PROGRAM 04

```java
import java.util.Scanner;

interface Calculator {
    double add(double a, double b);
    double subtract(double a, double b);
    double multiply(double a, double b);
    double divide(double a, double b);
}

class SimpleCalculator implements Calculator {
    @Override
    public double add(double a, double b) {
        return a + b;
    }

    @Override
    public double subtract(double a, double b) {
        return a - b;
    }

    @Override
    public double multiply(double a, double b) {
        return a * b;
    }

    @Override
    public double divide(double a, double b) {
        if (b == 0) {
            System.out.println("Error: Division by zero is not allowed!");
            return Double.NaN;
        }
        return a / b;
    }
}

public class CalculatorProgram {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        Calculator calculator = new SimpleCalculator();

        System.out.print("Enter the first number: ");
        double num1 = scanner.nextDouble();
```
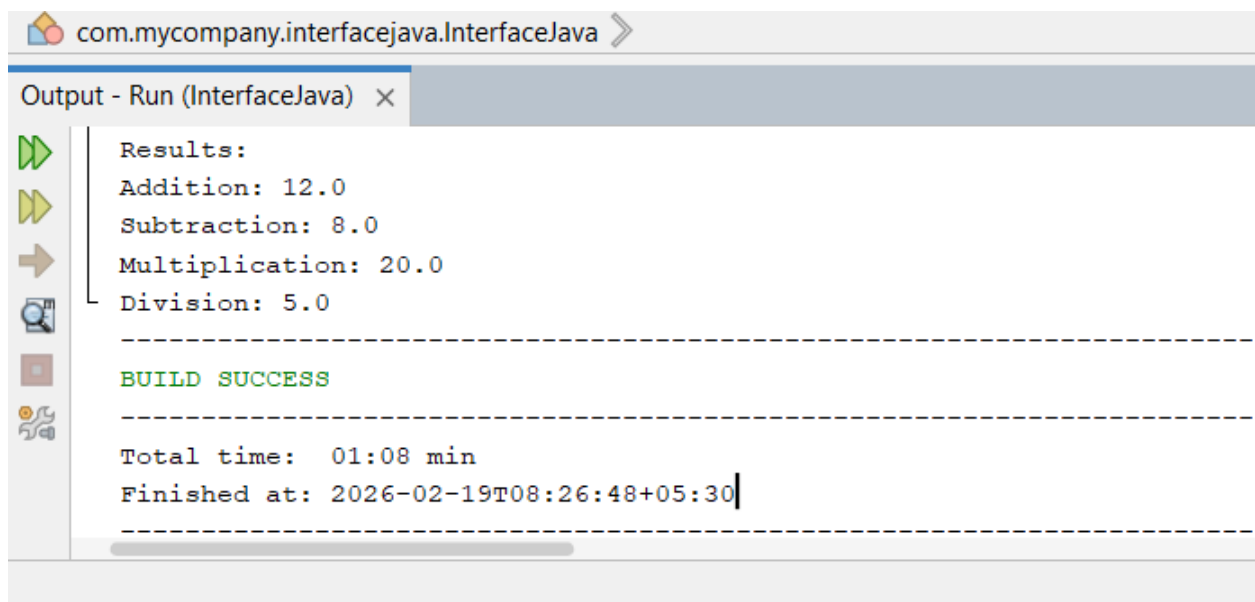
```java
        System.out.print("Enter the second number: ");
        double num2 = scanner.nextDouble();

        System.out.println("\nResults:");
        System.out.println("Addition: " + calculator.add(num1, num2));
        System.out.println("Subtraction: " + calculator.subtract(num1, num2));
        System.out.println("Multiplication: " + calculator.multiply(num1, num2));
        System.out.println("Division: " + calculator.divide(num1, num2));

        scanner.close();
    }
}
```

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Output - Run (InterfaceJava) ✕

```
    Results:
    Addition: 12.0
    Subtraction: 8.0
    Multiplication: 20.0
    Division: 5.0
    ------------------------------------------------------------------------
    BUILD SUCCESS
    ------------------------------------------------------------------------
    Total time:  01:08 min
    Finished at: 2026-02-19T08:26:48+05:30
    ------------------------------------------------------------------------
```