

# 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**

// You are using Java

import java.util.\*;

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

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

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

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

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

```
  
        // Compute sum  
        int sum = secondSmallest + thirdLargest;
```

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

```
        sc.close();
```

}  
}  
**Status : Correct**

**Marks : 10/10**