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Exercise 1.c Static and non static methods

Q1. Create a class called MathOperations with the following methods:

- add (non-static): Takes two numbers as parameters and returns their sum.
- subtract (non-static): Takes two numbers as parameters and returns their difference.
- multiply (static): Takes two numbers as parameters and returns their product.
- divide (static): Takes two numbers as parameters and returns their quotient.

Write a program that utilizes these methods to perform various mathematical operations

```
import java.util.Scanner;

public class MathOperations {
    public double add(double a, double b) {
        return a + b;
    }
    public double subtract(double a, double b) {
        return a - b;
    }
    public static double multiply(double a, double b) {
        return a * b;
    }
    public static double divide(double a, double b) {
        if (b != 0) {
            return a / b;
        }
        return Double.NaN;
    }

    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
```

```
        System.out.print("Enter first number: ");

        double num1 = scanner.nextDouble();
        System.out.print("Enter second number: ");

        double num2 = scanner.nextDouble();
        MathOperations mathOps = new MathOperations();

        System.out.println("\nResults:");
        double sum = mathOps.add(num1, num2);
        System.out.println("Sum:" + sum);

        double difference = mathOps.subtract(num1, num2);
        System.out.println("Difference:" + difference);

        double product = MathOperations.multiply(num1, num2);
        System.out.println("Product:" + product);

        double quotient = MathOperations.divide(num1, num2);
        System.out.println("Quotient:" + quotient);

        scanner.close();
    }
}
```

Output

```
java -cp /tmp/XA1bGV7U0Y MathOperations
Enter first number: 10
Enter second number: 5
Results:
Sum:15.0
Difference:5.0
Product:50.0
Quotient:2.0
```