Diagonals of a matrix

ZPRAC-16-17-Lab7

[40 Points]
Printing diagonals of a matrix

ANNOUNCEMENT: Up to 20% marks will be allotted for good programming practice. These include
- Comments for non trivial code
- Indentation: align your code properly
- Use of Functions

Given a 2D matrix of size m x n, print all elements of the given matrix in diagonal order.
For example, consider the following 5 X 4 input matrix.

```
 1   2   3   4
 5   6   7   8
 9  10  11  12
13  14  15  16
17  18  19  20
```

Diagonal printing of the above matrix is

```
 1
 5   2
 9   6   3
13  10   7   4
17  14  11   8
18  15  12
19  16
20
```

Constraints
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0 < m < 100
0 < n < 100

Input format

The first line contains two space separated integers m and n
It is followed by m lines containing n space separated integers each

Examples

Input :
5 4
1 2 3 4
5 6 7 8
9 10 11 12
13 14 15 16
17 18 19 20

Output:
1,
5,2,
9,6,3,
13,10,7,4,
17,14,11,8,
18,15,12,
19,16,
20,

Hint :
Try to imagine the 2d matrix as a 1d array and then perform the computations on the array.