

# Rajalakshmi Engineering College

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Batch: 2028

Degree: B.E - AI & DS

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## 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 Main {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int n = scanner.nextInt();
        TreeSet<Integer> availableSeats = new TreeSet<>();
        for (int i = 0; i < n; i++) {
            int seat = scanner.nextInt();
            availableSeats.add(seat);
        }
        int searchSeat = scanner.nextInt();
        if (availableSeats.contains(searchSeat)) {
            System.out.println(searchSeat + " is present!");
        } else {
            System.out.println(searchSeat + " is not present!");
        }
        scanner.close();
    }
}
```

**Status : Correct**

**Marks : 10/10**