**5.1** Write a program to implement a shell script for calculator

**Objectives:**

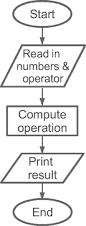
To learn shell programming and use it for write effective programs.

**Theory:**

Theory: The shell provides you with an interface to the UNIX system. It gathers input from you and executes programs based on that input. When a program finishes executing, it displays that program's output.

A shell is an environment in which we can run our commands, programs, and shell scripts. There are different flavors of shells, just as there are different flavors of operating systems. Each flavor of shell has its own set of recognized commands and functions.

**Flowchart:**



**Data Variables:**

|  |  |  |  |
| --- | --- | --- | --- |
| no | Variable | Type | use |
|  |  |  |  |
| 1 | i | int | do while loop |
|  |  |  |  |
| 2 | n1 | int | calculation |
|  |  |  |  |
| 3 | n2 | int | calculation |
|  |  |  |  |

**Program:**

clear

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

**Output:**

it@it-OptiPlex-3sk046:~/Uos$ sh ./5a.sh

Enter any no.

121

Enter one no.

21

Enter second no.

58

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

1

Sum =79

Do u want to continue ?

y

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

2

Sub = -37

Do u want to continue ?

y

1.Addition

2.Subtraction

3.Multiplication

4.Division

Enter your choice

3

Mul = 1218

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

**Conclusion:** Calculator constructed using shell programming.

**References:** <https://www.tutorialspoint.com/unix/unix-what-is-shell.htm/>