import java.util.Scanner;

public class Calculator {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

boolean continueCalc = true;

System.out.println("Welcome to the Java Calculator!");

while (continueCalc) {

try {

// Capture first number

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

double num1 = Double.parseDouble(scanner.nextLine());

// Capture operator

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

String operator = scanner.nextLine();

// Validate operator

if (!operator.matches("[+\\-\*/]")) {

System.out.println("Invalid operator. Please use +, -, \*, or /.");

continue;

}

// Capture second number

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

double num2 = Double.parseDouble(scanner.nextLine());

// Perform operation

double result;

switch (operator) {

case "+":

result = num1 + num2;

break;

case "-":

result = num1 - num2;

break;

case "\*":

result = num1 \* num2;

break;

case "/":

if (num2 == 0) {

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

continue;

}

result = num1 / num2;

break;

default:

System.out.println("Unexpected error.");

continue;

}

// Display result

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

// Ask to continue

System.out.print("Do you want to perform another calculation? (yes/no): ");

String response = scanner.nextLine().trim().toLowerCase();

if (!response.equals("yes")) {

continueCalc = false;

System.out.println("Thank you for using the calculator!");

}

} catch (NumberFormatException e) {

System.out.println("Invalid input. Please enter numeric values.");

} catch (Exception e) {

System.out.println("An unexpected error occurred: " + e.getMessage());

}

}

scanner.close();

}

}

//output:

Welcome to the Java Calculator!

Enter first number: 12

Enter operator (+, -, \*, /): \*

Enter second number: 3

Result: 36.0

Do you want to perform another calculation? (yes/no): no