

# Rajalakshmi Engineering College

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Branch: REC

Department: AI & DS - Section 4

Batch: 2028

Degree: B.E - AI & DS

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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***

```
// You are using Java
import java.util.*;

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

        // Read size of array
        int N = sc.nextInt();
        int[] arr = new int[N];

        // Read array elements
        for (int i = 0; i < N; i++) {
            arr[i] = sc.nextInt();
        }

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

        // Second smallest (index 1) and third largest (index N-3)
        int secondSmallest = arr[1];
        int thirdLargest = arr[N - 3];

        // Compute sum
        int result = secondSmallest + thirdLargest;

        // Print result
        System.out.println(result);

        sc.close();
```

}

**Status : Correct**

**Marks : 10/10**