

Assignment-2

- Q1. Given an array of **N integers**, write a java program to implement the Selection sort algorithm.
- Q2. Given an array of **N integers**, write a java program to implement the Quick sort algorithm.
- Q3. Write a program on **modified Bubble Sort algorithm** to sort a given array and then locate a user input number in the sorted array by using **Binary Search algorithm**.

Input Specification

- First line of the input is an integer N, representing the number of elements in the array.
- Second line of the input will comprise of N integers separated by space, representing the elements of the array.
- Third line of the input will an integer S, which is to be located in the sorted array using Binary Search.

Output Specification

- First line of the output should be the index value representing the location of integer S in the sorted array.
- Second line of the output should be the number of integer comparisons done for determining the location of the integer S.

<u>Sample Input</u>	<u>Sample Input</u>
5	6
40 20 30 50 10	5 1 7 4 9 3
40	1
<u>Sample output</u>	<u>Sample output</u>
3	0
2	2

