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**Roll No: 13**

**Batch: MCA**

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**OBJECT ORIENTED PROGRAMMING LAB**

**Experiment No.: 2**

**Aim**

Read 2 matrices from the console and perform matrix addition.

**Procedure**

**Source Code**

import java.util.Scanner;

public class matrixAddition {

public void Display(int [][] arr,int row,int col){

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

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

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

}

System.out.println();

}

}

public static void main(String[] args) {

int[][] mat1=new int[5][5];

int[][] mat2=new int[5][5];

int[][] mat3=new int[5][5];

int rows1, cols1, rows2, cols2;

matrixAddition obj=new matrixAddition();

Scanner s=new Scanner(System.in);

System.out.println("Enter the number of rows and columns of matrix 1");

rows1=s.nextInt();

cols1=s.nextInt();

System.out.println("Enter the elements of matrix 1");

for(int i=0;i<rows1;i++)

{

for(int j=0;j<cols1;j++)

{

mat1[i][j]=s.nextInt();

}

}

System.out.println("Enter the number of rows and columns of matrix 2");

rows2=s.nextInt();

cols2=s.nextInt();

System.out.println("Enter the elements of matrix 2");

for(int i=0;i<rows2;i++)

{

for(int j=0;j<cols2;j++)

{

mat2[i][j]=s.nextInt();

}

}

if(rows1==rows2 && cols1==cols2)

{

for(int i=0;i<rows1;i++)

{

for(int j=0;j<cols1;j++)

{

mat3[i][j]=mat1[i][j]+mat2[i][j];

}

}

System.out.println("1st matrix");

obj.Display(mat1,rows1,cols1);

System.out.println("2nd matrix");

obj.Display(mat2,rows2,cols2);

System.out.println("Addition of matrix");

obj.Display(mat3,rows1,cols1);

}

else

{

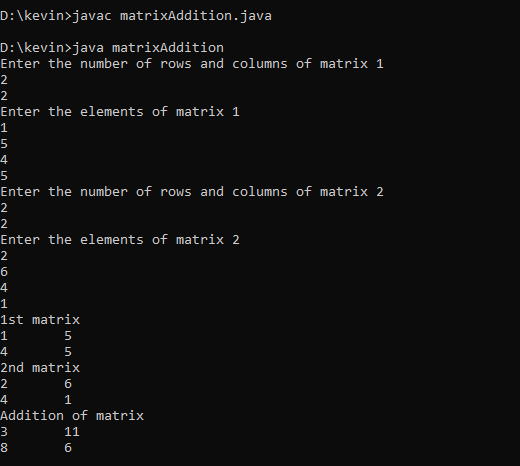
System.out.println("The matrices cannot be added");

}

}

}

**Output Screenshot**

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