4.Implement a C++ program to demonstrate Operator overloading

Code:-

**#include <iostream>**

**class Complex {**

**private:**

**double real;**

**double imag;**

**public:**

**Complex(double r, double i) : real(r), imag(i) {}**

**// Overload the addition operator '+'**

**Complex operator+(const Complex& other) {**

**return Complex(real + other.real, imag + other.imag);**

**}**

**// Overload the subtraction operator '-'**

**Complex operator-(const Complex& other) {**

**return Complex(real - other.real, imag - other.imag);**

**}**

**// Display the complex number**

**void display() {**

**std::cout << real << " + " << imag << "i" << std::endl;**

**}**

**};**

**int main() {**

**Complex a(2.0, 3.0);**

**Complex b(1.5, 2.5);**

**Complex sum = a + b; // Overloaded addition operator**

**Complex diff = a - b; // Overloaded subtraction operator**

**std::cout << "a: ";**

**a.display();**

**std::cout << "b: ";**

**b.display();**

**std::cout << "Sum: ";**

**sum.display();**

**std::cout << "Difference: ";**

**diff.display();**

**return 0;**

**}**