OOPs in JAVA

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Experiment No.: 10

Aim

Matrix Addition

Sourcecode & Output Screenshot

```
import java.util.*;

class MatrixAddition{

    public static void main(String[] args){

        int row, col;

        Scanner sc= new Scanner(System.in);

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

        int[][] matrixA= new int[row][col];
        int[][] matrixB= new int[row][col];
        int[][] matrixSum= new int[row][col];

        System.out.println("Enter the elements for the Matrix A : ");
        for(int i=0;i<row;i++){
            for(int j=0;j<col;j++){
                matrixA[i][j]= sc.nextInt();
            }
        }
        System.out.println("\n");
```

```
System.out.println("Enter the elements for the Matrix B : ");
for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
                matrixB[i][j]= sc.nextInt();
        }
}
System.out.println("\n");

System.out.println("Matrix A is : ");
for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
                System.out.print(matrixA[i][j]+"   ");
        }
        System.out.println("\n");
}

System.out.println("Matrix B is : ");
for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
                System.out.print(matrixB[i][j]+"   ");
        }
        System.out.println("\n");
}

for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
                matrixSum[i][j]= matrixA[i][j] + matrixB[i][j];
        }
}

System.out.println("Resultant of the Matrix Addition is : ");
for(int i=0;i<row;i++){
        for(int j=0;j<col;j++){
```

```
                        System.out.print(matrixSum[i][j]+"   ");
                    }
                    System.out.println("\n");
                }
            }
}
```

```
D:\java>java MatrixAdd
Enter the number of rows for the Matrices : 3
Enter the number of columns for the Matrices : 3
Enter the elements for the Matrix A :
2
3
4
5
6
1
4
3
7


Enter the elements for the Matrix B :
1
4
7
2
9
6
3
8
2


Matrix A is :
2   3   4

5   6   1

4   3   7

Matrix B is :
1   4   7

2   9   6

3   8   2

Resultant of the Matrix Addition is :
3   7   11

7   15   7

7   11   9
```