**Quest 6**

100 EXP

CPSC121 SI

**Craig:** Welcome Back Programmer.

**Craig:** Today we will be talking about characters and strings. I know, you already know what these are, but I feel the need to go over them in more depth anyways.

**Craig:** We all know that char holds a single character and string holds a sequence of characters, but did you know there were different methods to reading inputs into these objects?

**Craig:** Let’s start with ways to input strings. Of course, the standard input method is cin. I’m sure you have noticed that cin will only grab a string up until a space or newline character.

**Craig:** If you ever want to read in a string that contains blanks, you will need to use getline. Here are some examples:

#include<string>  
 string sample;  
  
 getline(cin, sample); //Reads in a string until the newline character is found  
 getline(cin, sample, ‘!’); //Reads in a string until a ‘!’ character is found

**Craig:** There are also a few cin tricks that you could use for character input. Here are some examples:

char craig; //yup, I named a char after myself  
  
 cin >> craig; //Reads in a non-blank character  
 cin.get(craig); //Reads in the next character in the input buffer(blank or non-blank)  
 craig = cin.get; //Reads in the next character in the input buffer(blank or non-blank)  
  
 cin.ignore(); //skips over the next character in the input buffer.

**Craig:** There also a few string member functions that would be useful for you to learn.

**Craig:** The first member function is length(). This will return the number of characters in a given string.

string mascot = “Tuffy the Titan”;  
 int size = mascot.length(); //size holds the value 15

**Craig:** Another member function that is useful is assign(). This can be used to put repeated characters in a string. The first parameter sent is how many characters, and the second parameter is what character you want to repeat.

string formatLine;  
 formatLine.assign(20, ‘=’); //string that holds 20 ‘=’ characters

**Craig:** You can now cout the string formatLine any time you want to display 20 equal signs.

**Craig:** My boss has requested a program that will gather quotes from various people. The program should ask for their full name (first/last or first/middle/last) and a quote they would like the share about the world. Ask three people for quotes.

**Craig:** The output should follow these guidelines:

* Program shall start by displaying a line of ‘\*’ (use your best judgement on the length)
* Display the given quote inside quotation marks i.e. “quote”
* Display the name of the person who gave the quote on the following line
* Display a line of ‘=’ between quotes
* Display a line of ‘\*’ at the end.

**Craig:** Here’s an example of what your program should look like:

What is your name: Vidal Sassoon  
Quote: The only place where success comes before work is in the dictionary.

What is your name: Maya Angelou  
Quote: Success is liking yourself, linking what you do, and liking how you do it.

What is your name: Winston Churchill  
Quote: Success is walking from failure to failure with no loss of enthusiasm.

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