

Ex No: 1
Date: 23.01.2025

BASIC LINUX COMMANDS

1) Date commands

- 1) date + %m
output :- 01
- 2) date + %h
output :- Jan
- 3) date + %d
output :- 30
- 4) date + %H
output :- 13
- 5) date + %M
output :- 41
- 6) date + %S
output :- 20

2) Echo command :-
echo "hi"
output :- hi

3) BC Command
bc
1 + 2
output :- 3

4) Cal command
cal Sep 2005

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	

5) Who command :-
who
output :- student pts/1 2025-01-30 8:04
student pts/2 2025-01-30 13:39

6) who am i command
who am i
output :- student pts/1 2025-01-30 8:04

7) id command :-
id
output :- uid=1000(student) gid=1000(student) groups=1000
(student) context=unconfined.u:unconfined.r:
unconfined.t:60-80:c0.s:028

8) tty command :-
tty
output :- /dev/pts/1

9) clear command :-
clear

10) man command :-
man clear

11) ps Command :-
ps -e
output :- 5549 pts/1 00:00:00 ps
ps -aux
output :- student 5549 00:00 16672 3657 pts/1 04/1/22

12) Uname command :-
uname -m -> i686
uname -n -> localhost.localdomain
uname -r -> 4.11.8-800.fc36.i686.pae
uname -s -> Linux
uname -t -> #1 SMP Thu Jun 29 20:38:21 UTC 2017
uname -o -> Linux localhost.localdomain 4.11.8-800.fc36
i686.pae #1 SMP Thu Jun 29 20:38:21 UTC 2017
i686 i686 GNU/Linux

1.2) Directory commands :-

- 1) pwd :- /home/Student
- 2) mkdir 153 :-
- 3) rm dir :-
- 4) cd 153 :-
- 5) ls :-
csd cse cs Desktop Document Download
Music MWT Exhane Public
ls -l -> total 0
ls -a ->

1.3) File Handling commands

- 1) cat command :-
cat > rawfile.txt
Hi this is a new file
- 2) Display command :-
cat #rawfile.txt
Hi this is a new file

3) cp command :-
cp rawfile.txt rawfilecopy.txt

4) rm command :-
rm rawfile.txt

5) mv command :-
mv rawfilecopy.txt rawfile.txt

6) file command :-
file rawfile.txt
output :- rawfile.txt ASCII text

7) wc command :-
wc, rawfile.txt
output :- 1 1 27 rawfile.txt

8) ls command :-
ls > rawfile

9) The 'pipe' command :-
who | wc -l
output :- 09

10) tee command :-
who | tee sample.txt | wc -l
output :- 09

11) Metacharacters of unix

- 1) ls n** :- rawfile.txt
- 2) ls ?e* :- rawfile.txt
- 3) ls [a-z]* :- rawfile.txt
- 4) ls [a-z]* :- "cannot access '[a-z]*': No such file or directory"

12. ch mod commands:-

- 1) chmod -wx newfile.txt
- 2) chmod +rwx newfile.txt
- 3) chmod =w+ newfile.txt

13) Octal Notation commands:

chmod 761 newfile.txt

14) Grouping commands:-

1) The semicolon command

ls; date

output: newfile.txt

Saturday 01 February 2025 02:19:39 PM

2) 'x' operator

ls x date

output: newfile.txt

Saturday 01 February 2025 02:19:15 PM

3) '||' operator:

ls || date

output: newfile.txt

15) Filters

1) Head filter

head newfile.txt

output: newfile.txt

2) tail filter:

tail newfile.txt

output: newfile.txt

3) more filter:-

ls -l | more

output: total 4

4) grep command:

grep file newfile.txt

output: newfile.txt

5) sort command:-

sort newfile.txt

output: newfile.txt

6) nl command:-

nl 103

output: nl:103: it is a directory.

7) cut command:-

cut -c 2 newfile.txt

output: e

8) Other essential commands:-

1) free:-

output:-

	total	used	free	shared	buff/cache
mem	2091992	685664	1504328	207724	1102048
Swap	2104080	0	2104080		

2. top:

top: 14:05:21 up 24 min, 3 users, load average: 0.11, 0.34, 0.35

Task: 199 total, 1 running, 160 sleeping, 0 stopped

%cpu(s): 0.505, 0.253, 0.001, 99.816, 0.046, 0.241

3. Vm stat

output:

procs	memory	swap	io	signals					
r	b	used	free	cache	si	so	hi	lo	
0	0	0	1520008	149624	149624	0	0	227	92

4. df

file system	1k blocks	use	available	use %
devtmpfs	1635036	0	1635036	0%
tmpfs	1635996	0	1635996	0%
tmpfs	1645996	1272	1644724	1%

5. Ping

output:

usage: ping [-a] [-b] [-c] [-d] [-e] [-f] [-i interval] [-I interface] [-m maxsize] [-n packets] [-P protocol] [-q] [-s size] [-t timeout] [-W timeout] [-w timeout] [-z] [-Z] [-P protocol] [-q] [-s size] [-t timeout] [-W timeout] [-z] [-Z]

1) Ifconfig:

output:

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

inet 172.16.9.23 netmask 255.255.0.0

broadcast 172.16.11.255

rx packets 190645 bytes 188928015 (180.11MB)

2) Tracert:

output:

Trace route to 172.16.9.23
[0] 172.16.9.23 [1] 172.16.9.23 [2] 172.16.9.23 [3] 172.16.9.23 [4] 172.16.9.23 [5] 172.16.9.23 [6] 172.16.9.23 [7] 172.16.9.23 [8] 172.16.9.23 [9] 172.16.9.23 [10] 172.16.9.23 [11] 172.16.9.23 [12] 172.16.9.23 [13] 172.16.9.23 [14] 172.16.9.23 [15] 172.16.9.23 [16] 172.16.9.23 [17] 172.16.9.23 [18] 172.16.9.23 [19] 172.16.9.23 [20] 172.16.9.23 [21] 172.16.9.23 [22] 172.16.9.23 [23] 172.16.9.23 [24] 172.16.9.23 [25] 172.16.9.23 [26] 172.16.9.23 [27] 172.16.9.23 [28] 172.16.9.23 [29] 172.16.9.23 [30] 172.16.9.23 [31] 172.16.9.23 [32] 172.16.9.23 [33] 172.16.9.23 [34] 172.16.9.23 [35] 172.16.9.23 [36] 172.16.9.23 [37] 172.16.9.23 [38] 172.16.9.23 [39] 172.16.9.23 [40] 172.16.9.23 [41] 172.16.9.23 [42] 172.16.9.23 [43] 172.16.9.23 [44] 172.16.9.23 [45] 172.16.9.23 [46] 172.16.9.23 [47] 172.16.9.23 [48] 172.16.9.23 [49] 172.16.9.23 [50] 172.16.9.23 [51] 172.16.9.23 [52] 172.16.9.23 [53] 172.16.9.23 [54] 172.16.9.23 [55] 172.16.9.23 [56] 172.16.9.23 [57] 172.16.9.23 [58] 172.16.9.23 [59] 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Result:

The Unix/Linux commands successfully displayed system information, managed files, and performed navigation tasks, confirming the proper setup and functionality of the environment.