```
import java.util.Scanner;

public class Calculator {

    // Method for addition
    public static double add(double a, double b) {
        return a + b;
    }

    // Method for subtraction
    public static double subtract(double a, double b) {
        return a - b;
    }

    // Method for multiplication
    public static double multiply(double a, double b) {
        return a * b;
    }

    // Method for division
    public static double divide(double a, double b) {
        if (b == 0) {
            System.out.println("Error: Cannot divide by zero.");
            return Double.NaN; // Not a Number
        }
```

```
        return a / b;
    }

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

        System.out.println("=== Java Console Calculator ===");

        while (running) {
            System.out.println("\nChoose an operation:");
            System.out.println("1: Add");
            System.out.println("2: Subtract");
            System.out.println("3: Multiply");
            System.out.println("4: Divide");
            System.out.println("5: Exit");
            System.out.print("Enter your choice (1-5): ");

            int choice = scanner.nextInt();

            if (choice == 5) {
                System.out.println("Exiting calculator. Goodbye!");
                running = false;
                continue;
            }
```

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

System.out.print("Enter second number: ");
double num2 = scanner.nextDouble();

double result;

switch (choice) {
        case 1:
                result = add(num1, num2);
                System.out.println("Result: " + result);
                break;
        case 2:
                result = subtract(num1, num2);
                System.out.println("Result: " + result);
                break;
        case 3:
                result = multiply(num1, num2);
                System.out.println("Result: " + result);
                break;
        case 4:
                result = divide(num1, num2);
                if (!Double.isNaN(result)) {
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                                System.out.println("Result: " + result);import java.util.Scanner;

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        return a / b;
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                System.out.println("Result: " + result);
                break;
        case 3:
                result = multiply(num1, num2);
                System.out.println("Result: " + result);
                break;
        case 4:
                result = divide(num1, num2);
                if (!Double.isNaN(result)) {
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```
                    System.out.println("Result: " + result);
                }
                break;
            default:
                System.out.println("Invalid choice. Please select a number between 1 and 5.");
                break;
        }
    }

    scanner.close();
  }
}
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                break;
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                System.out.println("Invalid choice. Please select a number between 1 and 5.");
                break;
        }
    }

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