

Assignment 1

Due: September 18, 2018 (11:59pm)

This package includes the files `barrel.cpp` and `barrel.h`. `barrel.h` contains the definition for a class called `barrel`. This class will simulate a physical barrel which can contain liquid. `barrel.cpp` is (mostly) empty. Your task is to add the implementation of the `barrel` class to `barrel.cpp`, such that the implementation matches the definition given in `barrel.h`. You may add additional private functions and variables to `barrel.h` if it helps you implement the rest of the class, but you must implement all functions already defined in the header. You will also be required to add asserts to check for the preconditions specified in `barrel.h`.

The `test.cpp` file contains simple scripts to test your `barrel` class. They can be called by uncommenting the function calls included in `main.cpp`. Note that a different script will be used to test your solution during grading. Hard coding values to pass the included test script will not suffice. You must write your functions so they meet all the preconditions and postconditions in `barrel.h`, regardless of the specific input. It is possible to write code which will pass the test script, but not meet the conditions. Additionally, the script does not test all possible conditions.

Please submit a `zip` file containing your source files on Blackboard. Note, you need to submit the source files, not the executable.