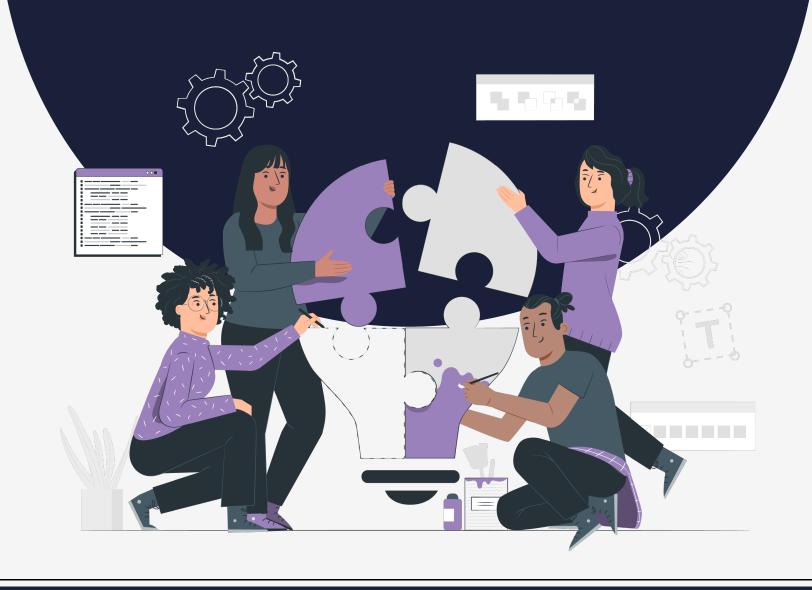
# **Bubble Sort**

## **MCQs**







### Q1. What will the following array look after one iteration of bubble sort [1,6,2,5,4,3]?

- a) [1,3,2,4,5,6]
- b) [1,2,3,4,5,6]
- c) [1,2,5,4,3,6]
- d) [1,2,4,5,3,6]

#### Q2. What is the time complexity of bubble sort when the elements are sorted in decreasing order?

- a) O(1)
- b) O(n\*n)
- c) O(n^n)
- d) O(nlogn)

#### Q3. In which case does bubble sort work in the most efficient way?

- a) When the array is sorted in increasing order
- b) When the array is sorted partially
- c) When the array is sorted in decreasing order
- d) When the array is nearly sorted.

#### Q4. What is the best case time and space complexity of bubble sort?

- a) O(1) & O(1)
- b) O(n) & O(1)
- c) O(n) & O(n)
- d) O(logn) & O(1)

#### Q5. Which of the following is true about bubble sort?

- a) It is stable sort
- b) After each iteration, the greatest element is placed at the end of the array.
- c) It involves swapping of adjacent elements
- d) All of these

#### Q6. Given an array of 6 elements, what is the max number of swaps we need to sort the array?

- a) 21
- b) 15
- c) 10
- d) 28

#### **ANSWERS:**

- 1. c) [1,2,5,4,3,6]
- 2. b) O(n\*n)
- 3. a) When the array is sorted in increasing order
- 4. b) O(n) & O(1)
- 5. d) All of these
- 6. b) 15