

command chmod

```
[root@localhost ~]# ll test.file.txt
-r--r--r-- 1 root root 0 Oct 10 03:37 test.file.txt
[root@localhost ~]# chmod u+x test.file.txt
[root@localhost ~]# ll test.file.txt
-r-xr--r-- 1 root root 0 Oct 10 03:37 test.file.txt
[root@localhost ~]# chmod 444 test.file.txt
[root@localhost ~]# ll test.file.txt
-r--r--r-- 1 root root 0 Oct 10 03:37 test.file.txt
[root@localhost ~]#
```

command chgrp

```
[root@localhost ~]# ls
bench.py  hello.c  test.file.txt
[root@localhost ~]# sudo groupadd section
[root@localhost ~]# sudo groupadd shellgroup
[root@localhost ~]# sudo chgrp shellgroup test.file.txt
[root@localhost ~]# ll test.file.txt
-rw-r--r-- 1 root shellgroup 0 Oct 10 03:42 test.file.txt
[root@localhost ~]#
```

command chown

```
[root@localhost ~]# sudo useradd garvit
[root@localhost ~]# ll test.file.txt
-rw-r--r-- 1 root shellgroup 0 Oct 10 03:42 test.file.txt
[root@localhost ~]# sudo chown root test.file.txt
[root@localhost ~]# ll test.file.txt
-rw-r--r-- 1 root shellgroup 0 Oct 10 03:42 test.file.txt
[root@localhost ~]# sudo chown root:garvit test.file.txt
[root@localhost ~]# ll test.file.txt
-rw-r--r-- 1 root garvit 0 Oct 10 03:42 test.file.txt
[root@localhost ~]#
```

command gzip and gunzip

```
[root@localhost ~]# ls
bench.py hello.c test.file.txt
[root@localhost ~]# gzip test.file.txt
[root@localhost ~]# ll test.file.txt
ls: cannot access 'test.file.txt': No such file or directory
[root@localhost ~]# ls
bench.py hello.c test.file.txt.gz
[root@localhost ~]# gunzip test.file.txt
[root@localhost ~]# ls
bench.py hello.c test.file.txt
[root@localhost ~]#
```

command tar cf , tar xf , tf

```
[root@localhost ~]# tar cf testarchive test.file.txt
[root@localhost ~]# ls
bench.py hello.c testarchive testarchive test.file.txt
[root@localhost ~]# tar tf testarchive
test.file.txt
[root@localhost ~]# tar xf archive
tar: archive: Cannot open: No such file or directory
tar: Error is not recoverable: exiting now
[root@localhost ~]# ls
bench.py hello.c testarchive testarchive test.file.txt
[root@localhost ~]#
```

tty-

```
[root@localhost ~]# tty  
/dev/hvc0
```

who & whoami

```
[root@localhost ~]# who  
[root@localhost ~]# whoami  
root  
[root@localhost ~]#
```

cal

```
[root@localhost ~]# cal  
October 2024  
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
```

date -

```
[root@localhost ~]# date  
Thu Oct 10 03:59:00 AM UTC 2024  
[root@localhost ~]# date +%m  
10  
[root@localhost ~]#
```

echo -

```
[root@localhost ~]# echo ashish
ashish
[root@localhost ~]#
```

passwd-

```
[root@localhost ~]# passwd
Changing password for user root.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
Sorry, passwords do not match.
New password:
Retype new password:
passwd: all authentication tokens updated successfully.
[root@localhost ~]# n
```

ls-

```
[root@localhost ~]# s
sh: s: command not found
[root@localhost ~]# ls
bench.py  hello.c
[root@localhost ~]#
```

ls -l

```
[root@localhost ~]# ls -l
total 8
-rw-r--r-- 1 root root 114 Dec 26  2020 bench.py
-rw-r--r-- 1 root root 185 Sep  9  2018 hello.c
[root@localhost ~]#
```

cat -

```
[root@localhost ~]# cat file.txt
this
is
a
file
that
contains
some content
```

exit -

```
[root@localhost ~]# exit
logout
```

path-

```
[root@localhost ~]# echo $PATH
/usr/local/sbin:/bin:/sbin:/usr/bin:/usr/sbin:/usr/local/bin
[root@localhost ~]#
```

pwd (present working directory)-

```
[root@localhost ~]# pwd
/root
```

mkdir (make directory) -

```
[root@localhost ~]# mkdir shelllabfolder
[root@localhost ~]# ls
bench.py  hello.c  shelllabfolder
```

rmdir ( remove directory )-

```
[root@localhost ~]# ls
bench.py  hello.c  shelllabfolder
[root@localhost ~]# rmdir shelllabfolder
[root@localhost ~]# ls
bench.py  hello.c
```

Head command -

```
Terminal
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ ls
'cpp- workspace'  Downloads      IdeaProjects  Pictures      Templates
Desktop          folder        Music         Public        Videos
Documents        headfile.txt  new          snap         WhiteSur-gtk-theme
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ cat headfile.txt
line 1
line 10
line 2
line 9
line 3
line 8
line 4
line 7
line 5
line 6
line 11
line 13
line 12
line 14

ashish@ashish-HP-EliteBook-x360-1030-G2:~$ head headfile.txt
line 1
line 10
line 2
line 9
line 3
line 8
line 4
line 7
line 5
line 6
ashish@ashish-HP-EliteBook-x360-1030-G2:~$
```

Tail command

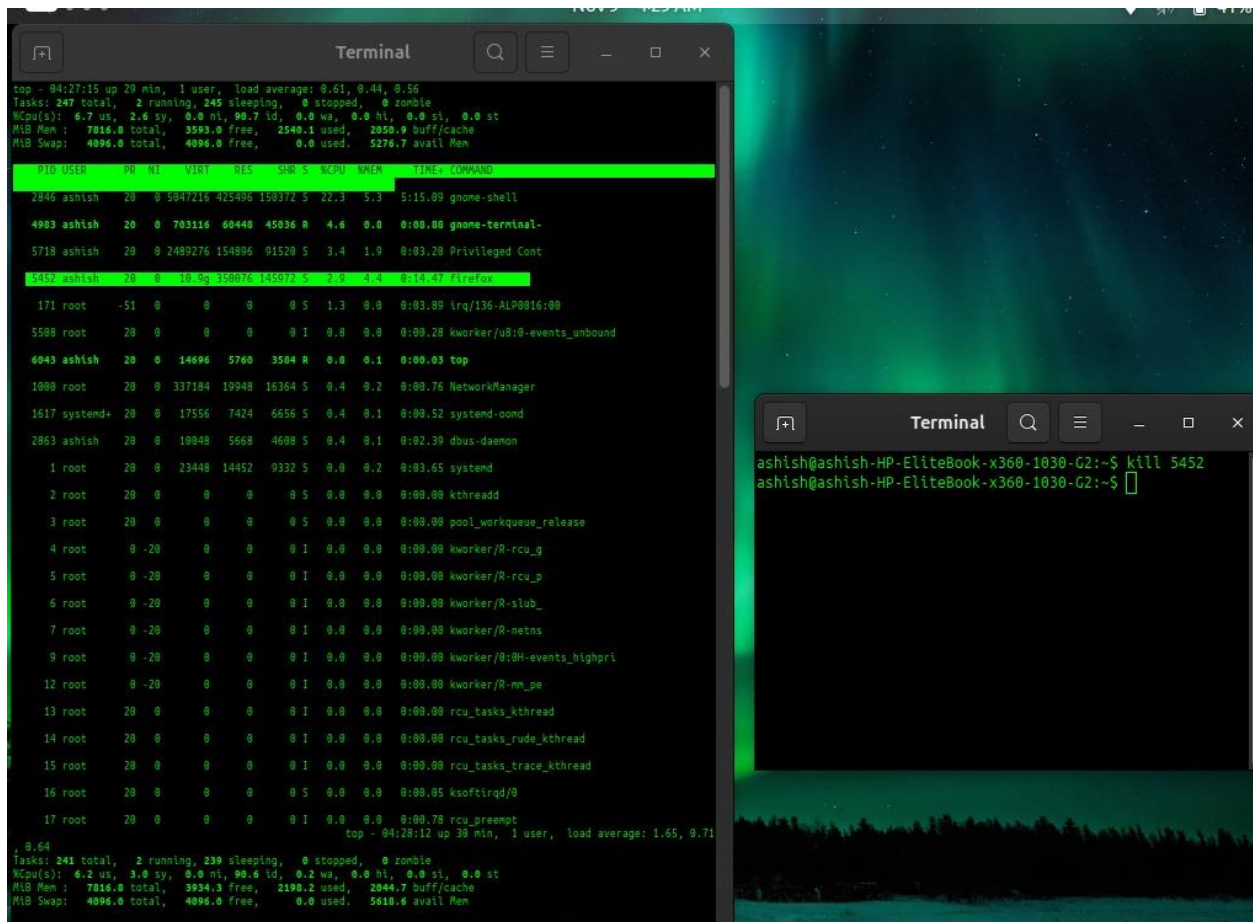
```
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ tail headfile.txt
line 8
line 4
line 7
line 5
line 6
line 11
line 13
line 12
line 14
```



nohup command -

```
Terminal
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ cat > mycommand.sh
ls
ps
cal
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ cat mycommand.sh
ls
ps
cal
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ chmod a+X mycommand.sh
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ ls -ltrh mycommand.sh
-rw-rw-r-- 1 ashish ashish 10 Nov  9 04:17 mycommand.sh
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ nohup bash mycommand.sh
nohup: ignoring input and appending output to 'nohup.out'
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ ls
'cpp- workspace'  Downloads      Music          nohup.out      snap           Videos
Desktop          folder        mycommand.sh  Pictures       sortfile.txt  WhiteSur-gtk-the
Documents        IdeaProjects  new           Public         Templates
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ more nohup.out
cpp- workspace
Desktop
Documents
Downloads
folder
IdeaProjects
Music
mycommand.sh
new
nohup.out
Pictures
Public
snap
sortfile.txt
Templates
Videos
WhiteSur-gtk-theme
  PID TTY          TIME CMD
  4991 pts/0        00:00:00 bash
  5069 pts/0        00:00:00 bash
  5071 pts/0        00:00:00 ps
mycommand.sh: line 3: cal: command not found
ashish@ashish-HP-EliteBook-x360-1030-G2:~$
```

Kill command -



The image shows two terminal windows. The left window displays the output of the `top` command, showing system statistics and a list of running processes. The right window shows the execution of the `kill` command to terminate process 5452.

**Terminal 1 (Left):**

```
top - 04:27:15 up 29 min, 1 user, load average: 0.61, 0.44, 0.56
Tasks: 247 total, 2 running, 245 sleeping, 0 stopped, 0 zombie
MCpu(s): 6.7 us, 2.0 sy, 0.0 ni, 90.7 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st
MiB Mem : 7816.0 total, 3593.0 free, 2540.1 used, 2050.9 buff/cache
MiB Swap: 4096.0 total, 4096.0 free, 0.0 used, 5276.7 avail Mem
```

PID	USER	PPID	NI	VIRT	RES	SHR	S	NCPU	WCHAN	TIME+	COMMAND
2846	ashish	20	0	5047216	425496	150372	S	22.3	5.3	5:15.00	gnome-shell
4903	ashish	20	0	703116	60440	45036	R	4.6	0.0	0:00.00	gnome-terminal-
5718	ashish	20	0	2489276	154896	91520	S	3.4	1.0	0:03.20	Privileged Cont
5452	ashish	20	0	10.0g	350076	145072	S	2.0	4.4	0:14.47	Firefox
171	root	-51	0	0	0	0	S	1.3	0.0	0:03.00	irq/136-ALP0016:00
5508	root	20	0	0	0	0	I	0.0	0.0	0:00.28	kworker/u8:0-events_unbound
6043	ashish	20	0	14696	5760	3504	R	0.0	0.1	0:00.03	top
1000	root	20	0	337184	19948	16364	S	0.4	0.2	0:00.76	NetworkManager
1617	systemd+	20	0	17556	7424	6656	S	0.4	0.1	0:00.52	systemd-somd
2863	ashish	20	0	10048	5668	4608	S	0.4	0.1	0:02.30	dbus-daemon
1	root	20	0	23448	14452	9332	S	0.0	0.2	0:03.65	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00	kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.00	pool_workqueue_release
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-rcu_g
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-rcu_p
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-slab_
7	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-netns
9	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R:0H-events_highpri
12	root	0	-20	0	0	0	I	0.0	0.0	0:00.00	kworker/R-nm_pe
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
14	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
15	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
16	root	20	0	0	0	0	S	0.0	0.0	0:00.05	ksoftirqd/0
17	root	20	0	0	0	0	I	0.0	0.0	0:00.78	rcu_preempt

`top - 04:28:12 up 30 min, 1 user, load average: 1.65, 0.71, 0.64`  
Tasks: 241 total, 2 running, 239 sleeping, 0 stopped, 0 zombie  
MCpu(s): 6.2 us, 3.0 sy, 0.0 ni, 90.6 id, 0.2 wa, 0.0 hi, 0.0 si, 0.0 st  
MiB Mem : 7816.0 total, 3934.3 free, 2190.2 used, 2044.7 buff/cache  
MiB Swap: 4096.0 total, 4096.0 free, 0.0 used, 5618.6 avail Mem

**Terminal 2 (Right):**

```
ashish@ashish-HP-EliteBook-x360-1030-G2:~$ kill 5452
ashish@ashish-HP-EliteBook-x360-1030-G2:~$
```