

Lab 4.3.14.1 Bubble sort

Objectives

Familiarize the student with:

- Comparing elements in arrays
- Floating-point numbers
- Printing on screen

Scenario

Write a program that sorts ten floating-point numbers in descending order. In this case, the data in the array is initialized (in the code below). The algorithm is described in Chapter 4.3. After each execution of the inner loop, your program should print the values on the screen (with another small loop). You can use the "%.2f" format in *printf*. Your version of the program must print the same result as the expected output.

```
#include <stdio.h>

int main()
{
    float numbers[10] = {5.6, 4.3, 6.2, 6.4, 7.3, 2.3, 8.3, 9.2, 0.1, 1.9};
    /* your code */
    return 0;
}
```

Example output

```
5.60 6.20 6.40 7.30 4.30 8.30 9.20 2.30 1.90 0.10
6.20 6.40 7.30 5.60 8.30 9.20 4.30 2.30 1.90 0.10
6.40 7.30 6.20 8.30 9.20 5.60 4.30 2.30 1.90 0.10
7.30 6.40 8.30 9.20 6.20 5.60 4.30 2.30 1.90 0.10
7.30 8.30 9.20 6.40 6.20 5.60 4.30 2.30 1.90 0.10
8.30 9.20 7.30 6.40 6.20 5.60 4.30 2.30 1.90 0.10
9.20 8.30 7.30 6.40 6.20 5.60 4.30 2.30 1.90 0.10
9.20 8.30 7.30 6.40 6.20 5.60 4.30 2.30 1.90 0.10
9.20 8.30 7.30 6.40 6.20 5.60 4.30 2.30 1.90 0.10
```