Question-1.

2. Make a directory and name it as cdac-dir and change the current working

directory to the new directory.(Hint : use mkdir,cd commands).

root@PRATIK:/home/Important# ls

a.txt b.txt c.txt cdac\_dir folder1 folder2 folder3

1. - use a command to show the current working directory

-

root@PRATIK:/home/Important# pwd

/home/Important

root@PRATIK:/home/Important#

- list the directory contents in the short and long format

(with file permissions,owner,size etc,.).

Explore attributes given in long format e.g. file type, file permissions, file

size, file owner etc.

i) root@PRATIK:/home/Important# ls

a.txt b.txt c.txt folder1 folder2 folder3

ii)root@Aditya:/home/Important# ls -l

total 20

-rw-r--r-- 1 root root 45 Mar 10 16:23 a.txt

-rw-r--r-- 1 root root 35 Mar 10 16:38 b.txt

-rw-r--r-- 1 root root 0 Mar 10 16:20 c.txt

drwxr-xr-x 2 root root 4096 Mar 10 16:19 folder1

drwxr-xr-x 2 root root 4096 Mar 10 16:19 folder2

drwxr-xr-x 2 root root 4096 Mar 10 16:19 folder3

- list all files along with hidden files in current working directory

root@PRATIK:/home/Important# ls -ld

root@PRATIK:/home/Important# ls -a

. .. .hidden1 .hidden2 a.txt b.txt c.txt folder1 folder2 folder3

- list only hidden files in the directory

root@PRATIK:/home/Important# ls -ld

drwxr-xr-x 7 root root 4096 Mar 10 16:47 .

4. List the directories(folders), then remove the cdac-dir directory and list the

folders again to show that it is no longer present.(Hint : use rm, ls command).

root@PRATIK:/home/Important# ls

a.txt a1 b.txt c.txt cdac\_dir folder1 folder2 folder3

root@PRATIK:/home/Important# rm -rf cdac\_dir

root@PRATIK:/home/Important# ls

a.txt a1 b.txt c.txt folder1 folder2 folder3

3. Create following nested directories inside current directory by invoking single command

for only one time.

root@PRATIK:/home/Important# mkdir -p a1/a1/a3

./a1:

a1

./a1/a1:

a3

./a1/a1/a3:

Question-2.

1. Display the man-page for ls , but redirect the output into temp.txt , then use

the cat, less , and more commands to display the new file.

NAME

ls - list directory contents............more

root@Aditya:/home/Important# man ls >temp.txt

root@Aditya:/home/Important# cat temp.txt

ls - list directory contents............more

root@Aditya:/home/Important# less temp.txt

ls - list directory contents............more (terminal window)

root@Aditya:/home/Important# more temp.txt

ls - list directory contents............more

2. Display the initial 10 lines and final 5 lines of temp.txt with the obvious Linux

commands.(Hint: use head and tail commands).

root@Aditya:/home/Important# head -n 10 temp.txt

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.

root@Aditya:/home/Important# tail -n 5 temp.txt

SEE ALSO

Full documentation at: <https://www.gnu.org/software/coreutils/ls>

or available locally via: info '(coreutils) ls invocation'

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3. Copy temp.txt to another directory and rename it there.

(Hint : use cp to copy and mv command to rename).

root@Aditya:/home/Important# ls

a.txt a1 b.txt c.txt cdac\_dir folder1 folder2 folder3 temp.txt

root@Aditya:/home/Important# cp temp.txt folder1 && mv temp.txt s1.txt

root@Aditya:/home/Important/folder1# ls

temp.txt

root@Aditya:/home/Important# ls

a.txt a1 b.txt c.txt cdac\_dir folder1 folder2 folder3 s1.txt

4. Display the number of lines, words and characters in file using Linux

command (Hint : use wc command).

root@Aditya:/home/Important# ls

a.txt a1 b.txt c.txt cdac\_dir folder1 folder2 folder3 s1.txt

root@Aditya:/home/Important# wc a.txt

16 17 45 a.txt

5. Use history command to display last 10 commands used.

(Hint : use history command).

root@Aditya:/home/Important# history 10

130 tail -n 5 temp.txt

131 clear

132 ls

133 cp temp.txt folder1 && mv temp.txt s1.txt

134 cd folder1

135 ls

136 cd ..

137 ls

138 wc a.txt

139 history 10

Question-3.

1. Create tar archive file of any directory present in your home directory.(Hint : use tar command)

root@Aditya:/home/Important# tar -cvf temp.tar folder1

folder1/

folder1/temp.txt

root@Aditya:/home/Important# ls

a.txt a1 b.txt c.txt cdac\_dir folder1 folder2 folder3 s1.txt temp.tar

- list the contents of the archive file without extracting.

root@Aditya:/home/Important# vim temp.tar

folder1/

folder1/temp.txt

~

2. Create zip file of another directory. (Hint : use zip command) -

list the contents of the zip file without extracting.

root@Aditya:/home/Important# zip -r a.zip a1

adding: a1/ (stored 0%)

adding: a1/a1/ (stored 0%)

adding: a1/a1/a3/ (stored 0%)

root@Aditya:/home/Important# vim a.zip

a1/

a1/a1/

a1/a1/a3/

~

3. Give read, write & execute permissions to your file. (Hint : use chmod

command)

root@Aditya:/home/Important# ls

a.txt a.zip a1 b.txt c.txt cdac\_dir folder1 folder2 folder3 s1.txt temp.tar

root@Aditya:/home/Important# ls -l

total 52

-rw-r--r-- 1 root root 12 Mar 11 00:20 a.txt

-rw-r--r-- 1 root root 442 Mar 11 00:22 a.zip

root@Aditya:/home/Important# chmod 777 a.zip

root@Aditya:/home/Important# ls -l

total 52

-rw-r--r-- 1 root root 12 Mar 11 00:20 a.txt

-rwxrwxrwx 1 root root 442 Mar 11 00:22 a.zip

4. Change ownership of that file.(Hint : use chown command)

root@Aditya:/home/Important# ls -l

total 52

-rw-r--r-- 1 root root 12 Mar 11 00:20 a.txt

root@Aditya:/home# chown cdac\_kh a.txt

root@Aditya:/home# ls -l

total 68

-rw-r--r-- 1 cdac\_kh root 0 Mar 10 15:01 a.txt

5. List processes running in shell, all running processes(Hint : use man page of

ps command) and show top processes in decreasing order of their resource

utilization.(Hint : use top command).

root@Aditya:/home# top -n 10 (shift + m)

top - 00:30:47 up 1:49, 0 users, load average: 0.00, 0.00, 0.00

Tasks: 8 total, 1 running, 7 sleeping, 0 stopped, 0 zombie

%Cpu(s): 0.0 us, 0.0 sy, 0.0 ni,100.0 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0 st

MiB Mem : 7841.7 total, 7648.6 free, 100.2 used, 92.9 buff/cache

MiB Swap: 2048.0 total, 2048.0 free, 0.0 used. 7566.2 avail Mem

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND

9 cdac\_kh 20 0 10040 4952 3256 S 0.0 0.1 0:00.09 bash

190 root 20 0 11292 4580 3892 S 0.0 0.1 0:00.02 sudo

192 root 20 0 8964 3944 3336 S 0.0 0.0 0:00.02 bash

191 root 20 0 9988 3732 3316 S 0.0 0.0 0:00.00 su

217 root 20 0 10900 3680 3144 R 0.0 0.0 0:00.00 top

1 root 20 0 1744 1080 1016 S 0.0 0.0 0:00.04 init

8 root 20 0 1752 76 0 S 0.0 0.0 0:00.43 init

7 root 20 0 1752 68 0 S 0.0 0.0 0:00.00 init

Question-4.

1. Display current time and calendar (Hint : use date, cal commands)

root@Aditya:/home# date

Fri Mar 11 00:31:47 IST 2022

root@Aditya:/home# cal

March 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

3. Explore following commands

who, whoami, whatis, whereis, (Hint : use man pages).

root@Aditya:/home# who

root@Aditya:/home# whoami

root

root@Aditya:/home# whatis ls

ls (1) - list directory contents

root@Aditya:/home# whereis ls

ls: /usr/bin/ls /usr/share/man/man1/ls.1.gz

2. Change the current date and time of the system to following 14th

March 2017, 10:10 AM

root@Aditya:/home# date +%D -s 2017-03-14

03/14/17

root@Aditya:/home# date +%T -s 10:10:00

10:10:00

root@Aditya:/home# date

Tue Mar 14 10:10:02 IST 2017