**JAVA LAB EXPERIMENT NO: 07**

**NAME: KUNJ TRIVEDI**

**CLASS: SE9**

**BATCH: C**

**ROLL NO: 38**

**PROGRAM:**

import java.io.\*;

class exp7

{

void main() throws IOException //main function

{

InputStreamReader in=new InputStreamReader(System.in);

BufferedReader br=new BufferedReader(in);

int r,c,i,j,x;

System.out.println("Enter number of rows: ");

r=Integer.parseInt(br.readLine());

System.out.println("Enter number of columns: ");

c=Integer.parseInt(br.readLine());

int a[][]=new int[r][c];

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

{

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

{

System.out.println("Enter element: ");

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

}

}

display(a,r,c);

x=symmetric(a,r,c);

if(x==0)

System.out.println("Matrix Not Symmetric");

else

System.out.println("Matrix Is Symmetric");

}

int symmetric(int a[][],int r,int c) //function to check if matrix is symmetric

{

if(r!=c)

return 0;

else

{

int i,j;

for(i=1;i<r;i++)

{

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

{

if(i!=j)

{

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

{

return 0;

}

}

}

}

}

return 1;

}

void display(int a[][],int r,int c) //function display

{

int i,j;

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

{

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

{

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

}

System.out.println();

}

}

}

**OUTPUT:**

