Experiment No:-06

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**Program Code:-** import java.util.Scanner; public class Matrix{

static Scanner sc=new Scanner(System.in); static void read(int a[][],int r,int c){

int i,j; for(i=0;i<r;i++){

for(j=0;j<c;j++){

System.out.println("Enter Element at Index"+i+j); a[i][j]=sc.nextInt();

}

}

}

static void display(int a[][],int r,int c){ int i,j;

for(i=0;i<r;i++){ for(j=0;j<c;j++){

System.out.print(a[i][j]+" ");

}

System.out.println();

}

}

public static void main(String[] args){ int r1,r2,c1,c2,i,j;

System.out.println("Enter the size of first matrix:"); r1=sc.nextInt();

c1=sc.nextInt();

System.out.println("Enter the size of Second matrix:"); r2=sc.nextInt();

c2=sc.nextInt();

int[][] arr1=new int[r1][c1];

int[][] arr2=new int[r1][c1];

int[][] arr3=new int[r1][c1]; if(r1==r2 &c1==c2){

System.out.println("Enter elements of First Matrix:"); read(arr1,r1,c1);

System.out.println("Enter elements of Second Matrix:"); read(arr2,r1,c1);

for(i=0;i<r1;i++){ for(j=0;j<c1;j++){

arr3[i][j]=arr1[i][j]+arr2[i][j];

}

}

System.out.println("First Matrix is:"); display(arr1,r1,c1); System.out.println("Second Matrix is:"); display(arr2,r2,c2); System.out.println("Addition of two matrix:"); display(arr3,r1,c1);

}

else{

System.out.println("Size does not match try again");

}

}

}

**Output:**

Enter the size of first matrix: 2

2

Enter the size of Second matrix:

2

2

Enter elements of First Matrix: Enter Element at Index00

1

Enter Element at Index01 2

Enter Element at Index10 3

Enter Element at Index11 4

Enter elements of Second Matrix: Enter Element at Index00

3

Enter Element at Index01 4

Enter Element at Index10 2

Enter Element at Index11 1

First Matrix is:

1 2

3 4

Second Matrix is: 3 4

2 1

Addition of two matrix:

4 6

5 5