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Pushpitha P

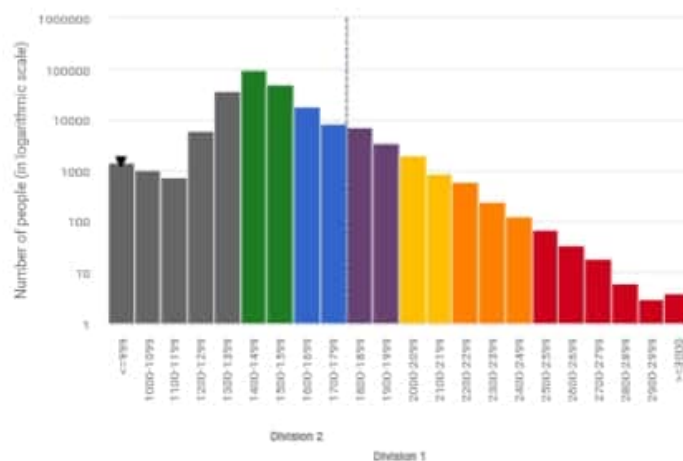


Username:	pushpitha2001
Country:	India
State:	Karnataka
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Student/Professional:	Student
Institution:	Alvas Institute of Engineering and Technology Karnataka, India
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Rating Graphs



CodeChef Rating Distribution



0



CodeChef Rating

(Highest Rating 0)

NA

Global Rank

NA

Country Rank

Contests	Rating	Global Rank	Country Rank
Long Challenge	0	NA	NA
Cook-off	0	NA	NA
Lunch Time	0	NA	NA

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Date/Time	Problem	Result	Lang
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Ide

C++14 (gcc 6.3)

```

1
2 #include <stdio.h>
3 int main()
4 {
5
6     static int array[10][10];
7     int i, j, m, n, a = 0, sum = 0;
8
9     printf("Enter the order of the matrix\n");
10    scanf("%d %d", &m, &n);
11
12    if (m == n)
13    {
14
15        printf("Enter the co-efficients of the matrix\n");
16        for (i = 0; i < m; ++i)
17        {
18            for (j = 0; j < n; ++j)
19            {
20                scanf("%d", &array[i][j]);
21            }
22        }
23
24        printf("The given matrix is\n");
25        for (i = 0; i < m; ++i)
26        {
27            for (j = 0; j < n; ++j)
28            {
29                printf("%d ", array[i][j]);
30            }
31        }
32    }
33    }

```

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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

```

Okay

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Ide

C++14 (gcc 6.3)

```
20      scanf("%d", &matrix[i][j]);
21    }
22  }
23
24  printf("The given matrix is \n");
25  for (i = 0; i < m; ++i)
26  {
27    for (j = 0; j < n; ++j)
28    {
29      printf("%d", array[i][j]);
30    }
31    printf("\n");
32  }
33
34  for (i = 0; i < m; ++i)
35  {
36    sum = sum + array[i][i];
37    a = a + array[i][m - i - 1];
38  }
39
40  printf("\nThe sum of the main diagonal elements is = %d\n", sum);
41  printf("The sum of the off diagonal elements is = %d\n", a);
42
43  }
44
45  else
46  {
47    printf("The given order is not square matrix\n");
48  }
```

2:5

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☒ 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

```
Enter the order of the matrix
Enter the co-efficients of the matrix
The given matrix is
10 20
30 40
The sum of the main diagonal elements is = 50
```



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Ide ✕ +

C++14 (gcc 6.3)



```

21     }
22 }
23
24 printf("The given matrix is \n");
25 for (i = 0; i < m; ++i)
26 {
27     for (j = 0; j < n; ++j)
28     {
29         printf("%d", array[i][j]);
30     }
31     printf("\n");
32 }
33
34 for (i = 0; i < m; ++i)
35 {
36     sum = sum + array[i][i];
37     a = a + array[i][n - i - 1];
38 }
39
40 printf("\nThe sum of the main diagonal elements is = %d\n", sum);
41 printf("The sum of the off diagonal elements is = %d\n", a);
42
43 }
44
45 else
46     printf("The given order is not square matrix\n");
47
48 }
```

2-5



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
```

Okay

Algorithm

Step 1 - Start

Step 2 :- Declare a matrix, taking order as input from users and define all its elements.

Step 3 :- Declare two variable to store sum of each diagonal elements.

Step 4 :- Run a for loop wherein the main diagonal element is given by index (i, i) where i is the iterator and opposite diagonal element is given by index $(i, \text{total} - \text{rows}(m) - i - 1)$

Step 5 :- the two variables are initialized to 0, which are summed up by diagonal elements.

Step 6 :- Print the sum of diagonal elements.

Step 7 :- Stop.

Flowchart