Rajalakshmi Engineering College

Name: chandru k
Email: 241001501@rajalakshmi.edu.in
Roll no: 241001501
Phone: 7358178749
Branch: REC
Department: IT - Section 3
Batch: 2028
Degree: B.E - IT

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 10_Q4

Attempt : 1
Total Mark : 10
Marks Obtained : 9

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
// You are using 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());
      String[] seatInput = sc.nextLine().split(" ");
      TreeSet<Integer> seats = new TreeSet<>();
      for (String seat : seatInput) {
         seats.add(Integer.parseInt(seat));
      }
      int m = Integer.parseInt(sc.nextLine());
      Iterator<Integer> itr = seats.iterator();
      boolean present = false;
      while (itr.hasNext()) {
         if (itr.next() == m) {
            present = true;
            break;
         }
      }
      if (present) {
         System.out.println(m + " is present!");
```

```java
        } else {
            System.out.println(m + " is not present!");
        }
    }
}
```

Status : Partially correct   **Marks : 9/10**