

You will develop an application for performing calculations on fractions.

(1) First, develop a class Fraction that represents a fraction by one integer divided by another, e.g., 1/3 or 3/7.

- a. This class defines adding, subtracting, multiplying, dividing and comparing (<, >, ==, <= and >=) fractions by overloading the standard operators for these operations.
- b. It should also contain a function for reducing fractions. For example 2/6 is reduced after calling the function to 1/3, etc.
- c. You also need to overload I/O operators to be able to input and output fractions naturally using >> and << operators.

(2) Separate class specifications from implementation by creating Fraction.h for specs and Fraction.cpp for implementation.

(3) Second, develop a class FractionCalculator that utilizes the class Fraction and allows the user to input a fraction and perform calculations by adding, subtracting, etc. another fraction and then keeping the result as a fraction for further calculations.