

# 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**

```
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();
        }

        // Use HashSet to track seen elements
        Set<Integer> seen = new HashSet<>();
        boolean found = false;

        for (int i = 0; i < n; i++) {
            if (seen.contains(arr[i])) {
                System.out.println(arr[i]);
                found = true;
                break;
            }
        }

        if (!found) {
            System.out.println("No repeated element found in the array");
        }
    }
}
```

```
    } else {  
        seen.add(arr[i]);  
    }  
}  
  
if (!found) {  
    System.out.println("No repeated element found in the array");  
}  
  
sc.close();  
}  
}
```

**Status :** Correct

**Marks :** 10/10