GANAVI HAH19CS033

Program to find sum of Principal diagonal & secondary diagonal

Algorithm

Step 1: Start

Step 2: Display "Enter the order of matrix"

Step 3: Read m, n

Step 4: if (m=n), if this condition becomes false goto step 5

Display "Enter coefficients of matrix

for (i=0; i<m; ++i)

for (j=0; j<n; j++)

Read i & j and display array [i][j]

Display "The given matrix is"

for (i=0; i<m; i++)

sum = sum + array [i] [j]

a = a + array [i] [m-i-1]

Step 5: Display "The sum of main diagonal elements" output

Display "The sum of secondary diagonal elements" output

Step 5: Display "The given order is not square matrix".

Step 6: Stop

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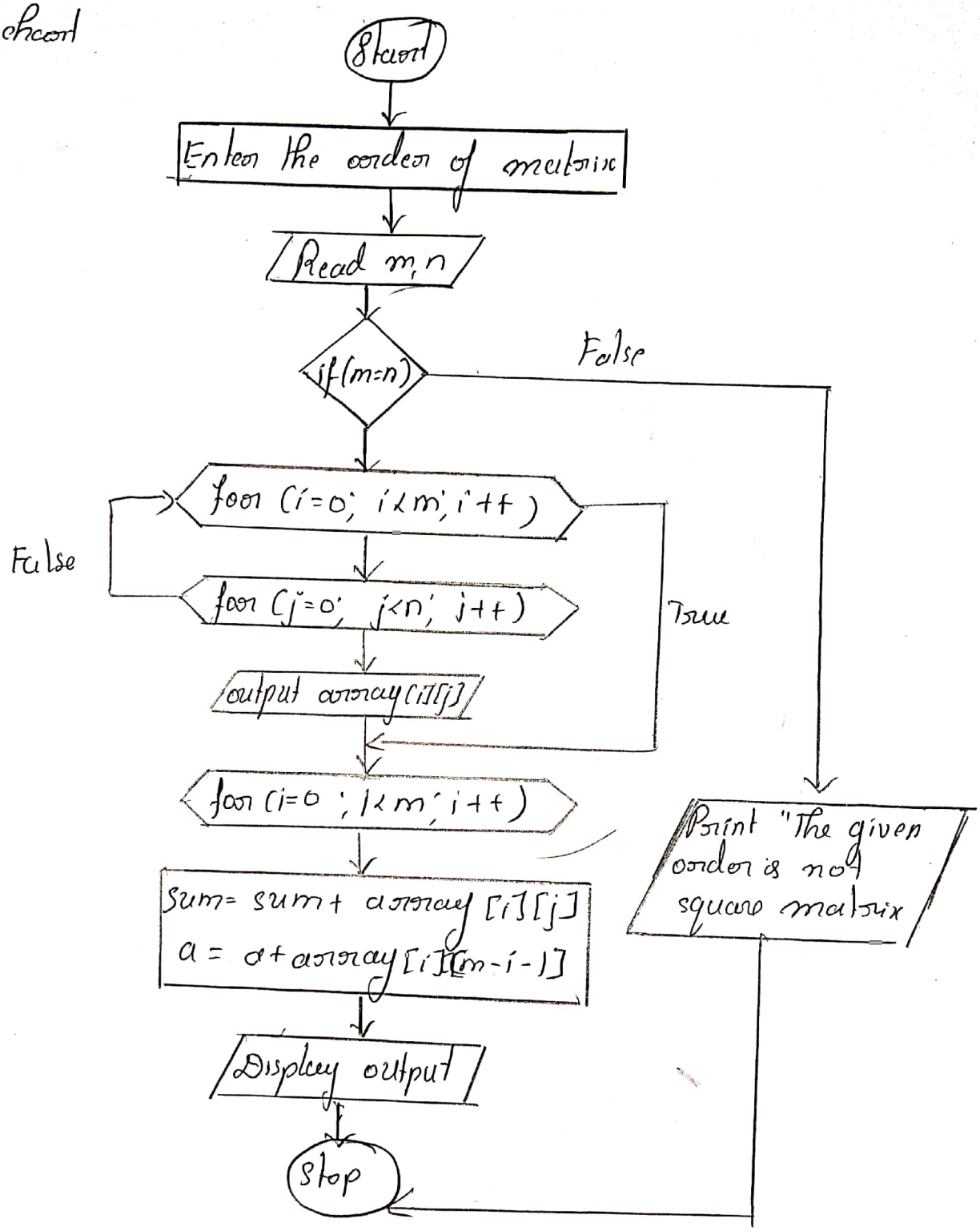
Flow chart



Code, Compile & Run

Ide

Ganavi | Problem Code/Name (e.g. TEST) | Select

C (gcc 6.3) Code gets autosaved every second

```c
#include <stdio.h>
    void main ()
    {

        static int array[10][10];
        int i, j, m, n, a = 0, sum = 0;

        printf("Enetr the order of the matix \n");
        scanf("%d %d", &m, &n);

        if (m == n )
        {

            printf("Enter the co-efficients of the matrix\n");
            for (i = 0; i < m; ++i)
            {
                for (j = 0; j < n; ++j)
                {
                    scanf("%d", &array[i][j]);
                }
            }

            printf("The given matrix is \n");
            for (i = 0; i < m; ++i)
            {
                for (j = 0; j < n; ++j)
                {
                    printf(" %d", array[i][j]);
```

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Open File | Custom Input | Run

Custom Input

```
2 2
1 2 3 4
```

Status Runtime error **Date** 2020-06-16 12:29:55 **Time** 0 sec **Mem** 9.424 kB

Input

```
2 2
1 2 3 4
```

Output

```
The given matrix is
 1 2
 3 4

The sum of the main diagonal elements is = 5
The sum of the off diagonal elements is   = 5
```

Runtime Error