OBJECT ORIENTED PROGRAMMING LAB

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# Experiment No.: 2

**Aim**

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

# Procedure

import java.util.\*; public class Symetric {

static void checkSymmetric(int mat[][], int row,int col)

{

int i, j, flag = 1;

System.out.println("The matrix formed is:"); for (i = 0; i < row; i++) {

for (j = 0; j < col; j++) { System.out.print(mat[i][j] + "\t");

}

System.out.println("");

}

int[][] transpose = new int[row][col]; for (i = 0; i < row; i++) {

for (j = 0; j < col; j++) { transpose[j][i] = mat[i][j];

}

}

if (row == col) {

for (i = 0; i < row; i++) {

for (j = 0; j < col; j++) {

if (mat[i][j] != transpose[i][j]) { flag = 0;

break;

}

}

if (flag == 0) {

System.out.print("\nThe matrix is not symmetric"); break;

}

}

if (flag == 1) {

System.out.print("\nThe matrix is symmetric");

}

else {

}

}

}

System.out.print("\nThe matrix is not symmetric");

public static void main(String args[])

{

Scanner sc = new Scanner(System.in); int i, j, row, col, flag = 1;

System.out.print("Enter the number of rows:"); row = sc.nextInt();

System.out.print("Enter the number of columns:"); col = sc.nextInt();

int[][] mat = new int[row][col]; System.out.println("Enter the matrix elements:"); for (i = 0; i < row; i++) {

for (j = 0; j < col; j++) { mat[i][j] = sc.nextInt();

}

}

checkSymmetric(mat, row, col);

}

}

# Output Screenshot:

