

CSCE 240 - Programming Assignment Four

Due: 11:59pm on Monday, October 24

Purpose - Implement two classes

Create a *TaxId* class that holds the nine-digit tax id in a private non-static string data member, and a private static nine-character string that specifies how the tax id is to be masked. The class will contain accessor and mutator functions for the private data members. Read the comments in the supplied *taxid.h* header file for more detailed requirements. Initial tests for the functionality of the *TaxId* class have been provided in the attached *testtaxid.cc* source file. You are encouraged to create more rigorous tests.

Create an *Employee* class that has the following private data members:

- a *TaxId* object holding the employee's tax id
- a double holding the number of hours the employee works per week
- an integer denoting whether the employee is 1-salaried, 2-hourly, or 3-contract

The class will have accessor and mutator functions for the private data members. Read the comments in the supplied *employee.h* header file for more detailed requirements. Initial tests for the functionality of the *Employee* class have been provided in the attached *testemployee.cc* source file. You are encouraged to create more rigorous tests.

Specifications

- Add all code for the definition of the *TaxId* class to the attached *taxid.h* header file.
- Include all of the necessary code for the *TaxId* class, including the implementation all of the public member functions, in the attached *taxid.cc* source file.
- Add all code for the definition of the *Employee* class to the attached *employee.h* header file.
- Include all of the necessary code for the *Employee* class, including the implementation all of the public member functions, in the attached *employee.cc* source file.
- You will submit a zip file (only a zip file will be accepted) containing *taxid.h*, *taxid.cc*, *employee.h* and *employee.cc* to the assignment in Blackboard.
- Source files must compile and run on a computer of the instructor's choosing in the Linux lab (see your course syllabus for additional details).

Grade Breakdown

Style *taxid.h*: 0.25 point

Style *taxid.cc*: 0.25 point

Style *employee.h*: 0.25 point

Style *employee.cc*: 0.25 point

Documentation: 1 point

Clean compilation of *taxid.cc*: 0.25 point

Clean compilation of *employee.cc*: 0.25 point

Clean compile/link with *testtaxid.cc*: 0.25 point

Clean compile/link with *testemployee.cc*: 0.25 point

TaxId class passes instructor's modified *testtaxid.cc* tests: 4 points

Employee class passes instructor's modified *testemployee.cc* tests: 3 points

The penalty for late program submissions is 10% per day, with no submission accepted after 3 days.