Q1. Explore the following commands with various options, refer man pages for

further help

1. date => Mon Sep 7 13:59:15 UTC 2020

b) cal => September 2020

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

c) bc => bc 1.06.95

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d) echo => [ec2-user@ip-172-31-53-27 op]$ echo "Hello CDAC"

Hello CDAC

e) who

[ec2-user@ip-172-31-53-27 op]$ who

ec2-user pts/0 2020-09-07 13:23 (106.76.70.16)

ec2-user pts/1 2020-09-07 13:57 (106.76.70.16)

f) whoami

[ec2-user@ip-172-31-53-27 op]$ whoami

ec2-user

g) logname

[ec2-user@ip-172-31-53-27 op]$ logname

ec2-user

h) uname

[ec2-user@ip-172-31-53-27 op]$ uname

Linux

i) seq i

[ec2-user@ip-172-31-53-27 op]$ seq 3

1

2

3

j) clear

Q2. A) Create three directory a b and c and create a.txt,b.txt and c.txt

in each directory respectively and then copy c directory into the a.

[ec2-user@ip-172-31-53-27 ~]$ mkdir a b c

[ec2-user@ip-172-31-53-27 a]$ touch a.txt

[ec2-user@ip-172-31-53-27 ~]$ mv c a

[ec2-user@ip-172-31-53-27 a]$ ls

a.txt c

B) Move Directory b to c.

[ec2-user@ip-172-31-53-27 ~]$ mv b c

C)Create alias of ls -lh command to your name.

[ec2-user@ip-172-31-53-27 ec2-user]$ alias l='ls -lh'

D)Change Directory name a to cdac.

[ec2-user@ip-172-31-53-27 ec2-user]$ mv a cdac

Q3. A) Create five files file1.txt , file2.txt ,file3.txt file4.txt and

file5.txt with some text inside it. Search for 's' character

inside all the files using grep command.

Also Use cat to view all file content together.

[ec2-user@ip-172-31-53-27 c]$ touch file1.txt file2.txt file3.txt file4.txt file5.txt

[ec2-user@ip-172-31-53-27 c]$ cat file1.txt file2.txt file3.txt file4.txt file5.txt

hello

hello

hello

hello

hello

B)Create file.txt using cat and edit that using nano editor.

[ec2-user@ip-172-31-53-27 ~]$ cat file.txt

[ec2-user@ip-172-31-53-27 ~]$ nano file.txt

c)Create 5 empty files using touch command

touch file1.txt file2.txt file3.txt file4.txt file5.txt

D)Remove previously created directory a , b and c.

[ec2-user@ip-172-31-53-27 ~]$ rm -r c cdac

Q4. Create a file with some content using vi editor

1. Display the file using cat command

[ec2-user@ip-172-31-53-27 ~]$ vi file.txt

[ec2-user@ip-172-31-53-27 ~]$ cat file.txt

Hello

Created using VI Editor

1. Display line numbers along with content

[ec2-user@ip-172-31-53-27 ~]$ cat -n file.txt

1 Hello

2 Created using VI Editor

3

1. Display the file in reverse order using tac

[ec2-user@ip-172-31-53-27 ~]$ tac file.txt

Created using VI Editor

Hello

d) Combine multiple files using cat command

[ec2-user@ip-172-31-53-27 ~]$ cat file1.txt file2.txt > file3.txt

Q5. Create Random some files and sub directories.

a) display files row wise, column wise, 1 per row

b) sort the files in ascending, descending order

sort file.txt

sort -r file.txt

1. Create some hidden files and sub directories and display them using “ls -a”

[ec2-user@ip-172-31-53-27 ~]$ ls -a

. a .bash\_history .bash\_profile c .e file2.txt .file6.txt .ssh

.. b .bash\_logout .bashrc .d file1.txt file3.txt file.txt .viminfo

1. Change time stamp of some files and directories using touch command and display the files using ls -t ls -rt

[ec2-user@ip-172-31-53-27 ~]$ stat -c %y file.txt

2020-09-07 17:37:37.057166114 +0000

1. Recursive display contents of your home directory.

ls -R

[ec2-user@ip-172-31-53-27 ~]$ ls -R

.:

a b c file1.txt file2.txt file3.txt file.txt

./a:

1.txt a

./a/a:

./b:

./c:

1. display all attributes of files and directories using ls -l

[ec2-user@ip-172-31-53-27 ~]$ ls -l

total 16

drwxrwxr-x 3 ec2-user ec2-user 28 Sep 7 17:59 a

drwxrwxr-x 2 ec2-user ec2-user 6 Sep 7 17:47 b

drwxrwxr-x 2 ec2-user ec2-user 6 Sep 7 17:47 c

-rw-rw-r-- 1 ec2-user ec2-user 6 Sep 7 17:42 file1.txt

-rw-rw-r-- 1 ec2-user ec2-user 6 Sep 7 17:42 file2.txt

-rw-rw-r-- 1 ec2-user ec2-user 12 Sep 7 17:43 file3.txt

-rw-rw-r-- 1 ec2-user ec2-user 32 Sep 7 17:37 file.txt

g) display attributes of a directory using ls -ld

[ec2-user@ip-172-31-53-27 ~]$ ls -ld

drwx------ 8 ec2-user ec2-user 243 Sep 7 17:51 .

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Q1. Create directory of your name and then create 4 files inside it named

a.txt, b.txt, c.txt and d.sh. And change the directory permission to

[ec2-user@ip-172-31-53-27 ~]$ mkdir shankar

[ec2-user@ip-172-31-53-27 ~]$ touch a.txt b.txt c.txt d.txt

only user and also files permission to only user such that

a)user can read and write the file a.txt and b.txt

[ec2-user@ip-172-31-53-27 ~]$ chmod 600 a.txt b.txt

b)user can write the file c.txt

[ec2-user@ip-172-31-53-27 ~]$ chmod 200 c.txt

c)user can exectuable the file d.sh. Make

[ec2-user@ip-172-31-53-27 ~]$ chmod 100 d.sh

Contents of file d.sh:

#/bin/sh

ls -lh

Q2. Change the permission of the previous directory to executable only.

[ec2-user@ip-172-31-53-27 ~]$ chmod 111 shankar

[ec2-user@ip-172-31-53-27 ~]$ ls -l

total 0

d--x--x--x 2 ec2-user ec2-user 70 Sep 7 18:16 shankar

Analyze the output.

Q3. Change the permission of the previous directory to read only.

[ec2-user@ip-172-31-53-27 ~]$ chmod 444 shankar

[ec2-user@ip-172-31-53-27 ~]$ ls -l

total 0

dr--r--r-- 2 ec2-user ec2-user 70 Sep 7 18:16 shankar

Analyze the output.

Q4. Use echo to list the all files of your home directory.

[ec2-user@ip-172-31-53-27 shankar]$ echo \*

a.txt b.txt c.txt d.sh d.txt

Q5. Use echo to list the all files of /etc/ directory

[ec2-user@ip-172-31-53-27 etc]$ echo \* /etc/directory

Q6. Use echo to list the all files of /etc/ directory with extension name .conf

[ec2-user@ip-172-31-53-27 etc]$ echo \* /etc/directory \*.conf

Q7. Use echo to append your name to a.txt

echo shankar >> a.txt

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Note:Many operation might not work.Analyze them

1. Create Three level nested directory a,b and c

a)Create at least one hidden file in each directory

touch .a.txt

b)Create at least one normal text file in each directory

touch b.txt

c)Copy c into a

d)Copy file inside a into b

2. Change the third level directory c permission to read only

[ec2-user@ip-172-31-53-27 b]$ chmod 444 c

3. Try copying third level c directory to outside of a

cp

4. Create the directory “data“ inside b

[ec2-user@ip-172-31-53-27 b]$ mkdir data

[ec2-user@ip-172-31-53-27 b]$ ls

c data

5. Change the permission of b to read and write only

[ec2-user@ip-172-31-53-27 a]$ chmod 666 b

[ec2-user@ip-172-31-53-27 a]$ ls -l

total 0

drw-rw-rw- 4 ec2-user ec2-user 41 Sep 7 18:46 b

drwxrwxr-x 2 ec2-user ec2-user 6 Sep 7 18:46 data

6. Create directory “data2” inside b

[ec2-user@ip-172-31-53-27 a]$ mkdir data2

[ec2-user@ip-172-31-53-27 a]$ ls

b data data2

7. Create data.txt file inside b

[ec2-user@ip-172-31-53-27 a]$ touch data.txt

8. Rename the second level directory c to copied\_dir

[ec2-user@ip-172-31-53-27 b]$ mv c copied\_dir

[ec2-user@ip-172-31-53-27 b]$ ls

copied\_dir data

9. Change permission of copied\_dir to only executable

[ec2-user@ip-172-31-53-27 b]$ chmod 111 copied\_dir

d--x--x--x 2 ec2-user ec2-user 20 Sep 7 18:40 copied\_dir

10. Try ls on copied\_dir

[ec2-user@ip-172-31-53-27 copied\_dir]$ ls

ls: cannot open directory .: Permission denied

11. Try moving copied\_dir to outside of a

[ec2-user@ip-172-31-53-27 ~]$ chmod 700 a

[ec2-user@ip-172-31-53-27 ~]$ ls -l

total 0

drwx------ 5 ec2-user ec2-user 70 Sep 7 18:48 a

12. Try moving data directory outside of a

13. Now change the owner of the directory a to root

14. Change permission of a to read write and executable to only user

15. Try creating directory sample inside a

16. Create directory x outside a

17. Try moving x inside a

18. Create directory movies

19. Change group of movies to sudo

20. Change group of movies to avahi

21. Try changing permission after changing ownership to root

22. Try Changing permission after changing group to sudo without sudo

23. Try Changing owner and group both to root

24. Try changinging permission

25. Try deleting the file