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/*
Program to Illustrate the Concept of Passing 2-D Array to Function
Program to Find Sum of Diagonal Elements of a Matrix
*/

#include <stdio.h>

#define ROW 10
#define COL 10
int diagonal_sum(int [][], int, int);

main()
{
    int a[ROW][COL], row, col, i, j, sum;

    printf("\nEnter no. of rows and columns of a matrix: ");
    scanf("%d %d", &row, &col);

    printf("\nEnter elements:\n");
    for (i=0; i<row; i++)
        for (j=0; j<col; j++)
            scanf("%d", &a[i][j]);

    printf("\nMatrix is:\n\n");
    for (i=0; i<row; i++)
    {
        for (j=0; j<col; j++)
            printf("\t%d", a[i][j]);
        printf("\n\n");
    }
    sum = diagonal_sum(a, row, col);

    printf("\nSum: %d", sum);
    getch();
}
```

```
int diagonal_sum(int x[ROW][COL], int r, int c)
{
    int i, j, s=0;

    for (i=0; i<r; i++)
        for (j=0; j<c; j++)
            if (i == j)
                s = s + x[i][j];

    return s;
}
```

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