Rajalakshmi Engineering College

Name: Ritesh Sivakumar
Email: 240701427@rajalakshmi.edu.in
Roll no: 240701427
Phone: 9342061449
Branch: REC
Department: CSE - Section 10
Batch: 2028
Degree: B.E - CSE

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 10_Q4

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : COD

1. Problem Statement

In a ticket reservation system, you store the available seat numbers in a TreeSet. Users input their desired seat number, and the program checks whether the chosen seat is available.

Using a TreeSet ensures quick and efficient verification of seat availability, ensuring a smooth and organized ticket booking process.

Input Format

The first line of input contains a single integer n, representing the number of available seats.

The second line contains n space-separated integers, representing the available seat numbers.

The third line contains an integer m, representing the seat number that needs to be searched.

Output Format

The output displays "[m] is present!" if the given seat is available. Otherwise, it displays "[m] is not present!"

Refer to the sample output for the formatting specifications.

Sample Test Case

Input: 4
2 4 5 6
5
Output: 5 is present!

Answer

```java
import java.util.*;
public class Main {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int n = Integer.parseInt(sc.nextLine().trim());
        String[] seatNumbers = sc.nextLine().trim().split(" ");
        TreeSet<Integer> seats = new TreeSet<>();
        for (int i = 0; i < seatNumbers.length; i++) {
            try {
                int seat = Integer.parseInt(seatNumbers[i].trim());
                seats.add(seat);
            } catch (NumberFormatException e) {
            }
        }
        int m = Integer.parseInt(sc.nextLine().trim());
        if (seats.contains(m)) {
            System.out.print(m + " is present!");
        } else {
            System.out.print(m + " is not present!");
        }
    }
}
```