## CS2413: Data Structures Fall 2021

## Lab Assignment #12

- Release date: Nov 16th, 2021 (Tuesday)
- Due date: Nov 18th, 2021 (Thursday) 11:59 PM
- It should be done INDIVIDUALLY.
- Please turn in your codes through Blackboard in **one file in .cpp format**. Do **NOT** compress/zip your submission. This is to ensure faster grading.
- Please name your submission file starting with "LastName FirstName Lab11"
- Total: 20 pts

## **Problem:**

In this assignment you need to implement bubble sort. On each pass, compare pairs of adjacent items and swap them if they are in the wrong order repeatedly moving the largest element to the highest index position of the array. Continue till the list of unsorted elements exhaust.

The pseudocode of bubble sort:

```
\label{eq:bubblesort} bubblesort(data[],n) \\  \mbox{for } i = 0 \mbox{ to } n-2 \\  \mbox{for } j = n-1 \mbox{ down to } i+1 \\  \mbox{swap items in positions } j \mbox{ and } j-1 \mbox{ if they are out of order;} \\ \end{aligned}
```

You can define an array which is not sorted in your main function. And then you need to call the bubble sort function, which will sort the array. Afterwards, you need to print the sorted array.