

matrixAddition.c

```
1 #include <stdio.h>
2
3 // Function to add two matrices of same dimensions
4
5 int main(){
6
7     // Declaring two 2x3 matrices and a result matrix
8     int a[2][3], b[2][3], sum[2][3], i,j;
9
10    // Taking input for first matrix
11    printf("Enter elements of first matrix:\n");
12    for(i=0; i<2; i++){
13        for(j=0; j<3; j++){
14            printf("Element [%d][%d]: ", i, j);
15            scanf("%d", &a[i][j]);
16        }
17    }
18
19    // Taking input for second matrix
20    printf("Enter elements of second matrix:\n");
21    for(i=0; i<2; i++){
22        for(j=0; j<3; j++){
23            printf("Element [%d][%d]: ", i, j);
24            scanf("%d", &b[i][j]);
25        }
26    }
27
28    // Displaying the first matrix
29    printf("First matrix:\n");
30    for(i=0; i<2; i++){
31        for(j=0; j<3; j++){
32            printf("%d ", a[i][j]);
33        }
34        printf("\n");
35    }
36
37    // Displaying the second matrix
38    printf("Second matrix:\n");
39    for(i=0; i<2; i++){
40        for(j=0; j<3; j++){
41            printf("%d ", b[i][j]);
42        }
43        printf("\n");
44    }
45
46    // Adding the two matrices
47    for(i=0; i<2; i++){
48        for(j=0; j<3; j++){
49            sum[i][j] = a[i][j] + b[i][j];
50        }
51    }
```

```
52 // Displaying the sum
53 printf("Sum of the two matrices:\n");
54 for(i=0; i<2; i++){
55     for(j=0; j<3; j++){
56         printf("%d ", sum[i][j]);
57     }
58     printf("\n");
59 }
60 }
61
62 return 0;
}
63
64
65
66 /**
67 * ****
68 * Example Input/Output:
69 * ****
70 Enter elements of first matrix:
71 Element [0][0]: 2
72 Element [0][1]: 1
73 Element [0][2]: 3
74 Element [1][0]: 4
75 Element [1][1]: 5
76 Element [1][2]: 6
77 Enter elements of second matrix:
78 Element [0][0]: 6
79 Element [0][1]: 1
80 Element [0][2]: 9
81 Element [1][0]: 5
82 Element [1][1]: 4
83 Element [1][2]: 5
84 First matrix:
85 2 1 3
86 4 5 6
87 Second matrix:
88 6 1 9
89 5 4 5
90 Sum of the two matrices:
91 8 2 12
92 9 9 11
93 *****/
```