

Date commands:

i) To display only month: `date +%m`

output: 01

ii) To display month name: `date +%h`

output:

iii) To display day of month: `date +%d`

output:

iv) To display last 2 digits of year: `date +%y`

output:

v) To display hours: `date +%H`

output:

vi) To display minutes: `date +%M`

output:

vii) To display seconds: `date +%S`

output

2) The echo command:

Used to print the message on screen

`echo "My first experiment"`

output: My first experiment.

3) Cal command

Output:

`cal feb 2025`

February 2025

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	

4) basic calculator bc: `bc`

`2+3`

output: 5

Ctrl+C to exit

5) who command: who

output: root tty2 2025-02-01 13:35 tty2  
cse161 pts/1 2025-02-01 13:39 (172.16.52.161)  
cse192 pts/2 2025-02-01 13:39 (172.16.52.193)

6) who am i command: who am i

output: cse149 pts/11 2025-02-01 13:40 (172.16.52.178)

7) id command: id

uid=1152(cse149) gid=1152(cse149) groups=1152(cse149)  
context=unconfined\_u:unconfined\_r:unconfined\_t:s0:c0,c1023

8) tty command (keletype command): tty

output: /dev/pts/11

9) clear command: clear

the output clears the entire screen.

10) i) ps command: ps

PID	TTY	TIME	CMD
3331	pts/11	00:00:00	bash
7453	pts/11	00:00:00	ps

ii) ps -e

PID	TTY	TIME	CMD
1	?	00:00:02	systemd
2	?	00:00:00	kthreadd
3	?	00:00:00	rcu_gp

iii) ps -aux

USER	PID	%CPU	%MEM	VSZ	RSS	TTY	STAT	START TIME
root	1	0.0	0.1	174356	18188	?	Ss	13:33 0:02

COMMAND

i) `uname` command: `uname`

output: Linux

ii) `uname -m`

x86\_64

iii) `uname -n` fedora

iv) `uname -r` output: 6.2.15-100.fc36.x86\_64

v) `uname -s` Linux

vi) `uname -v` output: #1 SMP PREEMPT\_DYNAMIC Thu May 11 16:51:53 UTC 2023

vii) `uname -a`

Linux fedora 6.2.15-100.fc36.x86\_64 #1 SMP PREEMPT\_DYNAMIC Thu May 11 16:51:53 UTC 2023 x86\_64 x86\_64 GNU/Linux

8) Directory commands:

1) `pwd` command: `pwd`

output: /home/cse149

2) `mkdir` command: `mkdir keerthu`

~~output~~ keerthu directory is created.

3) `rmdir` command: `rmdir keerthu`  
directory is removed

4) `cd` command: `cd dirname`  
`cd /ec`

5) `ls` command: `ls`  
display the files created

1.3 File handling:

1) `cat` command: `cat > filename`

\$ `cat > /ec`

2. Command: cp rec cse

copies contents of rec into cse

3. Command: mv

\$ mv cse

renames the file

4. Command: mv

\$ mv cse rec

moves the file

5. Command: cat rec

displays the content

6. Command: file filename

\$ file rec → determines the type of file.

wc file1

op: 1 8 24 file1

7.  $ls > file2$

directs list of files to file 2

8.  $who / wc -l$

op: 28

9.  $who / ke file + / wc -l$

op: 28

10.  $ls f^*$

op: file1

11.  $ls ~~am~~ [a-m]^*$

op: file1

12.  $ls [l a-m]^*$

op: student

13.  $ls -l$

op total 5

-r-r-r-- 1  $\frac{1}{2}$  cse149 cse149 cse149 24feb 1 13:50 file1



14. chmod -w x file1

Op: restricts read, write & execute access to file1

15. chmod rw x file1

gives read, write and execute access to file1

1.4.2 Grouping commands:

1. who; date

Op:

root	hty2	2025-02-01	13:35	(hty)
cse149	pk3/3	2025-02-01	13:39	(172.16.52.161)

2. who & date

Op:

root	hty2	2025-02-01	13:35	(hty)
cse149	pk3/3	2025-02-01	13:39	<del>(hty)</del> (172.16.52.161)

3. catell who

op: Saturday 01 February 2025 01:55:30 PM IST

1.5. filter commands:

1. head file

op: This is keerthi

2. tail file

op: End of document

3. grep "cse" student

op: Ramesh cse

Asuresh cse

4. sort student

~~Asuresh~~ cse

Ramesh cse

5. sort -r student

Ramesh cse

~~Asuresh~~ cse

6. sort -n students

Ramesh cse

Suresh cse

7. sort -m students

Ramesh cse

Suresh cse

8. Sev - all students

ASuresh Cse  
Ramesh Cse

9. nl students

1. Ramesh Cse

2. ASuresh Cse

10. C++ - C 1.3 students

Abu  
Ravi





free command

(i) free

top:

	total	used	free	shared	buff / cache	available
Mem:	16092656	425192	838800	56316	729892	1422512
Swap:	2129916	0	2129916			

(ii) ifree -h

	total	used	Free	Shared	buff / cache	available
Mem:	1.49G	414M	819M	54M	712M	1.14 G
Swap:	2.0G	0B	2.0G			

2. Top

<del>top</del> PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%Mem	Time+	Command
1654	Student	20	0	16888	4288	3736	R	0.3	0.2	0:00:02	top

3. Command: `vmstat`

procs		memory				swap		io		system		cpu	
r	b	swpd	free	buff	cache	si	so	bi	bo	in	cs	us	sy
0	0	0	838636	50360	680144	0	0	95	11	10	2	2	1
													98
													0

4. Command: `df`

filesystem	1K-blocks	Used	Available	Use%	Mounted on
devtmpfs	985956	0	985956	0%	/dev
tmpfs	996940	0	996940	0%	/dev/shm
tmpfs	996940	1204	995736	1%	/run

5. Command: `ping 172.16.4.1`

PING 172.16.4.1 (172.16.4.1) 56(84) bytes of data:

64 bytes from 172.16.4.1: icmp\_seq=1 ttl=64 time=0.181 ms

64 bytes from 172.16.4.1: icmp\_seq=2 ttl=64 time=0.160 ms

## 6. ifconfig

enp3s0: flags = 4163 <UP, BROADCAST, RUNNING, MULTICAST> mtu 1500

inet 172.16.9.7 netmask 255.255.252.0 broadcast 172.16.11.255

inet6 fe80::6elf:8dfe:182b:3451 prefixlen 64 scopeid 0x20<link>

## 7. traceroute www.kajalakshmi.org

- 1 kajalakshmi.org (14.99.10.232) 0.778ms 0.722ms 0.655ms
- 2 kajalakshmi.org (14.99.10.232) 0.590ms \* \*