

## Write a program in Java to multiply two matrices

```
package Practice;
public class MatrixMultiplication {
    public static int[][] multiplyMatrices(int[][] matrix1, int[][]
matrix2) {
        int rows1 = matrix1.length;
        int cols1 = matrix1[0].length;
        int cols2 = matrix2[0].length;

        int[][] result = new int[rows1][cols2];

        for (int i = 0; i < rows1; i++) {
            for (int j = 0; j < cols2; j++) {
                for (int k = 0; k < cols1; k++) {
                    result[i][j] += matrix1[i][k] * matrix2[k][j];
                }
            }
        }

        return result;
    }

    public static void main(String[] args) {
        int[][] matrix1 = {
            {1, 2, 3},
            {4, 5, 6},
            {7, 8, 9}
        };

        int[][] matrix2 = {
            {10, 11},
            {12, 13},
            {14, 15}
        };

        int[][] product = multiplyMatrices(matrix1, matrix2);

        for (int[] row : product) {
            for (int element : row) {
                System.out.print(element + " ");
            }
            System.out.println();
        }
    }
}
```

## OUTPUT

```
76 82
184 199
292 316
```