CSCE 206 Spring2018 Lab: Assignment #1

Submission Deadline: 23:59, Feb 03, 2018, Sunday.

1. Follow the submission guideline to submit the assignment through eCampus.
2. Add comments to your code, including your name, UIN and the class section you are in with the block comments to the head of your code file.

Problem 1. Run Tracking (30 points)

An athlete runs every day for five days. Write a program that computes the total distance and average distance ran by the athlete. The program should ask the user for the number of miles run on each day (Monday to Friday), and save the values entered by the user in **five different** variables. The program should first calculate the **total miles** ran by the athlete and store the result in a variable named **sum**. Then the program should compute the **average distance** covered and store it in a variable named **average**. Display the total distance and the average distance on the screen. Name your program file Hw1_q1_code.c.

(TIP: Use **scanf** function, and **float/double** data type for all variables)

Example hints and inputs: (purple texts are what the program should print on the screen to instruct the user, the black texts are what the user types in)

Input the miles for Monday: 2.5

Input the miles for Tuesday: 1.5

Input the miles for Wednesday: 2.2

Input the miles for Thursday: 1.8

Input the miles for Friday: 3.0

Example outputs:

Sum = 11 miles

Average = 2.2 miles

Problem 2. Swap two numbers (40 Points)

There are two numbers waiting for swap. Prepare two variables to store them respectively and then **swap the two values between these two variables** before your output. Name your program file Hw1_q2_code.c.

(TIP: Use **scanf** function, and **float/double** data type for number input and output)

Example inputs and outputs format: (purple texts are what the program should print on the screen, the black texts are what the user types in)

Enter a and b: 3.5 9.2

Example outputs:

Before swap: a=3.5, b=9.2

After swap: a=9.2, b=3.5

Problem 3: Billing Software (30 Points)

A customer buys 2 items at a store with each item being bought in different quantities. Write a program that asks the user to enter the cost of an item and its quantity. Repeat this for all the three
items. Finally, output the total amount the customer should pay (with 8.25% tax). Name your program file Hw1_q3_code.c.

(TIP: Use **scanf** function, and **float/double** data type for prices and **int** for quantities)

Example Hints and Inputs: (purple texts are what the program should print on the screen to instruct the user, the black texts are what the user types in)

Input the price of item1: $5.5

Input the number of item1 you bought: 3

Input the price of item2: $2.5

Input the number of item2 you bought: 10

Example outputs:

Total cost = 44.923748