### Transpose of Matrix

**Company Tags**

[**MakeMy Trip**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=MakeMyTrip)[**InfoEdge**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=InfoEdge)

Write a program to find the **transpose**of a square matrix of size N\*N. Transpose of a matrix is obtained by changing rows to columns and columns to rows.  
  
**Example 1:**

**Input**:

N = 4

mat[][] = {{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}}

**Example 2:**

**Input**:

N = 2

mat[][] = {{1, 2},

  {-9, -2}}

**Output**:

{{1, -9},

 {2, -2}}

### Java code..

//Initial Template for Java

import java.io.\*;

import java.util.\*;

class CodingMaxima

{

public static void main(String args[])throws IOException

{

BufferedReader in=new BufferedReader(new InputStreamReader(System.in));

PrintWriter out=new PrintWriter(System.out);

int t=Integer.parseInt(in.readLine().trim());

while(t-->0)

{

int n=Integer.parseInt(in.readLine().trim());

int a[][]=new int[n][n];

for(int i=0;i<n;i++){

String s[]=in.readLine().trim().split(" ");

for(int j=0;j<n;j++){

a[i][j]=Integer.parseInt(s[j]);

}

}

Solution ob=new Solution();

ob.transpose(n,a);

for(int i=0;i<n;i++){

for(int j=0;j<n;j++){

out.print(a[i][j]+" ");

}out.println();

}

}

out.close();

}

}

class Solution

{

//Function to find transpose of a matrix.

static void transpose(int matrix[][], int n)

{

//int[][] arr=new int[n][n];

for(int i=0;i<n;i++){

for(int j=i+1;j<n;j++){

int temp=matrix[i][j];

matrix[i][j]=matrix[j][i];

matrix[j][i]=temp;

}

}

}

}