Rajalakshmi Engineering College

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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

```java
import java.util.Scanner;

class Main
{
    public static void main(String[] args)
    {
        Scanner scan = new Scanner(System.in);
        int r = scan.nextInt();
        int c = scan.nextInt();
        int[][] a1 = new int[r][c];
        int[][] a2 = new int[r][c];
        for(int i=0;i<r;i++)
        {
            for(int j=0;j<c;j++)
            {
                a1[i][j] = scan.nextInt();
            }
```

```
        }
        for(int i=0;i<r;i++)
        {
            for(int j=0;j<c;j++)
            {
                a2[i][j] = scan.nextInt();
            }
        }
        int[][] a3 = new int[r][c];
        for(int i=0;i<r;i++)
        {
            for(int j=0;j<c;j++)
            {
                a3[i][j] = a1[i][j] + a2[i][j];
            }
        }
        for(int i=0;i<r;i++)
        {
            for(int j=0;j<c;j++)
            {
                System.out.print(a3[i][j] + " ");
            }
            System.out.println();
        }
    }
}
```

Status : Correct   *Marks : 10/10*