

Lab 3.5 – Working with Console C# creating class Calc

Write a program in C#, and use/create the class **Calc**, having private fields, public Properties, public Constructors (overloaded: default and with two arguments) and four Methods to calculate and one to display the results of the four basic arithmetical operations (see the images).

Create and use the Properties; use the **set** and **get** for the two entries (private class fields for the two numbers).

You can use for the Methods the following signatures:

```
public double Add(),  
public double Sub(),  
public double Mul(),  
public double Div(),  
public void Display().
```

For the method Display() use placeholders to display the text and the values and the results. Use `\n` for having new lines.

Create an object of the class **Calc** using the default Constructor, accept two numerical entries from the user (use try and catch) in **Main()**, and then store the entered values using the Properties, calculate and display the results similar like in the images .

Create the second object in **Main()** by using the second Constructor (with two arguments) this time by passing as parameters the values **9** and **3**, then call again the method to display the results.

Here are the screen shots of testing the application:

```
C:\Users\mihai\Downloads\C#\7038\ConsoleApp3.3Calc\ConsoleApp3.3Calc\bin\Debug\netcoreapp3.1\ConsoleApp3.3Calc.exe  
Default Constructor using default values  
number1=0, number2=0, res=0, info=( NaN = not a number )  
Please enter the first number: 80  
Please enter the second number: 20  
  
Your numbers are:80 & 20  
=====Results=====  
80 + 20 = 100  
80 - 20 = 60  
80 * 20 = 1600  
80 / 20 = 4  
=====
```

```
Constructor with two arguments for number1=9 and number2=3 (private variables),  
using Properties (set=write; get=read) Number1=9 and Number2=3  
  
Your numbers are:9 & 3  
=====Results=====  
9 + 3 = 12  
9 - 3 = 6  
9 * 3 = 27  
9 / 3 = 3  
=====
```

With values **80** and **20**.

INTRODUCTION TO OBJECT PROGRAMMING

```
C:\Users\mihai\Downloads\C#\7038\ConsoleApp3.3Calc\ConsoleApp3.3Calc\bin\Debug\netcoreapp3.1\ConsoleApp3.3Calc.exe
Default Constructor using default values
number1=0, number2=0, res=0, info=( NaN = not a number )
Please enter the first number: 0
Please enter the second number: 0
Please enter the second number: 2

Your numbers are:0 & 2
=====Results=====
  0 +    2 = 2
  0 -    2 = -2
  0 *    2 = 0
  0 /    2 = 0
=====

Constructor with two arguments for number1=9 and number2=3 (private variables),
using Proprieties (set=write; get=read) Number1=9 and Number2=3

Your numbers are:9 & 3
=====Results=====
  9 +    3 = 12
  9 -    3 = 6
  9 *    3 = 27
  9 /    3 = 3
=====
```

With entered values **0** and **0**, then **2**

```
C:\Users\mihai\Downloads\C#\7038\ConsoleApp3.3Calc\ConsoleApp3.3Calc\bin\Debug\netcoreapp3.1\ConsoleApp3.3Calc.exe
Default Constructor using default values
number1=0, number2=0, res=0, info=( NaN = not a number )
Please enter the first number: abc
Exception caught: Input string was not in a correct format.
Please enter the first number: 4
Please enter the second number: test
Exception caught: Input string was not in a correct format.
Please enter the second number: 5

Your numbers are:4 & 5
=====Results=====
  4 +    5 = 9
  4 -    5 = -1
  4 *    5 = 20
  4 /    5 = 0.8
=====

Constructor with two arguments for number1=9 and number2=3 (private variables),
using Proprieties (set=write; get=read) Number1=9 and Number2=3

Your numbers are:9 & 3
=====Results=====
  9 +    3 = 12
  9 -    3 = 6
  9 *    3 = 27
  9 /    3 = 3
=====
```

With entered values **abc**, then **4** and **test**, then **5**

Identify yourself and the work, add your comments and send your compressed folder with the solution by LEA of Omnivox.

Thank you