

<https://course.acciojob.com/idle?question=01775dbc-41a0-4dc7-842d-bb3175e4762d>

● EASY

● Max Score: 30 Points

●

Alternate Manner Matrix Traversal

Given a 2D matrix `mat` of `M` rows and `N` columns , the task is to print the 2D matrix in an alternate manner.

Alternate manner denotes that the elements of the odd rows (first row, third row, etc) will be printed from left to right, and the elements of the even rows(second row, fourth row, etc.) will be printed from right to left.

For example, if `M=3`, then the first line will contain all the elements of the first row of the matrix from left to right. The second line will contain all the elements of the second row from right to left. The third line will contain all the elements of the third row from left to right.

Input Format

The first line contains two integers, `M` and `N`, representing the number of rows and columns, respectively.

The next `M` lines contain `N` space-separated integers, denoting the matrix.

Output Format

There will be 1 line with all the elements of the matrix after performing the alternate traversal. The elements will be separated by space.

Examples

Input

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

Output

```
1 2 3 2
```

Explanation

There are 2 rows in the matrix. In the first row from left to right the elements are :- 1 2. As this is an odd row, they will be printed from left to right. In the second row, from left to right the elements are :- 2 3. As this is an even row, elements will be printed from right to left.

Input

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

Output

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

Explanation

There are 3 rows in the matrix. In the first row from left to right the elements are :- 7 2 3. As this is an odd row, they will be printed from left to right. In the second row from left to right the elements are :- 2 3 4. As this is an even row elements, will be printed from right to left. In the third row, from left to right the elements are :- 5 6 1. As this is an odd row they will be printed from left to right.

Constraints

$1 \leq M \leq 300$

$1 \leq N \leq 300$

Topic Tags

- Basics
- 2D-Arrays

My code

```
// in java
import java.util.*;
import java.lang.*;
import java.io.*;

public class Main
{
    public static void main (String[] args) throws
    java.lang.Exception
    {
        //your code here
        Scanner s=new Scanner(System.in);
        int n=s.nextInt();
        int m=s.nextInt();
        int arr[][]=new int[n][m];
        for(int i=0;i<n;i++)
            for(int j=0;j<m;j++)
                arr[i][j]=s.nextInt();
        for(int i=0;i<n;i++){
            for(int j=0;j<m;j++)
                System.out.print(arr[i][j]+" ");
            if(i<n-1){ i++;
                for(int k=m-1;k>=0;k--)
                    System.out.print(arr[i][k]+" "); }
        }
```

}
}
}