

LAB #2

Review: Intro to Classes

Remember, if you need to get Lab #1 graded, you need to show your lab to the TAs within 10 minutes of getting to lab, and you and your partner will not receive lab credit if you do not get checked off before leaving each lab. Once you have a zero on a lab, then it cannot be changed because we have no way of know if you were there or not!!!

Reminder: All of our labs involve paired programming. You do not have to keep the same partner for each lab, but you **MUST** work with someone in each lab!!! First, find a partner for this lab. It can be the same partner from the previous lab or a different partner.

(2 pts) Design Interface: Date.h (YOU MUST GET CHECKED OFF FOR THIS FIRST!!!)

Design a class called Date that has data members to store month, day, and year. The class should have a default constructor and a three-parameter constructor that allows the date to be set at the time a new Date object is created. If the user creates a Date object without passing any arguments, or if any of the values passed are invalid, the default values of 1, 1, 2001 (i.e., January 1, 2001) should be used. Be sure your program only accepts reasonable values for month, day, and year. The day should be between 1 and the number of days in the selected month.

First, begin by creating the interface file (Date.h). You must make your month, day, and year private members. Therefore, you need to create accessor and mutator functions for these Date attributes.

Next, besides the constructors, accessor, and mutator member functions, the class should have public member functions to print the date in the following formats:

3/15/13
March 15, 2013
15 March 2013

****Make sure you have your preprocessor guards for your .h file, e.g. #ifndef DATE_H****

YOU MUST GET CHECKED OFF FOR THIS FIRST BEFORE MOVING TO .CPP FILES

(2 pts) Design Implementation: Date.cpp

Now, design your implementation file (Date.cpp). Write the pseudocode for each of the member functions designed in Date.h.

(2 pts) Design Testing Program: main.cpp

Design the main program that will test the functionality of the Date class. You must demonstrate the class by writing a program that uses/tests all the member functions listed in the implementation file.

(4 pts) Write the Program for Date.h, Date.cpp, and main.cpp

Now, implement your three designs/files to show you have written a complete and correct Date class. Create a Makefile to compile and run your program.