Lab 5

Due No Due Date **Points** 10 **Available** after Feb 3 at 7pm

Practice with Proficiency Demos & Inheritance

In order to get credit for the lab, you need to be checked off by the end of lab. You can earn a maximum of 3 points for lab work completed outside of lab time, but you must finish before the next lab. For extenuating circumstances, contact your lab TAs and the instructor.

The TAs will split you in half at the start of the lab. If you are not working on the proficiency demo, you should be working on the inheritance portion of this lab. If you need to get your previous lab checked off, do so during the hour you are not doing the demo.

(7 pts) Practice Proficiency Demo

1. Pay close attention these requirements:
   - No global variables
   - All class interfaces in .h, all class implementation in .cpp, and a driver.cpp with main
   - All class data members must be private
   - The information in a prototype supplied in the question may not be changed, but you can add
2. Wait to begin until informed by the TAs
   - You will be given 1 hour from the time the TAs begin
3. You are encouraged to spend time with designing; use scratch paper
4. First, open putty.exe on the computer
5. Create a directory called test using the command "mkdir test"
   - Change into that directory to create and test all of your files, "cd test"
   - You must stay in this directory
6. Begin entering your code using the Linux editor vim
7. You are also allowed to compile, test, and debug your work
8. You will be given a 7, 5, 3, or 1 for complete, almost complete, needs a bit more work, or no idea
9. When you are finished, wait for the TA to check you off
   - Give the proctor all your design and question material
   - Show, compile, and run your program for the TA
   - Go back up a directory and remove your test directory using "cd .." and "rmdir test"

Class/Main Template/Libraries for Common Built-in Functions

```
#include <iostream>    /* cin, cout, endl */
#include <cstdlib>     /* srand(), rand(), atoi() */
#include <ctime>       /* time() */
#include <cstring>     /* strlen(), strcmp(), strcpy() */
```

```
using namespace std;

//class interface file, type.h
class type {
   private:
      //members
   public:
      //members
};

//class type implementation, type.cpp
type::type() {

 }

//driver file to test your class, driver.cpp
int main () {
   srand (time(NULL));  //seed random generator

   return 0;
}
```

(3 pts) Begin Inheritance

To earn the last three points of the lab, show your TA that you are making an effort to setting up the inheritance aspects of Assignment 3 as well as the constructors, accessors, mutators, and Big 3 for the classes. This could be showing all of your .h files being set up in code or showing a thorough design of each class and their relation to each other.

Remember, you will not receive lab credit if you do not get checked off by the TA before leaving each lab. Once you have a zero on a lab, then it cannot be changed because we have no way of knowing if you were there or not!

Lab 5

Criteria	Ratings		Pts
Practice Proficiency Demo complete (7 pts), almost complete(5 pts), needs a bit more work (3 pts), The student does not know what to do (1 pt)	**7.0 pts Full Marks**	**0.0 pts No Marks**	7.0 pts
Inheritance lab	**3.0 pts Full Marks**	**0.0 pts No Marks**	3.0 pts
			Total Points: 10.0