**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");

}

}

}

