

DTL- Assignment 7

Shell Scripting

```
(base) amaan@ubunx ~/Documents cd ..  
(base) amaan@ubunx ~ cd Shell_Script  
(base) amaan@ubunx ~/Shell_Script cat > showfile  
#!/bin/sh  
#  
#Script to print file  
#  
if cat $1  
then  
echo -e "\n\nFile $1, found and sucessfully echoed"  
fi  
(base) amaan@ubunx ~/Shell_Script l
```

```
(base) amaan@ubunx ~/Shell_Script ./showfile bbc_scraper.s  
h  
#!/bin/bash  
  
python ~/Documents/DevOps/Python/bbc_scraper.py  
  
cat Top\ Tech\ Headlines\ (BBC\  
  
rm Top\ Tech\ Headlines\ (BBC\  
  
-e  
  
File bbc_scraper.sh, found and sucessfully echoed.  
(base) amaan@ubunx ~/Shell_Script
```

```
(base) amaan@ubunx ~/Shell_Script cat > trmif  
#  
#Script to test rm command and exist status  
#  
if rm $1  
then  
echo "$1 file deleted"  
fi  
(base) amaan@ubunx ~/Shell_Script touch test.txg  
(base) amaan@ubunx ~/Shell_Script ls  
bbc_scraper.sh showfile trmif  
Linux-Cheat-Sheet-Sponsored-By-Loggly.pdf test.txg  
(base) amaan@ubunx ~/Shell_Script chmod 755 trmif  
(base) amaan@ubunx ~/Shell_Script ./trmif test.txg  
test.txg file deleted  
(base) amaan@ubunx ~/Shell_Script
```



```
1 #!/bin/sh
2 #Script to see whether argument is +ve or -ve
3
4 if [# -eq 0]
5 then
6 echo "$0: You must give/supply one integers"
7 exit 1
8 fi
9
10 if test $1 -gt 0
11 then
12 echo "$1 number is positive"
13 else
14 echo "$1 number is negative"
15 fi
```

```
(base) amaan@ubunx ~/Shell_Script vim isnump_n
(base) amaan@ubunx ~/Shell_Script chmod 755 isnump_n
(base) amaan@ubunx ~/Shell_Script isnump_n 5
zsh: command not found: isnump_n
(base) x amaan@ubunx ~/Shell_Script ./isnump_n 5
./isnump_n: 4: [1: not found
5 number is positive
(base) amaan@ubunx ~/Shell_Script ./isnump_n -5
./isnump_n: 4: [1: not found
-5 number is negative
(base) amaan@ubunx ~/Shell_Script vim isnump_n
(base) amaan@ubunx ~/Shell_Script
```

```
(base) amaan@ubunx ~/Shell_Script vim nestedif.sh
(base) amaan@ubunx ~/Shell_Script chmod +x nestedif.sh
(base) amaan@ubunx ~/Shell_Script ./nestedif.sh 1
./nestedif.sh: 2: osch: not found
1.Unix (Sun OS)
2.Linu (Red Hat)
Select your os choice [1 or 2]?1
You Pick Unix (Sun Os)
(base) amaan@ubunx ~/Shell_Script
```



```
1 #!/bin/sh
2 osch = 0
3 echo "1.Unix (Sun OS)"
4 echo "2.Linu (Red Hat)"
5 echo -n "Select your os choice [1 or 2]?"
6 read osch
7
8 if [ $osch -eq 1 ] ; then
9     echo "You Pick Unix (Sun Os)"
10 else
11     if [ $osch -eq 2 ]; then
12         echo "You pickk Linux (Red Hat)"
13     else
14         echo "What you don't like Unix/Linux OS"
15     fi
16 fi
17
```



```
(base) amaan@ubunx ~/Shell_Script vim elf.sh
(base) amaan@ubunx ~/Shell_Script cat > testfor
for i in 1 2 3 4 5
do
echo "Welcome $i times"
done
(base) amaan@ubunx ~/Shell_Script chmod +x testfor
(base) amaan@ubunx ~/Shell_Script ./testfor
Welcome 1 times
Welcome 2 times
Welcome 3 times
Welcome 4 times
Welcome 5 times
(base) amaan@ubunx ~/Shell_Script
```

```
(base) amaan@ubunx ~/Shell_Script vim mtable
(base) amaan@ubunx ~/Shell_Script chmod 755 mtable
(base) amaan@ubunx ~/Shell_Script ./mtable 5
5 * 1 = 5
5 * 2 = 10
5 * 3 = 15
5 * 4 = 20
5 * 5 = 25
5 * 6 = 30
5 * 7 = 35
5 * 8 = 40
5 * 9 = 45
5 * 10 = 50
(base) amaan@ubunx ~/Shell_Script ./mtable
Error - Number is missing from command line argument
Syntax : ./mtable number
Use to print multiplication table for given number
(base) x amaan@ubunx ~/Shell_Script
```

```
3
4 if [ $1 -gt 0 ]; then
5     echo "$1 is positive"
6 elif [ $1 -lt 0 ]
7 then
8     echo "$1 is negative"
9 elif [ $1 -eq 0 ]
10 then
11     echo "$1 is zero"
12 else
13     echo "00ps!! $1 is not a number"
14 fi
15
```

```
Activities Terminal Jan 20 12:38 student@coeep-HLBS-CM-44:~  
student@coeep-HLBS-CM-44:~$ cat > showfile  
#!/bin/sh  
#  
#script to print file  
#  
if cat $1  
then  
echo -e "\n\nFile $1, found and successfully echoed"  
fi  
student@coeep-HLBS-CM-44:~$ chmod 755 showfile  
student@coeep-HLBS-CM-44:~$ ./showfile foo  
cat: foo: No such file or directory  
student@coeep-HLBS-CM-44:~$ ./showfile  
^C  
student@coeep-HLBS-CM-44:~$ ls  
3 assign1.5CMS.c chirag2.py chirag5.py 'Dipanshu assignment 3(2)' DSA1_Assignment1_Q1.c fold44 Linux python tempCodeRunnerFile.c  
5.py assign1.6CMS.c chirag31.py chirag7.py 'Dipanshu assignment 3(2a)' DSA1_Assignment1_Q2.c fold45  
7 assign1.7CMS.c chirag32.py chirag8.py 'Dipanshu assignment 3(3)' DSA1_demo.c fold53  
a.out Assignment chirag33.py chirag9.py 'Dipanshu assignment 3(4)' DSV_1 fold55  
area.c 'assignment 4' chirag35.py circumference.py e.py 'foldername 1' fold63  
area.l Assignment.c.save chirag36.py code filename folder 'foldername 1'  
area.o bar.py chirag37.py 'coeppFolder' hl 'Import random.py'  
area.s capapurva chirag37.py files files  
assign1.2CMS.c cappa chirag41.py div divv1 first.c Intro  
assign1.3CMS.c chess chirag42.py divv7 first.o Intro.c  
assign1.4CMS.c chirag10.py chirag43.py Desktop Documents t.py t.py  
student@coeep-HLBS-CM-44:~$ ./showfile area.c  
#include <stdio.h>  
int main()  
{  
    float r,p;  
    p=3.14;  
    printf("Enter the Radius of Circle ");  
    scanf("%f",&r);  
    printf("Area of circle is %.2f\n", p*r*r);  
    return 0;  
}  
-e  
File area.c, found and successfully echoed  
student@coeep-HLBS-CM-44:~$
```

```
Activities Terminal Jan 20 12:53 student@coeep-HLBS-CM-44:~  
student@coeep-HLBS-CM-44:~$ cat > testfor  
#!/bin/sh  
if [ $# -eq 0 ]  
then  
echo "Error - number missing from command line argument"  
echo "Syntax : $0 number"  
echo "Use to print multiplication table for a given number"  
exit 1  
fi  
n=$1  
for i in 1 2 3 4 5 6 7 8 9 10  
do  
echo "$n * $i = `expr $i \* $n`"  
done  
^C  
student@coeep-HLBS-CM-44:~$ chmod 755 testfor  
student@coeep-HLBS-CM-44:~$ ./testfor 8  
8 * 1 = 8  
8 * 2 = 16  
8 * 3 = 24  
8 * 4 = 32  
8 * 5 = 40  
8 * 6 = 48  
8 * 7 = 56  
8 * 8 = 64  
8 * 9 = 72  
8 * 10 = 80  
student@coeep-HLBS-CM-44:~$
```

```
Activities Terminal Jan 20 12:47
student@coep-HLBS-CM-44:~$ cat > newfile1
#!/bin/sh
if [ $# -eq 0 ]
then
echo "S0 : you must give/supply one integer"
exit 1
fi
if test $1 -gt 0
then
echo "$1 number is positive"
else
echo "$1 number is negative"
fi
^C
student@coep-HLBS-CM-44:~$ ls
1 assign1.5CMS.c chrag2.py chrag5.py 'Dipanshu assignment 3(2)' DSA1_Assignment1_Q1.c fold46 Linux Public sohan
112001000.vty assign1.6CMS.c chrag31.py chrag7.py 'Dipanshu assignment3(2a)' DSA1_Assignment1_Q2.c fold53 fold53 python tempCodeRunnerFile.c
5.py assign1.7CMS.c chrag32.py chrag8.py 'Dipanshu assignment 3(3)' DSA1_demo.c fold63 fold63 Music newfile1 q.py ros_ws Templates
7 a.out Assignment assign1CMS.c chrag33.py chrag9.py 'dipanshu assignment 3(4)' e.py fold65 fold65 nodejs r.py test.c
area.c 'assignment 4' chrag34.py chrag9.py 'Dipanshu assignment 3(6)' direct filename 'foldername 1' foldr 'import random.py' PPL_assign shubb 'Untitled Document 1'
area.l Assignment.c.save chrag35.py code coepfolder h1 Pictures pps siddhant Videos
area.o bar.py chrag36.py c_prog div div1 div7c7 Documents l.py l.py java projects pranav snap
area.s capapurva chrag37.py C_prog demo.py desktop Downloads l.py l.py java projects pranav snap
assign1.2CMS.c capps chrag41.py chrag42.py demo.py demo.py desktop Downloads l.py l.py java projects pranav snap
assign1.3CMS.c chess chrag43.py chrag47.py 'dipanshu assignment 3(1)' direct filename 'foldername 1' fold45 fold45 l.py l.py java projects pranav snap
assign1.4CMS.c chrag10.py 'dipanshu assignment 3(1)' direct filename 'foldername 1' fold45 fold45 l.py l.py java projects pranav snap
student@coep-HLBS-CM-44:~$ chmod 755 isnump_n
chmod: cannot access 'isnump_n': No such file or directory
student@coep-HLBS-CM-44:~$ chmod 755 area.c
student@coep-HLBS-CM-44:~$ area.c 5
area.c: command not found
student@coep-HLBS-CM-44:~$ chmod 755 newfile1
student@coep-HLBS-CM-44:~$ newfile1 5
newfile1: command not found
student@coep-HLBS-CM-44:~$ ./newfile1 5
5 number is positive
student@coep-HLBS-CM-44:~$ ./newfile1 0
0 number is negative
student@coep-HLBS-CM-44:~$ ./newfile1 -1
-1 number is negative
student@coep-HLBS-CM-44:~$
```

```
Activities Terminal Jan 20 12:58
student@coep-HLBS-CM-44:~$ cat > nt1
#!/bin/sh
#
#Script to test while statement
#
if [ $# -eq 0 ]
then
echo "Error - Number missing form command line argument"
echo "Syntax : $0 number"
echo " Use to print multiplication table for given number"
exit 1
fi
n=$1
i=1
while [ $i -le 10 ]
do
echo "$n * $i = `expr $i \* $n`"
i=`expr $i + 1`
done
^C
student@coep-HLBS-CM-44:~$ chmod 755 nt1
student@coep-HLBS-CM-44:~$ ./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
student@coep-HLBS-CM-44:~$
```

```
Activities Terminal Jan 20 13:00 student@coep-HLBS-CM-44: ~
student@coep-HLBS-CM-44:~$ cat > car
#
# If no vehicle name is given
# i.e. -z $1 is defined and it is NULL
#
# If no command line arg
if [ -z $1 ]
then
    rental="*** Unknown vehicle ***"
elif [ -n $1 ]
then
    # otherwise make first arg as rental
    rental=$1
fi

case $rental in
    "car") echo "For Rental Rs.20 per k/m";;
    "van") echo "For Rental Rs.10 per k/m";;
    "jeep") echo "For Rental Rs.5 per k/m";;
    "bicycle") echo "For Rental 20 paise per k/m";;
    *) echo "Sorry, I can not get a Rental for you";;
esac^C
student@coep-HLBS-CM-44:~$ chmod +x car
student@coep-HLBS-CM-44:~$ ./car van
Command 'car' not found, but can be installed with:
apt install ucommon-utils
Please ask your administrator.
student@coep-HLBS-CM-44:~$ ./car van
For van Rs.10 per k/m
student@coep-HLBS-CM-44:~$ ./car car
For car Rs.20 per k/m
student@coep-HLBS-CM-44:~$ ./car maruti-800
Sorry, I can not get a maruti-800 for you
student@coep-HLBS-CM-44:~$
```

```
Activities Terminal Jan 20 13:05 student@coep-HLBS-CM-44: ~
student@coep-HLBS-CM-44:~$ cat > nestedfor
for (( l = 1; l <= 5; l++ ))    ### Outer for loop ###
do
    for (( j = 1; j <= 5; j++ )) ### Inner for loop ###
    do
        echo -n "$l "
    done
    echo "" ### print the new line ###
done
^C
student@coep-HLBS-CM-44:~$ chmod 755 nestedfor
student@coep-HLBS-CM-44:~$ ./nestedfor 5
1 1 1 1 1
2 2 2 2 2
3 3 3 3 3
4 4 4 4 4
5 5 5 5 5
student@coep-HLBS-CM-44:~$ cat > chessboard
for (( l = 1; l <= 9; l++ )) ### Outer for loop ###
do
    for (( j = 1; j <= 9; j++ )) ### Inner for loop ###
    do
        tot=$((l + j))
        tmp=$((tot % 2))
        if [ $tmp -eq 0 ]; then
            echo -e -n "\033[47m "
        else
            echo -e -n "\033[40m "
        fi
    done
    echo -e -n "\033[40m" ##### set back background colour to black
    echo "" ##### print the new line ###
done
^C
student@coep-HLBS-CM-44:~$ chmod 755 chessboard
student@coep-HLBS-CM-44:~$ ./chessboard

#####
student@coep-HLBS-CM-44:~$ chmod +x chessboard
student@coep-HLBS-CM-44:~$ ./chessboard

#####
```