***BE 1600***

***Introduction to***

***Programming and Computation***

***Python Lab***

**Lab 02 Chapter 2**

20 points

**Due by the end of the lab session**

**Please do not forget to sign-in**

Assignment Objectives:

• To explore numeric expressions, variables, and assignment

• To introduce predefine functions

• To use named constants

• To use F-Strings to format output

*Solution for this lab will not be posted on Canvas; however, the solution of any of the lab problems can be discussed in the class upon request of a student.*

All labs must be submitted by the Canvas. **No email or hard copy** is accepted. You must follow the following format:

1. Submit your file to the Canvas. You must submit your file on time; otherwise, you will receive zero.
2. You can upload your file as many times as you like. Only the last attempt counts because the last file you uploaded is the only file your instructor will see.
3. There will be several modules on the Canvas. You need to upload your file using the correct module on the Canvas.
4. Name the lab file: *Lab (labt number)*
5. To upload your file(s):

* In Course Navigation, click the ASSIGNMENTS module.
* Click the title of the assignment.
* Click the **Submit** Assignment button.
* Add **File**. ...
* **Submit** Assignment. ...
* View **Submission**.

*It is your responsibility to make sure that the file is uploaded correctly. If you uploaded a wrong file, you receive zero; files will not be accepted after due date even if you have a prove that the file is created before the due date.*

***Make sure you review the Cheating & Plagiarism policy on Canvas.***

Write a program for the problem below; name your file Lab02. Convert the .py file to a text file. Upload your file to Canvas by due time.

A milk carton can hold 3.78 liters of milk. Each morning, a dairy farm ships cartons of milk to a local grocery store. The cost of producing one liter of milk is $0.38, and the profit of each carton of milk is $0.27. Write a program that does the following:

1. Prompts the user to enter the total amount of milk produced in the morning.
2. Outputs the number of milk cartons needed to hold milk. (Print your answer as an integer.)
3. Outputs the cost of producing milk rounded to two decimal places (use F-Strings).
4. Outputs the profit for producing milk rounded to two decimal places (use F-Strings).

Use named constant (constant variables) for milk capacity, milk cost per liter, and profit of each carton. Your output must match the output in the sample run below.

Here is a sample run:

Enter, in liters, the total quantity of milk produced: 150

The number of milk cartons needed to hold milk: 39

The cost of producing milk: $57.00

Profit: $10.53