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.

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
import java.util.*;
 class FirstRepeatedElementFinder {
   public static void main(String[] args) {
     Scanner sc = new Scanner(System.in);

     // Read the size of the 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 a HashSet to track seen elements
     Set<Integer> seen = new HashSet<>();
     boolean found = false;

     for (int num : arr) {
       if (seen.contains(num)) {
         System.out.println(num);
         found = true;
         break;
       } else {
```

```java
                seen.add(num);
            }
        }

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

Status : Correct   *Marks : 10/10*