

# Rajalakshmi Engineering College

Name: Nandana Pramod

Email: 241801180@rajalakshmi.edu.in

Roll no: 241801180

Phone: 8921798701

Branch: REC

Department: AI & DS - Section 1

Batch: 2028

Degree: B.E - AI & DS

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## 2024\_28\_III\_OOPS Using Java Lab

### 2028\_REC\_OOPS using Java\_Week 3\_Q4

Attempt : 1

Total Mark : 10

Marks Obtained : 10

#### **Section 1 : Coding**

##### **1. Problem Statement**

Sesha is developing a weather monitoring system for a region with multiple weather stations. Each weather station collects temperature data hourly and stores it in a 2D array.

Write a program that can add the temperature data from two different weather stations to create a combined temperature record for the region.

##### ***Input Format***

The first line of input consists of two space-separated integers N and M, representing the number of rows and columns of the matrices, respectively.

The next N lines consist of M space-separated integers, representing the values of the first matrix.

The following N lines consist of M space-separated integers, representing the values of the second matrix.

#### ***Output Format***

The output prints the addition of the two matrices in N rows and M columns, representing the combined temperature record.

Refer to the sample output for formatting specifications.

#### ***Sample Test Case***

Input: 3 3

1 2 3

4 5 6

7 8 9

1 1 1

2 2 2

3 3 3

Output: 2 3 4

6 7 8

10 11 12

#### ***Answer***

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

        int N = sc.nextInt();
        int M = sc.nextInt();
        int[][] matrix1 = new int[N][M];
        int[][] matrix2 = new int[N][M];
        int[][] result = new int[N][M];

        for (int i = 0; i < N; i++) {
            for (int j = 0; j < M; j++) {
                matrix1[i][j] = sc.nextInt();
            }
        }
```

```
for (int i = 0; i < N; i++) {  
    for (int j = 0; j < M; j++) {  
        matrix2[i][j] = sc.nextInt();  
    }  
}  
for (int i = 0; i < N; i++) {  
    for (int j = 0; j < M; j++) {  
        result[i][j] = matrix1[i][j] + matrix2[i][j];  
    }  
}  
  
for (int i = 0; i < N; i++) {  
    for (int j = 0; j < M; j++) {  
        System.out.print(result[i][j] + " ");  
    }  
    System.out.println();  
}  
}  
}
```

**Status :** Correct

**Marks :** 10/10