MULTIPLICATION OF TWO MATRICES

//MULTIPLY TWO MATRICES

//THIS CODE IS WRITTEN BY AYUSH

public class MultiplyMatrices {

    public static void main(String[] args) {

        int r1 = 2, c1 = 3;

        int r2 = 3, c2 = 2;

        int[][] firstMatrix = { {3, -2, 5}, {3, 0, 4} };

        int[][] secondMatrix = { {2, 3}, {-9, 0}, {0, 4} };

        // Mutliplying Two matrices

        int[][] product = multiplyMatrices(firstMatrix, secondMatrix, r1, c1, c2);

        // Displaying the result

        displayProduct(product);

    }

    public static int[][] multiplyMatrices(int[][] firstMatrix, int[][] secondMatrix, int r1, int c1, int c2) {

        int[][] product = new int[r1][c2];

        for(int i = 0; i < r1; i++) {

            for (int j = 0; j < c2; j++) {

                for (int k = 0; k < c1; k++) {

                    product[i][j] += firstMatrix[i][k] \* secondMatrix[k][j];

                }

            }

        }

        return product;

    }

    public static void displayProduct(int[][] product) {

        System.out.println("Product of two matrices is: ");

        for(int[] row : product) {

            for (int column : row) {

                System.out.print(column + "    ");

            }

            System.out.println();

        }

    }

}