

Writing the program in Java to multiply two matrices

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package p4;

public class MultiplyMatrix {
    public static void main(String[] args) {
        int r1 = 2, c1 = 3;
        int r2 = 3, c2 = 2;
        int[][] firstMatrix = { { 4, -3, 1 }, { 8, 0, 2 } };
        int[][] secondMatrix = { { 6, 5 }, { -9, 9 }, { 1, 2 } };
        int[][] product = multiplyMatrix(firstMatrix, secondMatrix, r1,
c1, c2);
        displayProduct(product);
    }

    public static int[][] multiplyMatrix(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();
        }
    }
}
```

