**Assignment 5**

**Java Program to display matrix of 3 rows and 3 columns.**

package matrixex;

import java.util.Scanner;

public class MatrixEx {

Scanner scan;

int matrix[][];

int row, column;

void create() {

scan = new Scanner(System.in);

System.out.println("Matrix Creation");

System.out.println("\nEnter the value of 3 rows :");

row = Integer.parseInt(scan.nextLine());

System.out.println("Enter the value of 3 columns :");

column = Integer.parseInt(scan.nextLine());

matrix = new int[row][column];

System.out.println("Enter the data :");

for(int i=0; i<3; i++) {

for(int j=0; j<3; j++) {

matrix[i][j] = scan.nextInt();

}

}

}

void display() {

System.out.println("\nThe Matrix is :");

for(int i=0; i<3; i++) {

for(int j=0; j<3; j++) {

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

}

System.out.println();

}

}

public static void main(String[] args)

{

MatrixEx mobj = new MatrixEx();

mobj.create();

mobj.display();

}

}

**Output:**

Matrix Creation

Enter the value of 3 rows :

3

Enter the value of 3 columns :

3

Enter the data :

1

2

3

4

5

6

7

8

9

The Matrix is:

1 2 3

4 5 6

7 8 9

2. **Program to add matrix.**

package matrixex;

import java.util.Scanner;

public class MatrixEx {

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 entered matrices:-");

for ( c = 0 ; c < m ; c++ )

{

for ( d = 0 ; d < n ; d++ )

System.out.print(sum[c][d]+"\t");

System.out.println();

}

}

}

**Output:**

**Enter the number of rows and columns of matrix**

**3**

**3**

**Enter the elements of first matrix**

**1 2 3**

**4 5 6**

**7 8 9**

**Enter the elements of second matrix**

**1 2 3**

**4 5 6**

**7 8 9**

**Sum of entered matrices:-**

**2 4 6**

**8 10 12**

**14 16 18**