Ex No: 1b)

Date: 29/1/25

BASIC LINUX COMMANDS

1.1 GENERAL PURPOSE COMMANDS

1. The 'date' command:

The date command displays the current date with day of week, month, day, time (24 hours clock) and the year.

SYNTAX: $ date

The date command can also be used with following format.

Format	Purpose	Example
+ %m	To display only month	$ date + %m
+ %h	To display month name	$ date + %h
+ %d	To display day of month	$ date + %d
+ %y	To display last two digits of the year	$ date + %y
+ %H	To display Hours	$ date + %H
+ %M	To display Minutes	$ date + %M
+ %S	To display Seconds	$ date + %S

2. The echo'command:

The echo command is used to print the message on the screen.

SYNTAX: $ echo

EXAMPLE: $ echo "God is Great"

3. The 'cal' command:

The cal command displays the specified month or year calendar.

SYNTAX: $ cal [month] [year]

EXAMPLE: $ cal Jan 2012

4. The 'bc' command:

1) date command

$ date

Fri Jan 24 13:52:58 IST 2025

$ date +%m

01

$ date +%h

Jan

$ date +%d

24

$ date +%y

25

$ date +%H

14

$ date +%M

39

$ date +%S

12

2) Echo command

$ echo "Praise the lord"

Praise the Lord

3) cal command

$ cal May 2004

May 2004

Su	Mo	Tu	We	Thu	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

4) bc command

$ bc

12+4

16

$ who am i

CSE301 pts/20 2025-01-24 13:38 (172.16.9.7)

$ id

uid = 1000 (Student) gid = 1000 (Student) groups = 1000(Studen

$ tty

/dw/pts/1

$ clear

$ PS

PID	TTY	TIME	CMD
1521	pts/1	00:00:00	bash
1555	pts/1	00:00:00	PS

$ uname -m

i 686

$ uname -n

localhost. localdomain

$ uname -r

4.11.8-300.fc26.i686 + PAE

$ uname -s

Linus

$ uname -v

1 SMP THU JAN 30 20:
UTC 2017

$ uname -a

Show all the above five details.

1.2) Directory Command.

1) $ pwd
/home/student

2) $ mkdir 301 . $ mkdir 304
directory created.

3) $ rmdir 301
directory removed.

4) $ cd 304
[student@localHost 304]

5) $ ls -a

301 .bash_profile .config Downloads .gtkrc-2.0-kde4
.mozilla Public student test3.txt txt.file .Xauthority

3) File Handling Command.

1) $ cat > txt.txt

2) $ cat txt1.txt
This is file 1

3) $ cp txt1.txt txt2.txt
$ cat txt2.txt
This is file 1

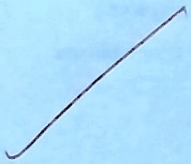
4. $ rm txt2.txt

5. $ mv txt1.txt txt2.txt
$ cat txt2.txt

This file 1

6. $ file t2.txt

t2.txt : ASCII txt.



$ ls

add.c a.out sum.c a.out

$ wc t2.txt

$ ls → files

$ cat files

a.out

files

sample

Sum.c

sum.py

t2.txt

txt1.txt

9. $ ls/wc

8 8 61

10. who | tee sample | wc college

000 college

11. ls ? ** : NC

recall

ls

ls [a-m]*

book book1 clg college CSE

Desktop :

flame - desktop.

13) $ chmod u-wx t1.txt

$ chmod u+rw, g+rw t1.txt

$ chmod g=wx t1.txt

14) $ chmod 761 t1.txt

1.4 Grouping commands

1.) $ ls ; cat txt2.txt

txt1.txt txt2.txt

this is file 2.

2.) $ who && date

Student pts/0 2017-06-28 03:12 (:0)

Student pts/1 2025-01-30 08:28 (:0)

Thu Jan 30 08:32:19 IST 2025

3.) $ echo "hi" // ls

hi

15 FILTERS

1. $ head fills 1 txt

this
is
the
fill
that
is
used
to
execute
the

2. $ tail -5 file 1. txt

Commands
in
this
Command
prompt.

3. $ cat dum. txt 1 more

This
is
not
a
file
that
to
be
read

4) $ grep "be" dum.txt

be

5) $ cat t1.txt

this
is
98
working
7456
Whether
23
Os
26
Other
87
operating
23
System

$ sort -n t1.txt

is
operating
os
Other
system
this
working
23
23
76
87
98
7456

$ sort -c t1.txt

sort t1.txt :2: disorder : is

$ sort -u t1.txt

23
7456
76
87
98
is
operating
os
Other
system

this
whether
working

6. $ nl t1.txt

1 this
2 is
3 98
4 working
5 7456
6 whether

7. cut -c 3-t1.txt

is
rking
56
ether
her
rating
stem

1.5 Other Essential Commands

1. free -t

	total	used	Free
Mem:	1994612	645488	453244
Swap:	2129916	0	2129916
total:	4124528	645488	2583160

shared	buff/cache	available
99192	896880	1159132

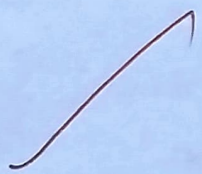
2) $top.

top - 09:31:06 up1:04 2 users, Load average: 0.00
0.10, 0.11 tasks: 162 total, 1 running, 162
Sleeping, 0 stopped, 0 zombie

%CPU(s): 0.3 us, 0.3 sy, 0.0 ni, 99.5 id,
0.0 wa, 0.2 hi, 0.0 si, 0.0 st.

) $ PS

PID	TTY	Time	CMD
1514	PTS/1	00:00:00	bash
2022	pts/1	00:00:00	ps



7) $ ifconfig

mp3s0 flags = 4163 < UP, Broadcast, running,
Multicast, mtu 1500 ° met 172.16.9.20
netmask 255.255.255.0 broadcast 172.16.11.255
imt fe 80:: 7616 : fd3 : f575 prefix len
64 scopied 0x20 < link >

) $ traceroute

Usage

traceroute [-46dFITnrvAUDV] [-t first_ttl]
[-g gate,...] [-i device] [-m max_ttl]
[-N squeries] [-P port] [-t tos] [-l flow_label]
[-w MAX, HERE, NEAR] [-q nqueries] [-s src_addr]
[-z sendwait] [--fwmark=num] host [packet
len]

64 bytes from 172.16.4.1: icmp_seq=3 ttl=64 time=0.264 ms
64 bytes from 172.16.4.1: icmp_seq=4 ttl=64 time=0.312 ms
^C
— 172.16.4.1 ping statistics —
4 packets transmitted, 4 received, 0% packet loss, time 3000ms
rtt min/avg/max/mdev = 0.228/0.283/0.328/0.039 ms

7. ifconfig

It is used configure network interface.

synopsis- ifconfig [options]

example

[root@localhost ~]# ifconfig

enp2s0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu
1500 inet 172.16.6.102 netmask 255.255.252.0 broadcast 172.16.7.255 inet6
fe80::4a0f:cfff:fe6d:6057 prefixlen 64 scopeid 0x20<link>
ether 48:0f:cf:6d:60:57 txqueuelen 1000 (Ethernet)

RX packets 23216 bytes 2483338 (2.3 MiB)
RX errors 0 dropped 5 overruns 0 frame 0
TX packets 1077 bytes 107740 (105.2 KiB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0 **8.**

traceroute

It tracks the route the packet takes to reach the destination.

synopsis- traceroute [options]

example

[root@localhost ~]# traceroute www.rajalakshmi.org
traceroute to www.rajalakshmi.org (220.227.30.51), 30 hops max, 60 byte
packets 1 gateway (172.16.4.1) 0.299 ms 0.297 ms 0.327 ms
2 220.225.219.38 (220.225.219.38) 6.185 ms 6.203 ms 6.189 ms

Result:

Hence the basic linux commands are executed and the output is obtained.