

# Rajalakshmi Engineering College

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## 2024\_28\_III\_OOPS Using Java Lab

### 2028\_REC\_OOPS using Java\_Week 3\_Q1

Attempt : 1  
Total Mark : 10  
Marks Obtained : 10

#### Section 1 : Coding

##### 1. Problem Statement

Rosh is intrigued by numerical patterns. Today, she stumbled upon a puzzle while working with arrays. She wants to compute the sum of the third-largest and second-smallest elements from a list of integers. She seeks your help to implement a program that solves this for her efficiently.

##### ***Input Format***

The first line of input is an integer N, representing the size of the array.

The second line of input consists of N space-separated integers, representing the elements of the array.

##### ***Output Format***

The output displays a single integer representing the sum of the third-largest and second-smallest elements in the array.

Refer to the sample output for the formatting specifications.

### **Sample Test Case**

Input: 10

10 20 30 40 50 60 70 80 90 100

Output: 100

### **Answer**

```
import java.util.*;

public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        // Read array size
        int N = sc.nextInt();

        int[] arr = new int[N];
        for (int i = 0; i < N; i++) {
            arr[i] = sc.nextInt();
        }

        // Sort the array
        Arrays.sort(arr);

        // second smallest index 1
        int secondSmallest = arr[1];

        // third largest index N-3
        int thirdLargest = arr[N - 3];

        int sum = secondSmallest + thirdLargest;

        // Output result
        System.out.println(sum);

        sc.close();
    }
}
```

```
}  
// You are using Java
```

**Status :** Correct

**Marks :** 10/10