OBJECT ORIENTED PROGRAMMING LAB

Name: Manya Madhu

Roll No: 17

Batch: S2 RMCA B

Date: 06-04-2022

Experiment No.: 1

Aim

The program to read 2 matrices from the console and perform Matrix addition.

Procedure

```
import java.util.Scanner;
class AddTwoMatrix
{
 public static void main(String args[])
 {
  int m, n, c, d;
  Scanner in = new Scanner(System.in);

  System.out.println("Enter the number of rows and columns of matrix");
  m = in.nextInt();
  n = in.nextInt();

  int first[][] = new int[m][n];
  int second[][] = new int[m][n];
  int sum[][] = new int[m][n];

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

  for (c = 0; c < m; c++)
    for (d = 0; d < n; d++)
      first[c][d] = in.nextInt();

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

  for (c = 0 ; c < m; c++)
    for (d = 0 ; d < n; d++)
      second[c][d] = in.nextInt();

  for (c = 0; c < m; c++)
    for (d = 0; d < n; d++)
      sum[c][d] = first[c][d] + second[c][d];  //replace '+' with '-' to subtract matrices

  System.out.println("Sum of the matrices:");
```

```
 for (c = 0; c < m; c++)
    {
      for (d = 0; d < n; d++)
        System.out.print(sum[c][d] + "\t");

      System.out.println();
    }
  }
}
```

Output Screenshot

```
C:\Users\Student\Desktop\java>javac AddTwoMatrix.java

C:\Users\Student\Desktop\java>java AddTwoMatrix
Enter the number of rows and columns of matrix
2
2
Enter the elements of first matrix
2
2
2
2
Enter the elements of second matrix
3
2
3
2
Sum of the matrices:
5       4
5       4

C:\Users\Student\Desktop\java>
```