# 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*

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

 class ArrayPatternSolver {
    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();
       }

       Arrays.sort(arr);

       int secondSmallest = arr[1];
       int thirdLargest = arr[N - 3];

       System.out.println(secondSmallest + thirdLargest);
    }
 }
```

*Status :* Correct                                              *Marks : 10/10*