

Program 1. Create a Java program that acts as a simple calculator.

- The program should prompt the user to enter two numbers and an operator (+, -, *, /).
- Perform the corresponding calculation based on the operator.
- Handle potential exceptions, such as division by zero or invalid operator input.
- Display the result or an appropriate error message.

```
//Program
import java.util.Scanner;

// creating a SimpleCalculator class
public class SimpleCalculator {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        //try block execute
        try {

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

            double num1 = scanner.nextDouble();

            System.out.print("Enter the second number: ");

            double num2 = scanner.nextDouble();
```

```
System.out.print("Enter the operator (+, -, *, /): ");
```

```
char operator = scanner.next().charAt(0);
```

```
double result;
```

```
switch (operator) {
```

```
    case '+':
```

```
        result = num1 + num2;
```

```
        break;
```

```
    case '-':
```

```
        result = num1 - num2;
```

```
        break;
```

```
    case '*':
```

```
        result = num1 * num2;
```

```
        break;
```

```
    case '/':
```

```
        if (num2 != 0) {
```

```
            result = num1 / num2;
```

```
        } else {
```

```
            System.out.println("Error: Division by zero is not allowed.");
```

```
            return;
```

```
        }
```

```
        break;
```

```
    default:
```

```

        System.out.println("Error: Invalid operator input.");
        return;
    }

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

}

//catch block
catch (Exception e) {
    System.out.println("Error: Invalid input. Please enter valid numbers and operator.");
}

// final block
finally {
    scanner.close();
}
}
}

```

Output:

```

Enter the first number: 5
Enter the second number: 4
Enter the operator (+, -, *, /): +
Result: 9.0

```