https://course.acciojob.com/idle?question=4544ee24-81a0-490e-99bd-d2eed8f59325

- EASY
- Max Score: 30 Points

Transpose Matrix

Given a matrix A, return the transpose of A.

The transpose of a matrix is the matrix flipped over its main diagonal, switching the row and column indices of the matrix. Input consists of the number of rows m and columns n followed by the matrix m x n values.

Input Format

The first line contains an integer N.

The next N lines contains N spaced integers each, elements of matrix.

Output Format

Print the transposed matrix.

Example 1

Input

```
4
1 1 1 1
2 2 2 2
3 3 3 3
4 4 4 4
```

Output

```
1 2 3 4
1 2 3 4
1 2 3 4
1 2 3 4
```

Explanation

```
The rows and columns are switched.
```

Example 2

Input

```
5
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
21 22 23 24 25
```

Output

```
1 6 11 16 21
2 7 12 17 22
3 8 13 18 23
4 9 14 19 24
5 10 15 20 25
```

Explanation

```
The rows and columns are switched. For example: 6 was at position 0, 1 in original
matrix. In the transposed matrix, it is at position 1, 0.
```

Constraints

1 <= N <= 100

-10^3 <= mat[i][j] <= 10^3

Topic Tags

- 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];
     int arrb[][]=new int[m][n];
        for (int i=0;i<n;i++)
          for(int j=0;j<m;j++)
            arr[i][j]=s.nextInt();

  int k=0,ar[]=new int[n*m];
      for (int i=0;i<n;i++)
          for(int j=0;j<m;j++)
            ar[k++]=arr[i][j];
       k=0;
      for(int j=0;j<n;j++)
```

```
        for (int i=0;i<m;i++)
         arrb[i][j]=ar[k++];

         for (int i=0;i<m;i++){
           for(int j=0;j<n;j++){
          System.out.print(arrb[i][j]+" "); }
          System.out.print("\n");}
         }
}
```