LAB 2, C# – THE BASICS

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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 **