***BE 1600***

***Introduction to***

***Programming and Computation***

***Python Lab***

**Lab 01- 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

*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 single program for part 01 and part 02; name your file Lab01. Convert the .py file to a text file. Upload your file to Canvas by due time.

**Part 01:**

Write a program that converts Celsius temperatures to Fahrenheit temperatures. The formula

is as follows: *F* = 9/5*C* + 32

The program should ask the user to enter a temperature in Celsius, and then display the temperature converted to Fahrenheit.

Here is a sample run:

Enter a Celsius temperature: 28.5

That is equal to 83.30000000000001 degrees Fahrenheit.

**Part 02:**

Write a program that will ask the user to enter the amount of a purchase. The program should then compute the state and county sales tax. Assume the state sales tax is 4 percent and the county sales tax is 2 percent. The program should display the amount of the purchase, the state sales tax, the county sales tax, the total sales tax, and the total of the sale (which is the sum of the amount of purchase plus the total sales tax).

*Hint: use the value 0.02 to represent 2 percent, and 0.04 to represent 4 percent.*

Here is a sample run:

Enter the amount of the purchase: 98.75

Purchase Amount: 98.75

State Tax: 3.95

County Tax: 1.975

Total Tax: 5.925000000000001

Sale total: 104.675