Rajalakshmi Engineering College

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Scan to verify results

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

```
// You are using Java
import java.util.Scanner;
import java.util.TreeSet;

class SeatReservationSystem {

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

        if (!scanner.hasNextInt()) {
            scanner.close();
            return;
        }
        int n = scanner.nextInt();

        TreeSet<Integer> availableSeats = new TreeSet<>();
        for (int i = 0; i < n; i++) {
            if (scanner.hasNextInt()) {
                availableSeats.add(scanner.nextInt());
            }
        }

        if (!scanner.hasNextInt()) {
```

```
            scanner.close();
            return;
        }
        int seatToSearch = scanner.nextInt();

        if (availableSeats.contains(seatToSearch)) {
            System.out.println(seatToSearch + " is present!");
        } else {
            System.out.println(seatToSearch + " is not present!");
        }

        scanner.close();
    }
}
```

Status : Correct *Marks : 10/10*