LAB 1 Assignment

Q1. Display elements of array

```
public class Array
{
        public static void main(String[] args)
    {
        int[] arr = { 1,2,3,4,5};
        System.out.print("Elements of array: ");
        for (int i = 0; i < arr.length; i++)
          {
            System.out.print(arr[i] + " ");
        }
    }
}
```

```
D:\21se02ml006\data structure>javac Array.java

D:\21se02ml006\data structure>java Array
Elements of array: 1 2 3 4 5
```

Q2. Difference between min value and max value in array

```
import java.util.Arrays;
 public class Diff {
 public static void main(String[] args)
 {
    int[] array_nums = {1,2,3,4,5};
        System.out.println("Original Array: "+Arrays.toString(array_nums));
        int max = array_nums[0];
        int min = array_nums[0];
        for(int i = 1; i < array_nums.length; i++)
        {
                if(array_nums[i] > max)
```

```
                max = array_nums[i];
            else if(array_nums[i] < min)
                min = array_nums[i];
        }
        System.out.println("Difference between the largest and smallest
values of the said array: "+(max-min));
 }
}
```

```
D:\21se02ml006\data structure>javac Diff.java

D:\21se02ml006\data structure>java Diff
Original Array: [1, 2, 3, 4, 5]
Difference between the largest and smallest values of the said array: 4
```

Q3. Swap first and last element

```
import java.util.Arrays;
 public class Swap
 {
 public static void main(String[] args)
 {
    int[] i = {10, 20, 30};
        System.out.println("Original Array: "+Arrays.toString(i));
        int x = i[0];
        i[0] = i[i.length-1];
        i[i.length-1] = x;
        System.out.println("New array after swaping the first and last
elements: "+Arrays.toString(i));
 }
}
```

```
D:\21se02ml006\data structure>javac Swap.java

D:\21se02ml006\data structure>java Swap
Original Array: [10, 20, 30]
New array after swaping the first and last elements: [30, 20, 10]
```

Q4. Second largest number in array

```
import java.util.*;
class Sln
{
  public static void main(String[] args)
  {
    Scanner sc=new Scanner(System.in);

    int n=sc.nextInt();
    int a[]=new int[n];

    for(int i=0;i<n;i++)
      a[i]=sc.nextInt();

    Arrays.sort(a);
    System.out.print("The second largest number: "+a[n-2]);
  }
}
```

```
D:\21se02ml006\data structure>java Sln

2
3
4
The second largest number: 3
```