

CS 115 - Introduction to Programming in Python

Lab 01

Lab Objectives: Input/output, data, expressions, branching

Instructions: For this assignment, you can use your favorite IDE (Spyder or Jupyter recommended). Upload your solutions as a single .zip file to the Lab01 assignment for your section in Moodle before the end of your lab session. Use the following naming convention:

SS_Lab01_Surname_FirstName.zip where SS is the section number 01, 02, 03, ..., & Surname is your family name, & FirstName is first name. You must attend the lab Zoom session. You must show and explain your solutions to your TA during your lab session and must answer their questions to get your grade by the end of your lab session (the week of Oct 11).

Students who do not attend the lab Zoom session but submit will get 0.

1. Write a program, `Lab01_yourname_Q1.py`, that prompts the user to enter three float values for x, y and z from the user. Calculate and display the result of the following equation. The output should be formatted as shown in the sample run below.

$$f(x, y, z) = \frac{(x + yz)(xy + z)}{xyz}$$

Sample Run 1: (User inputs are red) Enter x: 2 Enter y: 3 Enter z: 4.5 f(2.0, 3.0, 4.5) = 6.03	Sample Run 2: Enter x: 2 Enter y: 3 Enter z: 4 f(2.0, 3.0, 4.0) = 5.83
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2. Write a program, `Lab01_yourname_Q2.py`, that inputs three integers from the user and reports the largest even input and the sum of even inputs.

Sample Run 1: (User inputs are red) Enter first integer: 5 Enter second integer: 8 Enter third integer: 4 sum of evens is 12 even max is 8	Sample Run 2: Enter first integer: 3 Enter second integer: 5 Enter third integer: 1 No even integer is entered
Sample Run 3: Enter first integer: 2 Enter second integer: 7 Enter third integer: 6 sum of evens is 8 even max is 6	Sample Run 4: Enter first integer: 10 Enter second integer: 6 Enter third integer: 11 sum of evens is 16 even max is 10

3. Write a program, `Lab01_yourname_Q3.py`, that prompts the user for three names: displays the longest name (the name that contains the most characters) in the format as shown in the sample runs below.

Sample Run 1: (User inputs are red) Enter first name: Ali Enter second name: Su Enter third name: Ayşe Ayşe 's name is the longest	Sample Run 2: Enter first name: Berk Enter second name: Can Enter third name: Doğa Berk 's name is the longest, but there is a tie!
Sample Run 3: Enter first name: Eren Enter second name: Ece Enter third name: Ali Eren 's name is longest	Sample Run 4: Enter first name: Ali Enter second name: Ece Enter third name: Nil Ali 's name is the longest, but there is a tie!