Bubble Sort Algorithm

In this algorithm,

> • traverse from left and compare adjacent elements and the higher one is placed at right side.

> • In this way, the largest element is moved to the rightmost end at first.

> • This process is then continued to find the second largest and place it and so on until the data is sorted.

The algorithm to sort data of the list in increasing order using bubble sort in C is:

1. Start at the beginning of the list.
2. Compare each pair of adjacent elements from the start.
3. If the first element is greater than the second element, you swap them.
4. Move to the next pair of elements and repeat the comparison and swapping if necessary.
5. Keep doing this for each pair of elements in the list until you reach the end.
6. After the first pass through the list, the largest element will "bubble up" to the end of the list.
7. Repeat steps 1-6 for a number of passes until the entire list is sorted.

Visualizing Bubble Sort Algorithm

First Pass:

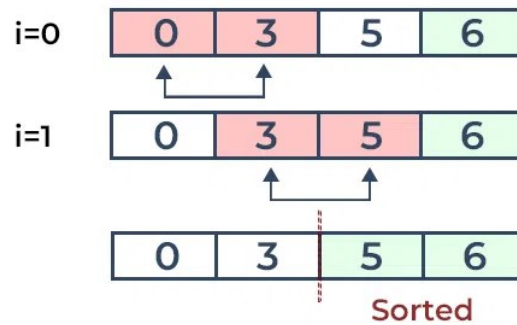The largest element is placed in its correct position, i.e., the end of the array.
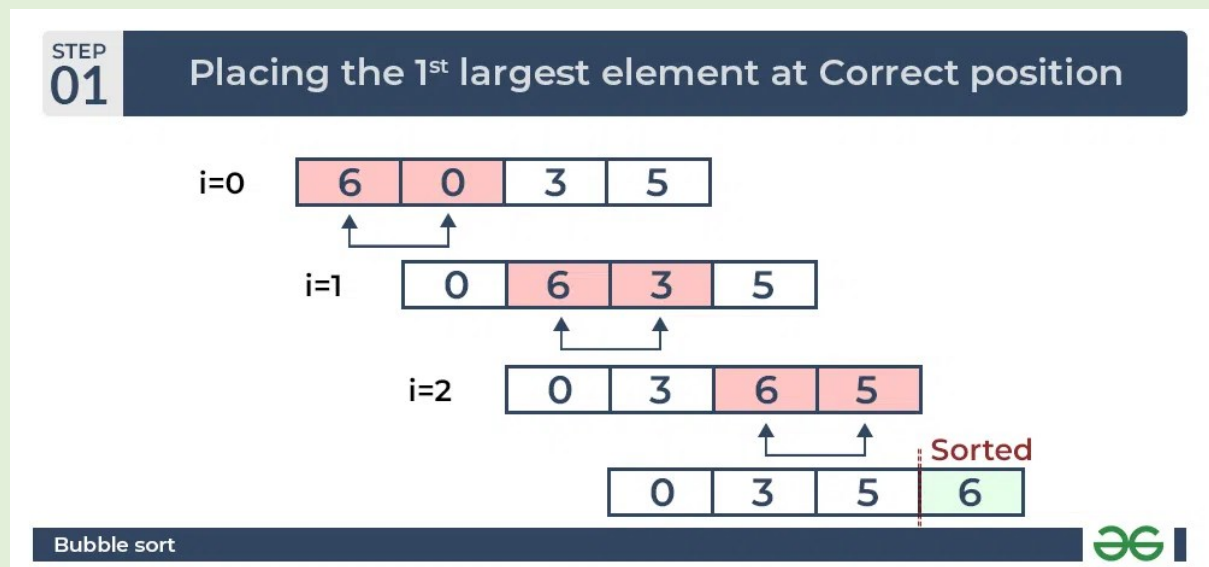
Second Pass:

Place the second largest element at correct position

Third Pass:

Place the remaining two elements at their correct positions.
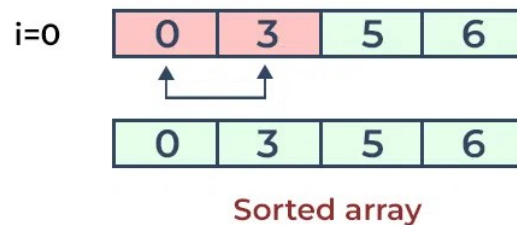
Total no. of passes: n-1

Total no. of comparisons: n*(n-1)/2