8:08 PM

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2020

C(gcc 6.3)

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CodeChef was created as a platform

Code, Compile & Run

Ide

C++14 (gcc 6.3)

```
#include <stdio.h>
intmemain()
    {

        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]);
```

25

Open File

Custom Input

Run

Custom Input

```
2 2
10 20
30 40
```

Status Successfully executed **Date** 2020-06-16 04:23:16 **Time** 0 sec **Mem** 15.232 kB

Input

```
2 2
10 20
30 40
```

Output

```
The given matrix is
 10 20
 30 40

The sum of the main diagonal elements is = 50
The sum of the off diagonal elements is   = 50
```

Code, Compile & Run

Ide

C++14 (gcc 6.3)

```
            }
        }

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

        for (i = 0; i < m; ++i)
        {
            sum = sum + array[i][i];
            a = a + array[i][n - i - 1];
        }

        printf("\nThe sum of the main diagonal elements is = %d\n", sum);
        printf("The sum of the off diagonal elements is   = %d\n", a);

    }

    else
        printf("The given order is not square matrix\n");

}
```

25

Open File

Custom Input

Run

Custom Input

```
2 2
10 20
30 40
```

Status Successfully executed **Date** 2020-06-16 04:23:16 **Time** 0 sec **Mem** 15.232 kB

Input

```
2 2
10 20
30 40
```

Output

```
The given matrix is
 10 20
 30 40

The sum of the main diagonal elements is = 50
The sum of the off diagonal elements is   = 50
```

C Program to implement sum of principal diagonal and Secondary diagonal elements

Algorithm:

Step 1: Start

Step 2: Input m, n, order

Step 3: If (m==n)

Enter Coefficients

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

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

Step 4: Array [i] [j];

Step 5: for (i=0; i<m; ++i)

Step 6: for (j=0; j<n; ++j)

Step 7: Print "\n"

Step 8: for (i=0; i<m; ++i)

sum = sum + array [i] [j];

a = a + array [i] [m-i-j];

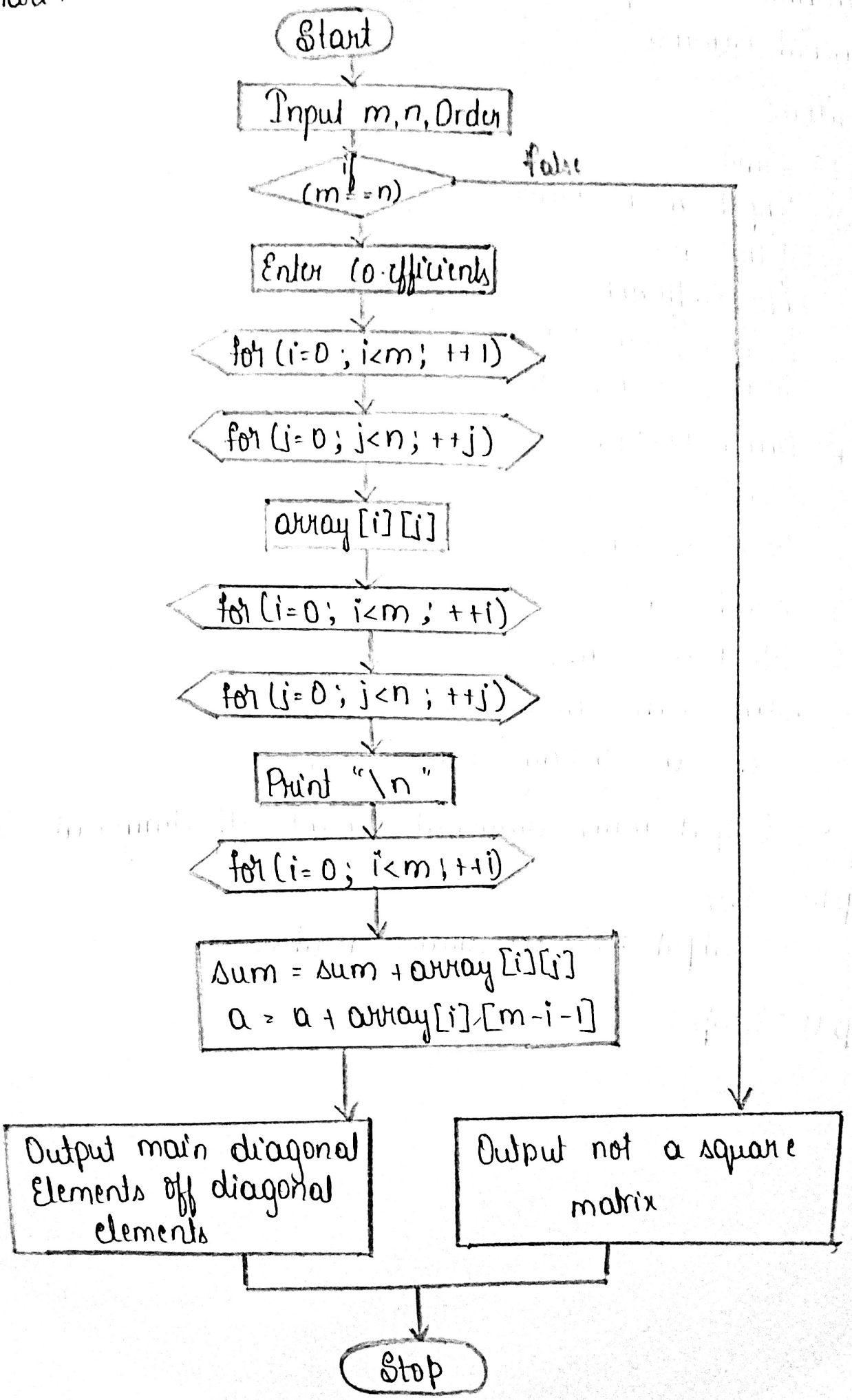
Step 9: Output main diagonal elements off diagonal elements

Step 10: Else

Output not a square matrix

Step 11: Stop

Flowchart :


Start
Input m, n, Order
if (m != n)
false
Enter Coefficients
for (i=0 ; i<m ; ++i)
for (j=0 ; j<n ; ++j)
array [i] [j]
for (i=0 ; i<m ; ++i)
for (j=0 ; j<n ; ++j)
Print "\n"
for (i=0 ; i<m ; ++i)
Sum = sum + array [i] [j]
a = a + array [i] [m-i-1]
Output main diagonal Elements off diagonal elements
Output not a square matrix
Stop