w new.txt
15 new.txt
hariketsheth@HariketSheth:~$ wc -m new.txt
100 new.txt
hariketsheth@HariketSheth:~$
```

10. tr(translate)

```
hariketsheth@HariketSheth:~$ cat new.txt | tr "[a-z]" "[A-Z]"
HARIKET
ARUN
ARJUN
KAPOOR
SINHA
VERNA
SHARNA
MISHRA
BISHNU
CHIRAG
CARNEY
DHRUV
AMAN
GABRIEL
TISCHA
hariketsheth@HariketSheth:~$
```

File Administration Chown

```
hariketsheth@HariketSheth:~$ chown hariketsheth new.txt
hariketsheth@HariketSheth:~$ ls -l new.txt
-rw-rw-r-- 1 hariketsheth hariketsheth 100 Jan 21 21:21 new.txt
hariketsheth@HariketSheth:~$ chown -c hariketsheth new.txt
hariketsheth@HariketSheth:~$ ls -l new.txt
-rw-rw-r-- 1 hariketsheth hariketsheth 100 Jan 21 21:21 new.txt
hariketsheth@HariketSheth:~$ nano new.txt
hariketsheth@HariketSheth:~$ ls -l new.txt
-rw-rw-r-- 1 hariketsheth hariketsheth 103 Jan 21 21:36 new.txt
```

chmod [options] mode file(s)

```
hariketsheth@HariketSheth:~$ ls -l
total 36
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Desktop
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:11 Documents
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:10 Downloads
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Music
-rw-rw-r-- 1 hariketsheth hariketsheth 103 Jan 21 21:36 new.txt
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Pictures
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Public
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Templates
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Videos
hariketsheth@HariketSheth:~$ chmod u=r new.txt
hariketsheth@HariketSheth:~$ ls -l
total 36
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Desktop
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:11 Documents
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:10 Downloads
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Music
-r--rw-r-- 1 hariketsheth hariketsheth 103 Jan 21 21:36 new.txt
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Pictures
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Public
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Templates
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Videos
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ ls -l
total 36
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Desktop
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:11 Documents
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:10 Downloads
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Music
-r--rw-r-- 1 hariketsheth hariketsheth 103 Jan 21 21:36 new.txt
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Pictures
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Public
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Templates
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Videos
hariketsheth@HariketSheth:~$ chmod u=rw new.txt
hariketsheth@HariketSheth:~$ ls -l
total 36
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Desktop
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:11 Documents
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan 21 14:10 Downloads
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Music
-rw-rw-r-- 1 hariketsheth hariketsheth 103 Jan 21 21:36 new.txt
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Pictures
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Public
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Templates
drwxr-xr-x 2 hariketsheth hariketsheth 4096 Jan  7 09:03 Videos
hariketsheth@HariketSheth:~$
```

locate pattern(s)

```
hariketsheth@HariketSheth:~$ locate new.txt
/home/hariketsheth/new.txt
hariketsheth@HariketSheth:~$ locate "*.txt" -n 10
/boot/grub/gfxblacklist.txt
/etc/X11/rgb.txt
/etc/brltty/Input/ba/all.txt
/etc/brltty/Input/bd/all.txt
/etc/brltty/Input/bl/18.txt
/etc/brltty/Input/bl/40_m20_m40.txt
/etc/brltty/Input/ec/all.txt
/etc/brltty/Input/ec/spanish.txt
/etc/brltty/Input/eu/all.txt
/etc/brltty/Input/lb/all.txt
hariketsheth@HariketSheth:~$ locate -c [.txt]*
0
hariketsheth@HariketSheth:~$ locate -i *NEW.txt*
/home/hariketsheth/new.txt
hariketsheth@HariketSheth:~$
```

find [option(s)]

```
hariketsheth@HariketSheth:~$ find ~ -name new.txt
/home/hariketsheth/new.txt
hariketsheth@HariketSheth:~$ find ~ -name *.txt
/home/hariketsheth/new.txt
hariketsheth@HariketSheth:~$ find ~ -name new.txt -exec rm -i {} \;
rm: remove regular file '/home/hariketsheth/new.txt'? Y
hariketsheth@HariketSheth:~$ ls
Desktop  Documents  Downloads  Music  Pictures  Public  Templates  Videos
hariketsheth@HariketSheth:~$ touch new.txt
hariketsheth@HariketSheth:~$ touch new1.txt
hariketsheth@HariketSheth:~$ touch new2.txt
hariketsheth@HariketSheth:~$ touch new3.txt
hariketsheth@HariketSheth:~$ find ~ -empty
/home/hariketsheth/Documents
/home/hariketsheth/Desktop
/home/hariketsheth/Public
/home/hariketsheth/Videos
/home/hariketsheth/.ssh
/home/hariketsheth/Pictures
/home/hariketsheth/new.txt
/home/hariketsheth/.config/goa-1.0
/home/hariketsheth/.config/gnome-session/saved-session
/home/hariketsheth/.config/update-notifier
/home/hariketsheth/.config/nautilus
/home/hariketsheth/new1.txt
/home/hariketsheth/Music
/home/hariketsheth/.cache/evolution/calendar/trash
/home/hariketsheth/.cache/evolution/sources/trash
/home/hariketsheth/.cache/evolution/tasks/trash
/home/hariketsheth/.cache/evolution/mail/trash
/home/hariketsheth/.cache/evolution/memos/trash
/home/hariketsheth/.cache/evolution/addressbook/trash
/home/hariketsheth/.cache/ibus-table
/home/hariketsheth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo
ntology%2Fv3%2Ftracker%23Audio.db-wal
/home/hariketsheth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo
ntology%2Fv3%2Ftracker%23Video.db-wal
/home/hariketsheth/.cache/tracker3/files/.meta.isrunning
/home/hariketsheth/.cache/tracker3/files/errors
/home/hariketsheth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome.org%2Fo
ntology%2Fv3%2Ftracker%23Pictures.db-wal
/home/hariketsheth/Templates
/home/hariketsheth/new2.txt
/home/hariketsheth/new3.txt
/home/hariketsheth/.sudo_as_admin_successful
/home/hariketsheth/Downloads
/home/hariketsheth/.local/share/nano
/home/hariketsheth/.local/share/evolution/calendar/trash
```


System Commands

df [option(s)] [directory]

```
hariketsheth@HariketSheth:~$ df -a
Filesystem      1K-blocks    Used Available Use% Mounted on
sysfs            0          0          0  - /sys
proc            0          0          0  - /proc
udev           4029328      0    4029328  0% /dev
devpts          0          0          0  - /dev/pts
tmpfs           810936     1924    809012  1% /run
/dev/sda3       102106072 10860700  86012528 12% /
securityfs      0          0          0  - /sys/kernel/security
tmpfs          4054664      0    4054664  0% /dev/shm
tmpfs           5120         4      5116  1% /run/lock
cgroup2         0          0          0  - /sys/fs/cgroup
pstore          0          0          0  - /sys/fs/pstore
none            0          0          0  - /sys/fs/bpf
systemd-1       0          0          0  - /proc/sys/fs/binfmt_misc
hugetlbfs       0          0          0  - /dev/hugepages
mqueue         0          0          0  - /dev/mqueue
debugfs         0          0          0  - /sys/kernel/debug
tracefs         0          0          0  - /sys/kernel/tracing
fusectl         0          0          0  - /sys/fs/fuse/connections
configfs        0          0          0  - /sys/kernel/config
vmware-vmblock  0          0          0  - /run/vmblock-fuse
/dev/loop0       128        128          0 100% /snap/bare/5
/dev/loop1      158336    158336          0 100% /snap/firefox/863
/dev/loop2      253952    253952          0 100% /snap/gnome-3-38-2004/87
/dev/loop3       55552     55552          0 100% /snap/snap-store/558
/dev/loop4      101888    101888          0 100% /snap/core/11993
/dev/loop6      248192    248192          0 100% /snap/gnome-3-38-2004/76
/dev/loop5       63360     63360          0 100% /snap/core20/1169
/dev/loop7       55552     55552          0 100% /snap/snap-store/557
/dev/loop8       66816     66816          0 100% /snap/gtk-common-themes/1519
/dev/loop9       63488     63488          0 100% /snap/core20/1270
/dev/loop10     101760    101760          0 100% /snap/core/11743
/dev/loop11     154112    154112          0 100% /snap/firefox/631
/dev/sda2       524252      5344    518908  2% /boot/efi
tmpfs           810932      100    810832  1% /run/user/1000
gvfsd-fuse       0          0          0  - /run/user/1000/gvfs
/dev/sr0       3043440    3043440          0 100% /media/hariketsheth/Ubuntu 21.
10 amd64
hariketsheth@HariketSheth:~$
```

```
hariketsheth@HariketSheth:~$ df -h new.txt
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda3       98G   11G   83G   12% /
hariketsheth@HariketSheth:~$ df -k new.txt
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/sda3       102106072 10860652  86012576 12% /
hariketsheth@HariketSheth:~$
```

```

hariketsheth@HariketSheth:~$ df -h new.txt
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda3       98G   11G   83G   12% /
hariketsheth@HariketSheth:~$ df -k new.txt
Filesystem      1K-blocks    Used Available Use% Mounted on
/dev/sda3       102106072 10860652  86012576   12% /
hariketsheth@HariketSheth:~$ df -total
df: no file systems processed
hariketsheth@HariketSheth:~$ df --total
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs           810936      1904    809032    1% /run
/dev/sda3       102106072 10860652  86012576   12% /
tmpfs           4054664        0   4054664    0% /dev/shm
tmpfs           5120         4     5116    1% /run/lock
/dev/sda2       524252     5344   518908    2% /boot/efi
tmpfs           810932      100    810832    1% /run/user/1000
/dev/sr0        3043440  3043440        0  100% /media/hariketsheth/Ubuntu 21.10 amd64
total          111355416 13911444  92211128   14% -
hariketsheth@HariketSheth:~$ df -T new.txt
Filesystem      Type 1K-blocks    Used Available Use% Mounted on
/dev/sda3       ext4 102106072 10860652  86012576   12% /
hariketsheth@HariketSheth:~$ df --sync
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs           810936      1904    809032    1% /run
/dev/sda3       102106072 10860652  86012576   12% /
tmpfs           4054664        0   4054664    0% /dev/shm
tmpfs           5120         4     5116    1% /run/lock
/dev/sda2       524252     5344   518908    2% /boot/efi
tmpfs           810932      100    810832    1% /run/user/1000
/dev/sr0        3043440  3043440        0  100% /media/hariketsheth/Ubuntu 21.10 amd64
hariketsheth@HariketSheth:~$ df -i new.txt
Filesystem      Inodes IUsed  IFree IUse% Mounted on
/dev/sda3       6520832 201811 6319021    4% /
hariketsheth@HariketSheth:~$ df -x squashfs
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs           810936      1904    809032    1% /run
/dev/sda3       102106072 10860652  86012576   12% /
tmpfs           4054664        0   4054664    0% /dev/shm
tmpfs           5120         4     5116    1% /run/lock
/dev/sda2       524252     5344   518908    2% /boot/efi
tmpfs           810932      100    810832    1% /run/user/1000
/dev/sr0        3043440  3043440        0  100% /media/hariketsheth/Ubuntu 21.10 amd64

```

```

hariketsheth@HariketSheth:~$ df -l
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs           810936      1904    809032    1% /run
/dev/sda3       102106072 10860652  86012576   12% /
tmpfs           4054664        0   4054664    0% /dev/shm
tmpfs           5120         4     5116    1% /run/lock
/dev/sda2       524252     5344   518908    2% /boot/efi
tmpfs           810932      100    810832    1% /run/user/1000
/dev/sr0        3043440  3043440        0  100% /media/hariketsheth/Ubuntu 21.10 amd64
hariketsheth@HariketSheth:~$

```

du [option(s)] [path]

```
hariketsbeth@HariketSheth:~$ du -h old.txt new.txt
4.0K    old.txt
4.0K    new.txt
hariketsbeth@HariketSheth:~$ du Documents
4       Documents
hariketsbeth@HariketSheth:~$ du -a Documents
4       Documents
hariketsbeth@HariketSheth:~$ du -c -h old.txt new.txt
4.0K    old.txt
4.0K    new.txt
8.0K    total
hariketsbeth@HariketSheth:~$ du --time new.txt
4       2022-01-21 22:34      new.txt
hariketsbeth@HariketSheth:~$ du -a ~ | sort -n
0       /home/hariketsbeth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome
.org%2Fontology%2Fv3%2Ftracker%23Audio.db-wal
0       /home/hariketsbeth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome
.org%2Fontology%2Fv3%2Ftracker%23Pictures.db-wal
0       /home/hariketsbeth/.cache/tracker3/files/http%3A%2F%2Ftracker.api.gnome
.org%2Fontology%2Fv3%2Ftracker%23Video.db-wal
0       /home/hariketsbeth/.cache/tracker3/files/.meta.isrunning
0       /home/hariketsbeth/.config/enchant/en.dic
0       /home/hariketsbeth/.config/enchant/en.exc
0       /home/hariketsbeth/.local/share/gnome-settings-daemon/input-sources-con
verted
0       /home/hariketsbeth/.local/share/gnome-shell/gnome-overrides-migrated
0       /home/hariketsbeth/.local/share/nautilus/tags/meta.db-wal
0       /home/hariketsbeth/.local/share/nautilus/tags/.meta.isrunning
0       /home/hariketsbeth/.local/share/nautilus/tracker2-migration-complete
0       /home/hariketsbeth/.sudo_as_admin_successful
4       /home/hariketsbeth/.bash_history
4       /home/hariketsbeth/.bash_logout
4       /home/hariketsbeth/.bashrc
4       /home/hariketsbeth/.cache/evolution/addressbook/trash
4       /home/hariketsbeth/.cache/evolution/calendar/trash
4       /home/hariketsbeth/.cache/evolution/mail/trash
4       /home/hariketsbeth/.cache/evolution/memos/trash
4       /home/hariketsbeth/.cache/evolution/sources/trash
4       /home/hariketsbeth/.cache/evolution/tasks/trash
4       /home/hariketsbeth/.cache/fontconfig/3917636d-c019-46a8-a24c-da108bc7f7
e4-1e64.cache-7
4       /home/hariketsbeth/.cache/fontconfig/CACHEDIR.TAG
4       /home/hariketsbeth/.cache/ibus-table
4       /home/hariketsbeth/.cache/thumbnails/fail/gnome-thumbnail-factory/33f6d
ef52ef0dae20044e4693033e6f2.png
4       /home/hariketsbeth/.cache/tracker3/files/errors
4       /home/hariketsbeth/.cache/tracker3/files/first-index.txt
4       /home/hariketsbeth/.cache/tracker3/files/last-crawl.txt
```

free [option(s)]

```
hariketsheth@HariketSheth:~$ free -b
              total          used          free      shared  buff/cache   availabl
e
Mem:      8303951872  1320378368  6003531776    41209856   980041728   665898598
4
Swap:     2147479552           0  2147479552
hariketsheth@HariketSheth:~$ free -k
              total          used          free      shared  buff/cache   availabl
e
Mem:       8109328     1289404     5862816      40244     957108     650294
0
Swap:       2097148           0     2097148
hariketsheth@HariketSheth:~$ free -m
              total          used          free      shared  buff/cache   availabl
e
Mem:         7919         1259         5725          39         934         635
0
Swap:         2047           0         2047
hariketsheth@HariketSheth:~$ free -g
              total          used          free      shared  buff/cache   availabl
e
Mem:           7           1           5           0           0
6
Swap:          1           0           1
hariketsheth@HariketSheth:~$ free -t
              total          used          free      shared  buff/cache   availabl
e
Mem:       8109328     1289396     5862824      40244     957108     650295
2
Swap:       2097148           0     2097148
Total:     10206476     1289396     7959972
hariketsheth@HariketSheth:~$ free -s 2 -c 2
              total          used          free      shared  buff/cache   availabl
e
Mem:       8109328     1289136     5863076      40244     957116     650321
2
Swap:       2097148           0     2097148
              total          used          free      shared  buff/cache   availabl
e
Mem:       8109328     1289160     5863052      40244     957116     650318
8
Swap:       2097148           0     2097148
```

date [option(s)]

```
hariketsheth@HariketSheth:~$ date
Friday 21 January 2022 10:41:14 PM IST
hariketsheth@HariketSheth:~$ date -u
Friday 21 January 2022 05:11:16 PM UTC
hariketsheth@HariketSheth:~$ date --date="2 year ago"
Tuesday 21 January 2020 10:41:29 PM IST
hariketsheth@HariketSheth:~$ date --date="5 sec ago"
Friday 21 January 2022 10:41:36 PM IST
hariketsheth@HariketSheth:~$ date --date="yesterday"
Thursday 20 January 2022 10:41:58 PM IST
hariketsheth@HariketSheth:~$ date --date="2 month ago"
Sunday 21 November 2021 10:42:10 PM IST
hariketsheth@HariketSheth:~$ date --date="next tue"
Tuesday 25 January 2022 12:00:00 AM IST
hariketsheth@HariketSheth:~$ date --date="tomorrow"
Saturday 22 January 2022 10:42:37 PM IST
hariketsheth@HariketSheth:~$ date --set="Tue Nov 13 15:23:34 PDT 2018"
date: cannot set date: Operation not permitted
Wednesday 14 November 2018 03:53:34 AM IST
hariketsheth@HariketSheth:~$ date
Friday 21 January 2022 10:43:11 PM IST
hariketsheth@HariketSheth:~$ date --file=datefile
date: datefile: No such file or directory
hariketsheth@HariketSheth:~$ date --file=new.txt
date: invalid date 'Hariket'
date: invalid date 'Yes'
date: invalid date 'No'
date: invalid date 'yes'
date: invalid date 'no'
date: invalid date 'Hariket'
date: invalid date 'Yes'
date: invalid date 'No'
date: invalid date 'yes'
date: invalid date 'no'
date: invalid date 'Hariket'
date: invalid date 'Yes'
date: invalid date 'No'
date: invalid date 'yes'
date: invalid date 'no'
date: invalid date 'Hariket'
date: invalid date 'Yes'
date: invalid date 'No'
date: invalid date 'yes'
date: invalid date 'no'
date: invalid date 'Hariket'
date: invalid date 'Yes'
date: invalid date 'No'
```


Processes

ps [option(s)] [process ID]

```
hariketsheth@HariketSheth:~$ ps
  PID TTY          TIME CMD
 2156 pts/0        00:00:00 bash
 2265 pts/0        00:00:00 grep
 2371 pts/0        00:00:00 sort
 7179 pts/0        00:00:00 ps
hariketsheth@HariketSheth:~$ ps -A
  PID TTY          TIME CMD
    1 ?            00:00:04 systemd
    2 ?            00:00:00 kthreadd
    3 ?            00:00:00 rcu_gp
    4 ?            00:00:00 rcu_par_gp
    6 ?            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 ?            00:00:01 rcu_sched
   14 ?            00:00:00 migration/0
   15 ?            00:00:00 idle_inject/0
   16 ?            00:00:00 cpuhp/0
   17 ?            00:00:00 cpuhp/1
   18 ?            00:00:00 idle_inject/1
   19 ?            00:00:00 migration/1
   20 ?            00:00:00 ksoftirqd/1
   22 ?            00:00:00 kworker/1:0H-events_highpri
   23 ?            00:00:00 cpuhp/2
   24 ?            00:00:00 idle_inject/2
   25 ?            00:00:00 migration/2
   26 ?            00:00:00 ksoftirqd/2
   28 ?            00:00:00 kworker/2:0H-events_highpri
   29 ?            00:00:00 cpuhp/3
   30 ?            00:00:00 idle_inject/3
   31 ?            00:00:00 migration/3
   32 ?            00:00:00 ksoftirqd/3
   34 ?            00:00:00 kworker/3:0H-events_highpri
   35 ?            00:00:00 kdevtmpfs
   36 ?            00:00:00 netns
   37 ?            00:00:00 inet_frag_wq
   38 ?            00:00:00 kauditd
   40 ?            00:00:00 khungtaskd
   41 ?            00:00:00 oom_reaper
```

```

hariketsheth@HariketSheth:~$ ps -d
  PID TTY          TIME CMD
    2 ?           00:00:00 kthreadd
    3 ?           00:00:00 rcu_gp
    4 ?           00:00:00 rcu_par_gp
    6 ?           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 ?           00:00:01 rcu_sched
   14 ?           00:00:00 migration/0
   15 ?           00:00:00 idle_inject/0
   16 ?           00:00:00 cpuhp/0
   17 ?           00:00:00 cpuhp/1
   18 ?           00:00:00 idle_inject/1
   19 ?           00:00:00 migration/1
   20 ?           00:00:00 ksoftirqd/1
   22 ?           00:00:00 kworker/1:0H-events_highpri
   23 ?           00:00:00 cpuhp/2
   24 ?           00:00:00 idle_inject/2
   25 ?           00:00:00 migration/2
   26 ?           00:00:00 ksoftirqd/2
   28 ?           00:00:00 kworker/2:0H-events_highpri
   29 ?           00:00:00 cpuhp/3
   30 ?           00:00:00 idle_inject/3
   31 ?           00:00:00 migration/3
   32 ?           00:00:00 ksoftirqd/3
   34 ?           00:00:00 kworker/3:0H-events_highpri
   35 ?           00:00:00 kdevtmpfs
   36 ?           00:00:00 netns
   37 ?           00:00:00 inet_frag_wq
   38 ?           00:00:00 kauditd
   40 ?           00:00:00 khungtaskd
   41 ?           00:00:00 oom_reaper
   42 ?           00:00:00 writeback
   43 ?           00:00:00 kcompactd0

```

```

hariketsheth@HariketSheth:~$ ps -r
  PID TTY          STAT TIME COMMAND
 7356 pts/0      R+   0:00 ps -r
hariketsheth@HariketSheth:~$ ps -T
  PID  SPID TTY          TIME CMD
 2156  2156 pts/0      00:00:00 bash
 2265  2265 pts/0      00:00:00 grep
 2371  2371 pts/0      00:00:00 sort
 7358  7358 pts/0      00:00:00 ps
hariketsheth@HariketSheth:~$ ps -x
  PID TTY          STAT TIME COMMAND
 1431 ?           Ss    0:01 /lib/systemd/systemd --user
 1432 ?           S     0:00 (sd-pam)
 1438 ?           Ssl   0:00 /usr/bin/pipewire
 1439 ?           Ssl   0:00 /usr/bin/pipewire-media-session
 1440 ?           Ssl   0:14 /usr/bin/pulseaudio --daemonize=no --log-target=jo
 1444 ?           Ss    0:02 /usr/bin/dbus-daemon --session --address=systemd:
 1447 ?           Sl    0:00 /usr/bin/gnome-keyring-daemon --daemonize --login
 1450 ?           Ssl   0:00 /usr/libexec/gvfsd
 1455 ?           Sl    0:00 /usr/libexec/gvfsd-fuse /run/user/1000/gvfs -f -o
 1471 ?           SNsl  0:04 /usr/libexec/tracker-miner-fs-3
 1476 ?           Ssl   0:00 /usr/libexec/gvfs-udisks2-volume-monitor
 1480 tty2        Ssl+  0:00 /usr/libexec/gdm-wayland-session env GNOME_SHELL_S
 1483 tty2        Sl+   0:00 /usr/libexec/gnome-session-binary --systemd --sess
 1495 ?           Ssl   0:00 /usr/libexec/gvfs-gphoto2-volume-monitor
 1514 ?           Ssl   0:00 /usr/libexec/gvfs-goa-volume-monitor
 1519 ?           Sl    0:00 /usr/libexec/goa-daemon
 1527 ?           Sl    0:00 /usr/libexec/goa-identity-service
 1539 ?           Ssl   0:00 /usr/libexec/gvfs-mtp-volume-monitor
 1544 ?           Ssl   0:00 /usr/libexec/gvfs-afc-volume-monitor
 1557 ?           Ssl   0:00 /usr/libexec/gnome-session-ctl --monitor
 1564 ?           Ssl   0:00 /usr/libexec/gnome-session-binary --systemd-servic
 1582 ?           Sl    0:00 /usr/libexec/at-spi-bus-launcher --launch-immediat
 1583 ?           Ssl   1:41 /usr/bin/gnome-shell
 1592 ?           S     0:00 /usr/bin/dbus-daemon --config-file=/usr/share/defa
 1617 ?           Ssl   0:00 /usr/libexec/xdg-permission-store
 1622 ?           Sl    0:00 /usr/libexec/gnome-shell-calendar-server
 1638 ?           Ssl   0:00 /usr/libexec/evolution-source-registry
 1645 ?           Ssl   0:00 /usr/libexec/evolution-calendar-factory
 1653 ?           Ssl   0:00 /usr/libexec/dconf-service
 1659 ?           Ssl   0:00 /usr/libexec/evolution-addressbook-factory
 1673 ?           Sl    0:00 /usr/libexec/gvfsd-trash --spawner :1.2 /org/gtk/g

```

```

hariketsbeth@HariketSheth:~$ ps -a -N
  PID TTY          TIME CMD
    1 ?           00:00:04 systemd
    2 ?           00:00:00 kthreadd
    3 ?           00:00:00 rcu_gp
    4 ?           00:00:00 rcu_par_gp
    6 ?           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 ?           00:00:01 rcu_sched
   14 ?           00:00:00 migration/0
   15 ?           00:00:00 idle_inject/0
   16 ?           00:00:00 cpuhp/0
   17 ?           00:00:00 cpuhp/1
   18 ?           00:00:00 idle_inject/1
   19 ?           00:00:00 migration/1
   20 ?           00:00:00 ksoftirqd/1
   22 ?           00:00:00 kworker/1:0H-events_highpri
   23 ?           00:00:00 cpuhp/2
   24 ?           00:00:00 idle_inject/2
   25 ?           00:00:00 migration/2
   26 ?           00:00:00 ksoftirqd/2
   28 ?           00:00:00 kworker/2:0H-events_highpri
   29 ?           00:00:00 cpuhp/3
   30 ?           00:00:00 idle_inject/3
   31 ?           00:00:00 migration/3
   32 ?           00:00:00 ksoftirqd/3
   34 ?           00:00:00 kworker/3:0H-events_highpri

```

```

hariketsbeth@HariketSheth:~$ ps -p 2265
  PID TTY          TIME CMD
 2265 pts/0      00:00:00 grep
hariketsbeth@HariketSheth:~$ ps --ppid 2265
  PID TTY          TIME CMD
 2265 pts/0      00:00:00 grep
hariketsbeth@HariketSheth:~$ ps -a
  PID TTY          TIME CMD
 1483 tty2      00:00:00 gnome-session-b
 2265 pts/0      00:00:00 grep
 2371 pts/0      00:00:00 sort
 7377 pts/0      00:00:00 ps
hariketsbeth@HariketSheth:~$ ps -s
  UID      PID     PENDING   BLOCKED   IGNORED   CAUGHT  STAT  TTY          TIME COMM
AND
 1000     1480     00000000  00000000  00001000 <00014000 Ssl+  tty2      0:00 /usr
 1000     1483     00000000  00000000  00001000 <00004002 Sl+   tty2      0:00 /usr
 1000     2156     00000000  00010000  00384004 4b813efb Ss    pts/0     0:00 bash
 1000     2265     00000000  00000000  00000000 00000400 T     pts/0     0:00 grep
 1000     2371     00000000  00000000  00000000 17807007 T     pts/0     0:00 sort
 1000     7378     00000000  00000000  00000000 73d1fef9 R+    pts/0     0:00 ps -
hariketsbeth@HariketSheth:~$ ps -s 2156
  PID TTY          TIME CMD
 2156 pts/0      00:00:00 bash
 2265 pts/0      00:00:00 grep
 2371 pts/0      00:00:00 sort
 7379 pts/0      00:00:00 ps
hariketsbeth@HariketSheth:~$ ps -af
  UID      PID     PPID     C  STIME TTY          TIME CMD
hariket+  1483    1480    0  19:50 tty2      00:00:00 /usr/libexec/gnome-session-
hariket+  2265    2156    0  20:08 pts/0     00:00:00 grep --color=auto file.txt
hariket+  2371    2156    0  20:16 pts/0     00:00:00 sort -o file.txt
hariket+  7380    2156    0  22:51 pts/0     00:00:00 ps -af
hariketsbeth@HariketSheth:~$ ps -F
  UID      PID     PPID     C   SZ   RSS  PSR  STIME TTY          TIME CMD
hariket+  2156    2056    0  4934 5204   2  19:51 pts/0     00:00:00 bash
hariket+  2265    2156    0  4482 2360   2  20:08 pts/0     00:00:00 grep --colo
hariket+  2371    2156    0  7378 1088   1  20:16 pts/0     00:00:00 sort -o fil
hariket+  7381    2156    0  5290 3452   2  22:51 pts/0     00:00:00 ps -F
hariketsbeth@HariketSheth:~$

```


Kill

```
hariketsheth@HariketSheth:~$ kill -l
 1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 6) SIGABRT     7) SIGBUS     8) SIGFPE     9) SIGKILL    10) SIGUSR1
11) SIGSEGV    12) SIGUSR2    13) SIGPIPE    14) SIGALRM    15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD   18) SIGCONT    19) SIGSTOP    20) SIGTSTP
21) SIGTTIN    22) SIGTTOU   23) SIGURG     24) SIGXCPU    25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF   28) SIGWINCH   29) SIGIO      30) SIGPWR
31) SIGSYS     34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57) SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX

hariketsheth@HariketSheth:~$ ps
  PID TTY          TIME CMD
 2156 pts/0      00:00:00 bash
 2265 pts/0      00:00:00 grep
 2371 pts/0      00:00:00 sort
 7467 pts/0      00:00:00 ps

hariketsheth@HariketSheth:~$ kill 2265
hariketsheth@HariketSheth:~$ kill -s 2371
bash: kill: 2371: invalid signal specification
hariketsheth@HariketSheth:~$ kill -s 2265
bash: kill: 2265: invalid signal specification
hariketsheth@HariketSheth:~$ kill -L
 1) SIGHUP      2) SIGINT      3) SIGQUIT     4) SIGILL      5) SIGTRAP
 6) SIGABRT     7) SIGBUS     8) SIGFPE     9) SIGKILL    10) SIGUSR1
11) SIGSEGV    12) SIGUSR2    13) SIGPIPE    14) SIGALRM    15) SIGTERM
16) SIGSTKFLT  17) SIGCHLD   18) SIGCONT    19) SIGSTOP    20) SIGTSTP
21) SIGTTIN    22) SIGTTOU   23) SIGURG     24) SIGXCPU    25) SIGXFSZ
26) SIGVTALRM  27) SIGPROF   28) SIGWINCH   29) SIGIO      30) SIGPWR
31) SIGSYS     34) SIGRTMIN  35) SIGRTMIN+1 36) SIGRTMIN+2 37) SIGRTMIN+3
38) SIGRTMIN+4 39) SIGRTMIN+5 40) SIGRTMIN+6 41) SIGRTMIN+7 42) SIGRTMIN+8
43) SIGRTMIN+9 44) SIGRTMIN+10 45) SIGRTMIN+11 46) SIGRTMIN+12 47) SIGRTMIN+13
48) SIGRTMIN+14 49) SIGRTMIN+15 50) SIGRTMAX-14 51) SIGRTMAX-13 52) SIGRTMAX-12
53) SIGRTMAX-11 54) SIGRTMAX-10 55) SIGRTMAX-9 56) SIGRTMAX-8 57) SIGRTMAX-7
58) SIGRTMAX-6 59) SIGRTMAX-5 60) SIGRTMAX-4 61) SIGRTMAX-3 62) SIGRTMAX-2
63) SIGRTMAX-1 64) SIGRTMAX

hariketsheth@HariketSheth:~$
```