1.
SHELL SCRIPT:

```
#!/bin/bash
read -p "Enter a number: " num
echo $num | rev
```

```
root@WPL-31:~/Desktop# chmod +x rev.sh
root@WPL-31:~/Desktop# ./rev.sh
Enter a number: 2345
5432
```

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2.
SHEL SCRIPT:

```
#!/bin/bash
echo "What absolute directory do you want to count?"
read DIR
cd "$DIR"
file=0
dir=0
for d in *;
do
    if [ -d "$d" ]; then
        dir=$((dir+1))
    else
        file=$((file+1))
    fi
done
echo "Files $file"
echo "Directories $dir"
```

```
root@WPL-31:~/Desktop# chmod +x dir.sh
root@WPL-31:~/Desktop# ./dir.sh
What absolute directory do you want to count?
Desktop
./dir.sh: line 4: cd: Desktop: No such file or directory
Files 21
Directories 5
root@WPL-31:~/Desktop# ls
148-EX.docx  asmt8.txt           docx..odt  samp           shell.txt  unix.txt
A3           awk-assignment.pdf  f1.txt     samp1          SSN
a3.txt       cse.txt             f2.txt     sample         SSN1
a5           department          files      sampleprogram  SSN2
a5.txt       dir.sh              rev.sh     sample.txt     SSN3
```

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3.
SHELL SCRIPT:

```
#!/bin/bash
read -p "Enter the directory name" dir
sh=0
c=0
txt=0
for d in *;
do
        if [ -f "$d" ]; then

                echo $d|grep -q ".sh"
```

```
                if test $? -eq 0 ;then
                   sh=$((sh+1))
                fi
                echo $d|grep -q ".c"
                if test $? -eq 0 ;then
                   c=$((c+1))
                fi
                echo $d|grep -q ".txt"
                if test $? -eq 0 ;then
                   txt=$((txt+1))
                fi
        fi
done
echo "The number of shell file are" $sh
echo "The number of c file are" $c
echo "The number of text file are" $txt

root@WPL-31:~/Desktop# chmod +x dirc.sh
root@WPL-31:~/Desktop# ./dirc.sh
Enter the directory nameDesktop
The number of shell file are 7
The number of c file are 5
The number of text file are 9
root@WPL-31:~/Desktop# ls
148-EX.docx         calc.sh     docx..odt    samp           SSN1
A3                  check.sh    f1.txt       samp1          SSN2
a3.txt              count.sh    f2.txt       sample         SSN3
a5                  cse.txt     files        sampleprogram  unix.txt
a5.txt              department  password.sh  sample.txt
asmt8.txt           dirc.sh     rev.sh       shell.txt
awk-assignment.pdf  dir.sh      sammple      SSN
**********************************************************************

4.
SHELL SCRIPT:
#!/bin/bash
read -p "ENTER THE FILE NAME:" filename
read -p "Enter the word to be searched for:" word

count=0;
    for i in `cat $filename`;
        do if [ $i == "$word" ];then
         count=$((count+1))
        fi
    done;
    echo "The number of times the given word occurs in the file is: " $count;

root@WPL-31:~/Desktop# cat sammple
hello hello hello is the file whose words are required to be checked.hello and
bye.
root@WPL-31:~/Desktop# ./count.sh
ENTER THE FILE NAME:sammple
Enter the word to be searched for:hello
The number of times the given word occurs in the file is:  3
**********************************************
5.
```

SHELL SCRIPT:

```
#!/bin/bash
sum=0
i="y"

echo " Enter one no."
read n1
echo "Enter second no."
read n2
while [ $i = "y" ]
do
echo "1.Addition"
echo "2.Subtraction"
echo "3.Multiplication"
echo "4.Division"
echo "Enter your choice"
read ch
case $ch in
    1)sum=`expr $n1 + $n2`
     echo "Sum ="$sum;;
        2)sum=`expr $n1 - $n2`
     echo "Sub = "$sum;;
    3)sum=`expr $n1 \* $n2`
     echo "Mul = "$sum;;
    4)sum=`expr $n1 / $n2`
     echo "Div = "$sum;;
    *)echo "Invalid choice";;
esac
echo "Do u want to continue ?"
read i
if [ $i != "y" ]
then
    exit
fi
done

root@WPL-31:~/Desktop# chmod +x calc.sh
root@WPL-31:~/Desktop# ./calc.sh
 Enter one no.
34
Enter second no.
67
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter your choice
3
Mul = 2278
Do u want to continue ?
y
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter your choice
```

```
1
Sum =101
Do u want to continue ?
y
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter your choice
2
Sub = -33
Do u want to continue ?
y
1.Addition
2.Subtraction
3.Multiplication
4.Division
Enter your choice
4
Div = 0
Do u want to continue ?
n
root@WPL-31:~/Desktop#
```

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6.

SHELL SCRIPT:

```
#!/bin/bash
read -p "Enter the value to be checked" number

if [[ $number =~ ^[+-]?[0-9]*$ ]];then
echo Number is integer

elif [[ $number =~ ^[+-]?[0-9]+\.?[0-9]*$ ]];then
echo Number is float

else
echo It is a string
fi

root@WPL-31:~/Desktop# chmod +x check.sh
root@WPL-31:~/Desktop# ./check.sh
Enter the value to be checked23.4
 “Number is float ”
root@WPL-31:~/Desktop# ./check.sh
Enter the value to be checked23
Number is integer
root@WPL-31:~/Desktop# ./check.sh
Enter the value to be checkedhello
It is a string
root@WPL-31:~/Desktop# ./check.sh
Enter the value to be checked45.89
Number is float
```

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7.

SHELL SCRIPT:

```
#!/bin/bash
```

```
    echo "enter the password"
    read password
    len="${#password}"
    if test $len -ge 8 ; then
        echo "$password" | grep -q [0-9]
         if test $? -eq 0 ; then
               echo "$password" | grep -q [A-Z]
                    if test $? -eq 0 ; then
                        echo "$password" | grep -q [a-z]
                          if test $? -eq 0 ; then
                          echo "Strong password"
else

                           echo "weak password include lower case char"

                       fi

                else

                   echo "weak password include capital char"

                fi

         else

           echo "please include the numbers in password it is weak password"

         fi

    else

        echo "password lenght should be greater than or equal 8 hence weak
password"

    fi

root@WPL-31:~/Desktop# chmod +x passowrd.sh
chmod: cannot access 'passowrd.sh': No such file or directory
root@WPL-31:~/Desktop# chmod +x password.sh
root@WPL-31:~/Desktop# ./password.sh
enter the password
hello123
weak password include capital char
root@WPL-31:~/Desktop# ./password.sh
enter the password
```

```
Heloo12
password lenght should be greater than or equal 8 hence weak password
root@WPL-31:~/Desktop# ./password.sh
enter the password
Helloworld123456
Strong password
root@WPL-31:~/Desktop# ./password.sh
enter the password
helloworldweeth
please include the numbers in password it is weak password
```