COP 3331 Summer 2017: Programming Assignment 6
Due: Tuesday, 11 July, 11:55 pm

Please include the following files in a zipped folder and submit the zipped file via the assignment link on Canvas. The zipped file should have the name "proj6-xxx.zip" where xxx is your NetID.

- Template Exercise (50 pts)
  - Modified FeetInches Specification file (30pts) – FeetInches.h
  - Driver program with function template (20 pts) – TempDriver.cpp
- README File: A plain text including instructions on how to compile and run your code in the IDE you used. This file should include any special instruction/information that the TA should know to be able to run your code.

Notes:

- Your source codes should be well-commented showing clearly what each part/block of the program does.
- Each .cpp or .h file should have your name in comments at the top of the file.

Template Exercise

Write template for two functions called **minimum** and **maximum**. Each function should accept two arguments and return the lesser or greater of the two values. Test these templates in a driver program. The template with the following types: **int**, **double**, **string** and **FeetInches** (which is an object).

You will need:

1. The FeetInches class (which was provided in Week 3 - Code Example 2: it is on page 4 of that file).

   Make changes to the code so that it does the following:

   a. Replace the + and – overloaded functions with < and > overloaded functions instead. The definition of those functions should take the following form:

```
//Use the function header syntax below
bool FeetInches::operator > (const FeetInches &right)
{
      // change to proper code
    create boolean variable

    if feet is greater than right.feet
              Set variable to true
    otherwise if feet is equal to right.feet and inches is
                 greater than right.inches)
              Set variable to true
```

```
    otherwise
              Set variable to false

    return Boolean variable
}

//Repeat and modify for < operator
```

b. Add the overloaded functions for >> and << to accept Feet and inches as feet, inches.
   i. Examples of overloaded functions were included in Project 3.

   ii. You may not have to modify the >> operator definition, unless you want to make your input more sophisticated. Example: You may want to input in the"coordinate form" like (3, 7) or you may want the user to type "3 feet, 7 inches".

   iii. The << operator should be modified to output the comma, the word feet or inches as needed

c. You can omit the simplify function for this exercise.

2. Two template functions (these can be created in your driver program).

3. Variables to store ints, doubles, strings.

4. Objects to store FeetInches values .

A sample of the output is shown below:

```
Enter two integers: 1 2
The minimum of 1 and 2 is:  1
The maximum of 1 and 2 is:  2
Enter two floating point numbers: 7.8 4.3
The minimum of 7.8 and 4.3 is:  4.3
The maximum of 7.8 and 4.3 is:  7.8
Enter the first string: Hello
Enter the second string: Hullo
The minimum of Hello and Hullo is:  Hello
The maximum of Hello and Hullo is:  Hullo
Enter the first distance (in feet, inches format): 3, 7
Enter the second distance (in feet, inches format): 4, 9
The minimum of 3 feet , 7 inches and 4 feet , 9 inches is:  3 feet , 7 inches
The minimum of 3 feet , 7 inches and 4 feet , 9 inches is:  4 feet , 9 inches
```