New Beginnings Summer 2018

Practical Section – Proficiency Exam #1 – August 10, 2018

Focus: C++ Syntax, Flow Control, Dynamic Arrays, File I/O

Summary:
Write a C++ program which reads a text file, counts the number each alpha character occurs, and displays a histogram of all characters(a though z).

Requirements:
1. Create a dynamic array to hold the counts of each character. (This isn't strictly necessary, but I want to see that you can do this.)
2. Ignore character case.
3. Only count alpha characters – a through z. (Ignore newlines, spaces, etc.)
4. Write the histogram to an output file in your local directory.
5. The histogram should have the format of   - "letter - count - # of asterisks"
   a. Sample Output File(numbers below are not from Gettysburg.txt):

```
a  –      53  –  ******
b  –       2  –  *
c  –      25  –  ***
d  –      43  –  *****
   .
   .
z  –       0  –
```

6. Output 1 asterisk for each 10 characters counted:
   - 0 => 0 asterisks
   - 1-9 => 1 asterisk
   - 10-19 => 2 asterisks
   - etc.
7. Use setw(5) from the iomapip library for printing the count. For example:
   a. cout << char_variable << "-" << setw(5) << char_count << ….
   b. Remember to include the library - #include <iomanip>

Input File: /u/jgraalum/Gettysburg.txt