Homework 2 *(Due: May 27)*
C++ Programming - COSC 2321

Department of Computer Science and Electrical Engineering

Summer Session I, 2022

Exercises

*Create a **New Project** for every exercise. Take a screenshot of the source code along with its output and place the **source code** and the **screenshot** in a **zipped folder** named **LastNameFirstName_HW2***

Exercise 1

From **main**, call the following three functions named **studentID, studentFullName, studentGPA** that ask the user to enter ID, Full Name, and GPA, respectively. The functions should return **int, string, double**, respectively to **main**. Create another three functions, named **printStudentID, printStudentFullName, printGPA** that accept the three afore-mentioned variables respectively and print their values

Note: You may have to use **cin.ignore()** to flush the newline character from buffer

Exercise 2

In **main**, ask user to enter two numbers and call function **myAddition** that adds the two numbers entered. Function **myAddition** accepts the two numbers, the first one **by value** and the second one **by reference**. Store the result of the addition to the reference variable. Do not **return** any variable to **main** (i.e., **myAddition** is *void*). Print the summation result from within **main**

Exercise 3

Similarly to Ex. 2, instead of call-by-reference (for the second variable) use **call-by-pointer**

Exercise 4

In **main** ask the user to enter two numbers -of **double** data type- and then ask the user to enter one of the following arithmetic operators: **+, -, *, /**. Depending on the operator entered call the respective function, e.g., if **+** is entered call function **myAddition** that adds the two numbers entered and returns their sum. Create respective functions for all four operators that return their result to **main**. If the user enters a character other than the four arithmetic operators print *Invalid entry* and **keep asking** the user until a valid operator is entered

Exercise 5

In **main** ask user to enter three numbers (use a single *cin* to get all three numbers). Create two **overloaded** functions named **myAddition**, one with **two** parameters and another one with **three** that sum two and three numbers, respectively. Print results from within *main*

Note: Submit through **Canvas**