CST 370
Programming Assignment (Queues)

(100 points)

Download the sample code of a stack class (Stack.h, Stack.cpp) and queue class (Queue.h, Queue.cpp) from **iLearn**. Your are also provided a Sample_Queue_tester.cpp file just for your reference, so that you can execute the queue class. Make a project with the files (Stack.h, Stack.cpp, Queue.h, Queue.cpp), along with your test file "Queue_test.cpp".

Write a program that reads a string of characters, pushing each character onto a stack as it is read and simultaneously adding it to a queue. When the end of the string is encountered, the program should use the basic stack and queue operations to determine if the string is a palindrome.

Palindrome is a string that reads the same from both the beginning and the end. For example, the string **anna** is a palindrome.

Grading

I will download your code on my computer and execute it. If your code does not compile, you may lose more than 50% of your points (based on my discretion). If your code compiles, but still produces incorrect results you may still lose more than 30% of your points (based on my discretion).

Your code should have the following characteristics for you to get full points on the assignment

1. Compile without error.
2. Produce correct output.
3. Good programming structure.
4. Comments. (Title, Abstract, Author, ID, and Date are mandatory.)
5. Meaningful and related variable names.

What to turn in?

Submit your source programs **and 'ProgramSubmission_yourlastname.pdf'** as a single zipped file **'Program3_yourfullname'** on iLearn.

If you do not submit the above mentioned documents in the format specified, your assignment will not be graded.

ProgramSubmission_yourlastname.pdf
For each homework problem, you are expected to submit screenshots of the results obtained from running your code. You should also explain what each screenshot means and why the result on the screenshot is correct.

This link explains how to take screenshots in Mac and Windows.
http://www.take-a-screenshot.org/