

Homework 10

CS-102

Spring 2022

Homework 10A

Password Verifier

- Imagine you are developing a software package that requires users to enter their own passwords. Your software requires that users' passwords meet the following criteria:
 - The password should be at least seven characters long;
 - The password should contain at least one uppercase and at least one lowercase letter.
 - The password should have at least one digit.
 - The password should contain at least one non-alpha, non-digit, non-space, punctuation character.
 - The password should contain no spaces.

Homework 10A

Password Verifier

- Write a program that asks for a password and then verifies that it meets the stated criteria.
 - If the password meets the criteria, it should state so.
 - If it doesn't, the program should display a message telling the user why it failed.
 - Call your program: **MyName-Hwrk10A.cpp** . Be sure to put your name as a comment in the code as well as display it in the screen output.
- Note, there is no need to give the user a second chance (or more) to type in a different password. The user should simply be told that the password was successful, or why it wasn't, and then the program can end.

Homework 10A

Password Verifier

- [Hint: 1) You'll likely want to make use of some of the character functions shown in Table 10-1 on page 558 of Starting Out With C++, ninth Edition.]
- [Hint 2) This can be solved using either C++ Strings, or arrays of char. If you use an array of char and if you don't preset the array of char, you will have no idea what is sitting in the array beyond what you input from the keyboard. This can lead to difficulties.]

Homework 10B

Word Counter

- Write a function that accepts a pointer to a C-string as an argument and returns the number of words contained in the string.
 - For instance, if the string argument is “Four Score and seven years ago” the function should return the number 6.
- Demonstrate the function in a program that asks the user to input a string and then passes it to the function.
 - The number of words in the string should be displayed on the screen.
 - Allow for sentences of up to 100 characters.
 - We will be using the result of this program in an upcoming homework, so it will be a very useful function for us to have in our tool kit.
 - Call your program: **MyName-Hwrk10B.cpp** .
 - Be sure to put your name as a comment in the code as well as display it in the screen output.