## San José State University Department of Computer Engineering

# CMPE 180-92 Data Structures and Algorithms in C++ Fall 2016

Instructor: Ron Mak

### **Assignment #1B**

Assigned: Saturday, August 27

**Due:** Friday, September 2 at 11:59 PM

**URL:** <a href="http://codecheck.it/codecheck/files/1608280522e4xay023hge47ns24q08fhx9u">http://codecheck.it/codecheck/files/1608280522e4xay023hge47ns24q08fhx9u</a>

Canvas: Assignment 1.b. Branching and looping

Points: 100

#### **Branching and looping**

This assignment will give you practice writing simple branching and looping statements.

Submit a C++ program into CodeCheck that will read Lincoln's Gettysburg Address from a text file, and count and print the number of lines, characters, words, lower-case letters, upper-case letters, spaces, and punctuation marks.

If you go to the above URL, you will see a partially written program **gettysburg.cpp** in CodeCheck's edit box. Complete the program and press the "Submit" button. You can type into CodeCheck directly, or you can edit and test your program outside of CodeCheck, such as in Eclipse or NetBeans, and then cut and paste into CodeCheck.

#### Here's a zip file of **GettysburgAddress.txt**:

http://www.apropos-logic.com/CMPE180-92/assignments/1B/GettysburgAddress.txt.zip The text file GettysburgAddress.txt has already been uploaded into CodeCheck.

You can submit as many times as necessary until your program to produces the expected output. The number of submissions will not affect your score. When you're satisfied with your program, click the "Download" link at the very bottom of the Report screen to download a signed zip file of your solution.

Submit the signed zip file into Canvas: Assignment 1.b. Branching and looping.

#### Input file: GettysburgAddress.txt

Four score and seven years ago our fathers brought forth on this continent a new nation, conceived in liberty, and dedicated to the proposition that all men are created equal.

Now we are engaged in a great civil war, testing whether that nation, or any nation so conceived and so dedicated, can long endure. We are met on a great battlefield of that war. We have come to dedicate a portion of that field, as a final resting place for those who here gave their lives

that that nation might live. It is altogether fitting and proper that we should do this.

But, in a larger sense, we can not dedicate, we can not consecrate, we can not hallow this ground. The brave men, living and dead, who struggled here, have consecrated it, far above our poor power to add or detract. The world will little note, nor long remember what we say here, but it can never forget what they did here. It is for us the living, rather, to be dedicated here to the unfinished work which they who fought here have thus far so nobly advanced. It is rather for us to be here dedicated to the great task remaining before us—that from these honored dead we take increased devotion to that cause for which they gave the last full measure of devotion—that we here highly resolve that these dead shall not have died in vain—that this nation, under God, shall have a new birth of freedom—and that government of the people, by the people, for the people, shall not perish from the earth.

You should download and unzip GettysburgAddress.txt.zip rather than cut and paste the above text into a new text file. Doing the latter may introduce extraneous characters.

#### **Expected output:**

Statistics for file GettysburgAddress.txt:

Lines: 25

Characters: 1434

Words: 271

Lower-case letters: 1138 Upper-case letters: 11

Spaces: 244

Punctuation marks: 41

CodeCheck will match your program's output against the expected output.

President Abraham Lincoln gave this eloquent speech at the Gettysburg, Pennsylvania battlefield on November 19, 1863 during the American Civil War. See <a href="https://en.wikipedia.org/wiki/Gettysburg">https://en.wikipedia.org/wiki/Gettysburg</a> Address