DTL SHELL SCRIPTING ASSIGNMENT


```
eureka@eureka-HP-Notebook:~$ vi first
eureka@eureka-HP-Notebook:~$ echo "Knowledge is power"
Knowledge is power
eureka@eureka-HP-Notebook:~$ echo "Hello"
Hello
eureka@eureka-HP-Notebook:~$ echo "Today is \c";date
Today is \c
Sun Jan 22 21:55:30 IST 2023
eureka@eureka-HP-Notebook:~$ echo "Number of user login: \c";who | wc -l
Number of user login: \c
1
eureka@eureka-HP-Notebook:~$ echo "Calendar"
Calendar
eureka@eureka-HP-Notebook:~$ 
```



```
eureka@eureka-HP-Notebook:~$ echo $USERNAME
eureka
eureka@eureka-HP-Notebook:~$ echo $HOME
/home/eureka
eureka@eureka-HP-Notebook:~$ no=10
eureka@eureka-HP-Notebook:~$ No=20
eureka@eureka-HP-Notebook:~$ NO=30
eureka@eureka-HP-Notebook:~$ nO=40
eureka@eureka-HP-Notebook:~$ echo no
no
eureka@eureka-HP-Notebook:~$ echo $no
10
eureka@eureka-HP-Notebook:~$ echo $nO
40
eureka@eureka-HP-Notebook:~$ echo $NO
30
eureka@eureka-HP-Notebook:~$ echo $No
20
eureka@eureka-HP-Notebook:~$ vech=
eureka@eureka-HP-Notebook:~$ echo $vech
eureka@eureka-HP-Notebook:~$ echo -e "An apple a day keeps away \a\t\tdoctor\n"
An apple a day keeps away        doctor
eureka@eureka-HP-Notebook:~$ expr 1+3
1+3
eureka@eureka-HP-Notebook:~$ echo `expr 6 + 3`
9
eureka@eureka-HP-Notebook:~$ echo "expr 6+3"
expr 6+3
eureka@eureka-HP-Notebook:~$ echo "Today is `date"
> ^C
eureka@eureka-HP-Notebook:~$ echo "Today is `date`"
Today is Sun Jan 22 22:07:48 IST 2023
eureka@eureka-HP-Notebook:~$ rm unknown
rm: cannot remove 'unknown': No such file or directory
eureka@eureka-HP-Notebook:~$ echo $?
1
eureka@eureka-HP-Notebook:~$ ls
a.out           assignment3     Desktop        file1    main.o     PreetTrivedi_112103160_Assignment1.tar.gz  que3.c    sparse.c   Videos
ass2.c          assignment5     Documents      first    Music      PreetTrivedi_112103160_Assignment5.tar.gz  que4.c    sparse.h
Assignment1     assignment5dsa  Downloads      hello.c  pattern    PreetTrivedi_Assignment5_112103160.tar.gz  sparse1.txt  temp.c
Assignment2_112103160  assignment7  examples.desktop  main.c  Pictures  Public                                sparse2.txt  Templates
eureka@eureka-HP-Notebook:~$ echo $?
0
eureka@eureka-HP-Notebook:~$ date
Sun Jan 22 22:09:05 IST 2023
eureka@eureka-HP-Notebook:~$ echo $?
0
eureka@eureka-HP-Notebook:~$ wildwest canwork?
wildwest: command not found
eureka@eureka-HP-Notebook:~$ echo $?
127
eureka@eureka-HP-Notebook:~$ 
```

eureka@eureka-HP-Notebook: ~

File Edit View Search Terminal Help

```
127
eureka@eureka-HP-Notebook:~$ vi sayH
eureka@eureka-HP-Notebook:~$ echo "Your name?"
Your name?
eureka@eureka-HP-Notebook:~$ read fname
Preet
eureka@eureka-HP-Notebook:~$ echo "Hello $fname"
Hello Preet
eureka@eureka-HP-Notebook:~$ ls /bin/[a-c]*
/bin/bash      /bin/bunzip2  /bin/bzcat   /bin/bzdiff  /bin/bzexe  /bin/bzgrep  /bin/bzip2recover  /bin/bzmore  /bin/chacl  /bin/chmod  /bin/chvt  /bin/cpio
/bin/brltty    /bin/busybox  /bin/bzcmp   /bin/bzegrep /bin/bzfgrep /bin/bzip2  /bin/bzless        /bin/cat     /bin/chgrp  /bin/chown  /bin/cp
eureka@eureka-HP-Notebook:~$ ls /bin/[!a-o]*
/bin/ptdof     /bin/rbash     /bin/sed       /bin/ss      /bin/systemd-ask-password   /bin/systemd-tmpfiles              /bin/ulockmgr_server  /bin/which     /bin/zfgrep
/bin/ping      /bin/readlink  /bin/setfacl   /bin/static-sh  /bin/systemd-escape      /bin/systemd-tty-ask-password-agent /bin/umount          /bin/whiptail  /bin/zforce
/bin/ping4     /bin/red       /bin/setfont   /bin/stty    /bin/systemd-hwdb           /bin/tar                          /bin/uname            /bin/ypdomainname /bin/zgrep
/bin/ping6     /bin/rm        /bin/setupcon  /bin/su      /bin/systemd-inhibit        /bin/tempfile                     /bin/unconpress       /bin/zcat      /bin/zless
/bin/plymouth  /bin/rmdir     /bin/sh        /bin/sync    /bin/systemd-machine-id-setup /bin/touch                      /bin/unicode_start    /bin/zcmp      /bin/zmore
/bin/ps        /bin/rnano     /bin/sh.distrib /bin/systenctl /bin/systemd-notify       /bin/true                        /bin/vdir             /bin/zdiff     /bin/znew
/bin/pwd       /bin/run-parts /bin/sleep     /bin/systemd /bin/systemd-sysusers        /bin/udevadm                     /bin/wdctl            /bin/zegrep
eureka@eureka-HP-Notebook:~$ date;who
Sun Jan 22 22:12:24 IST 2023
eureka    :0           2023-01-22 21:49 (:0)
eureka@eureka-HP-Notebook:~$ vi demo
eureka@eureka-HP-Notebook:~$ echo "Total no of command line arguements $#"
Total no of command line arguements 0
eureka@eureka-HP-Notebook:~$ echo "$0 is script name"
bash is script name
eureka@eureka-HP-Notebook:~$ echo "$1 is first argument "
 is first argument
eureka@eureka-HP-Notebook:~$ echo "All of them are $* or $@"
All of them are  or
eureka@eureka-HP-Notebook:~$ chmod 755 demo
eureka@eureka-HP-Notebook:~$ ./demo Hello World
eureka@eureka-HP-Notebook:~$ cp demo ~/bin
eureka@eureka-HP-Notebook:~$ demo

Command 'demo' not found, did you mean:

  command 'deno' from snap deno (v1.27.1)
  command 'idemo' from deb ivtools-bin
  command 'nemo' from deb nemo

See 'snap info <snapname>' for additional versions.

eureka@eureka-HP-Notebook:~$ demo Hello World

Command 'demo' not found, did you mean:

  command 'deno' from snap deno (v1.27.1)
  command 'nemo' from deb nemo
  command 'idemo' from deb ivtools-bin

See 'snap info <snapname>' for additional versions.

eureka@eureka-HP-Notebook:~$ []
```

eureka@eureka-HP-Notebook: ~

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```
a.out
ass2.c
Assignment1
Assignment2_112103160
assignment3
assignment5
assignment5dsa
assignment7
bin
demo
Desktop
Documents
Downloads
examples.desktop
file1
first
hello.c
main.c
main.o
Music
pattern
Pictures
PreetTrivedi_112103160_Assignment1.tar.gz
PreetTrivedi_112103160_Assignment5.tar.gz
PreetTrivedi_Assignment5_112103160.tar.gz
Public
que3.c
que4.c
sayH
sparse1.txt
sparse2.txt
sparse.c
sparse.h
temp.c
Templates
Videos
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
~
"demo" 36L, 427C                                                                              1,1          All
```
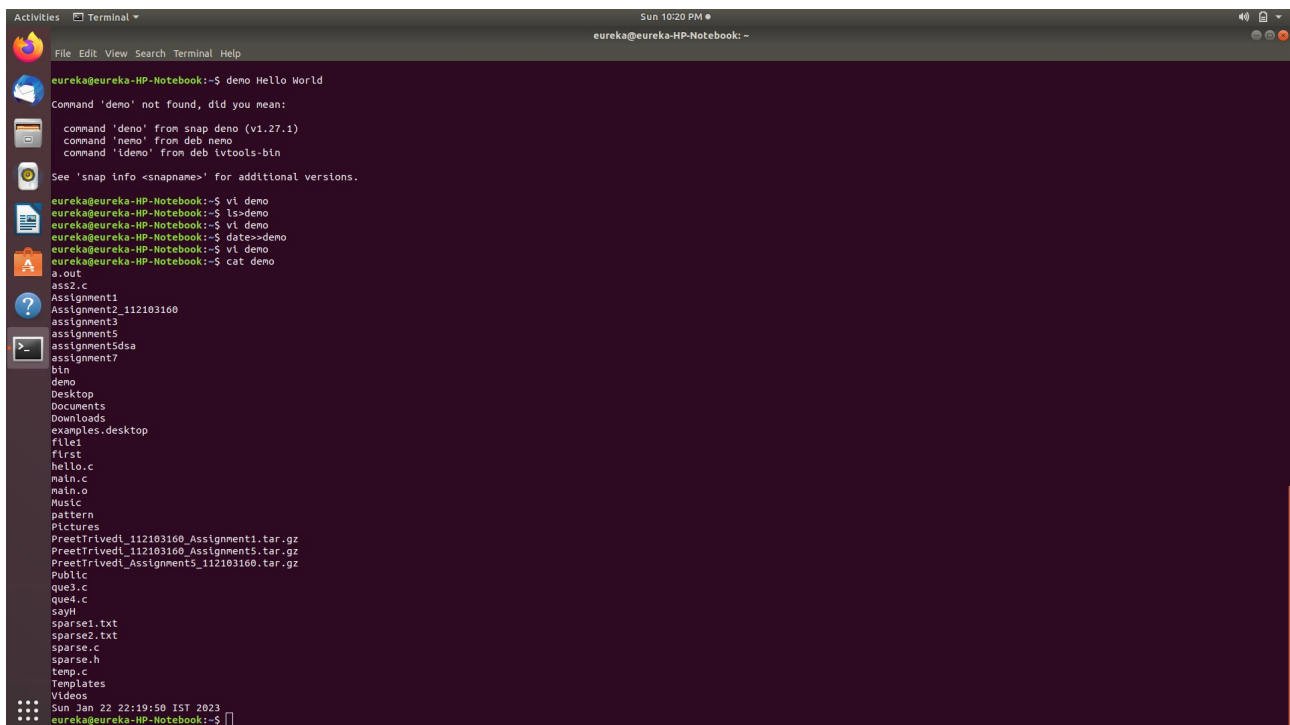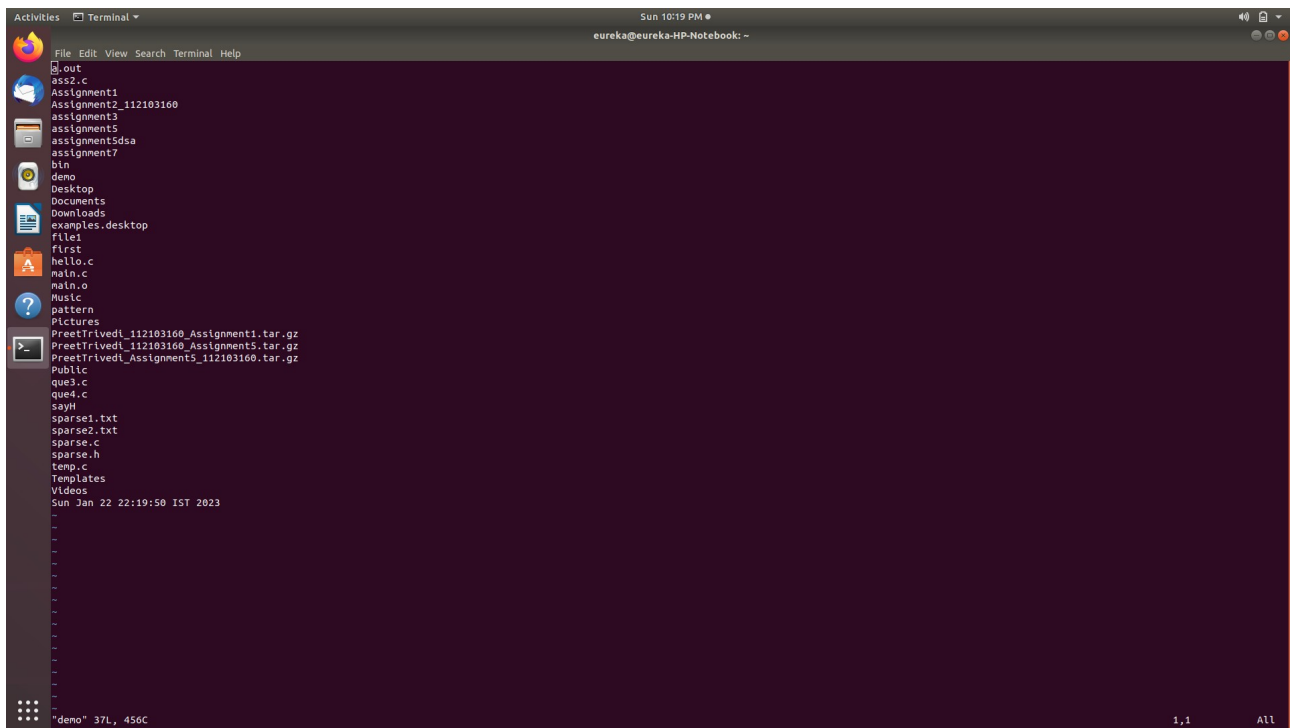
eureka@eureka-HP-Notebook: ~

File Edit View Search Terminal Help

```
que3.c
que4.c
sayH
sparse1.txt
sparse2.txt
sparse.c
sparse.h
temp.c
Templates
Videos
Sun Jan 22 22:19:50 IST 2023
eureka@eureka-HP-Notebook:~$ vi sname
eureka@eureka-HP-Notebook:~$ cat>sname
^C
eureka@eureka-HP-Notebook:~$ cat sname
eureka@eureka-HP-Notebook:~$ cat > sname

^C
eureka@eureka-HP-Notebook:~$ vi sname
^C
eureka@eureka-HP-Notebook:~$ cat > sname
^C
eureka@eureka-HP-Notebook:~$ vi sname
eureka@eureka-HP-Notebook:~$ cat > sname
vivek
ashish
zebra
cat
eureka@eureka-HP-Notebook:~$ sort <sname> sorted_names
eureka@eureka-HP-Notebook:~$ cat sorted_names
ashish
cat
vivek
zebra
eureka@eureka-HP-Notebook:~$ tr "[a-z]" "[A-Z]" <sname> cap_names
eureka@eureka-HP-Notebook:~$ cat cap_names
VIVEK
ASHISH
ZEBRA
CAT
eureka@eureka-HP-Notebook:~$ sort>new_sorted_names<sname
eureka@eureka-HP-Notebook:~$ cat new_sorted_names
ashish
cat
vivek
zebra
eureka@eureka-HP-Notebook:~$ who | sort
eureka    :0          2023-01-22 21:49 (:0)
eureka@eureka-HP-Notebook:~$ who | sort>user_list
eureka@eureka-HP-Notebook:~$ who | wc -l
1
eureka@eureka-HP-Notebook:~$ ls -l | wc -l
42
eureka@eureka-HP-Notebook:~$ who | grep preet
eureka@eureka-HP-Notebook:~$ 
```

eureka@eureka-HP-Notebook: ~

File Edit View Search Terminal Help

```
ashish
cat
vivek
zebra
eureka@eureka-HP-Notebook:~$ who | sort
eureka    :0          2023-01-22 21:49 (:0)
eureka@eureka-HP-Notebook:~$ who | sort>user_list
eureka@eureka-HP-Notebook:~$ who | wc -l
1
eureka@eureka-HP-Notebook:~$ ls -l | wc -l
42
eureka@eureka-HP-Notebook:~$ who | grep preet
eureka@eureka-HP-Notebook:~$ ls | more
a.out
ass2.c
Assignment1
Assignment2_112103160
assignment3
assignment5
assignment5dsa
assignment7
bin
cap_names
demo
Desktop
Documents
Downloads
examples.desktop
file1
first
hello.c
main.c
main.o
Music
new_sorted_names
pattern
Pictures
PreetTrivedi_112103160_Assignment1.tar.gz
PreetTrivedi_112103160_Assignment5.tar.gz
PreetTrivedi_Assignment5_112103160.tar.gz
Public
que3.c
que4.c
sayH
sname
sorted_names
sparse1.txt
sparse2.txt
sparse.c
sparse.h
temp.c
Templates
user_list
Videos
eureka@eureka-HP-Notebook:~$ 
```

```
eureka@eureka-HP-Notebook: ~
File  Edit  View  Search  Terminal  Help
Videos
eureka@eureka-HP-Notebook:~$ ls -lR
.:
total 172
-rwxrwxr-x 1 eureka eureka 12880 Dec  7 02:29 a.out
drwxr-xr-x 2 eureka eureka  4096 Nov  8 21:45 ass2.c
drwxr-xr-x 2 eureka eureka  4096 Nov  6 16:51 Assignment1
drwxr-xr-x 3 eureka eureka  4096 Nov 20 11:55 Assignment2_112103160
drwxrwxr-x 2 eureka eureka  4096 Nov 25 22:48 assignment3
drwxrwxr-x 2 eureka eureka  4096 Dec  1 04:09 assignment5
drwxrwxr-x 2 eureka eureka  4096 Dec  7 02:37 assignment5dsa
drwxr-xr-x 2 eureka eureka  4096 Jan  6 03:22 assignment7
-rwxr-xr-x 1 eureka eureka     0 Jan 22 22:16 bin
-rw-rw-r-- 1 eureka eureka    24 Jan 22 22:24 cap_names
-rwxr-xr-x 1 eureka eureka   456 Jan 22 22:19 demo
drwxr-xr-x 3 eureka eureka  4096 Jan 22 21:52 Desktop
drwxr-xr-x 3 eureka eureka  4096 Jan 13 03:14 Documents
drwxr-xr-x 2 eureka eureka  4096 Jan  6 03:27 Downloads
-rw-r--r-- 1 eureka eureka  8980 Nov  6 06:56 examples.desktop
-rw-rw-r-- 1 eureka eureka     0 Dec 25  2007 file1
-rw-rw-r-- 1 eureka eureka    22 Jan 22 21:54 first
-rw-rw-r-- 1 eureka eureka   127 Nov 29 12:28 hello.c
-rw-rw-r-- 1 eureka eureka   189 Jan  3 00:54 main.c
-rw-rw-r-- 1 eureka eureka  1856 Jan  3 00:51 main.o
drwxr-xr-x 2 eureka eureka  4096 Nov  6 12:30 Music
-rw-rw-r-- 1 eureka eureka    24 Jan 22 22:24 new_sorted_names
drwxrwxr-x 2 eureka eureka  4096 Nov 20 11:37 pattern
drwxr-xr-x 2 eureka eureka  4096 Jan 22 22:27 Pictures
-rw-r--r-- 1 eureka eureka  1192 Nov  6 16:54 PreetTrivedi_112103160_Assignment1.tar.gz
-rw-rw-r-- 1 eureka eureka    45 Dec  7 02:32 PreetTrivedi_112103160_Assignment5.tar.gz
-rw-rw-r-- 1 eureka eureka  3377 Dec  7 02:41 PreetTrivedi_Assignment5_112103160.tar.gz
drwxr-xr-x 2 eureka eureka  4096 Nov  6 12:30 Public
drwxr-xr-x 2 eureka eureka  4096 Nov  6 16:51 que3.c
drwxr-xr-x 2 eureka eureka  4096 Nov  6 16:07 que4.c
-rw-rw-r-- 1 eureka eureka     0 Jan 22 22:09 sayH
-rw-rw-r-- 1 eureka eureka    24 Jan 22 22:23 sname
-rw-rw-r-- 1 eureka eureka    24 Jan 22 22:23 sorted_names
-rw-rw-r-- 1 eureka eureka    22 Jan  3 00:55 sparse1.txt
-rw-rw-r-- 1 eureka eureka    22 Jan  3 00:56 sparse2.txt
-rw-rw-r-- 1 eureka eureka  1528 Jan  3 01:02 sparse.c
-rw-rw-r-- 1 eureka eureka   364 Jan  3 01:02 sparse.h
-rw-rw-r-- 1 eureka eureka   718 Nov 28 21:06 temp.c
drwxr-xr-x 2 eureka eureka  4096 Nov  6 12:30 Templates
-rw-rw-r-- 1 eureka eureka    44 Jan 22 22:25 user_list
drwxr-xr-x 2 eureka eureka  4096 Nov  6 12:30 Videos

./ass2.c:
total 16
-rw-r--r-- 1 eureka eureka   313 Nov  8 15:22 6star.c
-rwxr-xr-x 1 eureka eureka  8344 Nov  8 15:22 a.out

./Assignment1:
total 32
-rw-rw-r-- 1 eureka eureka   363 Nov  6 16:26 que1.c
-rw-rw-r-- 1 eureka eureka   233 Nov  6 16:27 que2.c
-rw-r--r-- 1 eureka eureka   407 Nov  6 15:26 que3b.c
```

```
eureka@eureka-HP-Notebook: ~
File  Edit  View  Search  Terminal  Help
-rw-rw-r-- 1 eureka eureka 122237 Jan 22 22:19 'Screenshot from 2023-01-22 22-19-05.png'
-rw-rw-r-- 1 eureka eureka 125257 Jan 22 22:19 'Screenshot from 2023-01-22 22-19-54.png'
-rw-rw-r-- 1 eureka eureka 168198 Jan 22 22:20 'Screenshot from 2023-01-22 22-20-15.png'
-rw-rw-r-- 1 eureka eureka 184269 Jan 22 22:27 'Screenshot from 2023-01-22 22-26-59.png'
-rw-rw-r-- 1 eureka eureka 160588 Jan 22 22:27 'Screenshot from 2023-01-22 22-27-11.png'

./Public:
total 0

./que3.c:
total 28
-rwxr-xr-x 1 eureka eureka  8400 Nov  6 16:31 a.out
-rw-r--r-- 1 eureka eureka    45 Nov  6 16:37 PreetTrivedi_112103160_Assignment1.tar.gz
-rw-r--r-- 1 eureka eureka 10240 Nov  6 16:51 PreetTrivedi_112103160_Assignment.tar

./que4.c:
total 0

./Templates:
total 0

./Videos:
total 0
eureka@eureka-HP-Notebook:~$ bc
bc 1.07.1
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For details type `warranty'.
11222333344455556666777778888999999+11112222333399999999999999999999
11233445566789556666777778888999998
5/2
2
5>2
1
5<2
0
5=2
(standard_in) 5: syntax error
5==2
0
5!=2
1
^C
(interrupt) use quit to exit.
quit
eureka@eureka-HP-Notebook:~$ cat > demo
Hi
eureka@eureka-HP-Notebook:~$ if cat $1
> then
> echo -e "\n\nFile $1, found and echoed"
> fi

File , found and echoed
eureka@eureka-HP-Notebook:~$ chmod 755 demo
eureka@eureka-HP-Notebook:~$ ./demo
```

File Edit View Search Terminal Help

```
./demo: line 1: Hi: command not found
eureka@eureka-HP-Notebook:~$ ./demo $1
./demo: line 1: Hi: command not found
eureka@eureka-HP-Notebook:~$ ./demo Hi
./demo: line 1: Hi: command not found
eureka@eureka-HP-Notebook:~$ cat > trmif
if rm $1
then
echo "$1 file detected"
fi
eureka@eureka-HP-Notebook:~$ chmod 755 trmif
eureka@eureka-HP-Notebook:~$ ./trmif demo
demo file detected
eureka@eureka-HP-Notebook:~$ ./demo trmif
bash: ./demo: No such file or directory
eureka@eureka-HP-Notebook:~$ ./trmfi
bash: ./trmfi: No such file or directory
eureka@eureka-HP-Notebook:~$ ./trmif bar
bash: ./trmfi: No such file or directory
eureka@eureka-HP-Notebook:~$ ./trmif bar
rm: cannot remove 'bar': No such file or directory
eureka@eureka-HP-Notebook:~$ cat > ispositive
if test $1 -gt 0
then
echo "$1 number is positive"
fi
eureka@eureka-HP-Notebook:~$ chmod 755 ispositive
eureka@eureka-HP-Notebook:~$ ispositive 5
ispositive: command not found
eureka@eureka-HP-Notebook:~$ ./ispositive 5
5 number is positive
eureka@eureka-HP-Notebook:~$ ./ispositive -45
eureka@eureka-HP-Notebook:~$ ./ispositive
./ispositive: line 1: test: -gt: unary operator expected
eureka@eureka-HP-Notebook:~$ cat > isnump_n
if [ $# -eq 0 ]
then
echo "$0 :supply one integer"
exit 1
fi

if test $1 -gt 0
then
echo "$1 number positive"
else
echo "$1 number negative"
fi
eureka@eureka-HP-Notebook:~$ chmod 755 isnump_n
eureka@eureka-HP-Notebook:~$ ./isnump_n 5
5 number positive
eureka@eureka-HP-Notebook:~$ ./isnump_n -45
-45 number negative
eureka@eureka-HP-Notebook:~$ ./isnump_n
./isnump_n :supply one integer
eureka@eureka-HP-Notebook:~$ cat
```

File Edit View Search Terminal Help

```
eureka@eureka-HP-Notebook:~$ cat > isnump_n
if [ $# -eq 0 ]
then
echo "$0 :supply one integer"
exit 1
fi

if test $1 -gt 0
then
echo "$1 number positive"
else
echo "$1 number negative"
fi
eureka@eureka-HP-Notebook:~$ chmod 755 isnump_n
eureka@eureka-HP-Notebook:~$ ./isnump_n 5
5 number positive
eureka@eureka-HP-Notebook:~$ ./isnump_n -45
-45 number negative
eureka@eureka-HP-Notebook:~$ ./isnump_n
./isnump_n :supply one integer
eureka@eureka-HP-Notebook:~$ cat > nestedif.sh
osch=0

echo "1. Unix"
echo "2. Linux"
echo -n "Select your os choice [1 or 2]?"
read osch

if [ $osch -eq 1 ] ; then
echo "You picked Unix"
else
if [ $osch -eq 2 ] ; then
echo "You picked Linux"
else
echo "Choose 1 or 2"
fi

fi
eureka@eureka-HP-Notebook:~$ chmod +x nestedif.sh
eureka@eureka-HP-Notebook:~$ ./nestedif.sh
1. Unix
2. Linux
Select your os choice [1 or 2]?1
You picked Unix
eureka@eureka-HP-Notebook:~$ ./nestedif.sh
1. Unix
2. Linux
Select your os choice [1 or 2]?2
You picked Linux
eureka@eureka-HP-Notebook:~$ ./nestedif.sh
1. Unix
2. Linux
Select your os choice [1 or 2]?9
Choose 1 or 2
eureka@eureka-HP-Notebook:~$
```

eureka@eureka-HP-Notebook: ~

File   Edit   View   Search   Terminal   Help

```
elif [ $1 -eq 0 ]
then
echo "$1 is zero"
else
echo "Please enter number"
^[[A^[[A^[[A^[[A^C
eureka@eureka-HP-Notebook:~$ cat > elf
if [ $1 -gt 0 ] ; then
echo "$1 is positive"
elif [ $1 -lt 0 ]
then
echo "$1 is negative"
elif [ $1 -eq 0 ]
then
echo "$1 is zero"
else
echo "Please enter number"
fi
eureka@eureka-HP-Notebook:~$ chmod 755 elf
eureka@eureka-HP-Notebook:~$ ./elf 1
1 is positive
eureka@eureka-HP-Notebook:~$ ./elf -90
-90 is negative
eureka@eureka-HP-Notebook:~$ ./elf -90.2
./elf: line 1: [: -90.2: integer expression expected
./elf: line 3: [: -90.2: integer expression expected
./elf: line 6: [: -90.2: integer expression expected
Please enter number
eureka@eureka-HP-Notebook:~$ ./elf a
./elf: line 1: [: a: integer expression expected
./elf: line 3: [: a: integer expression expected
./elf: line 6: [: a: integer expression expected
Please enter number
eureka@eureka-HP-Notebook:~$ cat > testfor
for i in 1 2 3 4 5
do
echo "Welcome $1 times"
done
eureka@eureka-HP-Notebook:~$ chmod +x testfor
eureka@eureka-HP-Notebook:~$ ./testfor
Welcome  times
Welcome  times
Welcome  times
Welcome  times
Welcome  times
eureka@eureka-HP-Notebook:~$ cat > testfor
for i in 1 2 3 4 5
do
echo "Welcome $i times:
done
eureka@eureka-HP-Notebook:~$ chmod +x testfor
eureka@eureka-HP-Notebook:~$ ./testfor
./testfor: line 3: unexpected EOF while looking for matching `"'
./testfor: line 5: syntax error: unexpected end of file
eureka@eureka-HP-Notebook:~$ []
```

eureka@eureka-HP-Notebook: ~

File   Edit   View   Search   Terminal   Help

```
echo "Welcome $i times:
done
eureka@eureka-HP-Notebook:~$ chmod +x testfor
eureka@eureka-HP-Notebook:~$ ./testfor
./testfor: line 3: unexpected EOF while looking for matching `"'
./testfor: line 5: syntax error: unexpected end of file
eureka@eureka-HP-Notebook:~$ cat > testfor
for i in 1 2 3 4 5
do
echo "Welcome $i times"
done
eureka@eureka-HP-Notebook:~$ chmod +x testfor
eureka@eureka-HP-Notebook:~$ ./testfor
Welcome 1 times
Welcome 2 times
Welcome 3 times
Welcome 4 times
Welcome 5 times
eureka@eureka-HP-Notebook:~$ cat > mtable
if [ $# -eq 0 ]
then
echo "Error- number missing argument"
echo "syntax : $0 number"
echo "use to print multiplication table"
exit 1
fi
n=$1
for i in 1 2 3 4 5 6 7 8 9 10
do
echo "$n * $i = `expr $i \* $n`"
done
eureka@eureka-HP-Notebook:~$ chmod 755 mtable
eureka@eureka-HP-Notebook:~$ ./mtable 7
7 * 1 = 7
7 * 2 = 14
7 * 3 = 21
7 * 4 = 28
7 * 5 = 35
7 * 6 = 42
7 * 7 = 49
7 * 8 = 56
7 * 9 = 63
7 * 10 = 70
eureka@eureka-HP-Notebook:~$ ./mtable 89
89 * 1 = 89
89 * 2 = 178
89 * 3 = 267
89 * 4 = 356
89 * 5 = 445
89 * 6 = 534
89 * 7 = 623
89 * 8 = 712
89 * 9 = 801
89 * 10 = 890
eureka@eureka-HP-Notebook:~$ []
```

```
eureka@eureka-HP-Notebook:~$ ./mtable 89.5
expr: non-integer argument
89.5 * 1 =
expr: non-integer argument
89.5 * 2 =
expr: non-integer argument
89.5 * 3 =
expr: non-integer argument
89.5 * 4 =
expr: non-integer argument
89.5 * 5 =
expr: non-integer argument
89.5 * 6 =
expr: non-integer argument
89.5 * 7 =
expr: non-integer argument
89.5 * 8 =
expr: non-integer argument
89.5 * 9 =
expr: non-integer argument
89.5 * 10 =
eureka@eureka-HP-Notebook:~$ ./mtable
Error- number missing argument
syntax : ./mtable number
use to print multiplication table
eureka@eureka-HP-Notebook:~$ cat >for2
for(( i=0;i<=5;i++))
do
echo "Welcome $i times"
done
eureka@eureka-HP-Notebook:~$ chmod +x for2
eureka@eureka-HP-Notebook:~$ ./for2
Welcome 0 times
Welcome 1 times
Welcome 2 times
Welcome 3 times
Welcome 4 times
Welcome 5 times
eureka@eureka-HP-Notebook:~$ cat > nestedfor.sh
for ((i=1;i<=5;i++))
do
for((j=1;j<=5;j++))
do
echo -n "$i"
done
echo " "
done
eureka@eureka-HP-Notebook:~$ chmod +x nestedfor.sh
eureka@eureka-HP-Notebook:~$ ./nestedfor.sh
11111
22222
33333
44444
55555
eureka@eureka-HP-Notebook:~$ []
```

```
eureka@eureka-HP-Notebook:~$ cat >nt1
if [ $# -eq 0 ]
then
echo "Error"
echo "Syntax $0 number"
echo "Used to print tables"
exit 1
fi
n=$1
i=1
while [ $i -le 10 ]
do
echo "$n * $i = `expr $i \* $n`"
i=`expr $i + 1`
done
eureka@eureka-HP-Notebook:~$ chmod 755 nt1
eureka@eureka-HP-Notebook:~$ ./nt1 7
7 * 1 = 7
7 * 2 = 14
7 * 3 = 21
7 * 4 = 28
7 * 5 = 35
7 * 6 = 42
7 * 7 = 49
7 * 8 = 56
7 * 9 = 63
7 * 10 = 70
eureka@eureka-HP-Notebook:~$ cat > car
if [ -z $1 ]
then
rental="Unknown"
elif [ -n $1 ]
then
rental=$1
fi
case $rental in
"car") echo "Rs 20" ;;
"van") echo "Rs 10" ;;
"jeep") echo "Rs 5" ;;
"bicycle") echo "20 paisa" ;;
*) echo "Sorry, cannot get $rental for you" ;;
esac
eureka@eureka-HP-Notebook:~$ chmod +x car
eureka@eureka-HP-Notebook:~$ ./car van
Rs 10
eureka@eureka-HP-Notebook:~$ ./car car
Rs 20
eureka@eureka-HP-Notebook:~$ ./car Maruti
Sorry, cannot get Maruti for you
eureka@eureka-HP-Notebook:~$ ./car bicycle
20 paisa
eureka@eureka-HP-Notebook:~$ ./car jeep
Rs 5
eureka@eureka-HP-Notebook:~$ []
```

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```
Rs 5
eureka@eureka-HP-Notebook:~$ cat > dsh1.sh
tot=`expr$1+$2`
echo $tot
eureka@eureka-HP-Notebook:~$ chmod 755 dsh1.sh
eureka@eureka-HP-Notebook:~$ ./dsh1.sh 4 5
./dsh1.sh: line 1: expr4+5: command not found
eureka@eureka-HP-Notebook:~$ cat > dsh1.sh
tot=`expr $1 + $2`
echo $tot
eureka@eureka-HP-Notebook:~$ chmod 755 dsh1.sh
eureka@eureka-HP-Notebook:~$ ./dsh1.sh 4 5
9
eureka@eureka-HP-Notebook:~$ sh -x dsh1.sh 4 5
+ expr 4 + 5
+ tot=9
+ echo 9
9
eureka@eureka-HP-Notebook:~$ cat > sname
sr.no   name
11      vivek
12      renuka
13      prakash
14      ashish
15      rani
eureka@eureka-HP-Notebook:~$ cat > smark
sr.no   name
11      67
12      55
13      96
14      36
15      67
eureka@eureka-HP-Notebook:~$ cut -f2 sname
name
vivek
renuka
prakash
ashish
rani
eureka@eureka-HP-Notebook:~$ cut -f1 sname
sr.no
11
12
13
14
15
eureka@eureka-HP-Notebook:~$ paste sname smark
sr.no   name    sr.no   name
11      vivek   11      67
12      renuka  12      55
13      prakash 13      96
14      ashish  14      36
15      rani    15      67
eureka@eureka-HP-Notebook:~$ []
```

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```
12      renuka  12      55
13      prakash 13      96
14      ashish  14      36
15      rani    15      67
eureka@eureka-HP-Notebook:~$ join sname smark
sr.no name name
11 vivek 67
12 renuka 55
13 prakash 96
14 ashish 36
15 rani 67
eureka@eureka-HP-Notebook:~$ tr "h2" "3x" <sname
sr.no   name
11      vivek
1x      renuka
13      prakas3
14      as3is3
15      rani
eureka@eureka-HP-Notebook:~$ cat>inventory
egg order       4
eureka@eureka-HP-Notebook:~$ cat>inventory
egg     order   4
cake    good    10
cheese  okay    4
pen     good    12
floppy  good    5
eureka@eureka-HP-Notebook:~$ awk '/good/{print $3}' inventory
10
12
5
eureka@eureka-HP-Notebook:~$ awk '/good/{print $1""$3}' inventory
cake10
pen12
floppy5
eureka@eureka-HP-Notebook:~$ cat>teaormilk
India's milk is good
tea red-label is good
tea is better than coffee
eureka@eureka-HP-Notebook:~$ sed '/tea/s//milk/g'teaormilk
sed: -e expression #1, char 15: unknown option to `s'
eureka@eureka-HP-Notebook:~$ sed '/tea/s//milk/g' teaormilk
India's milk is good
milk red-label is good
milk is better than coffee
eureka@eureka-HP-Notebook:~$ cat>personname
Hello i am preet
181818
181818
computer
computer
eureka@eureka-HP-Notebook:~$ uniq personname
Hello i am preet
181818
computer
eureka@eureka-HP-Notebook:~$ []
```

eureka@eureka-HP-Notebook: ~

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```
"demo" 4L, 83C
Entering Ex mode.  Type "visual" to go to Normal mode.
:p
especially toon like tom and jerry
:1,3 p
hello world
cartoons are great
they are fun too
:2 p
cartoons are great
:1,$ p
hello world
cartoons are great
they are fun too
especially toon like tom and jerry
:set number
:1,3 p
  1 hello world
  2 cartoons are great
  3 they are fun too
:set nonumber
:1,3 p
hello world
cartoons are great
they are fun too
:1,d
especially toon like tom and jerry
:1,3 d
E16: Invalid range
:2,4 d
E16: Invalid range
:1,2 d
E16: Invalid range
:1,4 co $
E16: Invalid range
:1,3 co $
E16: Invalid range
:2,4 co $
E16: Invalid range
:
```

eureka@eureka-HP-Notebook: ~

File Edit View Search Terminal Help

```
"demo" 4L, 83C
Entering Ex mode.  Type "visual" to go to Normal mode.
especially toon like tom and jerry
:1,$ p
hello world
cartoons are great
they are fun too
especially toon like tom and jerry
hello world
cartoons are great
they are fun too
especially toon like tom and jerry
:/fun/p
they are fun too
:g/fun/p

they are fun too
they are fun too
:w
"demo" 8L, 166C written
:8 p
especially toon like tom and jerry
:8 s/ton/tommy/
especially toon like tommy and jerry
:g/tommy s/and/tom/
Pattern not found: tommy s
:g/tommy/ s//john/gc
especially toon like tommy and jerry
                        ^^^^^^y
especially toon like john and jerry
:g/and/p

especially toon like tom and jerry
especially toon like john and jerry
:/\<they\>
E486: Pattern not found: \<they\>
:g/\<they\>/p

they are fun too
they are fun too
:/^they
they are fun too
:g/[^/^$]

hello world
cartoons are great
they are fun too
especially toon like tom and jerry
hello world
cartoons are great
they are fun too
especially toon like john and jerry
:
```

eureka@eureka-HP-Notebook: ~

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```
eureka@eureka-HP-Notebook:~$ echo a{b,d,c}e
abe ade ace
eureka@eureka-HP-Notebook:~$ echo {A..Z}
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
eureka@eureka-HP-Notebook:~$ a=4
eureka@eureka-HP-Notebook:~$ b=8
eureka@eureka-HP-Notebook:~$ echo $((a=a+b))
12
eureka@eureka-HP-Notebook:~$ echo $a
12
eureka@eureka-HP-Notebook:~$ file demo
demo: ASCII text
eureka@eureka-HP-Notebook:~$ user=$(whoami)
eureka@eureka-HP-Notebook:~$ input=/home/$user
eureka@eureka-HP-Notebook:~$ env
CLUTTER_IM_MODULE=xim
LS_COLORS=rs=0:di=01;34:ln=01;36:mh=00:pi=40;33:so=01;35:do=01;35:bd=40;33;01:cd=40;33;01:or=40;31;01:mi=00:su=37;41:sg=30;43:ca=30;41:tw=30;42:ow=34;42:st=37;44:ex=01;32:*.tar=01;31:*.tgz=01;31:*.arc=01;
31:*.arj=01;31:*.taz=01;31:*.lha=01;31:*.lz4=01;31:*.lzh=01;31:*.lzma=01;31:*.tlz=01;31:*.txz=01;31:*.tzo=01;31:*.t7z=01;31:*.zip=01;31:*.z=01;31:*.Z=01;31:*.dz=01;31:*.gz=01;31:*.lrz=01;31:*.lz=01;31:*.l
zo=01;31:*.xz=01;31:*.zst=01;31:*.tzst=01;31:*.bz2=01;31:*.bz=01;31:*.tbz=01;31:*.tbz2=01;31:*.tz=01;31:*.deb=01;31:*.rpm=01;31:*.jar=01;31:*.war=01;31:*.ear=01;31:*.sar=01;31:*.rar=01;31:*.alz=01;31:*.ac
e=01;31:*.zoo=01;31:*.cpio=01;31:*.7z=01;31:*.rz=01;31:*.cab=01;31:*.wim=01;31:*.swm=01;31:*.dwm=01;31:*.esd=01;31:*.jpg=01;35:*.jpeg=01;35:*.mjpg=01;35:*.mjpeg=01;35:*.gif=01;35:*.bmp=01;35:*.pbm=01;35:*
.pgm=01;35:*.ppm=01;35:*.tga=01;35:*.xbm=01;35:*.xpm=01;35:*.tif=01;35:*.tiff=01;35:*.png=01;35:*.svg=01;35:*.svgz=01;35:*.mng=01;35:*.pcx=01;35:*.mov=01;35:*.mpg=01;35:*.mpeg=01;35:*.m2v=01;35:*.mkv=01;3
5:*.webm=01;35:*.ogm=01;35:*.mp4=01;35:*.m4v=01;35:*.mp4v=01;35:*.vob=01;35:*.qt=01;35:*.nuv=01;35:*.wmv=01;35:*.asf=01;35:*.rm=01;35:*.rmvb=01;35:*.flc=01;35:*.avl=01;35:*.fli=01;35:*.flv=01;35:*.gl=01;3
5:*.dl=01;35:*.xcf=01;35:*.xwd=01;35:*.yuv=01;35:*.cgm=01;35:*.emf=01;35:*.ogv=01;35:*.ogx=01;35:*.aac=00;36:*.au=00;36:*.flac=00;36:*.m4a=00;36:*.mid=00;36:*.midi=00;36:*.mka=00;36:*.mp3=00;36:*.mpc=00;3
6:*.ogg=00;36:*.ra=00;36:*.wav=00;36:*.oga=00;36:*.opus=00;36:*.spx=00;36:*.xspf=00;36:
LESSCLOSE=/usr/bin/lesspipe %s %s
XDG_MENU_PREFIX=gnome-
LANG=en_IN
DISPLAY=:0
GNOME_SHELL_SESSION_MODE=ubuntu
COLORTERM=truecolor
USERNAME=eureka
XDG_VTNR=2
SSH_AUTH_SOCK=/run/user/1000/keyring/ssh
XDG_SESSION_ID=2
USER=eureka
DESKTOP_SESSION=ubuntu
QT4_IM_MODULE=xim
TEXTDOMAINDIR=/usr/share/locale/
GNOME_TERMINAL_SCREEN=/org/gnome/Terminal/screen/3622516f_bf81_48f4_b142_0082bf401dcf
PWD=/home/eureka
HOME=/home/eureka
TEXTDOMAIN=im-config
SSH_AGENT_PID=1447
QT_ACCESSIBILITY=1
XDG_SESSION_TYPE=x11
XDG_DATA_DIRS=/usr/share/ubuntu:/usr/local/share/:/usr/share/:/var/lib/snapd/desktop
XDG_SESSION_DESKTOP=ubuntu
GJS_DEBUG_OUTPUT=stderr
GTK_MODULES=gail:atk-bridge
WINDOWPATH=2
TERM=xterm-256color
SHELL=/bin/bash
VTE_VERSION=5202
QT_IM_MODULE=xim
XMODIFIERS=@im=ibus
IM_CONFIG_PHASE=2
```

eureka@eureka-HP-Notebook: ~

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```
eureka@eureka-HP-Notebook:~$ function status{date;uptime;who | grep $USER; }
bash: syntax error near unexpected token `;'
eureka@eureka-HP-Notebook:~$ function status{ date; uptime; who | grep $USER; }
bash: syntax error near unexpected token `date'
eureka@eureka-HP-Notebook:~$ status

Command 'status' not found, did you mean:

  command 'statup' from snap statup (0.79.91)
  command 'qstatus' from deb gridengine-client
  command 'states' from deb enscript

See 'snap info <snapname>' for additional versions.

eureka@eureka-HP-Notebook:~$ a=1
eureka@eureka-HP-Notebook:~$ b=2
eureka@eureka-HP-Notebook:~$ [ $a -lt $b ]
eureka@eureka-HP-Notebook:~$ echo $?
0
eureka@eureka-HP-Notebook:~$ [ $a -gt $b ]
eureka@eureka-HP-Notebook:~$ echo $?
1
eureka@eureka-HP-Notebook:~$ [ $a -eq $b ]
eureka@eureka-HP-Notebook:~$ echo $?
1
eureka@eureka-HP-Notebook:~$ [ $a -ne $b ]
eureka@eureka-HP-Notebook:~$ echo $?
0
eureka@eureka-HP-Notebook:~$ [ "apples"="oranges" ]
eureka@eureka-HP-Notebook:~$ echo $?
0
eureka@eureka-HP-Notebook:~$ str1="apples"
eureka@eureka-HP-Notebook:~$ str2="oranges"
eureka@eureka-HP-Notebook:~$ [ $str1 = $str2 ]
eureka@eureka-HP-Notebook:~$ echo $?
1
eureka@eureka-HP-Notebook:~$ a=4
eureka@eureka-HP-Notebook:~$ if (( a=5 )); then echo yes ; else echo no ; fi
yes
eureka@eureka-HP-Notebook:~$ let a=2+2
eureka@eureka-HP-Notebook:~$ echo $a
4
eureka@eureka-HP-Notebook:~$ let b=4*($a-1)
eureka@eureka-HP-Notebook:~$ echo $b
12
eureka@eureka-HP-Notebook:~$ let c=($b**3)/2
eureka@eureka-HP-Notebook:~$ echo $c
864
eureka@eureka-HP-Notebook:~$ let c++
eureka@eureka-HP-Notebook:~$ echo $c
865
eureka@eureka-HP-Notebook:~$ let c--
eureka@eureka-HP-Notebook:~$ echo $c
864
eureka@eureka-HP-Notebook:~$ 
```