

# Rajalakshmi Engineering College

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Scan to verify results



## 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 scanner = new Scanner(System.in);

int N = scanner.nextInt();

int[] arr = new int[N];

for (int i = 0; i < N; i++) {

arr[i] = scanner.nextInt();

}

TreeSet<Integer> sortedSet = new TreeSet<>();

for (int num : arr) {

sortedSet.add(num);

}

List<Integer> sortedList = new ArrayList<>(sortedSet);

if (sortedList.size() < 3) {

System.out.println("Not enough unique elements");

return;

}

int secondSmallest = sortedList.get(1);

int thirdLargest = sortedList.get(sortedList.size() - 3);

int sum = secondSmallest + thirdLargest;

System.out.println(sum);

}

**Status :** Correct

**Marks :** 10/10