Complete the following program with the given declarations. All user input and output **must** occur in your `main` function. You are permitted to create other functions if you feel they would help you complete the task. Call your C++ file Duration. This is to be submitted to Classroom by the date on the assignment. You are only completing one C++ file for this mini-project.

In your `main` function, display a menu to ask the user for their desired task. They are to first choose their operation and then enter the values required. Their options are listed below. When the process is complete, ask the user if they want to do it again. When displaying a `Duration` object, you must display it in proper HH:MM:SS form, using exactly 2 digits for the minutes and seconds and at least 2 for the hours (in other words, 01 instead of 1). The value for MM and SS can be no larger than 59. In addition, the values must be separated by a single colon.

Create a class called `Duration` inside of your program. Your class must contain private attributes for the hours, minutes, and seconds for a given `Duration` object. You must also create a constructor that takes hours, minutes, and seconds to create your objects. If no values or less than 3 values are passed in, the default of 0 must be set. You cannot specify minutes without hours or seconds without minutes or hours. Your class must also contain the following methods, as well as any relevant accessor and mutator methods.

Adding two `Duration` objects together returns a `Duration` representing the sum.

Subtracting two `Duration` objects returns a `Duration` representing the difference. If the difference is negative, the result should be 00:00:00.

Multiplying a `Duration` by a constant returns a `Duration` representing the product.

Dividing a `Duration` by a constant returns a `Duration` representing the quotient, rounded down to the nearest second.

Dividing a `Duration` by another returns a double representing the ratio of the first `Duration` to the second.

Printing a `Duration` operator using `cout <<` should display in proper HH:MM:SS form.

The class must also include a method called `randomize` that sets the value of the object to a randomly generated `Duration` less than one day.

This project will be graded on:

1. Documentation (4 points): Your code must be fully commented and employ standard C++-style conventions.
2. User-Friendliness (4 points): All interactions with the user must be clear and unambiguous.
3. Methods (8 points): Each method has the proper declaration and works as expected.
4. Overloaded operators (14 points): Each operator works as expected.

TOTAL: 30 points