

Due: See Blackboard

Purpose – Implement two classes

Create a *TimeOfDay* class that holds the hour, minute, and second of a time of day in private integer data members. The class will contain a constructor, a print function, and accessor and mutator functions for the private data members. Read the comments in the supplied *timeofday.h* header file for more detailed requirements. Initial tests for the functionality of the *TimeOfDay* class have been provided in the attached *testtimeofday.cpp* source file. If you place all of the attached files in the same directory, you can run the initial tests with the command **make checktimeofday**. You are encouraged to create more rigorous tests.

Create an *TimeInterval* class that has a start *TimeOfDay* object and an end *TimeOfDay* object as private data members. The class will include three constructors, a print function, and accessor and mutator functions for the private data members. Read the comments in the supplied *timeinterval.h* header file for more detailed requirements. Initial tests for the functionality of the *TimeInterval* class have been provided in the attached *testtimeinterval.cpp* source file. If you place all of the attached files in the same directory, you can run the initial tests with the command **make checktimeinterval**. You are strongly encouraged to create more rigorous tests.

Specifications

- Add all code for the definition of the *TimeOfDay* class to the attached *timeofday.h* header file.
- Include all of the necessary code for the *TimeOfDay* class, including the implementation all of the public member functions, in the attached *timeofday.cpp* source file.
- Add all code for the definition of the *TimeInterval* class to the attached *timeinterval.h* header file.
- Include all of the necessary code for the *TimeInterval* class, including the implementation all of the public member functions, in the attached *timeinterval.cpp* source file.

- You will submit a zip file (only a zip file will be accepted) containing *timeofday.h*, *timeofday.cpp*, *timeinterval.h* and *timeinterval.cpp* to the assignment in Blackboard.

Grade Breakdown

Style *timeofday.h*: 0.25 point

Style *timeofday.cpp*: 0.25 point

Style *timeinterval.h*: 0.25 point

Style *timeinterval.cpp*: 0.25 point

Documentation: 1 point

Compilation of *timeofday.cpp*: 0.25 point

Compilation of *timeinterval.cpp*: 0.25 point

Compile/link with *testtimeofday.cpp*: 0.25 point

Compile/link with *testtimeinterval.cpp*: 0.25 point

TimeOfDay class passes instructor's modified *testtimeofday.cpp* tests: 4 points

TimeInterval class passes instructor's modified *testtimeinterval.cpp* tests: 3 points