Ex.No:2	SIMPLE SHELL PROGRAMS - ARITHMETIC OPERATIONS AND STRING OPERATIONS

AIM:

To write simple shell programs by using Arithmetic Operations and String Operations.

Write a Shell program to implement arithmetic operations

1.ALGORITHM:

SEPT 1: Start the program.
STEP2: Read the value of a&b.
STEP 3: Perform addition, subtraction, multiplication, division, modulo operations and assign to a variable.
STEP 4: Display the results using echo command
STEP5: Stop the program

PROGRAM:

```
echo " Enter the value a"
read a
echo " Enter the value b"
read b

sum=`expr $a + $b`
echo "a + b : $sum"

diff=`expr $a - $b`
echo "a - b : $diff"

mul=`expr $a \* $b`
echo "a * b : $mul"

div=`expr $b / $a`
echo "b / a : $div"

mod=`expr $b % $a`
echo "b % a : $mod"
```

OUTPUT

```
a + b : 30
a - b : -10
a * b : 200
b / a : 2
```

b % a : 0

Write a Shell program to implement string operations

ALGORITHM:
SEPT 1: Start the program.
STEP2: Read the two strings.
STEP3: Check the strings are equal, not equal, string length is zero and string is not empty
STEP4: Using = operators check if the strings are equals then print **'a' is equal to 'b'** else print **'a' is not equal to 'b'.**
STEP5: Using!= operators check if the strings are not equals then print **'a' is equal to 'b'** else print **'a' is not equal to 'b'.**
STEP6: Using -z operand check if the string length is zero then print string length is zero else string length is not zero
STEP7: Using -n operand if the string length is not zero then print string length is zero else string length is zero
STEP8: Stop the program

PROGRAM:

```
a="abc"
b="efg"

if [ $a = $b ]
then
echo "$a = $b : a is equal to b"
else
echo "$a = $b: a is not equal to b"
fi

if [ $a != $b ]
then
echo "$a != $b : a is not equal to b"
else
echo "$a != $b: a is equal to b"
fi

if [ -z $a ]
then
echo "-z $a : string length is zero"
else
echo "-z $a : string length is not zero"
fi
```

```
if [ -n $a ]
then
echo "-n $a : string length is not zero"
else
echo "-n $a : string length is zero"
fi

if [ $a ]
then
echo "$a : string is not empty"
else
echo "$a : string is empty"
fi
```

OUTPUT:

```
bc = efg: a is not equal to b
abc != efg : a is not equal to b
-z abc : string length is not zero
-n abc : string length is not zero
abc : string is not empty
```