

COP2221 – Intermediate C++ Programming

Module #10 Assignment

10 points

This assignment refers to the following course learning outcomes:

- Use pointer data types and pointer notation as needed to create an efficient and functioning computer program
- Use strings and string functions to create “text” oriented programs

This simple video shows another example of working with C-strings:

<https://www.youtube.com/watch?v=5MZJrgMmDEA>

HINT: ignore if it confuses you – just one approach: `char v[] = {'A', 'a', 'E', 'e', 'I', 'i', 'O', 'o', 'U', 'u'};`

Programming Problem

You will design, code and debug a program that contains functions that **accept a pointer to a C-string as its argument**. Use **Program 10-14 as an example as well as the VideoNote from the end of Chapter #10**. The functions you will code will count the number of vowels, the number of consonants or both in the string depending upon a user's menu choice (see menu below).

The program flow is:

1. The user is asked to enter a string
2. The program displays the following **menu**:
 - a. Count the number of vowels in the string
 - b. Count the number of consonants in the string
 - c. Count both the vowels and consonants in the string
 - d. Enter another string
 - e. Exit the program
3. The program will terminate when the user enters choice 'e'. Be sure the menu choice is **not** case sensitive (it must be alphabetic, as indicated)

NOTE: before coding – design your program. **If you need assistance, I will need to see your design** (it can be brief – just to show you have thought about the coding relationships) **and I will only help with one function at a time**. You need to

develop a planning and coding technique for yourself that keeps you on track and uses the power of building your program in steps/modules.

Grading Rubric

10 points – well documented, compiles and executes perfectly

8 points – lack of documentation, compiles and executes with a minor (or two) error(s)

6 points - lack of documentation, compiles and executes with a minor (or two) error(s), not all needed tasks are correct or included (missing some functionality)

5 and fewer points – doesn't compile, lack of functionality to solve the programming problem, poor programming style

0 points – no submission