

matrixAddition2.c

```
1 #include <stdio.h>
2 int main() {
3     int r, c, a[100][100], b[100][100], sum[100][100], i, j;
4     printf("Enter the number of rows (between 1 and 100): ");
5     scanf("%d", &r);
6     printf("Enter the number of columns (between 1 and 100): ");
7     scanf("%d", &c);
8
9     printf("\nEnter elements of 1st matrix:\n");
10    for (i = 0; i < r; ++i)
11        for (j = 0; j < c; ++j) {
12            printf("Enter element a%d%d: ", i + 1, j + 1);
13            scanf("%d", &a[i][j]);
14        }
15
16    printf("Enter elements of 2nd matrix:\n");
17    for (i = 0; i < r; ++i)
18        for (j = 0; j < c; ++j) {
19            printf("Enter element b%d%d: ", i + 1, j + 1);
20            scanf("%d", &b[i][j]);
21        }
22
23    // adding two matrices
24    for (i = 0; i < r; ++i)
25        for (j = 0; j < c; ++j) {
26            sum[i][j] = a[i][j] + b[i][j];
27        }
28
29    // printing the result
30    printf("\nSum of two matrices: \n");
31    for (i = 0; i < r; ++i)
32        for (j = 0; j < c; ++j) {
33            printf("%d ", sum[i][j]);
34            if (j == c - 1) {
35                printf("\n\n");
36            }
37        }
38
39    return 0;
40 }
41 }
```