

## Project work no. 2

### C# Basics

#### ▪ Problems:

1. Create three variables, *a*, *b* and *c* of type *byte*. Assign them values, as you wish. Define a floating point constant. Add and subtract this constant from each variable. Display the resulting values. Define two constants of type *byte*, having the values 2 and 4. Perform bitwise operations between *a*, *b*, *c* and the latter defined constants.
2. Create an arithmetic progression with integer terms, having the ration 5. Define the ration as a constant. Display the first *n* terms of this progression (*n* is provided by the user and read from the console).
3. Create three variables: *x*, *y*, *z* of type *int*. Read their values from the console. Display the maximum and the minimum value. Use the *? statement* in C#.
4. Create a C# array containing *n* integer elements (*n* is read from the console, as well as the values of this array). Determine the minimum and maximum value of this array and display them on the screen.
5. Create a C# array containing *n* integer elements (*n* is read from the console, as well as the values of this array). Sort this array in ascending order, using, for example, the bubble sort method. Display the sorted array.
6. Create two C# arrays, containing *m*, respectively *n* integer elements (*m*, *n* are read from the console). The elements of each array are provided at the console in ascending order. Merge these two arrays in order to obtain the third array, of size *m+n*, having the elements sorted in ascending order.

#### ▪ Bibliography:

C# tutorial: [http://www.tutorialspoint.com/csharp/csharp\\_tutorial.pdf](http://www.tutorialspoint.com/csharp/csharp_tutorial.pdf)  
[http://www.comp.dit.ie/rlawlor/Alg\\_DS/sorting/Bubble%20Sort.pdf](http://www.comp.dit.ie/rlawlor/Alg_DS/sorting/Bubble%20Sort.pdf)