

ECE 175: Computer Programming for Engineering Applications

Lab 0

Objectives: To familiarize you with MS Visual Studio environment or Xcode (if you use Mac OS) and to create your first C programs.

To use Visual Studio (Windows), follow “MS_VisualStudio2019_HowtoUse” document on D2L under Content and the Resources module.

To use Xcode (Mac), follow “Xcode_instructions_MacOS” document on D2L under Content and the Resources module

Demo your code/program to TA or ULA your code for each problem to earn your lab 0 score before leaving the lab room and by the end of your lab session (xx.50 pm). If you do not or cannot complete the problems by the end of your lab session, demo to TA/ULA to get partial credits.

Problem 1 (12 points): Write a C program that reads two integers and displays their average and the result of their division.

Sample code execution 1: **bold entered by a user**

Enter two integers: **100 7**

average of 100 and 7 is 53.50

100/7 is 14.29

Sample code execution 2: **bold entered by a user**

Enter two integers: **99 175**

average of 99 and 175 is 137.00

99/175 is 0.57

Problem 2 (18 points): Write a C program that

- reads in a three-digit integer number from the keyboard and keeps the value in 1 integer (int) variable, then
- prints out the sum of its digits.

Note: The number entered by the user is guaranteed to be a three-digit number and its hundredth digit will never be 0.

Hint: Use division by 10 or 100 and/or modulo (%) operator by 10 or 100 to isolate each of the digits.

Sample code execution 1: **bold entered by a user**)

Enter an integer: **358**

The sum of 3, 5, 8 is: 16

Sample code execution 2: **bold entered by a user**)

Enter an integer: **984**

The sum of 9, 8, 4 is: 21