OBJECT ORIENTED PROGRAMMING LAB

Name: JUSTIN V KALAPPURA

Roll No:10

Batch:MCA

Date:06/04/22

Experiment No.: 1

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("First matrix:");
         obj.Display(mat1,rows1,cols1);
         System.out.println("Second 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

```
C:\Users\Student\Desktop\Just-in Regular>javac Matrixaddition.java

C:\Users\Student\Desktop\Just-in Regular>java Matrixaddition
Enter the number of rows and columns of matrix 1:
2
2
Enter the elements of matrix 1:
1
2
3
4
Enter the number of rows and columns of matrix 2:
2
2
Enter the elements of matrix 2:
5
6
7
8
First matrix:
1       2
3       4
Second matrix:
5       6
7       8
Addition of matrix:
6       8
10      12
```