https://course.acciojob.com/idle?question=3dcb9b48-c49e-418c-a0d3-8d5fdc68c799

- EASY
- Max Score: 30 Points

# Bubble Sort Problem

---

**Consider the following version of Bubble Sort:**

```
for (int i = 0; i < n; i++) {
    for (int j = 0; j < n - 1; j++) {
        // Swap adjacent elements if they are in decreasing order
        if (a[j] > a[j + 1]) {
            swap(a[j], a[j + 1]);
        }
    }
}
```

**Print three values in separate lines:**

1. **Number of swaps it took to sort the array using the above algorithm.**
2. **First element in the array after sorting the array.**
3. **Last element in the array after sorting the array.**

## Input Format

**The first line contains an integer, `n`, the size of the array a.**

**The second line contains n space-separated integers representing array a .**

## Output Format

**Print the required three values.**

## Example 1

Input

```
3
6 4 1
```

Output

```
3
1
6
```

Explanation

[6,4,1]

```
swap    a
0       [6,4,1]
1       [4,6,1]
2       [4,1,6]
3       [1,4,6]
```

**The steps of the bubble sort are shown above. It took 3 swaps to sort the array.**

## Example 2

Input

```
3
1 2 3
```

Output

```
0
1
3
```

Explanation

Array is sorted in 0 swaps.

First Element: 1

Last Element: 3

## Constraints

**2 <= n <= 600**

**1 <= a[i] <= 2*10^6**

**Topic Tags**

- **Loops**
- **Sorting**

# My code

```
// in java
import java.io.*;
import java.util.*;
public class Main {
    public static void main(String args[]) {
        // your code here
      Scanner s=new Scanner(System.in);
      int n=s.nextInt();
      int arr[]=new int[n];
      for(int i=0;i<n;i++)
```

```
        arr[i]=s.nextInt();
         int c=0;
       for(int i=0;i<n;i++)
       for(int j=0;j<n-i-1;j++)
         {
           if(arr[j]>arr[j+1])
           {
           c++;
          int t=arr[j];
          arr[j]=arr[j+1];
          arr[j+1]=t;
         }
       }
      System.out.println("Array is sorted in "+c+" swaps.");
      System.out.println("First Element: "+arr[0]);
      System.out.print("Last Element: "+arr[n-1]);



   }
}
```