//S Harshini
/*1. Write a shell script to implement simple calculator with simple operations (add, subtract, multiplication, division) using else-if ladder.
Read the required values using prompt option.
*/

```
cs1058@splc32:~/Desktop$ cat script.sh
echo "enter two values and choose 1.add 2.subtract 3.multiply 4.divide"
read x
read y
read c
if [[ $c = 1 ]]
then
echo "sum "$((x+y))
elif [[ $c = 2 ]]
then
echo "diff "$((x-y))
elif [[ $c = 3 ]]
then
echo "product "$((x*y))
else
echo "quotient "$((x/y))
fi

cs1058@splc32:~/Desktop$ chmod +x script.sh
cs1058@splc32:~/Desktop$ ./script.sh
enter two values and choose 1.add 2.subtract 3.multiply 4.divide
2
3
1
sum 5
cs1058@splc32:~/Desktop$ ./script.sh
enter two values and choose 1.add 2.subtract 3.multiply 4.divide
5
4
2
diff 1
cs1058@splc32:~/Desktop$ ./script.sh
enter two values and choose 1.add 2.subtract 3.multiply 4.divide
6
7
3
product 42
```

```
cs1058@splc32:~/Desktop$ ./script.sh
enter two values and choose 1.add 2.subtract 3.multiply 4.divide
9
3
4
quotient 3
```

/*2.Write a shell script to find the area of square, rectangle and triangle using switch case. Read the required values using prompt option.*/

```
cs1058@splc32:~/Desktop$ cat script.sh
echo "enter choice 1.square 2. rectangle 3. triangle"
read c
case $c in
1)
read a
echo "area of square "$((a*a))
;;
2)
read a
read b
echo "area of rect "$((a*b))
;;
3)
read b
read h
echo "area of triangle "$(((b*h/2))
;;
*)
esac
```

```
cs1058@splc32:~/Desktop$ ./script.sh
enter choice 1.square 2. rectangle 3. triangle
1
2
area of square 4
cs1058@splc32:~/Desktop$ ./script.sh
enter choice 1.square 2. rectangle 3. triangle
2
3
4
area of rect 12
```

/*3.Write a shell script to print the current date and time
Hint:
now="$(date)"
echo $now
day="$(date +'%d')"
echo $day
month="$(date +'%m')"
echo $month
year="$(date +'%Y')"
echo $year.*/

cs1058@splc32:~/Desktop$./script.sh
day 11
month 09
year 2019.

cs1058@splc32:~/Desktop$ cat script.sh
day="$(date +'%d')"
echo day $day
month="$(date +'%m')"
echo month $month
year="$(date +'%Y')"
echo year $year.

/*4.Write a shell script to find the number of files and directories in the current
working directory.
Hint:
echo "Hello World!"
var="$(ls)"
echo $var
for file in "$(ls)" ; do
echo $file
done*/

cs1058@splc32:~/Desktop$ cat script.sh
var="$(ls)"
#echo $var
count=0
for file in $(ls); do
echo $file
((count++))

```
done
echo "Number of files/directories is $count"

cs1058@spl1:~/Desktop$ chmod +x script.sh
cs1058@spl1:~/Desktop$ ./script.sh
058-harshini-t9.docx
File1
File2
File3
File4
File5
File6
File7
generics
script.sh
Number of files/directories is 10


/*5.Write a shell script to find the number of files and directories given the date
Hint
c=0
day1="$(ls -l |cut -c31-33)"
echo $day1
day2="$(date +'%d')"
echo $day2
if [ day1 = day2 ];
then
echo $((c+1))
else
echo "wrong:"
fi*/

cs1058@splc32:~/Desktop$ cat script.sh
read -p d
count=0
day="$(ls -l |cut -c42-44)"
for i in $day;
do
if [ $i = $d ];
then
((count++))
fi
done
```

```
echo "Total number $count"
cs1058@splc32:~/Desktop$ chmod u+x script.sh
cs1058@spl1:~/Desktop$ ./script.sh
d11
Total number 0
```

/*6.Create the following files and change the permissions specified
File1 701
File2 400
File3 300
File4 676
File5 045
File6 177
File7 234
File8 507
Write a shell script to find the number of readable, writable and executable files*/

```
cs1058@splc32:~/Desktop$ cat > File1
This is File1
^C
cs1058@splc32:~/Desktop$ cat > File2
This is File2
^C
cs1058@splc32:~/Desktop$ cat > File3
This is File3
^C
cs1058@splc32:~/Desktop$ cat > File4
This is File4
^C
cs1058@splc32:~/Desktop$ cat > File5
This is File5
^C
cs1058@splc32:~/Desktop$ cat > File6
This is File6
^C
cs1058@splc32:~/Desktop$ cat > File7
This is File7
^C
cs1058@splc32:~/Desktop$ cat > File8
This is File8
^C
cs1058@spl1:~/Desktop$ ls -l *
```

```
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:28 058-harshini-t9.docx
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File1
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File2
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File3
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File4
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File5
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:19 File6
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:20 File7
-rw-rw-r-- 1 cs1058 cs1058 1850 Sep  7 08:18 generics
-rwxrwxr-x 1 cs1058 cs1058  284 Sep 18 09:35 script.sh
cs1058@spl1:~/Desktop$ chmod u+x script.sh
cs1058@spl1:~/Desktop$ ./script.sh
Number of readable files is 10
Number of writable files is 10
Number of executable files is 1
cs1058@spl1:~/Desktop$ chmod 701 File1
cs1058@spl1:~/Desktop$ chmod 400 File2
cs1058@spl1:~/Desktop$ chmod 300 File3
cs1058@spl1:~/Desktop$ chmod 676 File4
cs1058@spl1:~/Desktop$ chmod 045 File5
cs1058@spl1:~/Desktop$ chmod 177 File6
cs1058@spl1:~/Desktop$ chmod 234 File7
cs1058@spl1:~/Desktop$ ./script.sh
Number of readable files is 6
Number of writable files is 7
Number of executable files is 4
cs1058@spl1:~/Desktop$ ls -l *
-rw-rw-r-- 1 cs1058 cs1058    0 Sep 18 09:28 058-harshini-t9.docx
-rwx-----x 1 cs1058 cs1058    0 Sep 18 09:19 File1
-r-------- 1 cs1058 cs1058    0 Sep 18 09:19 File2
--wx------ 1 cs1058 cs1058    0 Sep 18 09:19 File3
-rw-rwxrw- 1 cs1058 cs1058    0 Sep 18 09:19 File4
----r--r-x 1 cs1058 cs1058    0 Sep 18 09:19 File5
---xrwxrwx 1 cs1058 cs1058    0 Sep 18 09:19 File6
--w--wxr-- 1 cs1058 cs1058    0 Sep 18 09:20 File7
-rw-rw-r-- 1 cs1058 cs1058 1850 Sep  7 08:18 generics
-rwxrwxr-x 1 cs1058 cs1058  284 Sep 18 09:35 script.sh

cs1058@splc32:~/Desktop$ cat script.sh
var=$(ls)
rc=0
wc=0
xc=0
```

```
for file in $var;
do
if [ -r $file ];
then rc=$((rc+1))
fi
if [ -w $file ];
then wc=$((wc+1))
fi
if [ -x $file ];
then xc=$((xc+1))
fi
done
echo "Number of readable files is $rc"
echo "Number of writable files is $wc"
echo "Number of executable files is $xc"
```