**Bubble Sort**

[Bubble Sort](https://www.edureka.co/blog/bubble-sort-in-c/) is a simple sorting algorithm which repeatedly compares the adjacent elements of the given array & swaps them if they are in wrong order.  
Suppose we have an array X which contains n elements which needs to be sorted using Bubble Sort. The sorting works as:

**Pass 1:**

* X[0] & X[1] are compared, and swapped if X[0] > X[1]
* X[1] & X[2] are compared, and swapped if X[1] > X[2]
* X[2] & X[3] are compared, and swapped if X[2] > X[3] and so on…

At the end of pass 1, the largest element of the list is placed at the highest index of the list.

**Pass 2:**

* X[0] & X[1] are compared, and swapped if X[0] > X[1]
* X[1] & X[2] are compared, and swapped if X[1] > X[2]
* X[2] & X[3] are compared, and swapped if X[2] > X[3] and so on…

At the end of Pass 2 the second largest element of the list is placed at the second highest index of the list.

**Pass n-1:**

* X[0] & X[1] are compared, and swapped if X[0] > X[1]
* X[1] & X[2] are compared, and swapped if X[1] > X[2]
* X[2] & X[3] are compared, and swapped if X[2] > X[3] and so on…

At the end of this pass, the smallest element of the list is placed at the first index of the list.



