

4. Write a program in Java to multiply two matrices

```
package javaFsd3;
import java.util.Scanner;
public class matrixMultiplication{
public static void main(String[] args) {
    Scanner sc=new Scanner(System.in);
    int n=3;

    int[][] a=new int[n][n];
    int[][] b=new int[n][n];
    int[][] c=new int[n][n];

    System.out.println("Matrix A:");
    for(int i=0;i<n;i++) {
        for( int j=0;j<n;j++) {
            a[i][j]=sc.nextInt();
        }
    }

    System.out.println("Matrix B:");
    for(int i=0;i<n;i++) {
        for( int j=0;j<n;j++) {
            b[i][j]=sc.nextInt();
        }
    }

    for(int i=0;i<n;i++) {
        for( int j=0;j<n;j++) {
            for(int k=0;k<n;k++) {

                c[i][j] =c[i][j] + a[i][k] * b[k][j];

            }
        }
    }
}
```

```
System.out.println("the product of two matrices is:");
    for(int i=0;i<n;i++) {
        for( int j=0;j<n;j++) {
            System.out.print(c[i][j]+" ");

        }
        System.out.println();
    }

}

}
```

Output

```
Console ×
<terminated> matrixMultiplication [Java Application] C:\Users\JOTHIKA\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win
Matrix A:
1 2 3
4 5 6
6 7 8
Matrix B:
3 4 5
8 9 1
7 3 8
The Product of Two Matrixs is:
40 31 31
94 79 73
130 111 101
```