

Main.java



Run

Output

Clear

```
1 import java.util.Scanner;
2 public class MatrixAddition {
3     public static void main(String[] args) {
4         Scanner scanner = new Scanner(System.in);
5         System.out.println("Enter dimensions of Mat1 (rows
           columns:");
6         int rows1 = scanner.nextInt();
7         int columns1 = scanner.nextInt();
8         int[][] mat1 = new int[rows1][columns1];
9         System.out.println("Enter elements of Mat1:");
10        for (int i = 0; i < rows1; i++) {
11            for (int j = 0; j < columns1; j++) {
12                mat1[i][j] = scanner.nextInt();
13            }
14        }
15        System.out.println("Enter dimensions of Mat2 (rows
           columns:");
16        int rows2 = scanner.nextInt();
17        int columns2 = scanner.nextInt();
18        int[][] mat2 = new int[rows2][columns2];
19        System.out.println("Enter elements of Mat2:");
20        for (int i = 0; i < rows2; i++) {
```

```
java -cp /tmp/4gkcZOWLp0 MatrixAddition
Enter dimensions of Mat1 (rows columns):
2 2
Enter elements of Mat1:
1 2
5 3
Enter dimensions of Mat2 (rows columns):2 2
Enter elements of Mat2:
2 3
4 1
Mat Sum:
3 5 9 4
```

Main.java



Run

Output

Clear

```
18 int[][] mat2 = new int[rows2][columns2];
19 System.out.println("Enter elements of Mat2:");
20 for (int i = 0; i < rows2; i++) {
21     for (int j = 0; j < columns2; j++) {
22         mat2[i][j] = scanner.nextInt();
23     }
24 }
25 if (rows1 != rows2 || columns1 != columns2) {
26     System.out.println("Matrix addition is not possible
    due to incompatible dimensions.");
27     scanner.close();
28     return;
29 }
30 int[][] result = new int[rows1][columns1];
31 for (int i = 0; i < rows1; i++) {
32     for (int j = 0; j < columns1; j++) {
33         result[i][j] = mat1[i][j] + mat2[i][j];
34     }
35 }
36 System.out.println("Mat Sum:");
37 for (int i = 0; i < rows1; i++) {
38     for (int j = 0; j < columns1; j++) {
```

```
^ java -cp /tmp/4gkcZOWLp0 MatrixAddition
Enter dimensions of Mat1 (rows columns):
2 2
Enter elements of Mat1:
1 2
5 3
Enter dimensions of Mat2 (rows columns):2 2
Enter elements of Mat2:
2 3
4 1
Mat Sum:
3 5 9 4
```

Main.java



Run

Output

Clear

```
26      System.out.println("Matrix addition is not possible
27          due to incompatible dimensions.");
28      scanner.close();
29      return;
30  }
31  int[][] result = new int[rows1][columns1];
32  for (int i = 0; i < rows1; i++) {
33      for (int j = 0; j < columns1; j++) {
34          result[i][j] = mat1[i][j] + mat2[i][j];
35      }
36  }
37  System.out.println("Mat Sum:");
38  for (int i = 0; i < rows1; i++) {
39      for (int j = 0; j < columns1; j++) {
40          System.out.print(result[i][j] + " ");
41      }
42      System.out.println();
43  }
44  scanner.close();
45  }
46  }
```

```
java -cp /tmp/4gkcZOWlp0 MatrixAddition
Enter dimensions of Mat1 (rows columns):
2 2
Enter elements of Mat1:
1 2
5 3
Enter dimensions of Mat2 (rows columns):2 2
Enter elements of Mat2:
2 3
4 1
Mat Sum:
3 5 9 4
```