```java
import java.io.*;

public class question49
{
    public static void main(String args[])
    {
        int mat1[][]={{1,2,3},{4,5,6}}; //2x3 matrix
        int mat2[][]={{10,11},{20,21},{30,31}}; //3x2 matrix

        int rows=mat1.length;
        int cols=mat2[0].length;

        int result[][]=new int[rows][cols];

        //initialising the array with 0s
        for(int i=0;i<result.length;i++)
        {
            for(int j=0;j<result[0].length;j++)
            {
                result[i][j]=0;
            }
        }

        for(int i=0;i<mat1.length;i++)//iterates in rows
        {
            for(int j=0;j<mat2[0].length;j++)//iterates in columns
            {

                for(int k=0;k<mat1[0].length;k++)
                {
                    result[i][j]+=mat1[i][k]*mat2[k][j];
                }

            }
        }

        System.out.println("The final multiplied matrix is:");
        for(int i=0;i<result.length;i++)//iterates in rows
        {
            for(int j=0;j<result[0].length;j++)//iterates in columns
            {
                System.out.print(result[i][j]+" ");
            }
            System.out.println();
        }
    }
}
```