CS162 Proficiency Demonstration Practice – Week 5

1. You will be divided into groups to do the demo in the first hour or the second hour of lab. **Get checked off for your previous lab and work on lab 5 during the hour you are not doing the demo.**
2. Pay close attention to these **requirements:**
   a. **NO global variables.**
   b. **All class interface in .h, class implementation in .cpp, and a driver.cpp with main.**
   c. **All class data members must be private.**
   d. The information in a prototype supplied in the question may not be changed, but you can add
3. **Wait to begin** until informed by the Proctors.
   You will be **given 1 hour** from the time the Proctors begin.
4. You are encouraged to **spend time with design**.
5. First, open putty.exe or your SSH tool of choice on the computer.
6. Create a directory called lab5, **mkdir lab5**
   a. Change into that directory to create and test all your files, **cd lab5**.
   b. You must stay in this directory
7. Begin entering in your code using a **Linux editor**
   a. You may use vi, vim, or emacs as your editor
8. You are also allowed to **compile, test, and debug** your work.
9. **You will be given a 10, 7, 4, or 1 for complete, almost complete, needs a bit more work, or no idea.**
10. **When you are finished**, wait for the Proctor to check you off.
    a. Give the Proctor all your design and question material.
    b. Show, compile, and run your program for the proctor.

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;
}
```

Design a class called Date that has integer data members to store month, day, and year. The class should have a three-parameter non-default 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, the members get the following default values of 1, 1, 2001 (i.e., January 1, 2001). The class should have member functions to print the date in the following formats:

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Demonstrate the class by writing a program that uses it. Create one object using the default constructor and another object using the non-default constructor. Print the date from both objects using the two different format functions from above. Remember, all data members should be private!!!