

***C# Basics***

**Lab Guides**

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**Contents**

[Lab 3: Work with Operators 4](#_heading=h.1fob9te)

[Objectives: 4](#_heading=h.3znysh7)

[Prerequisites: 4](#_heading=h.2et92p0)

[Problem Description: 4](#_heading=h.tyjcwt)

[Guidelines: 4](#_heading=h.3dy6vkm)

[Step 1: Start Visual Studio 4](#_heading=h.1t3h5sf)

[Step 2: Create New Project – Console Application 4](#_heading=h.4d34og8)

[Step 3: Edit Program.cs file 4](#_heading=h.2s8eyo1)

[Step 4: Choose the F5 key to run the project. 7](#_heading=h.17dp8vu)

|  | **CODE: Net.S.L003**  **TYPE: SHORT**  **LOC: 15**  **DURATION: 10 MINUTES** |
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# Lab 3: Work with Operators

**Objectives:**

* Understand about use of Operators in C#.

**Prerequisites:**

* Download and installs Visual Studio (included .net Framework)

**Problem Description:**

* Write a C# console application to allow user input 2 numbers.System print sum of 2 numbers.
* Use the Console.ReadLine statement to read numbers.
* Convert inputted string to number
* Write a method to get sum of 2 numbers
* Use Console.WriteLine to print the sum.

**Guidelines:**

### Step 1: Start Visual Studio

### Step 2: Create New Project – Console Application

On the menu bar, choose **File**> **New**> **Project**. The **New Project** dialog box opens

Expand **Installed**, expand **Templates**, expand **Visual C#**, and then choose **Console Application**.

In the **Name** box, specify a name **Operators** for your project, and then choose the **OK** button. The new project appears in **Solution Explorer**.

### Step 3: Edit Program.cs file

If **Program.cs** isn't open in the **Code Editor**, open the shortcut menu for **Program.cs** in **Solution Explorer**, and then choose **View Code**.

Open the **Program.cs** and add new method to get sum, modulo, compare, bitwise XOR of 2 numbers

Update Main method by allow user input values then call Sum, Modulo, Compare, BitwiseXor method

/// <summary>

/// Sum the two numbers

/// </summary>

/// <param name="number1"></param>

/// <param name="number2"></param>

/// <returns></returns>

static int Sum(int number1, int number2)

{

//// Get sum of 2 numbers

int sum = number1 + number2;

//// Return value

return sum;

}

/// <summary>

/// Modulo the two number

/// </summary>

/// <param name="number1"></param>

/// <param name="number2"></param>

/// <returns></returns>

static int Modulo(int number1, int number2)

{

//// Get modulo of 2 numbers

int modulo = number1 % number2;

//// Return value

return modulo;

}

/// <summary>

/// Compare to 2 numbers

/// </summary>

/// <param name="number1"></param>

/// <param name="number2"></param>

/// <returns></returns>

static bool EqualTo(int number1, int number2)

{

//// Get Compare by of 2 numbers

bool result = number1 == number2;

//// Return value

return result;

}

/// <summary>

/// Takes two numbers as operands and does XOR on every bit of two numbers

/// </summary>

/// <param name="number1"></param>

/// <param name="number2"></param>

/// <returns></returns>

static int BitwiseXor(int number1, int number2)

{

//// Get XOR on every bit of two numbers.

int result = number1 ^ number2;

//// Return value

return result;

}

Using System;

namespace Operators

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Operators - Get sum of 2 numbers");

Console.Write("Input 1st number: ");

string inputed = Console.ReadLine();

//// Convert the inputted value to number - integer

int number1 = Convert.ToInt32(inputed);

Console.Write("Input 2nd number: ");

inputed = Console.ReadLine();

//// Convert the inputted value to number - integer

int number2 = Convert.ToInt32(inputed);

//// Call Modulo functon to get modulo of 2 nhumbers

int modulo = Modulo(number1, number2);

//// Call Sum function to get sum of 2 numbers

int sum = Sum(number1, number2);

//// Call Equal function to compare 2 numbers

bool equal = EqualTo(number1, number2);

//// Call BitwiseXor function to get XOR of 2 numbers

int xor = BitwiseXor(number1, number2);

//// Build a result message with format of mathematic

string result1 = string.Format("{0} + {1} = {2}", number1, number2, sum);

string result2 = string.Format("{0} % {1} = {2}", number1, number2, modulo);

string result3 = string.Format("{0} == {1} = {2}", number1, number2, equal);

string result4 = string.Format("{0} ^ {1} = {2}", number1, number2, xor);

Console.WriteLine(result1);

Console.WriteLine(result2);

Console.WriteLine(result3);

Console.WriteLine(result4);

//// Keep the console window open in debug mode.

Console.WriteLine("Press any key to exit.");

Console.ReadKey();

}

### Step 4: Choose the F5 key to run the project.

Outputs

