

Module:-COSA(Concept Of Operating System And Administration)

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Assignment :- 01(Basic Cent OS Command)

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1.ls

Content present working directory. “ls” command is used to see the folders and files of the folder.

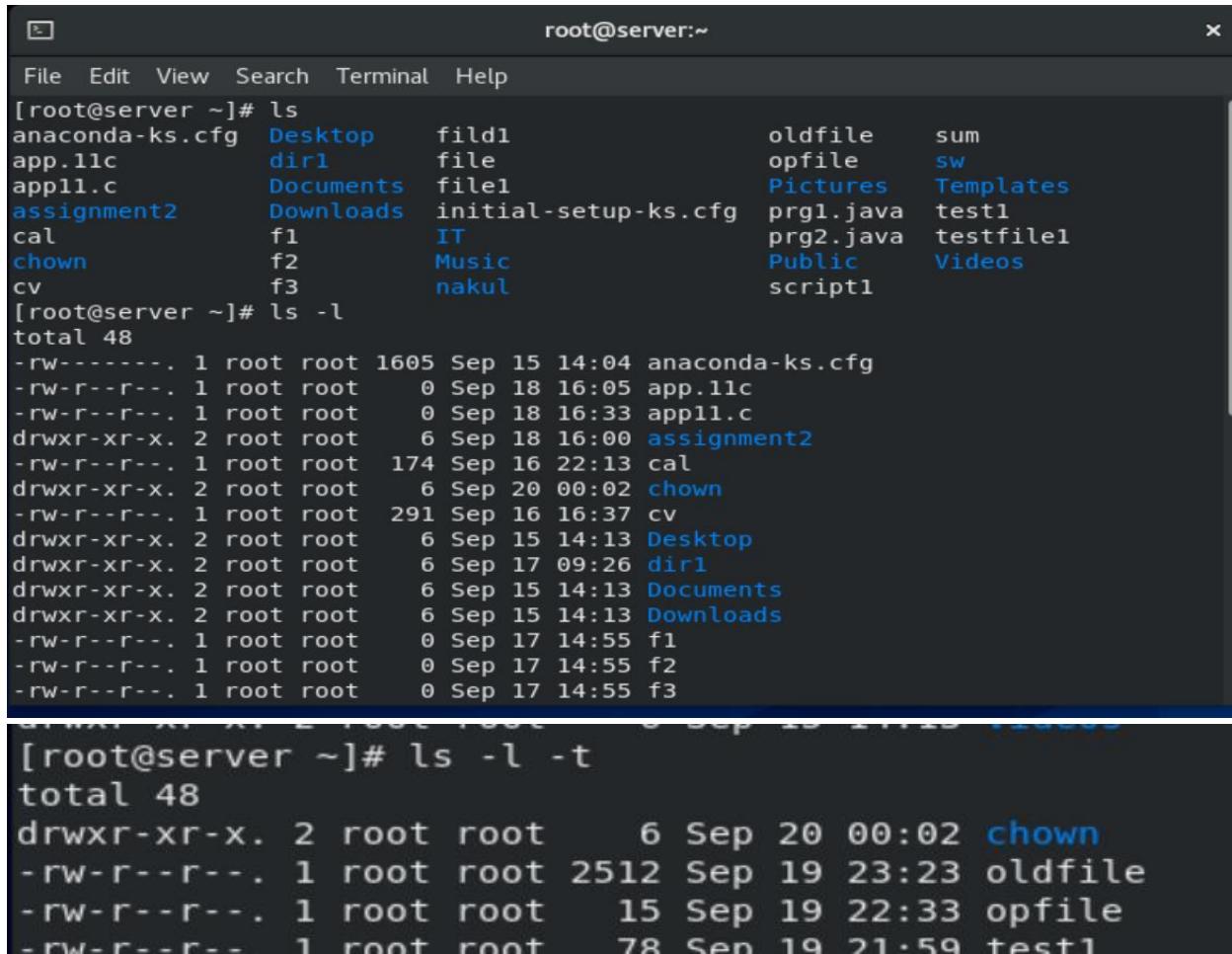
Cmd:-

ls

ls -l

ls -l -t

ls -a



```
[root@server ~]# ls
anaconda-ks.cfg  Desktop      fild1          oldfile    sum
app.11c          dir1        file           opfile     sw
app11.c          Documents   file1         Pictures   Templates
assignment2      Downloads   initial-setup-ks.cfg prg1.java test1
cal              f1          IT             prg2.java testfile1
chown            f2          Music          Public    Videos
cv               f3          nakul         script1
[root@server ~]# ls -l
total 48
-rw-----. 1 root root 1605 Sep 15 14:04 anaconda-ks.cfg
-rw-r--r--. 1 root root  0 Sep 18 16:05 app.11c
-rw-r--r--. 1 root root  0 Sep 18 16:33 app11.c
drwxr-xr-x. 2 root root  6 Sep 18 16:00 assignment2
-rw-r--r--. 1 root root 174 Sep 16 22:13 cal
drwxr-xr-x. 2 root root  6 Sep 20 00:02 chown
-rw-r--r--. 1 root root 291 Sep 16 16:37 cv
drwxr-xr-x. 2 root root  6 Sep 15 14:13 Desktop
drwxr-xr-x. 2 root root  6 Sep 17 09:26 dir1
drwxr-xr-x. 2 root root  6 Sep 15 14:13 Documents
drwxr-xr-x. 2 root root  6 Sep 15 14:13 Downloads
-rw-r--r--. 1 root root  0 Sep 17 14:55 f1
-rw-r--r--. 1 root root  0 Sep 17 14:55 f2
-rw-r--r--. 1 root root  0 Sep 17 14:55 f3

[root@server ~]# ls -l -t
total 48
drwxr-xr-x. 2 root root  6 Sep 20 00:02 chown
-rw-r--r--. 1 root root 2512 Sep 19 23:23 oldfile
-rw-r--r--. 1 root root 15 Sep 19 22:33 opfile
-rw-r--r--. 1 root root 78 Sep 19 21:59 test1
```

```
[root@server ~]# man ls
[root@server ~]# ls -a
.                                .bashrc  dir1      file1          opfile    sw
..                               .cache   Documents  .file.swp    Pictures   .swp
anaconda-ks.cfg      cal       Downloads .ICEauthority  .pki      .tcshrc
app.11c                chown    .esd_auth initial-setup-ks.cfg prg1.java Templates
app11.c                .config   f1        IT             prg2.java test1
assignment2           .cshrc   f2        .local         Public    testfile1
.bash_history          cv       f3        Music          script1   Videos
.bash_logout           .dbus    fild1     nakul         .ssh
.bash_profile          Desktop  file      oldfile        sum
[root@server ~]#
```

2. CP:-

Copy one folder to another folder

Cmd:-

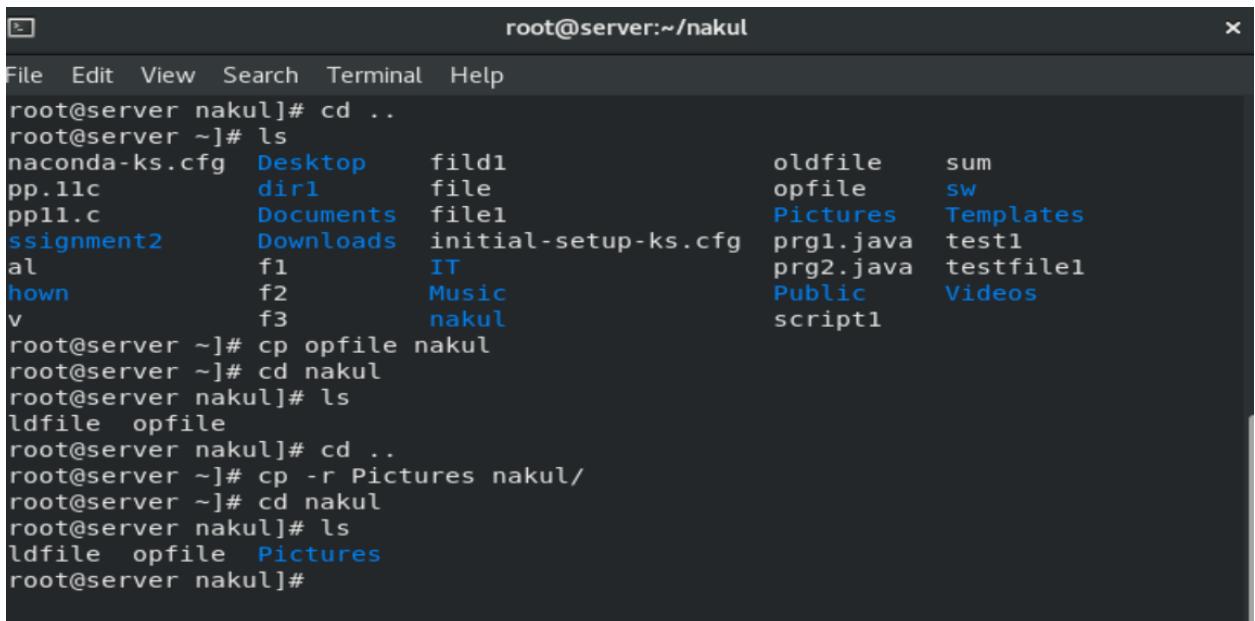
cp s.f d.f

cp -r s.f/ d.f/

cd file name

cd .. (go to previous directory)

mv s.f d.f



The screenshot shows a terminal window titled "root@server:~/nakul". The window contains a command-line interface with the following history:

```
File Edit View Search Terminal Help
root@server nakul]# cd ..
root@server ~]# ls
naconda-ks.cfg  Desktop   fild1      oldfile    sum
pp.11c          dir1     file       opfile    sw
pp11.c          Documents file1    Pictures   Templates
ssignment2     Downloads initial-setup-ks.cfg prg1.java test1
al              f1        IT         prg2.java testfile1
hown           f2        Music     Public    Videos
v               f3        nakul    script1
root@server ~]# cp opfile nakul
root@server ~]# cd nakul
root@server nakul]# ls
ldfile  opfile
root@server nakul]# cd ..
root@server ~]# cp -r Pictures nakul/
root@server ~]# cd nakul
root@server nakul]# ls
ldfile  opfile  Pictures
root@server nakul]#
```

```
File Edit View Search Terminal Help
[root@server nakul]# cd ..
[root@server ~]# ls
anaconda-ks.cfg  Desktop      fild1          oldfile    sum
app.11c           dir1        file           opfile     sw
app11.c           Documents   file1         Pictures   Templates
assignment2       Downloads   initial-setup-ks.cfg prg1.java test1
cal               f1          IT             prg2.java testfile1
chown            f2          Music          Public    Videos
cv                f3          nakul         script1
[root@server ~]# mv Music nakul
[root@server ~]# cd nakul
[root@server nakul]# ls
Music  oldfile  opfile  Pictures
[root@server nakul]#
```

3.lpr

It is used for printing purpose

4.gedit

Editor in linux

Cmd:-

gedit file_name

5.sort

To sort the content of file

Cmd:-

sort file_name (ascending order)

sort -r file_name (descending order)

6.grep

It is used for pattern searching (matching content)

Cmd:-

grep -i file_content file_name

```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# gedit prithviraj  
[root@server ~]# cat prithviraj  
1.ved  
2.nitya  
3.chandrakant  
4.manisha  
5.rekha  
[root@server ~]# sort -r prithviraj  
5.rekha  
4.manisha  
3.chandrakant  
2.nitya  
1.ved  
[root@server ~]# grep prithviraj  
[root@server ~]# grep ha  
[root@server ~]# grep ved  
[root@server ~]# grep -i ved prithviraj  
1.ved  
[root@server ~]#
```

7. cat

Show the content of file

Cmd :-

cat file_name

8.tac

To show content of file in reverse order

Cmd:-

tac file_name

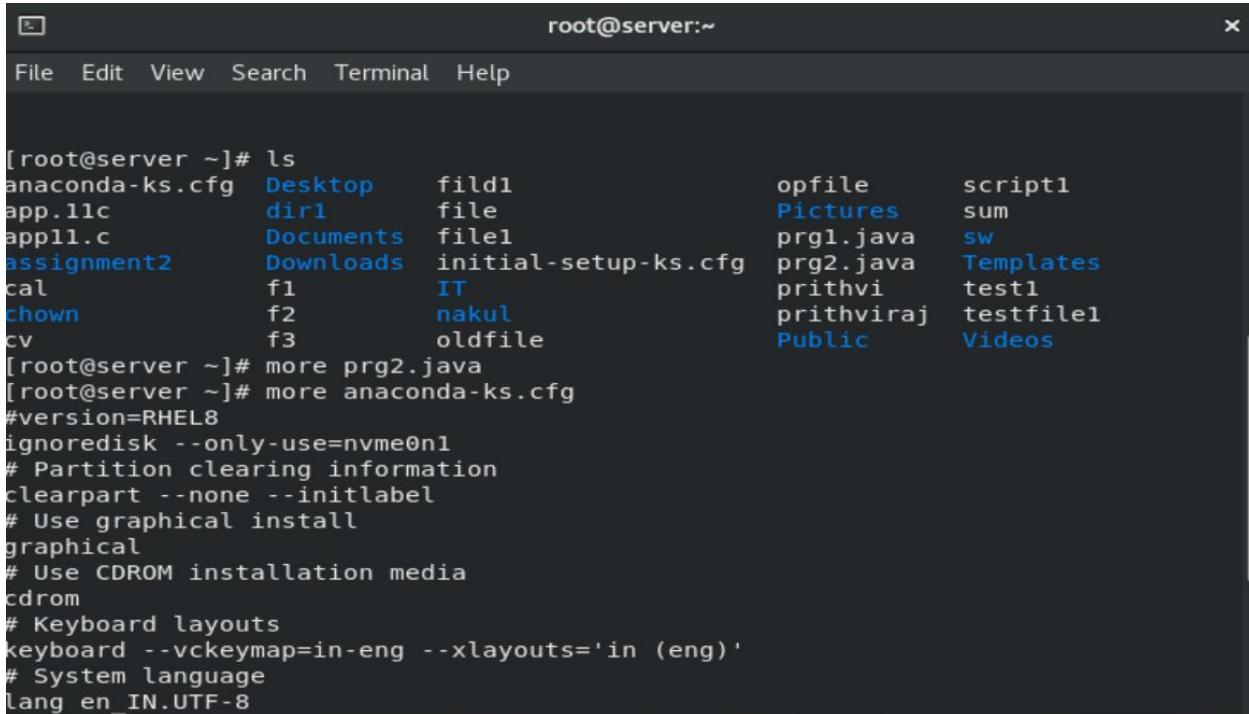
```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# cat prithviraj  
1.ved  
2.nitya  
3.chandrakant  
4.manisha  
5.rekha  
[root@server ~]# tac prithviraj  
5.rekha  
4.manisha  
3.chandrakant  
2.nitya  
1.ved  
[root@server ~]#
```

9.more

Show content file but page by page

Cmd:-

more file_name



The screenshot shows a terminal window titled "root@server:~". The menu bar includes File, Edit, View, Search, Terminal, and Help. The terminal content displays the output of the 'ls' command followed by the content of the 'anaconda-ks.cfg' and 'prg2.java' files, each shown page by page using the 'more' command.

```
[root@server ~]# ls
anaconda-ks.cfg  Desktop   fild1          opfile    script1
app.11c          dir1     file           Pictures   sum
app11.c          Documents  file1         prg1.java  sw
assignment2      Downloads  initial-setup-ks.cfg prg2.java  Templates
cal              f1       IT             prithvi   test1
chown            f2       nakul          prithviraj testfile1
cv               f3       oldfile        Public    Videos
[root@server ~]# more prg2.java
[root@server ~]# more anaconda-ks.cfg
#version=RHEL8
ignoredisk --only-use=nvme0n1
# Partition clearing information
clearpart --none --initlabel
# Use graphical install
graphical
# Use CDROM installation media
cdrom
# Keyboard layouts
keyboard --vckeymap=in-eng --xlayouts='in (eng)'
# System language
lang en_IN.UTF-8
```

10.ps

It show current running process on shell

Cmd:-

Ps -e -a -f

```
root@server:~ [root@server ~]# ls
anaconda-ks.cfg Desktop fild1 opfile script1
app.11c dir1 file Pictures sum
app11.c Documents file1 prg1.java sw
assignment2 Downloads initial-setup-ks.cfg prg2.java Templates
cal f1 IT prithvi test1
chown f2 nakul prithviraj testfile1
cv f3 oldfile Public Videos
[root@server ~]# ps
  PID TTY      TIME CMD
 3077 pts/0    00:00:00 bash
 4092 pts/0    00:00:00 ps
[root@server ~]# ps -e -a -f
UID        PID  PPID  C STIME TTY          TIME CMD
root         1    0  0 Oct20 ?        00:00:06 /usr/lib/systemd/systemd --s
root         2    0  0 Oct20 ?        00:00:00 [kthreadd]
root         3    2  0 Oct20 ?        00:00:00 [rcu_gp]
root         4    2  0 Oct20 ?        00:00:00 [rcu_par_gp]
root         6    2  0 Oct20 ?        00:00:00 [kworker/0:0H-kblockd]
root         8    2  0 Oct20 ?        00:00:00 [mm_percpu_wq]
root         9    2  0 Oct20 ?        00:00:00 [ksoftirqd/0]
root        10   2  0 Oct20 ?        00:00:00 [rcu_sched]
root        11   2  0 Oct20 ?        00:00:00 [migration/0]
```

11.head

Show me the heading of file(10 line)

Cmd:-

head file_name (first 10 line)

tail file_name (last 10 line)

head -n 3 file_name

tail -n 2 file_name

```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# head prithviraj  
1.ved  
2.nitya  
3.chandrakant  
4.manisha  
5.rekha  
[root@server ~]# tail prithviraj  
1.ved  
2.nitya  
3.chandrakant  
4.manisha  
5.rekha  
[root@server ~]# head -n 3 prithviraj  
1.ved  
2.nitya  
3.chandrakant  
[root@server ~]# tail -n 2 prithviraj  
4.manisha  
5.rekha  
[root@server ~]#
```

12.man

Show the manual of any command

Cmd:-

man type_any_cmd

```
root@server:~  
File Edit View Search Terminal Help  
LS(1) User Commands LS(1)  
NAME  
ls - list directory contents  
SYNOPSIS  
ls [OPTION]... [FILE]...  
DESCRIPTION  
List information about the FILES (the current directory by default).  
Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.  
  
Mandatory arguments to long options are mandatory for short options too.  
  
-a, --all  
do not ignore entries starting with .  
  
-A, --almost-all  
do not list implied . and ..  
  
--author  
Manual page ls(1) line 1 (press h for help or q to quit)
```

13.whatis

Give the sort discription of command

Cmd:-

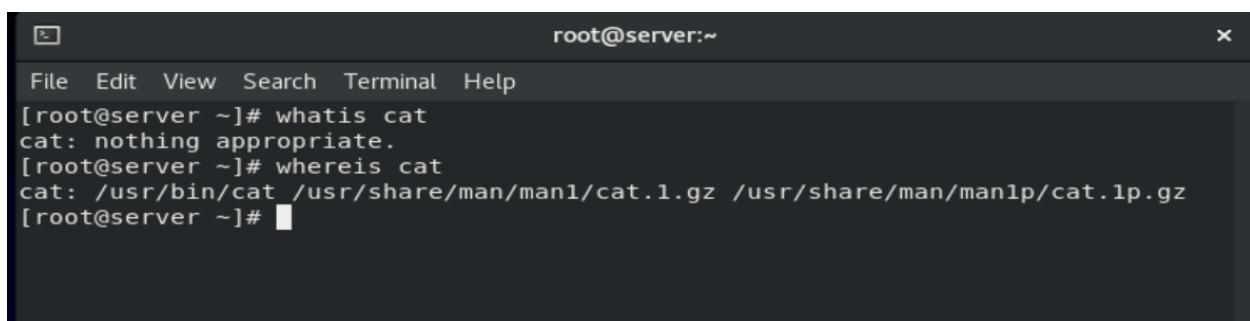
whatis type_any_cmd

14. whereis

Where is the location of command

Cmd:-

whereis type_any_cmd



```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# whatis cat  
cat: nothing appropriate.  
[root@server ~]# whereis cat  
cat: /usr/bin/cat /usr/share/man/man1/cat.1.gz /usr/share/man/man1p/cat.1p.gz  
[root@server ~]#
```

15. find

Find file or folder

Cmd:-

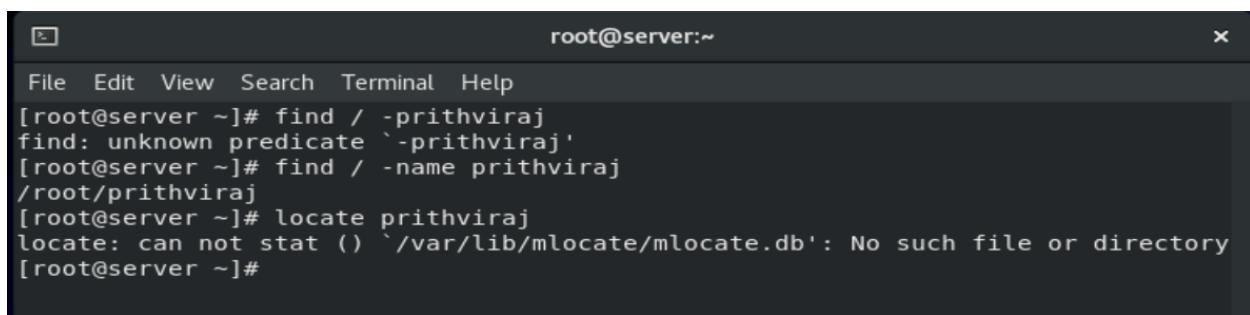
find / -name file_name

16.locate

Try to find out inside the file name locate the pattern matching

Cmd:-

locate file_name



```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# find / -prithviraj  
find: unknown predicate `-prithviraj'  
[root@server ~]# find / -name prithviraj  
/root/prithviraj  
[root@server ~]# locate prithviraj  
locate: can not stat () `/var/lib/mlocate/mlocate.db': No such file or directory  
[root@server ~]#
```

17. diff

It is used to find difference between two files

Cmd:-

diff file_name1 file_name2

```
[root@server ~]# diff test1 prithviraj
1,11c1,5
< cat
< caterpillar
< cattiger
< man
< hat
< bat
< sat
< fat
< I said hello
< Hello how are you?
<
< ---
> 1.ved
> 2.nitya
> 3.chandrakant
```

18.file

Cmd:-

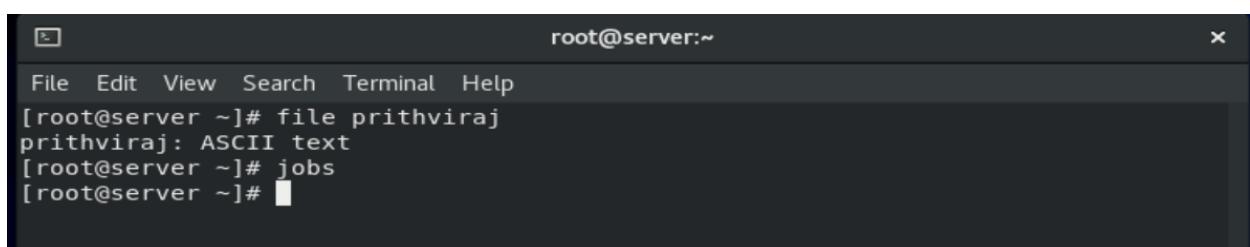
file type_of_file_name

19. jobs

How many jobs are running in current shell

Cmd:-

jobs



```
root@server:~
```

The screenshot shows a terminal window with the following content:

```
File Edit View Search Terminal Help
[root@server ~]# file prithviraj
prithviraj: ASCII text
[root@server ~]# jobs
[root@server ~]#
```

20.rm

Delete something

Cmd :-

rm file_name (choose yes or no)

rm -r folder_name/

rm -r -f folder_name/ (force fully)

```
[root@server ~]# rm file1
rm: remove regular file 'file1'? y
[root@server ~]# rm -r sw
rm: descend into directory 'sw'? y
rm: descend into directory 'sw/Accounttngsw,database'? y
rm: remove directory 'sw/Accounttngsw,database/oracle}'? y
rm: remove directory 'sw/Accounttngsw,database'? y
rm: remove directory 'sw'? y
[root@server ~]# rm -r -f nakul
[root@server ~]# rm -r -f opfile
[root@server ~]# rm -r -f prithviraj
[root@server ~]# ls
anaconda-ks.cfg  Desktop    f3           prgl.java  Templates
app.11c          dir1       file         prg2.java  test1
app11.c          Documents  initial-setup-ks.cfg prithvi   testfile1
assignment2      Downloads  IT           Public     Videos
cal              f1        oldfile      script1
cv               f2        Pictures     sum
[root@server ~]#
```

21. mkdir

To create empty directory

Cmd:-

mkdir file_name

22.touch

To create empty file

Cmd:-

touch file_name

23.rmdir

Remove directory

Cmd:-

rmdir file_name

24.cd

Changed directory

Cmd:-

cd file_name

25.pwd

Show me present working directory

Cmd:-

pwd

26. ln

To create links

Cmd :-

ln actual_file_name_of_the_link

27.gzip

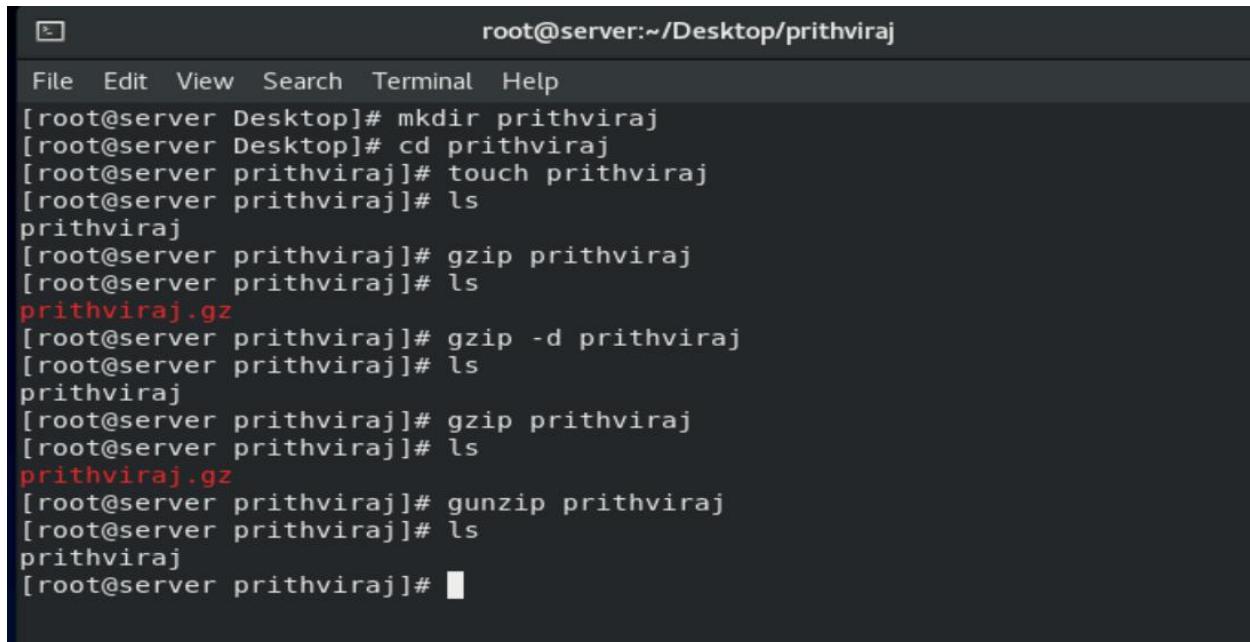
To create zip file and compress it

Cmd:-

gzip file_name

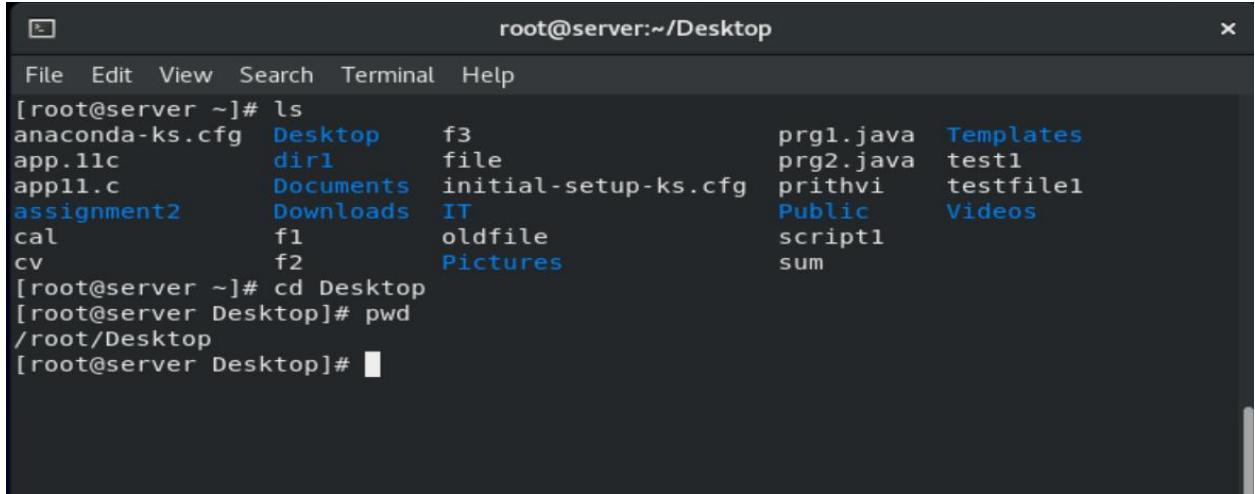
gzip -d file_name (uncompress file)

gunzip file_name (decompress file)



The screenshot shows a terminal window with a dark background and light-colored text. At the top, it says "root@server:~/Desktop/prithviraj". The menu bar includes "File Edit View Search Terminal Help". Below the menu, the terminal history is displayed:

```
[root@server Desktop]# mkdir prithviraj
[root@server Desktop]# cd prithviraj
[root@server prithviraj]# touch prithviraj
[root@server prithviraj]# ls
prithviraj
[root@server prithviraj]# gzip prithviraj
[root@server prithviraj]# ls
prithviraj.gz
[root@server prithviraj]# gzip -d prithviraj
[root@server prithviraj]# ls
prithviraj
[root@server prithviraj]# gzip prithviraj
[root@server prithviraj]# ls
prithviraj.gz
[root@server prithviraj]# gunzip prithviraj
[root@server prithviraj]# ls
prithviraj
[root@server prithviraj]#
```



The screenshot shows a terminal window titled "root@server:~/Desktop". The window has a dark theme with white text. The terminal displays the following command-line session:

```
[root@server ~]# ls
anaconda-ks.cfg  Desktop    f3          prgl.java  Templates
app.11c          dir1       file        prg2.java  test1
app11.c          Documents  initial-setup-ks.cfg prithvi   testfile1
assignment2      Downloads  IT          Public     Videos
cal              f1         oldfile    script1
cv               f2         Pictures   sum

[root@server ~]# cd Desktop
[root@server Desktop]# pwd
/root/Desktop
[root@server Desktop]#
```

28. tar

It is used for archile file(many file keep into the single file)

Cmd:-

```
tar -cf file_name.tar f1 f2 f3.....
```

*how to see content of archile file

```
tar -tf file_name.tar
```

*extract the archile file content

```
tar -xf file_name.tar
```

*create archile file as zip

```
tar -czf file_name.tar .zip f1 f2 f3 .....
```

*how to see content of archile zip file

```
tar -tzf file_name.tar .gz
```

* extract the archile zip file content

```
tar -xzf file_name.tar .gz
```

```
root@server:~# touch
touch: missing file operand
Try 'touch --help' for more information.
[root@server ~]# touch 1
[root@server ~]# touch 2
[root@server ~]# touch 3
[root@server ~]# ls
1           cal      f2          prgl.java  test1
2           cv       f3          prg2.java  testfile1
3           Desktop   file        prithvi    Videos
anaconda-ks.cfg  dir1  initial-setup-ks.cfg  Public
app.11c        Documents  IT          script1
app11.c        Downloads  oldfile     sum
assignment2     f1       Pictures    Templates
[root@server ~]# tar -cf prithviraj.tar 1 2 3
[root@server ~]# ls
1           cal      f2          prgl.java  Templates
2           cv       f3          prg2.java  test1
3           Desktop   file        prithvi    testfile1
anaconda-ks.cfg  dir1  initial-setup-ks.cfg  prithviraj.tar  Videos
app.11c        Documents  IT          Public
app11.c        Downloads  oldfile     script1
assignment2     f1       Pictures    sum
[root@server ~]#
```

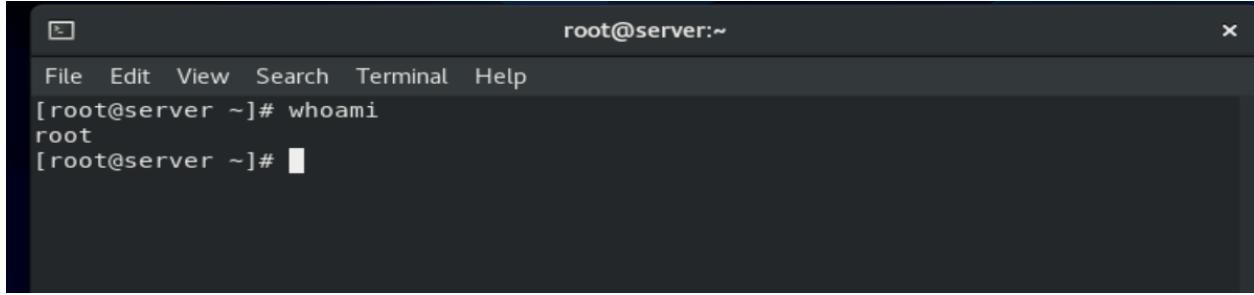
```
root@server:~# File Edit View Search Terminal Help
[root@server ~]# tar -tf prithviraj.tar
1
2
3
[root@server ~]# tar -xf prithviraj.tar
[root@server ~]# ls
1           cal      f2          prgl.java  Templates
2           cv       f3          prg2.java  test1
3           Desktop   file        prithvi    testfile1
anaconda-ks.cfg  dir1  initial-setup-ks.cfg  prithviraj.tar  Videos
app.11c        Documents  IT          Public
app11.c        Downloads  oldfile     script1
assignment2     f1       Pictures    sum
[root@server ~]# tar -czf prithviraj.zip 1 2 3
[root@server ~]# ls
1           cal      f2          prgl.java  sum
2           cv       f3          prg2.java  Templates
3           Desktop   file        prithvi    test1
anaconda-ks.cfg  dir1  initial-setup-ks.cfg  prithviraj.tar  testfile1
app.11c        Documents  IT          prithviraj.zip  Videos
app11.c        Downloads  oldfile     Public
assignment2     f1       Pictures    script1
[root@server ~]# tar -tzf prithviraj.tar.gz
tar (child): prithviraj.tar.gz: Cannot open: No such file or directory
```

29.whoami:-

Show current login username on to the shell

Cmd:-

whoami



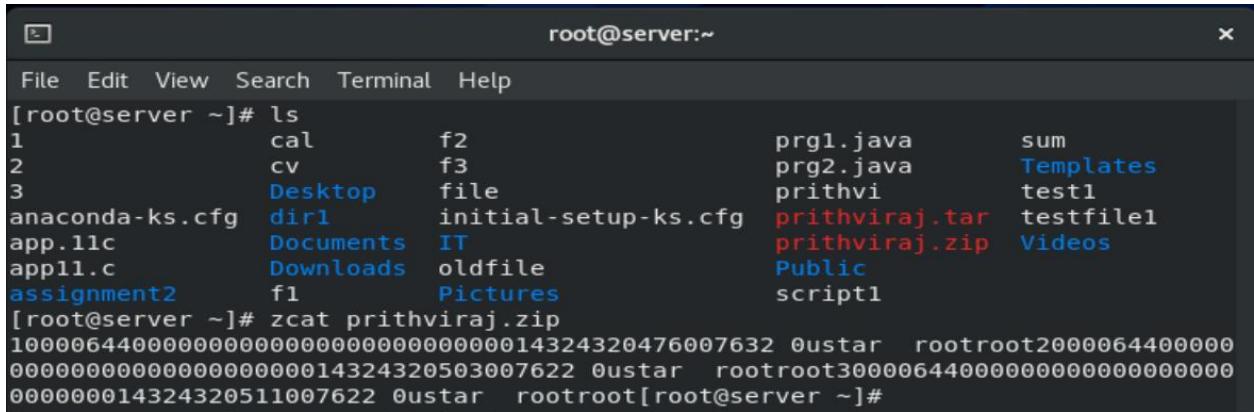
```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# whoami  
root  
[root@server ~]#
```

30.zcat

It show the zip file actual content

Cmd:-

zcat file_name.gz



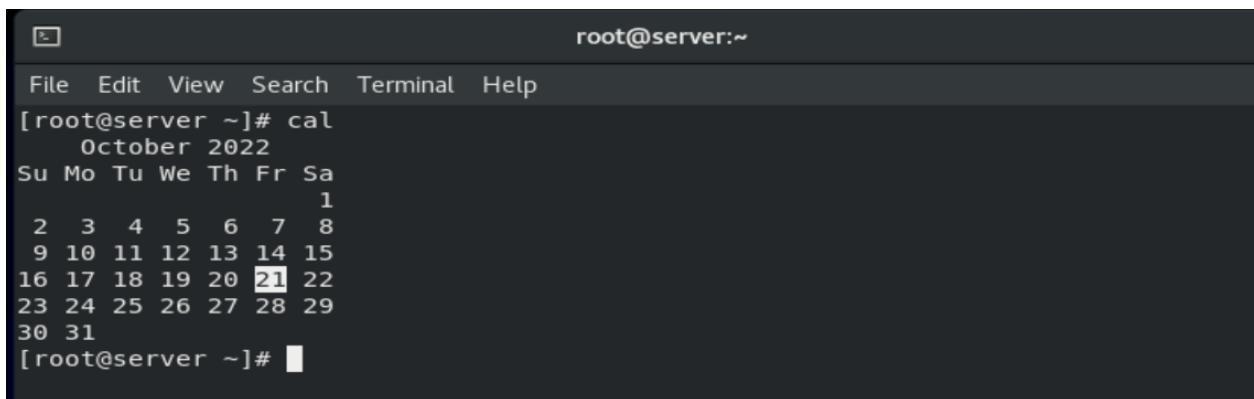
```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# ls  
1           cal      f2          prg1.java      sum  
2           cv       f3          prg2.java      Templates  
3           Desktop   file        prithvi       test1  
anaconda-ks.cfg  dir1    initial-setup-ks.cfg prithviraj.tar  testfile1  
app.11c        Documents IT          prithviraj.zip  Videos  
app11.c        Downloads oldfile     Public  
assignment2     f1       Pictures    script1  
[root@server ~]# zcat prithviraj.zip  
1000064400000000000000000000000014324320476007632 0ustar rootroot2000064400000  
000000000000000000000000000014324320503007622 0ustar rootroot3000064400000000000000000  
0000000014324320511007622 0ustar rootroot[root@server ~]#
```

31.cal

It show the calendar

Cmd:-

cal



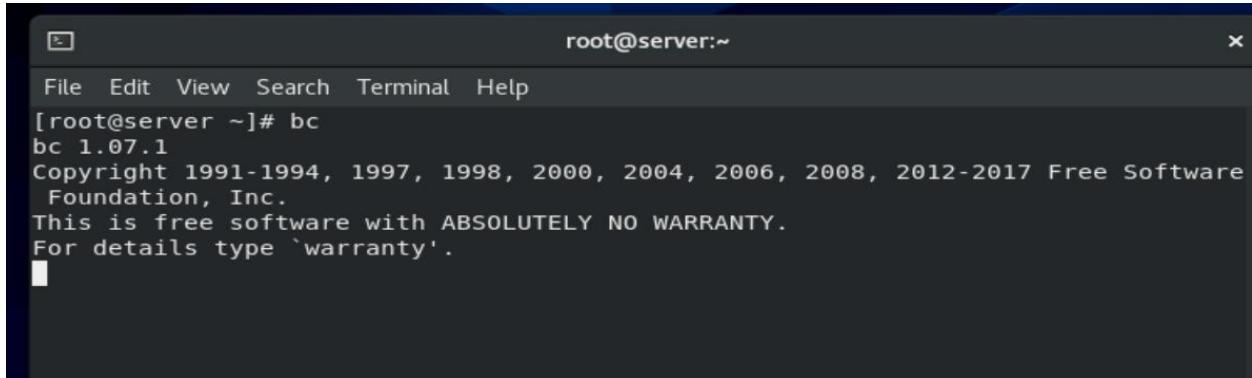
```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# cal  
October 2022  
Su Mo Tu We Th Fr Sa  
          1  
2 3 4 5 6 7 8  
9 10 11 12 13 14 15  
16 17 18 19 20 21 22  
23 24 25 26 27 28 29  
30 31  
[root@server ~]#
```

32.bc

For calculation

Cmd:-

bc



A terminal window titled "root@server:~". The window shows the command "bc" being run, followed by its copyright notice from 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017. It also includes a note about ABSOLUTELY NO WARRANTY and instructions for warranty details.

```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# bc  
bc 1.07.1  
Copyright 1991-1994, 1997, 1998, 2000, 2004, 2006, 2008, 2012-2017 Free Software  
Foundation, Inc.  
This is free software with ABSOLUTELY NO WARRANTY.  
For details type `warranty'.  
[ ]
```

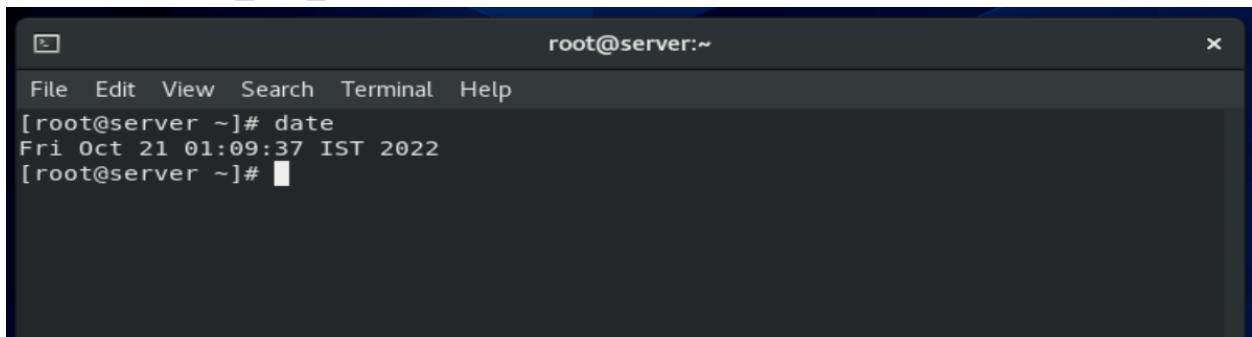
33.date

Show current date and time of system

Cmd:-

date

date -s "date_and_time"



A terminal window titled "root@server:~". The window shows the command "date" being run, displaying the current date and time as "Fri Oct 21 01:09:37 IST 2022".

```
root@server:~  
File Edit View Search Terminal Help  
[root@server ~]# date  
Fri Oct 21 01:09:37 IST 2022  
[root@server ~]# [ ]
```

34.wc

(Word count) how many word and character in file

Cmd:-

wc file_name

wc -l file_name (I want to know only files)

```
root@server:~# ls
1           cal      f2          prg1.java      sum
2           cv       f3          prg2.java      Templates
3           Desktop   file        prithvi       test1
anaconda-ks.cfg  dir1    initial-setup-ks.cfg prithviraj.tar testfile1
app.11c        Documents IT          prithviraj.zip Videos
app11.c        Downloads oldfile     Public
assignment2     f1      Pictures    script1
[root@server ~]# wc anaconda-ks.cfg
 49 142 1605 anaconda-ks.cfg
[root@server ~]#
```

35.touch:-

To create empty file

Cmd:-

touch file_name

```
root@server:~# touch ved
root@server:~# ls
1           cal      f1          Pictures      script1
2           cv       f2          prg1.java      sum
3           demo1   f3          prg2.java      Templates
anaconda-ks.cfg  Desktop   file        prithvi       test1
app.11c        dir1    initial-setup-ks.cfg prithviraj.tar testfile1
app11.c        Documents IT          prithviraj.zip ved
assignment2     Downloads oldfile     Public
[root@server ~]#
```

36.echo

Print something in command line

Cmd:-

echo "message"

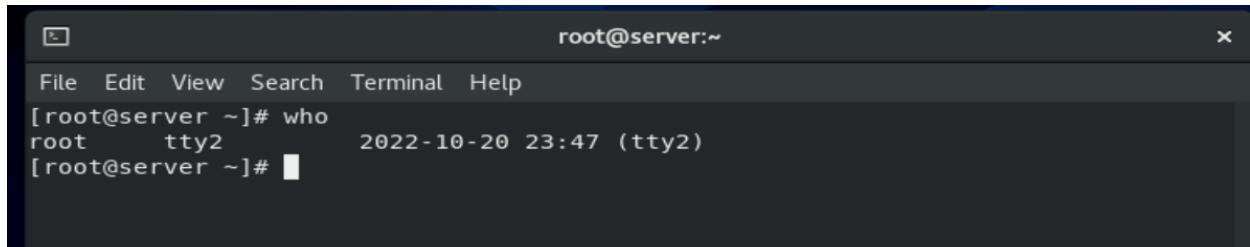
```
root@server:~# echo "i am poem writer"
i am poem writer
[root@server ~]#
```

37.who

Show is user login to terminal

Cmd:-

who



A screenshot of a terminal window titled "root@server:~". The window has a dark theme with white text. The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". The command prompt shows "[root@server ~]# who". The output of the command is displayed below, showing a single entry: "root tty2 2022-10-20 23:47 (tty2)". The window has standard window controls (minimize, maximize, close) at the top right.

```
[root@server ~]# who
root    tty2          2022-10-20 23:47 (tty2)
[root@server ~]#
```

38.w

Show resources of the system

Cmd:-

w