#include <iostream>

// Function declarations for arithmetic operations

double add(double a, double b) {

return a + b;

}

double subtract(double a, double b) {

return a - b;

}

double multiply(double a, double b) {

return a \* b;

}

double divide(double a, double b) {

if (b != 0) {

return a / b;

} else {

std::cerr << "Error: Division by zero!" << std::endl;

return 0; // Return 0 to indicate error

}

}

int main() {

double num1, num2, result;

char operation;

char choice;

do {

// Ask the user to input two numbers

std::cout << "Enter the first number: ";

std::cin >> num1;

std::cout << "Enter the second number: ";

std::cin >> num2;

// Ask the user to choose an operation

std::cout << "Choose an operation (+, -, \*, /): ";

std::cin >> operation;

// Use a switch statement to perform the chosen operation

switch (operation) {

case '+':

result = add(num1, num2);

break;

case '-':

result = subtract(num1, num2);

break;

case '\*':

result = multiply(num1, num2);

break;

case '/':

result = divide(num1, num2);

break;

default:

std::cerr << "Invalid operation!" << std::endl;

continue; // Skip to the next iteration of the loop

}

// Display the result

std::cout << "Result: " << result << std::endl;

// Ask the user if they want to perform another calculation

std::cout << "Do you want to perform another calculation? (y/n): ";

std::cin >> choice;

} while (choice == 'y' || choice == 'Y');

std::cout << "Thank You!" << std::endl;

return 0;

}