CS250 Assignment 1
Warm Up Exercise

Date assigned: Monday, January 30, 2017

Date due: Friday, February 3, 2017

Points: 10

Goals for Assignment 1

1. Reacquaint yourself with Visual Studio and Grace.
2. Implement a simple C++ program that uses loops, files, functions, arrays, and random numbers.
3. Write excellent / easily modifiable code that follows the coding standards defined on the course Web page.
4. Use well-named constants.

The purpose of this assignment is to produce an amount of random lottery tickets for use later in the course. Specifically, your program is to create 25 random lottery tickets where each ticket contains 6 numbers in the range of 1 to 25. You are to write each lottery ticket on a single line of a file called lottery.txt. Each number of a lottery ticket is separated by exactly one space.

Lottery ticket specifics in general:

1. A lottery ticket can consist of 1 or more numbers.
2. Each ticket number has a minimum value of 1 to some maximum value greater than 1.
3. There can be no repeated numbers for an individual lottery ticket.

There is no user input for this program. It should be easy for me to change (in your program) the number of lottery tickets I want written to a file, the number of numbers for each ticket, and the range each number can have.

For this assignment, we will all get the same results if we seed the random number generator with the same seed. For this assignment, use a seed of 99. Here is an example of 2 lottery tickets produced by a program where a ticket has 5 numbers and the values range from 1 through 9 inclusively.

```
2 7 3 5 4
2 6 3 8 9
```

To complete this assignment you must submit the following:

1. An electronic copy of your program on Grace

a) Create a new C++ solution in Visual Studio 2015. Your solution must be called **PUNetID-Assignments**. For example, mine would be called ryandj-Assignments. This solution will hold all of your assignment projects for CS 250. You are starting over for CS250, meaning do not include any projects from CS150.

b) Your project for this assignment must be named **01CreateLotteryTickets**. It is vital that you name your solution and your project correctly!

c) Type your program (fully documented/commented) into the project. You need to follow the coding standards from the CS250 Web page. These coding standards have been modified to include additional C++ language features introduced in CS250, so please be sure to read the new coding standards.

d) Pay attention to the example output. Your program's output must look **exactly** like the sample output. The spacing and newlines in your output must match exactly.

e) Make sure that your program builds without errors & warnings and runs correctly. If you get any errors or warnings, double check that you typed everything correctly. Be aware that C++ is case-sensitive. You will lose 10% if there are any warnings and 40% if your program does not build successfully.

f) Once you are sure that the program works, it is time to submit your program. You do this by logging on to Grace and placing your complete solution folder in the correct drop folder based on the section of the course in which you are enrolled (**CS250-XX Drop**).

g) The solution must be in the drop folder by the time class starts on the day the assignment is due. Anything submitted after that will be considered late.

2. A hard copy of your program

a) The hard copy must be placed on the instructor's desk by the time class starts on the day that it is due.

b) The hard copy must be printed in color, double-sided, and stapled in the upper left corner if your solution contains multiple pages.

c) Your tab size must be set to 2 and you must not go past column 80 in your output.

Remember, if you have any problems, come to me straight away with your project on a flash drive or on Grace. Good Luck!!!! ☺