**Name: YedhuKrishnan KJ**

**Roll No:57**

**Batch:MCA B**

**Date:**

**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 4**

**Aim**

Read a matrix from the console and check whether it is symmetric or not

**Procedure**

import java.util.Scanner;

public class Symmetric

{

public static void main(String arg[])

{

int row,col,m,n;

int i,j;

int flag=0;

Scanner sc=new Scanner(System.in);

System.out.println("\n Enter the order of matrix of two matrices: ");

m=sc.nextInt();

n=sc.nextInt();

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

int[][] b=new int[m][n];

System.out.println("\n Enter elements into the matrix:\n");

for(i=0;i<m;i++)

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

a[i][j]=sc.nextInt();

System.out.println("\n The entered matrix is\n");

for(i=0;i<m;i++)

{

System.out.println("\n");

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

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

}

System.out.println("\n The transpose of the matrix is\n");

for(i=0;i<m;i++)

{

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

{

b[i][j]=a[j][i];

if(a[i][j]!=a[j][i])

flag=1;

}

}

for(i=0;i<m;i++)

{

System.out.println("\n");

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

System.out.print(b[i][j]+"\t");

}

if(flag==0)

System.out.println("\n The matrix is Symmetric\n");

else

System.out.println("\n The matrix is not Symmetric\n");

}

}

**Output Screenshot**

