COMP220 - Lab 2 & Homework 2

Fall 2015

Abstract

This lab is essentially more review. This time you'll need to do a standard function as well as an I/O function. Chapter 4, section 4 of the text provides a good overview of the streaming I/O class hierarchy. The chapter also discusses formatted output in section 1. Lecture notes 9 from COMP161 discuss the application of our design process to I/O procedures. This includes how to use gTest and string streams to write unit tests for I/O based procedures.

1 Lab 2

Your task is a slightly modified version of exercise 2 from chapter 4 of the text. For lab you should:

- Document, declare, stub, and write tests for the *windChill* function as described in chapter 2 exercise 4.
- Document, declare, stub, and write a test for a procedure to print wind chill tables like the one discussed in chapter 4 exercise 2 with the following modification. Your procedure should take as arguments a max wind speed, wind speed step size, min temperature, and temperature step size. Tables will then display wind chills for wind speeds from *step-size* up to *max* in step-size increments and for temperatures from 40 down to *min*, also in step size increments. The example table in the text would have a wind speed step size of 5 with a max speed of 60 and a temperature step size of 5 with a min temperature of -45. Your table does not need the graphics and can essentially be just the data will row and column headers (i.e. just the numbers). If you want to attempt getting text in there like he example, then by all means go for it.
- Write a simple main procedure which calls your table printing procedure. (Note that this should compile and run but will only do what your stubs indicate it should do).

Your functions can both be in a single library and namespace. Once these tasks are done, or lab time is up, submit your source code as *lab2* using the handin script.

2 Homework 2

For homework you should complete the implementation of both functions and debug as necessary. Submit the source code for the completed program as *hwk2* using handin. This assignment is due by **8am on Monday 9/7**.