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, liking 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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"The only place where success comes before work is in the dictionary."
-Vidal Sassoon
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"Success is liking yourself, liking what you do, and liking how you do it."
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"Success is walking from failure to failure with no loss of enthusiasm."
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