

### Activity-3

**Aim:** Execute the following Linux commands: touch, echo, clear, ls, Dir, Mkdir, Cat, Rmdir, Rm, Cp, Mv, Find, Head, Tail, Tar, Gzip, Bzip2, Alias, Sed, wc, sort.

**Learning Outcome:** Able to work Linux environment by using Linux commands.

Duration: 8 Hour.

List of Hardware/Software requirements:

1. Computer Desktop/Laptop
2. Linux Operating System

**Code/Program/Procedure (with comment):**

#### ❖ ls

✓ **ls**

ls command shows the all files and folder.

```
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh  div.sh  eve.sh  lar.sh  Public  until.sh  while.sh
arg.sh  Documents  gt.sh  Music  snap  Videos  wh.sh
Desktop  Downloads  IBM  Pictures  Templates  wee.sh
```

#### ❖ mkdir

✓ **mkdir p1**

list the file and folder in columns.

```
mrpglu@MRPGLU-virtual-machine:~$ mkdir p1

mrpglu@MRPGLU-virtual-machine:~$ dir
add.sh  div.sh  eve.sh  lar.sh  Pictures  Templates  wee.sh
arg.sh  Documents  gt.sh  Music  Public  until.sh  while.sh
Desktop  Downloads  IBM  p1  snap  Videos  wh.sh
```

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### ❖ rmdir

✓ **rmdir p1**

create a folder or a directory.

```
mrpglu@MRPGLU-virtual-machine:~$ rmdir p1
mrpglu@MRPGLU-virtual-machine:~$ dir
add.sh  div.sh  eve.sh  lar.sh  Public  until.sh  while.sh
arg.sh  Documents  gt.sh  Music  snap  Videos  wh.sh
Desktop  Downloads  IBM  Pictures  Templates  wee.sh
```

### ❖ cat

✓ **cat> p1.txt**

create a file with any content.

```
mrpglu@MRPGLU-virtual-machine:~$ cat> p1.txt
hi
welcome to my world
^C
```

✓ **Cat p1.txt**

display the file contents.

```
mrpglu@MRPGLU-virtual-machine:~$ cat p1.txt
hi
welcome to my world
```

### ❖ rm

✓ **rm p1.txt**

delete files and directories.

```
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh  div.sh  eve.sh  lar.sh  Pictures  Templates  wee.sh
arg.sh  Documents  gt.sh  Music  Public  until.sh  while.sh
Desktop  Downloads  IBM  p1.txt  snap  Videos  wh.sh
mrpglu@MRPGLU-virtual-machine:~$ rm p1.txt
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh  div.sh  eve.sh  lar.sh  Public  until.sh  while.sh
arg.sh  Documents  gt.sh  Music  snap  Videos  wh.sh
Desktop  Downloads  IBM  Pictures  Templates  wee.sh
```

## Activity-3

### ❖ touch

✓ touch

create a file without any content.

```
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh  div.sh  eve.sh  lar.sh  Public  until.sh  while.sh
arg.sh  Documents  gt.sh  Music  snap  Videos  wh.sh
Desktop  Downloads  IBM  Pictures  Templates  wee.sh
mrpglu@MRPGLU-virtual-machine:~$ touch p1
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh  div.sh  eve.sh  lar.sh  Pictures  Templates  wee.sh
arg.sh  Documents  gt.sh  Music  Public  until.sh  while.sh
Desktop  Downloads  IBM  p1  snap  Videos  wh.sh
mrpglu@MRPGLU-virtual-machine:~$
```

### ❖ echo

✓ echo what are you doing.

```
mrpglu@MRPGLU-virtual-machine:~$ echo what are you doing.
what are you doing.
mrpglu@MRPGLU-virtual-machine:~$
```

### ❖ cp

✓ cp p1.txt p2.txt

copy file contents to another file.

here you can take two txt file p1 and p2. here p1 have a txt data as show below image and another p2 don't have any txt data.

When you run **cp p1.txt p2.txt** cmd. you can see p1.txt file content copy to p2.txt.

```
mrpglu@MRPGLU-virtual-machine:~$ cat p1.txt
hi
welcome
mrpglu@MRPGLU-virtual-machine:~$ cat p2.txt
mrpglu@MRPGLU-virtual-machine:~$ cp p1.txt p2.txt
mrpglu@MRPGLU-virtual-machine:~$ cat p2.txt
hi
welcome
```

### ❖ mv

✓ mv p1.txt p2.txt

move file through the command line.

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here you can take two txt file p1 and p2. here p1 have a txt data as show below image and another p2 don't have any txt data.

When you run `mv p1.txt p2.txt` cmd. you can see p1.txt remove and p1.txt all content move to p2.txt see below image.

```
mrpglu@MRPGLU-virtual-machine:~$ cat p1.txt
hi
welcome
mrpglu@MRPGLU-virtual-machine:~$ cat p2.txt
mrpglu@MRPGLU-virtual-machine:~$ mv p1.txt p2.txt
mrpglu@MRPGLU-virtual-machine:~$ cat p1.txt
cat: p1.txt: No such file or directory
mrpglu@MRPGLU-virtual-machine:~$ cat p2.txt
hi
welcome
```

### ❖ find

✓ `find p2.txt`

find file and directories and perform subsequent operating on them.

```
mrpglu@MRPGLU-virtual-machine:~$ find p1.txt
find: 'p1.txt': No such file or directory
mrpglu@MRPGLU-virtual-machine:~$ find p2.txt
p2.txt
```

### ❖ head

✓ `head p3.txt`

head show the first top 10 content lines.

```
mrpglu@MRPGLU-virtual-machine:~$ head p3.txt
1
2
3
4
5
6
7
8
9
10
```

### ❖ tail

✓ `tail p3.txt`

tail show the last 10 lines.

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```
mrpglu@MRPGLU-virtual-machine:~$ tail p3.txt
7
8
9
10
11
12
13
14
15
16
```

### ❖ sed

- ✓ `sed 's/linux/unix/' demo.txt`

sed command use to replace (change word) a word.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ cat> demo.txt
linux is an open source
linux is a platform dependent
linux is a free operating system
linux is an eassy to learn
^C
mrpglu@MRPGLU-virtual-machine:~$ sed 's/linux/unix/' demo.txt
unix is an open source
unix is a platform dependent
unix is a free operating system
unix is an eassy to learn
```

### ❖ WC

- ✓ `wc demo.txt`

wc use to count the no. of letter/word with line.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ wc demo.txt
 4  22 114 demo.txt
```

### ❖ sort

- ✓ `sort demo1.txt`

sort use to arrange the records in a particular order (A-Z).

Output:

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```
mrpglu@MRPGLU-virtual-machine:~$ cat demo1.txt
amit
sahil
manjeet
naveen
aman
padam
bhupash
^C
mrpglu@MRPGLU-virtual-machine:~$ sort demo1.txt
aman
amit
bhupash
manjeet
naveen
padam
sahil
```

**Sort -r demo1.txt**

Sort -r is use to reverse the record in a particular order (Z-A).

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ sort -r demo1.txt
sahil
padam
naveen
manjeet
bhupash
amit
aman
```

## ❖ bzip2

✓ **bzip2 demo1.txt**  
compress file.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ bzip2 demo1.txt
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh      Desktop    eve.sh     Music      Public
arg.sh      div.sh    gt.sh      p2.txt     snap
demo1.txt.bz2 Documents IBM       p3.txt     Templates
demo.txt    Downloads lar.sh     Pictures   until.sh
```

**Bzip2 -d demo1.txt.bz2**

Decompress file

Output:

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```
mrpglu@MRPGLU-virtual-machine:~$ bzip2 -d demo1.txt.bz2
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh      demo.txt.gz  Downloads  IBM      p3.txt      Templates
arg.sh      Desktop     eve.sh     lar.sh   Pictures    until.sh
demo1.txt   div.sh      file.tar   Music    Public      Videos
demo.txt    Documents   gt.sh      p2.txt   snap        wee.sh
```

### ❖ gzip

- ✓ `gzip demo.txt`  
compresses file.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ gzip demo.txt
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh      Desktop     eve.sh     lar.sh   Pictures
arg.sh      div.sh      file.tar   Music    Public
demo1.txt.bz2 Documents   gt.sh      p2.txt   snap
demo.txt.gz  Downloads  IBM        p3.txt   Template
```

`gzip -d demo.txt`

decompress file.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ gzip -d demo.txt
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh      Desktop     eve.sh     lar.sh   Pictures
arg.sh      div.sh      file.tar   Music    Public
demo1.txt.bz2 Documents   gt.sh      p2.txt   snap
demo.txt    Downloads  IBM        p3.txt   Templates
```

### ❖ tar

- ✓ `tar cvf file.tar *.txt`  
work with tarballs (or files compressed in a tarball archive) in the linux command line.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ tar cvf file.tar *.txt
p2.txt
p3.txt
mrpglu@MRPGLU-virtual-machine:~$ ls
add.sh      Desktop     eve.sh     lar.sh   Pictures    unt
arg.sh      div.sh      file.tar   Music    Public      Vid
demo1.txt.bz2 Documents   gt.sh      p2.txt   snap        wee
demo.txt.gz  Downloads  IBM        p3.txt   Templates   whi
```

## Activity-3

### ❖ alias

✓ **alias c='clear'**

instructs the shell to replace one string with another string while executing the commands.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ alias c='clear'
mrpglu@MRPGLU-virtual-machine:~$ c
```

```
mrpglu@MRPGLU-virtual-machine:~$
```

### ❖ clear

✓ **clear**

keep screen tidy from filled up commands and output of those commands.

Output:

```
mrpglu@MRPGLU-virtual-machine:~$ clear
```

```
mrpglu@MRPGLU-virtual-machine:~$
```