CSCI 1060U - Laboratory #3
Programmer Defined Functions in C++
Lab Due: <u>Saturday, Oct. 10, 2020 at 11:59pm (Canvas)</u>

Introduction

The main purpose of this lab is to create functions and learn more about call-by-reference parameters.

Activity #1

The first activity will be to <u>*write your own function*</u>, sortNums(int nums[], int size) that sorts an array of numbers (passed as a parameter) in ascending order. The input and output for the program are as follows:

> <u>Input/Output:</u>
>
> Enter 5 integers:
> 1 23 4 54 3
>
> The array of integers sorted in ascending order is:
> 1 3 4 23 54

Include a function swapper(int& a, int& b) that can be used in your sort function.

Save the source code in a file named **csci1060u_lab3_a1.cpp**.

Activity #2

Once you have completed the first activity, you should modify the program created in Activity #1 to take randomly generated input instead of command-line input. Save the source code in a file named **csci1060u_lab3_a2.cpp**.

Use the "**time**" command in Linux (your TA will explain this to you) to detect how long it takes to sort 1000 numbers and 10,000 numbers. Include the time result as a comment in your program.

You should submit your <u>*source files*</u> (.cpp) for Activity #1 and Activity #2 through the lab drop box in Canvas.