

Assignment 2: Familiarization with basic Commands in Unix Operating System and Shell Programming

1. Write a shell script named as prog for merge the content of files a.txt, b.txt, and c.txt sort them and save the result in a file called result and display the sorted output on the screen.

COMMANDS:

```
gedit prog1
```

```
chmod a+x prog1
```

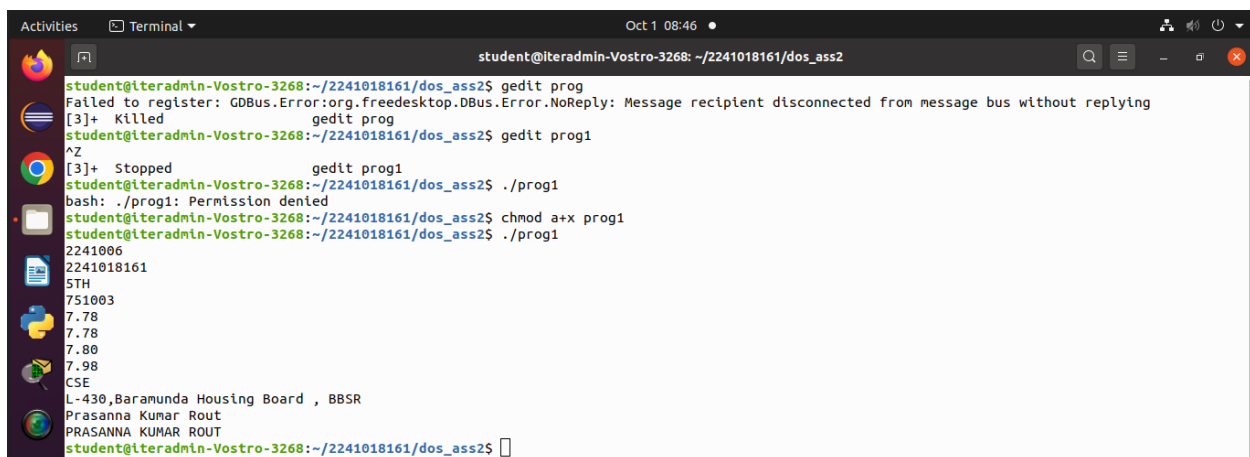
```
./prog1
```

```
prog1: cat a.txt b.txt c.txt >> d.txt
```

```
sort d.txt>result
```

```
cat result
```

Output:



```
student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit prog
Failed to register: GDBus.Error:org.freedesktop.DBus.Error.NoReply: Message recipient disconnected from message bus without replying
[3]+  Killed                  gedit prog
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit prog1
^Z
[3]+  Stopped                  gedit prog1
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./prog1
bash: ./prog1: Permission denied
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x prog1
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./prog1
2241006
2241018161
5TH
751003
7.78
7.78
7.80
7.98
CSE
L-430,Baranunda Housing Board , BBSR
Prasanna Kumar Rout
PRASANNA KUMAR ROUT
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

2. Write a shell script named as systeminfo that will display the information about the login name of the user, name of the Unix system used by the user, type of the SHELL, Path of current working directory of the user and list of file contain in current working directory.

Commands:

gedit systeminfo

chmod a+x systeminfo

./systeminfo

systeminfo:

whoami

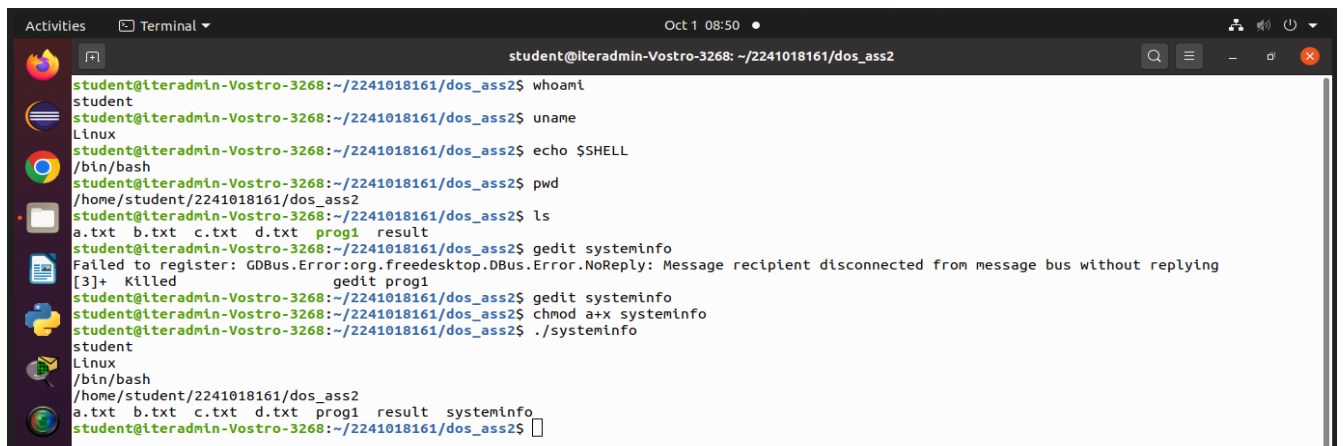
uname

echo \$SHELL

pwd

ls

OUTPUT:



```
student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ uname
Linux
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ echo $SHELL
/bin/bash
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ pwd
/home/student/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ls
a.txt b.txt c.txt d.txt prog1 result
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit systeminfo
Failed to register: GDBus.Error:org.freedesktop.DBus.Error.NoReply: Message recipient disconnected from message bus without replying
[3]+  Killed                  gedit prog1
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit systeminfo
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x systeminfo
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./systeminfo
student
Linux
/bin/bash
/home/student/2241018161/dos_ass2
a.txt b.txt c.txt d.txt prog1 result systeminfo
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

**3. Write a shell script named as dtcal for displaying both the system date and calendar for specific month, say march 2022, in the given format:- Date : specific date
Calender : current calendar**

COMMANDS:

gedit dtcal

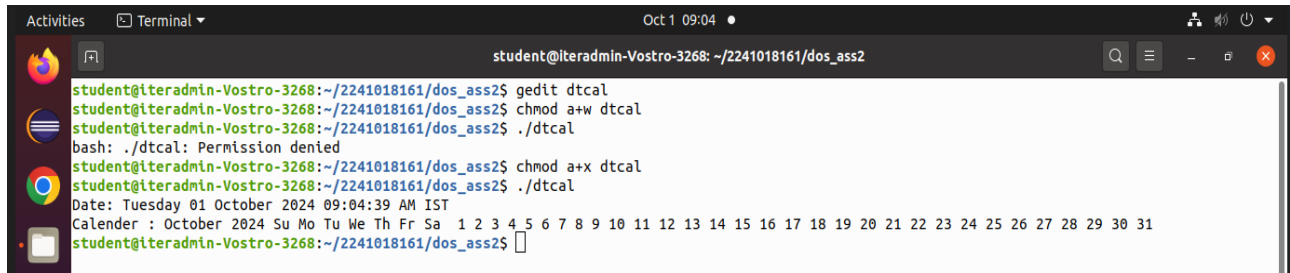
chmod a+x dtcal

./dtcal

dtcal: echo Date : `date`

echo Calender: `cal`

OUTPUT:



```
student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit dtcal
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+w dtcal
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./dtcal
bash: ./dtcal: Permission denied
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x dtcal
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./dtcal
Date: Tuesday 01 October 2024 09:04:39 AM IST
Calendar : October 2024 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 31
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

**4. Write a shell script named as nvwc which will display the filename and linecount, wordcount and char count of the file dtcal in the following format: Filename: dtcal
Line count: - Word count: - Charcount: -**

COMMANDS:

gedit nvwc

chmod a+x nvwc

./nvwc

nvwc: echo Filename: \$1

echo LineCount: `wc -l<\$1`

echo WordCount: `wc -w<\$1`

echo Charcount : `wc -c<\$1`

Output:



```
student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit nvwc
^Z
[3]+  Stopped                  gedit nvwc
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x nvwc
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./nvwc
Filename: dtcal
Line Count: 2
Word Count: 7
CharCount: 40
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

5. Write a shell script named as nvwc2 which will display the filename and linecount, word count and char count of any file given as argument to nvwc2 in the following format: filename linecount wordcount charcount.

COMMANDS:

```
gedit nwc2
```

```
chmod a+x nwc2
```

```
./nwc2
```

```
nwc2: echo " Filename    Linecount   Wordcount    charcount "  
        echo " $1    `wc -l<$1`      `wc -w<$1`      `wc -c<$1` "
```

OUTPUTS:



The screenshot shows a terminal window with the following content:

```
student@lteradmin-Vostro-3268: ~/2241018161/dos_ass2  
student@lteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./nwc2 dtcal  
Filename  LineCount  WordCount  charcount  
dtcal     2          7          40  
student@lteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

6. Write a shell script named as darg to display the total number of command line arguments along with the first two arguments. -Modify the script to display all the arguments.

COMMANDS:

```
gedit darg
```

```
chmod a+x darg
```

```
./darg My name is Prasana
```

```
darg: echo "Total number of Commands $#"  
        echo " The first argument $1"  
        echo " The second argument $2"  
        echo " The third argument $@"
```

OUTPUT:

```
Activities Terminal Oct 1 09:51 student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ edit darg
Error: no "edit" mailcap rules found for type "cannot open 'darg' (No such file or directory)"
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ gedit darg
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x darg
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./darg My name is Prasanna
Total number of Command 4
The first argument My
the second argument name
The third argument My name is Prasanna
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

7. Write a shell script named as ndisp that will take three command line arguments specifying the value of n, m and a filename and display the first n number of lines and last m number of lines of the file given as argument.

COMMANDS:

```
gedit ndisp
chmod a+x ndisp
./ndisp 9 10 year
```

Ndisp: echo "The first \$1 number of lines of the file \$3"
head -\$1 \$3
echo "The first \$2 number of lines of the file \$3"
tail -\$2 \$3

OUTPUT:

```
Activities Terminal Oct 1 09:57 student@iteradmin-Vostro-3268: ~/2241018161/dos_ass2
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ chmod a+x ndisp
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$ ./ndisp 9 10 year
The first 9 number of lines of the file year
JAN
FEB
MAR
APR
MAY
JUN
JLY
AUG
SEPT
The last 10 NUMBER OF LINES of the file year
MAR
APR
MAY
JUN
JLY
AUG
SEPT
OCT
NOV
DEC
student@iteradmin-Vostro-3268:~/2241018161/dos_ass2$
```

