8. 2D MATRIX ADDITION PROGRAM

```c
#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: