

Program4: Multiply two matrices

```
package mounika4;
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} };
        int[][] product = multiplyMatrices(firstMatrix, secondMatrix, r1, c1,
c2);
        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();
        }
    }
}
```

