import java.util.Scanner;

public class MatrixAddition {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

// Input matrix dimensions

System.out.print("Enter the number of rows: ");

int rows = scanner.nextInt();

System.out.print("Enter the number of columns: ");

int columns = scanner.nextInt();

// Create two matrices

int[][] matrix1 = new int[rows][columns];

int[][] matrix2 = new int[rows][columns];

// Input elements for the first matrix

System.out.println("Enter elements for the first matrix:");

inputMatrixElements(scanner, matrix1);

// Input elements for the second matrix

System.out.println("Enter elements for the second matrix:");

inputMatrixElements(scanner, matrix2);

// Add the matrices

int[][] resultMatrix = addMatrices(matrix1, matrix2);

// Display the result

System.out.println("Resultant Matrix (Sum of the two matrices):");

displayMatrix(resultMatrix);

scanner.close();

}

// Input matrix elements

public static void inputMatrixElements(Scanner scanner, int[][] matrix) {

for (int i = 0; i < matrix.length; i++) {

for (int j = 0; j < matrix[0].length; j++) {

matrix[i][j] = scanner.nextInt();

}

}

}

// Add two matrices

public static int[][] addMatrices(int[][] matrix1, int[][] matrix2) {

int rows = matrix1.length;

int columns = matrix1[0].length;

int[][] resultMatrix = new int[rows][columns];

for (int i = 0; i < rows; i++) {

for (int j = 0; j < columns; j++) {

resultMatrix[i][j] = matrix1[i][j] + matrix2[i][j];

}

}

return resultMatrix;

}

// Display a matrix

public static void displayMatrix(int[][] matrix) {

for (int[] row : matrix) {

for (int element : row) {

System.out.print(element + " ");

}

System.out.println();

}

}

}

This program first takes the dimensions of the matrices (number of rows and columns), then allows you to input the elements of both matrices. After that, it adds the two matrices and displays the result.