CSc 21200KL Programming Assignment 1 - Implement and Test the Statistician Class

Source:

Project 2 **AND** project 3 described in the programming projects section of Chapter 2 of the textbook (pp 90, 4th Ed.).

Purposes:

1. Ensure that you can write a small class that meets a *precise* specification.
2. Make sure you understand how to write a class that is separated into a header file and an implementation file.
3. Give you experience in using a test program to track down bugs in a class's implementation.

Before Starting:

1. Know how to compile and run C++ programs (e.g., using g++ or VC++).
2. Read all of Chapter 2.
3. Read the instructions from pp 90 carefully, especially the Notes part. As the notes suggest, do not try to store the entire sequence. Instead, just store the necessary information about the sequence: length, sum, smallest, largest, etc.
4. Also read discussions, hints and frequently asked questions at http://www.cs.colorado.edu/~main/projects/Assn0201-Statistician.html.

Due Date:

Thursday Sept. 22nd, 2016 (by mid-night).

How to Turn In:

Pack your files (source code only!) in a single WinZip file (Windows) or tar file (Unix/Linux) and submit it through Blackboard. Please do not submit your executable files.

Files that you must write:

1. stats.h: The header file for the new statistician class. Actually, you don't have to write much of this file. Just start with the textbook version (http://www.cs.colorado.edu/~main/projects/stats.h) and add **your name, email and other information at the top.** If some of your member functions are implemented as inline functions, then you may put those implementations in this file too.
2. stats.cxx: The implementation file for the new statistician class. You will write all of this file, which will have the implementations of all the statistician's member functions.

Other files that you may find helpful:

You shall compile one of the following files with your stats.cxx and link them to generate your executable:

1. statexam.cxx (http://www.cs.colorado.edu/~main/projects/statexam.cxx): A non-interactive test program to test the correctness of your implementations.
2. stattest.cxx: (http://www.cs.colorado.edu/~main/projects/stattest.cxx) A simple interactive test program to demonstrate the functionality of your implementations.