**Assignment 1**

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

further help

**a) date: $ date**

**Mon, Sep 07, 2020 5:48:13 PM**

**b) cal $ 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** **(Basic Calculator) is a** **command.** **bc** **command is used for command line calculator.**

d) echo:**this command is used to write the contents in particular file.**

e) who: **who displays a list of users who are currently logged into the computer**

f) whoami:**it displays the system name**

g) logname :**it displays the system name.which we are currently log in.**

g) uname:**it displays the IDE name. means where you perform the operations.**

h)seq**:  seq command in Linux is used to generate numbers from FIRST to LAST in steps of INCREMENT.**

i) clear: **this command is used to clear terminal.**

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.

**ANS: cp -r c a**

B)Move Directory b to c.

**ANS: mv b c**

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

**ANS:** **alias Ashwini=ls**

**alias Ashwini=-lh**

D)Change Directory name a to cdac.

**ANS:** **$ 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.

**$ cat > file1.txt**

**this is file 1**

**$ cat > file2.txt**

**this is file 2**

**$ cat > file3.txt**

**this is file 3**

**$ cat > file4.txt**

**this is file 4**

**$ cat > file5.txt**

**this is file 5**

**$ grep -o "s" file1.txt**

**s**

**s**

**$ grep -n "s" file1.txt**

**1:this is file 1**

Also Use cat to view all file content together.

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

**Cat > file.txt**

**Hello cdac**

c)Create 5 empty files using touch command

**$ touch f1 f2 f3 f4 f5**

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

**rm -r a**

**rm -r b**

**rm -r c**

Q4. Create a file with some content using vi editor

a) Display the file using cat command

b) Display line numbers along with content

c) Display the file in reverse order using tac

d) Combine multiple files using cat command

Q5. Create Random some files and sub directories.

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

**column file3.txt**

1. sort the files in ascending, descending order

**Ans🡪for Accending----**

**ls command is automatically sort the files by name**

**for Descending----**

**$ ls -1 | sort**

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

**ANS🡪it will displays all the txt files and hidden files as well**

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

**Touch command is used to change these timestamps (access time, modification time, and change time of a file).**

1. Recursive display contents of your home directory.

**Ls -r**

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

**$ ls -l**

**total 218**

**-rw-r--r-- 1 Shree None 19 Sep 7 22:05 b.txt**

**drwxr-xr-x+ 1 Shree None 0 Sep 7 21:44 bb**

**drwxr-xr-x+ 1 Shree None 0 Sep 7 22:10 cc**

**-rwxr-xr-x 1 Shree None 88 Sep 7 22:05 Cygwin.bat**

**-rw-r--r-- 1 Shree None 157097 Sep 7 22:05 Cygwin.ico**

**-rw-r--r-- 1 Shree None 53342 Sep 7 22:05 Cygwin-Terminal.ico**

**-rw-r--r-- 1 Shree None 0 Sep 7 22:05 f1.txt**

**-rw-r--r-- 1 Shree None 0 Sep 7 22:05 test1**

**-rw-r--r-- 1 Shree None 0 Sep 7 23:33 z1.txt**

**-rw-r--r-- 1 Shree None 0 Sep 7 23:33 z2.txt**

**-rw-r--r-- 1 Shree None 0 Sep 7 23:33 z3.txt**

g) display attributes of a directory using ls -ld

**drwxr-xr-x+ 1 Shree None 0 Sep 7 23:34 .**

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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=rx a.txt b.txt**

b)user can write the file c.txt

**chmod u+w c.txt**

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

Contents of file d.sh:

#/bin/sh

ls -lh

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

Analyze the output.

**chmod +w cdac**

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

Analyze the output.

**chmod +r cdac**

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

**echo .\***

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

**$ echo .\* \* /etc /directory**

**$ echo .\* /etc /directory**

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

**$ find /etc -type f -name "\*.conf"**

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

**echo Ashwini >> file3.txt**

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Note:Many operation might not work.Analyze them

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

Ans: **touch a🡪Cd a🡪 Mkdir b🡪touch .a.txt🡪touch a.txt**

**Cd b🡪 Mkdir b🡪touch .b.txt🡪touch b.txt**

**Cd c🡪 Mkdir c🡪touch .c.txt🡪touch c.txt**

a)Create at least one hidden file in each directory

**ANS🡪 touch a🡪Cd a🡪 Mkdir b🡪touch .a.txt**

**Cd b🡪 Mkdir b🡪touch .b.txt**

**Cd c🡪 Mkdir c🡪touch .c.txt**

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

**touch a🡪Cd a🡪 Mkdir b🡪touch a.txt**

**Cd b🡪 Mkdir b🡪touch b.txt**

**Cd c🡪 Mkdir c🡪 touch c.txt**

c)Copy c into a

**cp -r cc aa**

d)Copy file inside a into b

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

**ANS🡪 chmod +r c**

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

**ANS🡪cp –r cc bb**

1. Create the directory “data“ inside b

**ANS🡪cd b 🡪mkdir data**

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

**ANS🡪chmod +r+w b**

1. Create directory “data2” inside b

**ANS🡪cd b🡪mkdir data2**

1. Create data.txt file inside b

**ANS🡪cd b🡪touch data.txt**

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

**ANS🡪mv c copied\_dir**

1. Change permission of copied\_dir to only executable

**ANS🡪chmod +w copied\_dir**

1. Try ls on copied\_dir

**ls**

1. Try moving copied\_dir to outside of a

**ANS🡪 mv copied\_dir bb**

1. Try moving data directory outside of a

**mv data bb**

1. Now change the owner of the directory a to root
2. Change permission of a to read write and executable to only user

**Chmod u+r+w+x aa**

1. Try creating directory sample inside a

**Mkdir sample**

1. Create directory x outside a

**Mkdir y**

1. Try moving x inside a

**Mv x a**

1. Create directory movies

**Mkdir movies**

1. 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

**Rm filename**