Industrial Informatics
Project work no. 1
Introduction to C#

I. Compiling and Executing the Program

Use Visual Studio.Net for compiling and executing C# programs.
Take the following steps:

Start Visual Studio.

On the menu bar, choose File -> New -> Project.

Choose Visual C# from templates, and then choose

Windows. Choose Console Application.

Specify a name for your project and click OK button. This creates a new project in Solution Explorer.

Write the code corresponding to the HelloWorld Application in the Code Editor.

Click the Run button or press F5 key to execute the project. A Command Prompt window appears that contains the line Hello World.

II. Problems:

1. Create three variables: a, b, c of type *int.* Assign them values, as you wish. Display the value of each variable on the screen. Compute their sum and store it in an integer variable, d. Display the value d on the screen. Compute their arithmetic mean and store it in a float variable, f. Display f on the screen.
2. Create three variables: x, y, c of type *byte.* Display the maximum and the minimum value. Use the *if* statement, or the *Math.Max* and *Math.Min* methods.
3. Create a string variable. Read its value from the console. Display the length of the string on the screen. Replace all the occurrences of the 'x' character with 'a'. Display the newly obtained string. Concatenate the initial string with the string obtained by replacement, then display the result at the console.
4. Create an *enum* variable called *Months*. Display the integer values corresponding to February and August.
5. Create a class called *Circle*, having the following member variables: the centre coordinates (x,y) of type int and the radius of type *uint.* Implement a method that assigns values to the member variables, a method that displays these values at the console and another method that determines the area of the circle.

Bibliography:

C# tutorial: http://www.tutorialspoint.com/csharp/csharp_tutorial.pdf
Math.Max: https://msdn.microsoft.com/en-us/library/7x97k0y4(v=vs.110).aspx?cs-save-lang=1&cs-lang=csharp#code-snippet-1
Math.Min: https://www.dotnetperls.com/math-min