

Elite-S030-Matrix Zig-ZagSolved Challenges **0/2**[Back To Challenges List](#)**Matrix Zig-Zag from Top Left****ID:11125 Solved By 541 Users**

The program must accept an integer matrix of size **R*C** as the input. The program must print the elements from the top left of the matrix in diagonally zig-zag order.

Boundary Condition(s):

2 <= R, C <= 100

Input Format:

The first line contains R and C separated by a space.

The next R lines, each containing C integers separated by a space.

Output Format:

The first line contains all R*C elements in diagonally zig-zag order, with the elements separated by a space.

Example Input/Output 1:

Input:

```
3 7
1 9 3 9 4 7 2
4 5 2 4 8 3 5
9 3 6 3 5 1 8
```

Output:

```
1 9 4 9 5 3 9 2 3 6 4 4 7 8 3 5 3 2 5 1 8
```

Example Input/Output 2:

Input:

4 4

29 76 80 57

18 69 47 36

36 26 68 61

48 34 30 82

Output:

29 76 18 36 69 80 57 47 26 48 34 68 36 61 30 82

Max Execution Time Limit: 500 millisecs

Ambiance

C (gcc 8.x)



Reset

```
1  #include<stdio.h>
2  #include<stdlib.h>
3
4  int main()
5  {
6      int R,C;
7      scanf("%d%d",&R,&C);
8      int matrix[R][C];
9
10     for(int row=0;row<R;row++)
11         for(int col=0;col<C;col++)
12             scanf("%d",&matrix[row][col]);
13
14     int dir=1;
15     int row=0;
```

```
16  int col=0;
17
18  for(int iter=1;iter<=R+C-1;iter++)
19  {
20      if(dir==1)
21      {
22          while(row>=0 && col<C)
23          {
24              printf("%d ",matrix[row][col]);
25              row--;
26              col++;
27          }
28          dir=-1;
29          if(row<0 && col<C)
30          {
31              row=0;
32          }
33          if(col>=C)
34          {
35              col=C-1;
36              row+=2;
37          }
38      }
39      else{
40          while(row<R && col>=0)
41          {
42              printf("%d ",matrix[row][col]);
43              row++;
44              col--;
45          }
46          dir=1;
47          if(col<0 && row<R)
48          {
49              col=0;
50          }
51          if(row>=R)
52          {
53
```

```
54         row=R-1;
55         col+=2;
56     }
57
58
59 }
60
```

Code did not pass the execution



Hello.c: In function 'main':

Hello.c:20:19: error: 'row' undeclared (first use in this function)

```
while(row>=0 && col    ^~~
```

Hello.c:20:19: note: each undeclared identifier is reported only once for each function it appears in

Hello.c:20:29: error: 'col' undeclared (first use in this function); did you mean 'atol'?

```
while(row>=0 && col    ^~~
    atol
```

Save

Run

☐ Run with a custom test case (Input/Output)