Practice assisted project phase 1

3. Write a program in Java to multiply two matrices

```java
package main;

public class multiplyMatrices {

        public static void main(String[] args) {
            int r1 = 2, c1 = 3;
            int r2 = 3, c2 = 2;
            int[][] firstMatrix = { {12, -24, 65}, {30, 10, 42} };
            int[][] secondMatrix = { {22, 36}, {-19, 0}, {0, 48} };

            // 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();
            }
        }
    }
```

OUTPUT-

```
Product of two matrices is:
720     3552
470     3096
```