# Rajalakshmi Engineering College

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## 2024_28_III_OOPS Using Java Lab

## 2028_REC_OOPS using Java_Week 3_Q5

Attempt : 1
Total Mark : 10
Marks Obtained : 10

## Section 1 : Coding

1.  Problem Statement

Sharon is creating a program that finds the first repeated element in an integer array. The program should efficiently identify the first element that appears more than once in the given array. If no such element is found, it should appropriately display a message.

Help Sharon to complete the program.

*Input Format*

The first line of input consists of an integer n, representing the number of elements in the array.

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

*Output Format*

If a repeated element is found, print the first element that appears more than once.

If no repeated element is found, print "No repeated element found in the array".

Refer to the sample output for formatting specifications.

*Sample Test Case*

Input: 8
12 21 13 14 21 36 47 21
Output: 21

*Answer*

```java
// You are using Java
/*import java.util.Scanner;
class main{
    public static void main(String args[]){
        Scanner obj=new Scanner(System.in);
        int a=-1;

        int n=obj.nextInt();
        int[] arr=new int[n];

        for(int i=0;i<n;i++){
            arr[i]=obj.nextInt();
        }

        for(int i=0;i<n;i++){
            boolean repeated = false;
            for(int j=i+1;j<n;i++){
                if(arr[i]==arr[j]){
                repeated= true;
                break;
                }
            }
            if(repeated){
                a=arr[i];
```

```java
                break;
            }
        }
        if(a==-1){
            System.out.println("No repeated element found in the array");
        }
        else{
            System.out.println(a);
        }
    }
}*/
import java.util.Scanner;

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

        // Read input size
        int n = sc.nextInt();
        int[] arr = new int[n];

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

        int firstRepeated = -1;
        boolean repeatedFound = false;

        // Find first repeated element using nested loops
        for (int i = 0; i < n; i++) {
            for (int j = i + 1; j < n; j++) {
                if (arr[i] == arr[j]) {
                    firstRepeated = arr[i];
                    repeatedFound = true;
                    break;
                }
            }
            if (repeatedFound) {
                break;
            }
        }
```

```java
    // Print result
    if (repeatedFound) {
        System.out.println(firstRepeated);
    } else {
        System.out.println("No repeated element found in the array");
    }

    sc.close();
    }
}
```

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