COMP-1400 Fall 2022
Assignment #3
(Due End of Wednesday, 30 Nov. 2022)

OBJECTIVE:

Through three assignments, we will learn how to apply the concepts learned in this course to develop a simple command-line calculator using the programming language C.

In the third assignment, we are going to complete the calculator program we developed in the first two assignments. This version will cover array variables and user-defined functions.

1- Write a function to show the list of available options (B,U, V, A, E). Then whenever you need it in the main program, call that function. This function should return the user selection as a single uppercase character, B, U, V, A, E. If a user enters an invalid character, the function needs to show a proper message and gets another input. This means, the function won't exit unless a valid character is selected.

2- Convert cases B, U, and E to separate functions and call them in the main program, whenever is needed. For example, for case B, you need to write a function that receives three parameters, two float numbers, and one operator (character), and returns the result of such calculation in a float format. The function also will check the parameters and show proper messages if any of them are invalid, as described in assignment 2. Then whenever the user selects B in the main program, the inputs will receive from the user, and then this function will be called and processed.

Save the file in the format of a C source file as **clc_v3.c** in your working directory, i.e., **/home/yourUserName/Fall/comp1400**.

As you are already in the working directory as completing UNIX Exercise, you can now compile the C program with the following command to produce an executable.

> **gcc -Wall clc_v3.c -o clc.out**

You can run the executable file with the following command.

> **./clc.out**

Submission Instruction:

You have to submit your solution as **A SINGLE C FILE** into Blackboard before the deadline.

PLEASE DO NOT submit any other types of files, such as compiled files, files associated with specific software, etc. Therefore, for this assignment you just need to submit the following file:

- One text file, named "clc_v3.c", which should be a simple text file, containing your c program.

Submission of other file types will make problems in grading your assignments, and you will lose a partial or complete mark.

Good Luck 😊