Assignment #01 – INPUT, OUTPUT, VARIABLES & CALCULATIONS
(Worth 15 points)

RESOURCES NEEDED TO COMPLETE ASSIGNMENT:

- **Read Python textbook - Chapter 2 Input, Processing, Output, and calculations**
- **You may Do Practice Exercises in Python textbook [Program 2-8, 2-13, 2-15, 2-24] to you understand the python code.**

See <u>LINKS & VIDEOS</u> under CONTENT LINK

PART 1: STUDENT QUIZ - PRACTICE EXERCISE (Worth 7 points)

1. **Please do the Student Quiz Practice Exercise: (INSTRUCTIONS ARE LOCATED IN WEEK #02)**

   STUDENT_QUIZ_AVERAGE PRACTICE EXERCISE

Submit the following from the student Quiz Average exercise in the drop box for Assignment #01 [3 – 5 exercises] (Worth 2.5 points)

LastName_FirstName_A1_Student_Quiz_Average.fprg
LastName_FirstName_A1_Student_Quiz_Average-Flow_Output.txt
or

LastName_FirstName_A1_Student_Quiz_Average.vsdx (Visio)

And
LastName_FirstName_A1_Student_Quiz_Average-Python_REVISED.py
LastName_FirstName_A1_Student_Quiz_Average_Python_Output_REVISED.txt

PART 2: Description for Assignment #01 (Worth 8 points)
TOTAL PURCHASE:

2. ☐ **In the Programming Exercises for Chapter 2 Do Program Exercises #4 (at the end of Chapter 2) "Total Purchases"**
   A customer in a store is purchasing five items. Write a program that asks for the price of each item, then displays the subtotal of the sale, the amount of sales tax, and the total. Assume the sales tax is 7 percent.

3. **Create a flow chart using either FLOWGORITHM or VISIO to outline your logic to solve the program: (worth 2.5 points)**

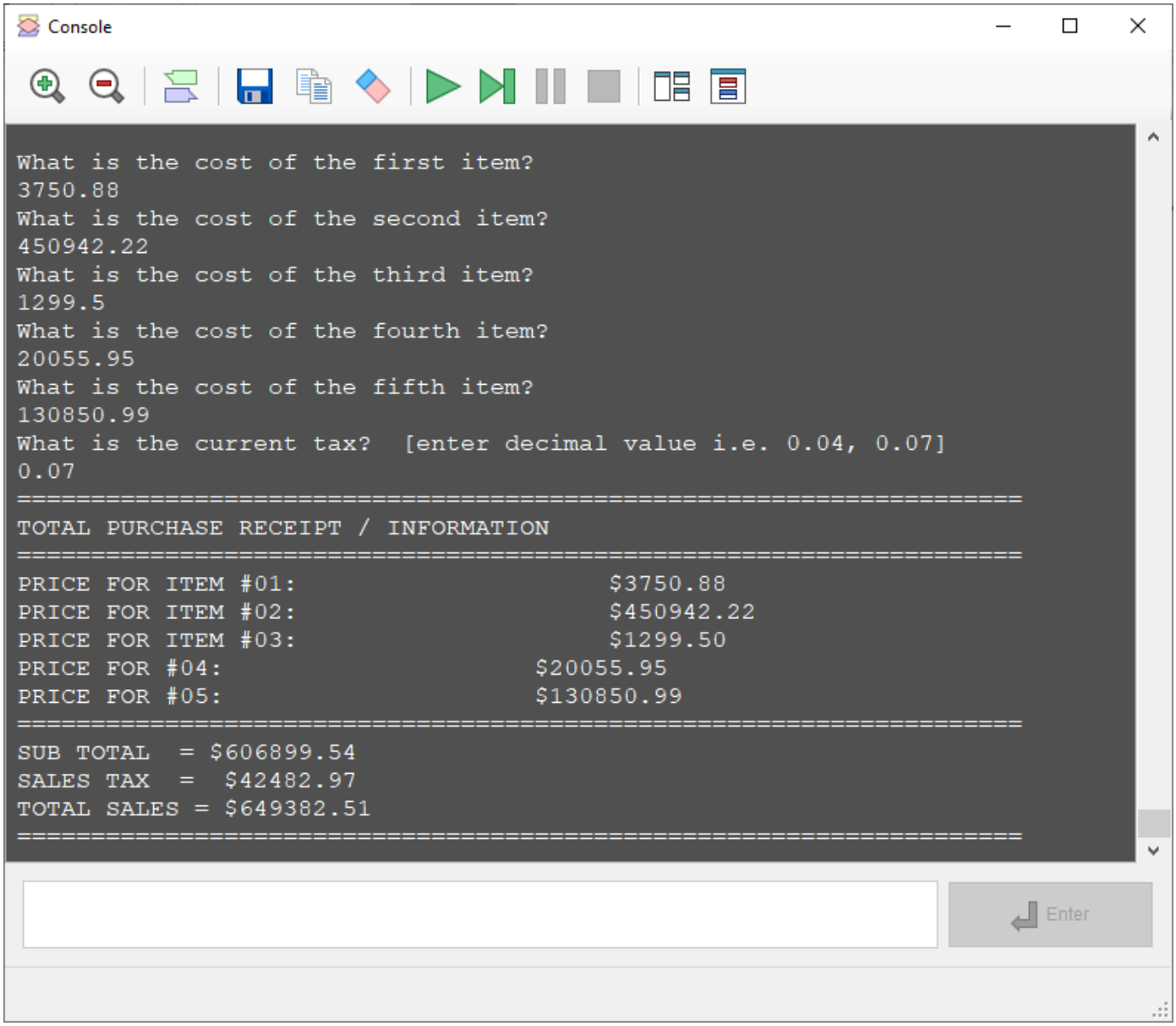
   Save as:

   LastName_FirstName_A1_Total_Purchase.fprg (flowgorithm)

OR
LastName_FirstName_A1_Total_Purchase.vsdx (Visio)

SAMPLE FLOWCHART OUTPUT [FLOWGORITHM]

CLICK CHAT BUBBLE TO VIEW FLOWGORITHM OUTPUT IN TEXT FORMAT



FLOWGORITHM OUTPUT :LastName_FirstName_A1_Student_Quiz_Average-Flow_Output.txt

```
What is the cost of the first item?
3750.88
What is the cost of the second item?
450942.22
What is the cost of the third item?
1299.5
What is the cost of the fourth item?
20055.95
What is the cost of the fifth item?
130850.99
What is the current tax?  [enter decimal value i.e. 0.04, 0.07]
0.07
==========================================
TOTAL PURCHASE RECEIPT / INFORMATION
==========================================
PRICE #01:                      $3750.88
PRICE #02: $450942.22
PRICE #03: $1299.50
PRICE #04: $20055.95
PRICE #05: $130850.99
==========================================
SUB TOTAL  = $ 606899.54
SALES TAX  =  $ 42482.97
TOTAL SALES = $ 649382.51
==========================================
```

4. ☐ **Next, Express the logical design using Python code (worth 7 points)**
5. ☐ **Format the output using either the format function or f' string statement so that commas and decimal places will display in the values:**
6. **Save as:**

   LastName_FirstName_A1_Total_Purchase.py

7. ☐ **Run/Execute the program and save as the output as: LastName_FirstName_A1_Total_Purchase_Output.txt**

PYTHON SAMPLE OUTPUT:

Your output should display similar results as follows:

```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct  4 2021, 19:00:18) [MSC v.1929 64 bit
(AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.

= RESTART: E:\COURSES\FALL 2021\COP1000\SAMPLE PROGRAMS\INPUT-VARIABLES-OUTPUT\Total
Purchases\Parham_Prof_Total_Purchase_REVISED.py
What is the cost of the first item?
3750.88
What is the cost of the second item?
450942.22
What is the cost of the third item?
1299.5
What is the cost of the fourth item?
20055.95
What is the cost of the fifth item?
130850.99
What is the current tax?  [enter decimal value i.e. 0.04, 0.07]
0.07
======================================================================
                TOTAL PURCHASE RECEIPT / INFORMATION
======================================================================
PRICE #01:                                          $       3,750.88
PRICE #02:                                          $     450,942.22
PRICE #03:                                          $       1,299.50
PRICE #04:                                          $      20,055.95
PRICE #05:                                          $     130,850.99
======================================================================
SUB TOTAL:                                          $     606,899.54
SALES TAX:                                          $      42,482.97
TOTAL SALES:                                        $     649,382.51
======================================================================
```

Your layout may be different. However, the content should be the same

☐ SUBMIT THE FOLLOWING FILES inside the designated drop box for Assignment #01:

<u>You will submit 6 to 8 files depending on if you used FLOWGORITHM or VISIO flow chart tool</u> which includes the practice exercises and the Total Purchases results as shown below

LastName_FirstName_A1_Student_Quiz_Average.fprg
LastName_FirstName_A1_Student_Quiz_Average-Flow_Output.txt
or
LastName_FirstName_A1_Student_Quiz_Average.vsdx (Visio)
and
LastName_FirstName_A1_Student_Quiz_Average-Python_REVISED.py
LastName_FirstName_A1_Student_Quiz_Average_Python_Output_REVISED.txt

LastName_FirstName_A1_Total_Purchase.fprg (flowgorithm)
LastName_FirstName_A1_Total_Purchase_flow_output.txt

OR
LastName_FirstName_A1_Total_Purchase.vsdx (Visio)

and

LastName_FirstName_A1_Total_Purchase.py
LastName_FirstName_A1_Total_Purchase_Output.txt