COMP 1005

Introduction to Computer Science I Assignment 1

Released: Monday September 11, 2017, 12:00 Noon

Due: Monday October 2, 2017, 12:00 Noon

Submission Instructions

Your assignment will consist of a single python file. You will compress it in a zip file and submit it through cuLearn.

Your Personal Unit Converter

In this assignment you will create an interactive program which will act as your own personal unit converter. Your program will do the following things:

1. When the program starts it should ask for the user's name and then present a welcome message (using the user's name!)
2. It will then present the user with a list of possible conversions it can perform and ask for the user to choose an option.
3. The user then makes a selection and the program will ask for a number to convert.
4. The program will then make the conversion and print it out.
5. The program will then present a closing message (again using the user's name)

Your program will need to be able to perform **at least 5** different conversions. In your code you will write a function for each of your converters. Based on the user's input you will call the appropriate function. You are free to choose whatever conversions you would like (other than those you did in the tutorials) but you must include a "percent to letter grade" converter in your program. Use the following ranges for this conversion:

Grade Range	Letter Grade
[80, 100]	A
[70, 80)	B
[60, 70)	C
[50, 60)	D
[0, 50)	F

Note on this range notation: Depending on the type of bracket used when describing a range, the range will either be **inclusive** or **exclusive** at that end. An **inclusive** end is represented using a square bracket and means that this number **is** included in the range. An **exclusive** end is represented using a round bracket and means that everything up to **but not including** this number is included in the range. For example, the A range is from 80% - 100%, including both 80% and 100%. On the other hand, the C range is from 60% up to but not including 70% (ie. any number in the sixties).

Here is a few examples of what running your program could look like (user input is highlighted to help illustrate the example):

```
Please enter your name: john
Hello  john , welcome to your personal unit converter.

Please choose which conversion you would like to perform:
1 - convert cm to inches
2 - convert percent to letter grade
3 - convert cups to ml
4 - convert grams to ounces
5 - convert fahrenheit to celsius

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Value in cm to convert: 10
10 cm =  3.937007874015748 inches

Goodbye john

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Please enter your name: jane
Hello  jane , welcome to your personal unit converter.

Please choose which conversion you would like to perform:
1 - convert cm to inches
2 - convert percent to letter grade
3 - convert cups to ml
4 - convert grams to ounces
5 - convert fahrenheit to celsius
```

Percent to convert to letter grade: 67.1
67.1 % is a(n) C

Goodbye jane