CSC 134

M2HW1 - All questions are listed below.

Grading Tiers:

Bronze (up to 80/100): Complete two questions

Silver (up to 90/100): Complete three questions

Gold (up to 100/100): Complete four questions

Bonus: Add all suggested improvements. (These will require a bit of digging into the optional slides to determine how to add these extra features.)

This is an assignment with a lot of parts, so I recommend you tackle one problem at a time. Try to get a basic version working before adding in improvements.

Question 1. Write a program that simulates banking transactions using the following requirements.

The program should ask the user for their name. It should then ask for the following information (all units are dollars):

- Starting account balance
- Amount of deposit
- Amount of withdrawal

The program should then display the following information:

- Name on the account
- Account number (you can generate this any way you see fit -- a number you pick, or a random number, for example)
- Final account balance.

(**Suggested improvements:** Allow the name to contain whitespace, and print all money amounts with two decimal places. The techniques needed to do both are found in "Gaddis Chapter 3 Slides" under Resources.)

Question 2. Use the M2LAB1 program as a base for this question.

General Crates has found that the updated cost per cubic foot for storage is now 0.3, due to economic fluctuations.

Management has determined that they cannot currently raise their charge per cubic foot above 0.52 without losing customers.

Modify the program to match these new conditions.

(**Suggested improvements:** print all money amounts with two decimal places. The technique to do this is found in the "Gaddis Chapter 3 Slides" under Resources.)

Question 3. You are throwing a pizza party. Each visitor should get three slices of pizza.

The program should ask how many pizzas you order, how many slices per pizza, and how many visitors are coming.

The program should calculate and display how many pieces of pizza are left over.

Question 4. Since FTCC has sports teams, you've been hired to write a cheering program.

The program should output this message:

```
Let's go FTCC
Let's go FTCC
Let's go FTCC
Let's go Trojans
```

You should use the following variables in your **cout** statements**:**

```
string school, team;
```

Suggested Improvements: For bonus points, meet these additional constraints:

A. You can't print out any raw strings (`"that look like this"`), only string variables.

B. you can only use these string variables:

```
string letsGo, school, team, cheerOne, cheerTwo;
```

C. You must use **string concatenation** to build the strings `cheerOne` and `cheerTwo` . (String concatenation means to use the + operator.)

Create a program that prints out the output in the sample using these constraints.