**45. Add 2 matrices**

**PROGRAM:**

#include <iostream>

using namespace std;

int main()

{

int r, c, a[100][100], b[100][100], sum[100][100], i, j;

cout << "Enter number of rows (between 1 and 100): ";

cin >> r;

cout << "Enter number of columns (between 1 and 100): ";

cin >> c;

cout << endl << "Enter elements of 1st matrix: " << endl;

for(i = 0; i < r; ++i)

for(j = 0; j < c; ++j)

{

cout << "Enter element a" << i + 1 << j + 1 << " : ";

cin >> a[i][j];

}

cout << endl << "Enter elements of 2nd matrix: " << endl;

for(i = 0; i < r; ++i)

for(j = 0; j < c; ++j)

{

cout << "Enter element b" << i + 1 << j + 1 << " : ";

cin >> b[i][j];

}

for(i = 0; i < r; ++i)

for(j = 0; j < c; ++j)

sum[i][j] = a[i][j] + b[i][j];

cout << endl << "Sum of two matrix is: " << endl;

for(i = 0; i < r; ++i)

for(j = 0; j < c; ++j)

{

cout << sum[i][j] << " ";

if(j == c - 1)

cout << endl;

}

return 0;

}

**OUTPUT:**

