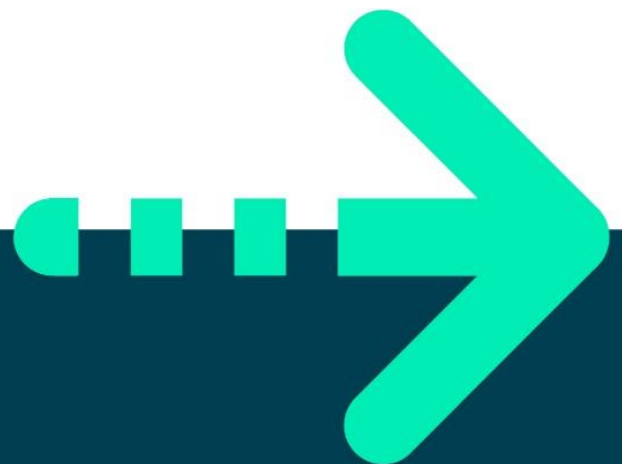




LAB 2, C# – THE BASICS





Lab 2, C# – The Basics

Objective

In this lab you will:

- Declare and initialising variables.
- Practice using mathematical operators.

Part 1 – Declaring and initialising local variables.

Step by step.

1. Launch Visual Studio and create a new Desktop->Console App project. Please refer to lab1's instructions if you need help.
2. Type "**Lab02**" as the Name for this project.
3. Write code in the *Program class's Main()* method.
4. Declare and initialise variables to hold your details such as:
 - a. age ([int](#)).
 - b. name ([String](#)).
 - c. house number ([int](#)), street ([String](#)) and post code ([String](#))
 - d. telephone number ([String](#))
 - e. company you work for ([String](#))
 - f. salary ([double](#))
 - g. if you have a driving licence ([boolean](#))
5. Use a single **Console.WriteLine** (or a series of WriteLine methods) to display the above information.

You can put variable together inside a WriteLine () method using the + operator.



Part 2 – Doing some maths work.

1. Expand the **Main** method.
2. Comment all the code you wrote in Part 1.
Tip: Highlight the code and press **Ctrl-kc**
3. Copy and paste the code below in the **Main()** method and carryout the tasks below.
Please try one task at a time, save and run your code and test your code at each step.

```
Console.WriteLine("Initial Value: " + number);

int number = 5;

// Task 1
// - double it using the '*' operator
// - now double it again using the '*=' operator

Console.WriteLine("\n1. After doubling it twice: " + number);

// Task 2
// - add 3 to it using the '+' operator
// - now add 3 to it using the '+=' operator

Console.WriteLine("\n2. After adding 3 twice: " + number);

// Task 3 - subtract 12 from it using an appropriate 'compound' operator

Console.WriteLine("\n3. After subtracting 12: " + number);

// Task 4 - divide the number by 3
// what do you think the answer will be?

Console.WriteLine("\n4. After dividing by 3: " + number);

// Task 5 write 4 different statements which will
// add 1 to the number'

Console.WriteLine("\n5. After adding 1 four times: " + number);

// Task 6 decrement the value of number by 1.

Console.WriteLine("\n6. After decrementing once: " + number);

// Task 7 find the remainder of number/3

int remainder = 0;

Console.WriteLine("\n7. Remainder when dividing by 3 is :" + remainder);

// Task 8
// decide what it will print before uncommenting the Console.WriteLine()

int a = 2, b = 3, c = 5;
double d1, d2, d3, d4;

d1 = a + b * c / 2;
d2 = (a + b * c) / 2;
```



```
d3 = (a + b) * c / 2;  
d4 = (a + b) * (c / 2);  
// Console.WriteLine("\n8. Values: " + d1 + " : " + d2 + " : " + d3  
// + " : " + d4);
```

```
// Type your answer here-->
```

```
// Task 9
```

```
int p, q;  
p = 10;  
q = 10;  
p += q++;
```

```
// Decide what the next line will print  
// Console.WriteLine("\n9. Result is: " + (p + q));  
// Answer-->
```

```
// Task 10 - Uncomment the code below  
// Console.WriteLine("\n11.");
```

```
// Decide what the following 4 lines will print  
// The 4th one might surprise you
```

```
// Console.WriteLine("fred" + 3 + 4); // Answer-->  
// Console.WriteLine(3 + 4 + "fred"); // Answer-->  
// Console.WriteLine("" + 3 + 4); // Answer-->  
// Console.WriteLine(3 + ' ' + 4); // Answer-->
```

```
** End **
```

