Assignment 1

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

further help

a)date : date command prints the current date time.

$ date Sun Jun 25 10:13:44 IST 2017

b) cal : cal command is used to display a calendar in your shell, by default it will display the current month.

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** command is used for command line calculator. It is similar to basic calculator by using which we can do basic mathematical calculations.

Input: $ echo "var=10;var" | bc

Output: 10

d) echo : echo command echoes any given string to the display.

$ echo "Hello" Hello

e) who : The who command is used to get information about currently logged in user on to system.

$who [options] [filename]

f) whoami : whoami command will tell you which user account you are using in this system.

$ whoami

ubuntu

g) logname : print user's login name

g) uname: get name and information about current kernel

$ uname

Linux

h)seq: Generate numbers from FIRST to LAST in steps of INCREMENT. It is a very useful command where we had to generate list of numbers in while, for, until loop.

$ seq -s " " 10

1 2 3 4 5 6 7 8 9 10

i) clear:clear the terminal screen.

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.

mkdir a

mkdir b

mkdir c

cd a

cat > a.txt

Write something in a.txt

Ctrl +d to save and exit

cd b

cat > b.txt

This is b.txt file

Ctrl +d to exit

cd c

cat > c.txt

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B)Move Directory b to c.

mv b c

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

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| --- |
| alias rohini="ls" |
| unalias rohini |

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D)Change Directory name a to cdac.

mv a CDAC

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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.

grep -o "s" file1 file2 file3 file4 file5

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

cat > file6 nano file6

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c) Create 5 empty files using touch command

touch h i j k

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

rm -r a b c

Q4. Create a file with some content using vi editor

a) Display the file using cat command

cat file6.txt

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b) Display line numbers along with content

cat file1.txt

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c) Display the file in reverse order using tac

tac -r a b

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d) Combine multiple files using cat command

cat -b a b

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Q5. Create Random some files and sub directories.

1. display files row wise, column wise, 1 per row

ls -1

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1. sort the files in ascending, descending order

sort f ,sort -r f

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c) Create some hidden files and sub directories and display them using “ls -a”

cat >.abc , mkdir .pqr .xyz ,ls -a

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d) Change time stamp of some files and directories using touch command and display the files using ls -t ls –rt

touch -r a file1

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e) Recursive display contents of your home directory.

**1.ls –R**

**2.tree directoryname**

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f) display all attributes of files and directories using ls –l

ls -l

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g) display attributes of a directory using ls –ld

ls -ld

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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

only user and also files permission to only user such that

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

chmod u+rw a.txt b.txt

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b)user can write the file c.txt

chmod u+w c.txt

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

Contents of file d.sh:

#/bin/sh

ls –lh

* chmod u+x d.sh

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

Analyze the output.

chmod u+x file1

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

Analyze the output.

chmod u+r file1

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

echo \*

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

echo \*

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

echo \*.conf

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

echo>>”Rohini Ninawe”>>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

mkdir{a ,b, c}

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

|  |
| --- |
| touch a/a.txt |
| touch b/b.txt |
| touch c/c.txt |

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c) Copy c into a

cp c –r a

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d)Copy file inside a into b

cp a/a.txt – r b/

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

chmod -wx ./a/c

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

cp -r ./a/c ./

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4. Create the directory “data“ inside b

mkdir ./b/data

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

chmod +rw b

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6. Create directory “data2” inside b

mkdir ./b/data

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7. Create data.txt file inside b

touch ./b/data.txt

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

mv ./a/c ./a/copied\_dir

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9. Change permission of copied\_dir to only executable

chmod -rw ./a/copied\_dir

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10. Try ls on copied\_dir

ls ./a/copied\_dir

ls: cannot access './a/copied\_dir': No such file or directory

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11. Try moving copied\_dir to outside of a

mv ./a/copied\_dir ./

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12. Try moving data directory outside of a

mv ./a/data ./

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

chown a root

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

chmod +rwx a

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15. Try creating directory sample inside a

mkdir ./a/sample

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16. Create directory x outside a

mkdir ~/a/x

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17. Try moving x inside a

mv ~/x ./

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18. Create directory movies

mkdir movies

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19. Change group of movies to sudo

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| --- |
| sudo addgroup movies |
| sudo chgrp movies |

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20. Change group of movies to avahi

sudo chgrp movies avahi

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21. Try changing permission after changing ownership to root

chmod –wx filename

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

chgrp -R new\_group directory

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23. Try Changing owner and group both to root

chown a root

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24. Try changinging permission

chmod +rwx a

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25. Try deleting the file

rm filename

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