

```
1 // array to sort
2 const array = [9, 2, 5, 6, 4, 3, 7, 10, 1, 8];
3
4 // be careful: this is a very basic implementation which is nice to understand the
  deep principle of bubble sort (going through all comparisons) but it can be greatly
  improved for performances
5 function bubbleSortBasic(array) {
6   for(let i = 0; i < array.length; i++) {
7     for(let j = 1; j < array.length; j++) {
8       if(array[j - 1] > array[j]) {
9         [array[j - 1], array[j]] = [array[j], array[j - 1]];
10      }
11    }
12  }
13  return array;
14 }
15
16 console.log(bubbleSortBasic(array.slice())); // => [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]
17
18 // correct implementation: this is the usual implementation of the bubble sort
  algorithm. Some loops execution are avoided if not they are not needed
19 function bubbleSort(array) {
20   let swapped;
21   do {
22     swapped = false;
23     for(let i = 0; i < array.length; i++) {
24       if(array[i] && array[i + 1] && array[i] > array[i + 1]) {
25         [array[i], array[i + 1]] = [array[i + 1], array[i]];
26         swapped = true;
27       }
28     }
29   } while(swapped);
30   return array;
31 }
32
33 console.log(bubbleSort(array.slice())); // => [ 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 ]
34
```