

**CMPSC 201 – Spring 2017**  
**Project 1**  
**Due by 11:00 pm on Monday 2/13**

**Worth 40 pts**

For this project you are to create a program that will perform unit conversions for temperature (degrees Celsius vs. degrees Fahrenheit), distance (centimeters vs. inches), weight (kilograms vs. pounds), and volume (liters vs. quarts). The user should be able to select the conversion to perform and enter the appropriate value to be converted. The program should be menu driven and contain if-elseif structure or switch structure to select the various options. The program should also include **simple ifs** to check the validity of the entered data, e.g. the user should not be able to enter a negative number for dimensions or temperatures below absolute. (You should assume that the user will not input an invalid value more than once.) Output should contain the **original data and units** plus the **newly converted data and units**. The menu output could look something like the following:

1. Degrees Fahrenheit to Celsius
2. Degrees Celsius to Fahrenheit
3. Inches to Centimeters
4. Centimeters to Inches
5. Pounds to Kilograms
6. Kilograms to Pounds
7. Quarts to Liters
8. Liters to Quarts.

In your own words write a definition of the problem along with the input, output, any necessary constants, and processing needed to solve this problem as introductory comments for the program.

Create test data for all the options and test your program with your test data.

**Do not use any concepts beyond Chapter 4 of your textbook. Attach your source code file (\*.cpp) to the appropriate assignment on Canvas and take the time to confirm your submission. Remember you will not receive any credit for files not attached or incorrect submissions**