

8. 2D MATRIX ADDITION PROGRAM

```
#include <stdio.h>
int main() {
    int a[10][10], b[10][10], sum[10][10];
    int r, c, i, j;

    printf("Enter number of rows and columns: ");
    scanf("%d %d", &r, &c);

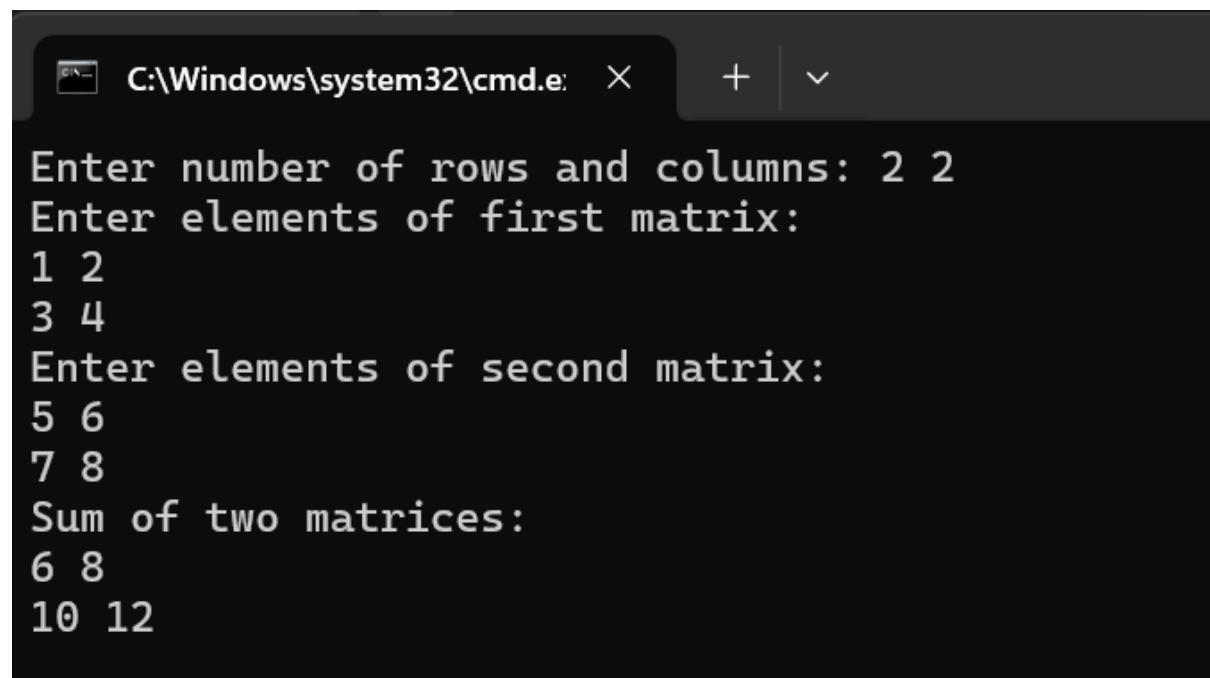
    printf("Enter elements of first matrix:\n");
    for(i=0; i<r; i++)
        for(j=0; j<c; j++)
            scanf("%d", &a[i][j]);

    printf("Enter elements of second matrix:\n");
    for(i=0; i<r; i++)
        for(j=0; j<c; j++)
            scanf("%d", &b[i][j]);

    // Adding matrices
    for(i=0; i<r; i++)
        for(j=0; j<c; j++)
            sum[i][j] = a[i][j] + b[i][j];

    printf("Sum of two matrices:\n");
    for(i=0; i<r; i++) {
        for(j=0; j<c; j++)
            printf("%d ", sum[i][j]);
        printf("\n");
    }
}
```

Output:



```
C:\Windows\system32\cmd.e
Enter number of rows and columns: 2 2
Enter elements of first matrix:
1 2
3 4
Enter elements of second matrix:
5 6
7 8
Sum of two matrices:
6 8
10 12
```

