

Task 1: Simple Calculator Application

- **Objective**: Create a basic calculator application in Java.
- **Functionality**: Your program should be capable of performing addition, subtraction, multiplication, and division operations.
- **Details**: Your task is to design a user-friendly interface that allows users to input two numbers and choose the operation they want to perform. The program should then display the result of the operation.

Source Code:

```
import java.util.Scanner;

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

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

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

        // Input the operation
        System.out.print("Choose an operation (+, -, *, /): ");
        char operator = scanner.next().charAt(0);

        // Perform the calculation based on the chosen operation
        double result;
        switch (operator) {
            case '+':
                result = num1 + num2;
                break;
            case '-':
                result = num1 - num2;
                break;
            case '*':
                result = num1 * num2;
                break;
            case '/':
                // Check for division by zero
                if (num2 != 0) {
                    result = num1 / num2;
                } else {
```

```
        System.out.println("Error: Division by zero is not allowed.");
        return; // Exit the program
    }
    break;
default:
    System.out.println("Error: Invalid operator");
    return; // Exit the program
}

// Display the result
System.out.println("Result: " + result);

// Close the scanner
scanner.close();
}
}
```

Output:

```
Enter the first number: 2
Enter the second number: 2
Choose an operation (+, -, *, /): +
Result: 4.0
```