# Rajalakshmi Engineering College

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Scan to verify results

## 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***

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

class MatrixAddition {

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int n = scanner.nextInt();
        int m = scanner.nextInt();
        int[][] matrix1 = new int[n][m];
        int[][] matrix2 = new int[n][m];
        int[][] resultMatrix = new int[n][m];

        for (int i = 0; i < n; i++) {
            for (int j = 0; j < m; j++) {
                matrix1[i][j] = scanner.nextInt();
            }
```

```
        }

        for (int i = 0; i < n; i++) {
            for (int j = 0; j < m; j++) {
                matrix2[i][j] = scanner.nextInt();
            }
        }

        for (int i = 0; i < n; i++) {
            for (int j = 0; j < m; j++) {
                resultMatrix[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(resultMatrix[i][j] + " ");
            }
            System.out.println();
        }
        scanner.close();
    }
}
```

***Status :*** Correct **Marks : 10/10**