1.PROGRAM :

$rm file2.sh

$cp file1.sh file2.sh

$cat file1.sh

$ mv file1.sh file3.sh

$ cmp file1.sh file3.sh

$ wc file1.sh

$split file1.sh -l 3 file2.sh

$ diff file1.sh file3.sh

OUTPUT :

Cat:

[pioneer@localhost ~]$ vi file1.sh

[pioneer@localhost ~]$ cat file1.sh

hai how are u?

hi my dear friends....

cp:

[pioneer@localhost ~]$ vi file2.sh

[pioneer@localhost ~]$ cp file1.sh file2.sh

[pioneer@localhost ~]$ cat file2.sh

hai how are u?

hi my dear friends....

mv:

[pioneer@localhost ~]$ vi file3.sh

[pioneer@localhost ~]$ mv file1.sh file3.sh

cat:

[pioneer@localhost ~]$ cat file3.sh

hai how are u?

hi my dear friends....

[pioneer@localhost ~]$ cat file3.sh

hai how are u?

hi my dear friends....

welcome you all

rm:

[pioneer@localhost ~]$ rm file2.sh

[pioneer@localhost ~]$ cat file2.sh

cat: file2.sh: No such file or directory

cmp:

[pioneer@localhost ~]$ cmp file1.sh file3.sh

file1.sh file3.sh differ: byte 2, line 1

diff:

[pioneer@localhost ~]$ diff file1.sh file3.sh

1d0

< hai how are u?

Split

[pioneer@localhost ~]$ split file1.sh file3.sh

Wc:

[pioneer@localhost ~]$ wc file1.sh

4 11 55 file1.sh

2.PROGRAM:

a)currently logged user and his log name

$ logname

pioneer

b.current shell , home directory , Operating System type , current Path setting , current working directory

1.current shell

$ echo $SHELL

2.home directory

$echo $HOME

3.operating system type

$echo $OSTYPE

4.current path setting

$echo $PATH

5.current working directory

$pwd

c.show currently logged number of users, show all available shells

$w

$who -a

d.show CPU information like processor type and speed

$less /proc/cpuinfo

e.show memory information

$free –m

OUTPUT :

```
[pioneer@localhost ~]$ logname
pioneer
[pioneer@localhost ~]$ echo $SHELL
/bin/bash
[pioneer@localhost ~]$ echo $HOME
/home/pioneer
[pioneer@localhost ~]$ echo $OSTYPE
linux-gnu
[pioneer@localhost ~]$ echo $PATH
/usr/local/bin:/usr/bin:/usr/local/sbin:/usr/sbin:/home/pioneer/.local/bin:/home/pioneer/
bin
[pioneer@localhost ~]$ pwd
/home/pioneer
[pioneer@localhost ~]$ w
 10:54:41 up  1:05,  2 users,  load average: 0.00, 0.02, 0.01
USER     TTY        LOGIN@   IDLE   JCPU   PCPU WHAT
pioneer  tty2      10:44    1:05m 10.50s  0.00s /usr/libexec/gvfsd-metadata
pioneer  pts/1     10:48    1.00s  0.02s  0.00s w
[pioneer@localhost ~]$ who -a
          system boot  2018-02-20 15:19
          run-level 5  2018-02-20 09:50
pioneer  + tty2         2018-02-20 10:44  old         1461 (:0)
pioneer  + pts/1        2018-02-20 10:48  old         2860 (192.168.1.110)
[pioneer@localhost ~]$ more /proc/cpuinfo
[pioneer@localhost ~]$ free -m
              total        used        free      shared  buff/cache   available
Mem:           3852         763        2211         197         877        2639
Swap:          8095           0        8095
```

3. PROGRAM:

1.Pipe (|)

[pioneer@localhost]$ ls | head -3

[pioneer@localhost]$ ls | head -3 | tail -1

[pioneer@localhost]$ ls | head -3 | tail -1>result

[pioneer@localhost]$ cat result

[pioneer@localhost]$ cat devi1.sh

[pioneer@localhost]$ cat devi1.sh | grep C++

2. Redirection (<, >, >>)

[pioneer@localhost]$ ls > file1.sh

[pioneer@localhost]$ cat file1.sh

[pioneer@localhost]$ ls>>file1.sh

[pioneer@localhost]$ sort<devi1.sh

3.tee

[pioneer@localhost bca]$ ls -1 | wc -l | tee devi1.sh

[pioneer@localhost bca]$ cat devi1.sh

OUTPUT:

```
 [pioneer@localhost ]$ ls | head -3
bca
devi1.sh
file.sh
[pioneer@localhost ]$ ls | head -3 | tail -1
file.sh
[pioneer@localhost ]$ ls | head -3 | tail -1>result
[pioneer@localhost ]$ cat result
file.sh
[pioneer@localhost ]$ cat devi1.sh
my fav subjects
C++
Java Programming
Php
Linux
Unix
[pioneer@localhost bca]$ cat devi1.sh | grep C++
C++
```

2. Redirection (<, >, >>)

```
[pioneer@localhost ]$ ls > file1.sh
[pioneer@localhost ]$ cat file1.sh
bca
devi1.sh
file.sh
fm.sh
 [pioneer@localhost ]$ ls>>file1.sh
[pioneer@localhost ]$ sort<devi1.sh
C++
Java Programming
Linux
MSaccess
my fav subjects
```

3.tee

```
[pioneer@localhost ]$ ls -1 | wc -l |  tee devi1.sh
11
[pioneer@localhost ]$ cat devi1.sh
11
```

4. PROGRAM

```
choice=0
while [ $choice -ne 4 ]
do
tput clear
echo " LOG IN DETAILS "
echo "*************** "
echo "1.Today date"
echo "2.Total login user"
echo "3.File Listing and directories"
echo "4.Exit"
read choice
if [ $choice -eq 1 ]
then
echo "today is  `date`"
elif [ $choice -eq 2 ]
then
```

```
echo "As of now `who` user are login to the system"
elif [ $choice -eq 3 ]
then
echo "`ls`"
fi
echo "are you continue(1 for yes /0 for no)"
read temp
if [ $temp -eq 0 ]
then
choice=4
fi
done
```

OUTPUT:

```
LOG IN DETAILS
***************
1. Today date
2. Total login user
3. File Listing and directories
4. Exit
1
Today is Mon Jan 22 14:57:26 IST 2018
are you continue(1 for yes /0 for no)
```

5.PROGRAM

1. WC:

wc pp.sh
wc -c pp.sh
wc -l pp.sh
wc -w pp.sh

2. PIPE (|):

ls -a | grep '^d'
ls -a | grep '^d'
ps aux | wc –l

locate "*.java" | grep java

3. HEAD:

head pp.sh
head -5 pp.sh

4. MORE:

more pp.sh
more -2 pgm5

5. GREP:
grep "red" test
grep -i "red" test
grep "red" test*
grep -n "red" test
grep -blue "pioneer" test
grep -v red test

OUTPUT:

1. WC commands:

[pioneer@localhost ~]$ wc pp.sh
 46 139 671 pp.sh
[pioneer@localhost ~]$ wc -c pp.sh
671 pp.sh
[pioneer@localhost ~]$ wc -l pp.sh
46 pp.sh
[pioneer@localhost ~]$ wc -w pp.sh
     139.sh

2. Pipe(|):

[pioneer@localhost ~]$ ls -a | grep '^d'

devi
devi1.sh
devi1.shaa
devi1.shab
devi2.sh

[pioneer@localhost ~]$ ps aux | wc –l

     211

[pioneer@localhost ~]$ locate "*.java" | grep java

/usr/lib64/libreoffice/share/Scripts/java/HelloWorld/HelloWorld.java
/usr/lib64/libreoffice/share/Scripts/java/Highlight/HighlightText.java
/usr/lib64/libreoffice/share/Scripts/java/MemoryUsage/MemoryUsage.java
/usr/share/devassistant/files/crt/java/jsf/src/main/java/org/devassistant/jsf/Index.java

3. HEAD :

```
[pioneer@localhost ~]$ head pp.sh

clear
echo -n "Enter a string to be entered:"
read str
echo
len=`echo $str | wc -c`
len=`expr $len - 1`
i=1
j=`expr $len / 2`
while test $i -le $j
do

 [pioneer@localhost ~]$ head -5 pp.sh

clear
echo -n "Enter a string to be entered:"
read str
echo
len=`echo $str | wc -c`
```

4. MORE:

```
[pioneer@localhost ~]$ more pp.sh
clear
echo -n "Enter a string to be entered:"
read str
echo
len=`echo $str | wc -c`
len=`expr $len - 1`
i=1
j=`expr $len / 2`
while test $i -le $j
--More--(50%)

[pioneer@localhost ~]$ more -2 pgm5
1
2
```

5. GREP:

```
[pioneer@localhost ~]$  vi test.sh
pioneer college coimbatore
red
green
RED
```

```
blue
psg college coimbatore

[pioneer@localhost ~]$  grep "red" test.sh
red

[pioneer@localhost ~]$  grep -i "red" test.sh
red
RED

[pioneer@localhost ~]$   grep "red" test*
test:red
test1:red

[pioneer@localhost ~]$   grep -n "red" test.sh
2:red

[pioneer@localhost ~]$  grep -blue "ksg" test.sh
test

[pioneer@localhost ~]$  grep -v red test.sh
Pioneer college coimbatore
green
RED
blue
psg college coimbatore
```

6. PROGRAM

```
echo "          FILE PROGRAM          "
echo "          !!!!!!!!!!!          "
echo "List of files with 0 size"
find  -size 0
echo -n "Do you want delete 0 size files(y/n)? "
read answer
if echo "$answer" | grep -iq "^y" ;then
find  -size 0 -exec rm {} \;
echo "0 size files are now deleted.."
fi
```

OUTPUT:

```
[pioneer@localhost ~]$ vi file6.sh
[pioneer@localhost ~]$ vi file1.sh
[pioneer@localhost ~]$ vi file3.sh
[pioneer@localhost ~]$ vi file8.sh
[pioneer@localhost ~]$ sh file6.sh

FILE PROGRAM
!!!!!!!!!!!!!!!!!!!!!

List of files with 0 size
./file3.sh
./file8.sh
./file1.sh
Do you want delete 0 size files(y/n)? y
0 size files are now deleted..
[pioneer@localhost ~]$ sh file6.sh
List of files with 0 size
Do you want delete 0 size files(y/n)? y
0 size files are now deleted..
```

7.PROGRAM

```
echo "          SUM OF INDIVIDUAL DIGITS "
echo "          **************************     "

echo -n "Enter number : "
read n

# store single digit
sd=0
```

```
# store number of digit
sum=0

# use while loop to caclulate the sum of all digits
while [ $n -gt 0 ]
do
   sd=$(( $n % 10 )) # get Remainder
   n=$(( $n / 10 ))  # get next digit
   sum=$(( $sum + $sd )) # calculate sum of digit
done
echo  "Sum of all digit  is $sum"
```

OUTPUT:

```
[pioneer@localhost ~]$ sh  pgm7.sh
SUM OF INDIVIDUAL DIGITS
  *************************
Enter number : 123
Sum of all digit  is 6
```

8.PROGRAM

```
echo “GREATEST AMONG THE GIVEN SET OF NUMBERS”
echo “**********************************************”
echo Enter 3  numbers with spaces in between
read a b c
l=$a
if [ $b -gt $l ]
```

```
 then
 l=$b
fi
 if [ $c -gt $l ]
 then
 l=$c
fi
 echo "Largest of $a $b $c is $l"
if  [ $a -eq $b ] && [ $a -eq $c ] && [ $b -eq $c ]
then
  echo "All numbers are equal"
fi
```

OUTPUT:

```
[pioneer@localhost ~]$ sh pgm8.sh
GREATEST AMONG THE GIVEN SET OF NUMBERS
 ********************************************
Enter 3 numbers with spaces in between
1 2 7
Largest of 1 2 7 is 7
```

9.PROGRAM

```
echo “ PALINDROME CHECKING  ”
echo “**************************”
echo "Enter a string:"
read str
```

```
for i in $(seq 0 ${#str}); do
revstr=${str:$i:1}$revstr
done
echo "Given string:" $str
echo "Reverse string " $revstr
if [ "$str" = "$revstr" ]; then
echo "Given string is palindrome"
else
echo "Its not a palindrome"
fi
```

OUTPUT:

```
[pioneer@localhost ~]$ sh pgm9.sh
PALINDROME CHECKING
**********
Enter a string:
mother
Given string: mother
Reverse string  rehtom
Its not a palindrome
[pioneer@localhost ~]$ sh pgm9.sh
Enter a string:
mom
Given string: mom
Reverse string  mom
Given string is palindrome
```

10.PROGRAM

```
echo “  THE MULTIPLICATION TABLE”
echo “ **********”
echo "Enter a Number"
```

```
read n
echo "Enter Range"
read r
i=1
while [ $i -le $r ]
do
        echo " $i x $n = `expr $n \* $i`"
        i=`expr $i + 1`
done
```

OUTPUT :

```
[pioneer@localhost ~]$ sh pgm10.sh
 THE MULTIPLICATION TABLE
  ***************************
Enter a Number
7
Enter Range
7
 1 x 7 = 7
 2 x 7 = 14
 3 x 7 = 21
 4 x 7 = 28
 5 x 7 = 35
 6 x 7 = 42
 7 x 7 = 49
```