

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
```