# **Practice Problems**

- 1. Sort an array of integers in ascending order using bubble sort, but stop the sorting process if the array is already sorted and count the numbers of sorting
- 2. Given an array of integers, find the median using selection sort. The first line of the input will contain the number of elements in the array and the second line of the input will contain the elements in the array. [5]

## Sample Input:

11

1, 3, 2, 0, 10, 7, 4, 8, 9, 6, 5

Output: 5

3. Sort an array of even and odd integers in such a way that even integers come first in ascending order, followed by odd integers in descending order Sample Input:

7

31528911

#### **Output:**

28119531

4. Given a sorted array of integers, write a function to find the index of the first number that is greater than or equal to a specific number using binary search.

#### Sample Input:

1, 3, 6, 7, 9, 11,12

Target: 4

### Output:

2

- 5. Replace a node at first/last/after some value/before some value
- 6. Insert at kth position
- 7.Insert at the mid position of a linked list.
- 8. Delete before some value
- 9. Search all the even numbers from the linked list.