Lab 5 – Part 1 (Functions)

In this program, you will be expanding on the pizza shop program that was written for Lab4 Part 1. The program now includes three functions.

NOTE: All of the output and calculations are the same as Lab 4 Part 1 with the exception that the code now validates the tip amount to make sure that it is greater than 0.

NOTE: None of the functions in the program should have any parameters. The functions do have return values where indicated.

The program must add the following three functions:

1. A function to display the pizza menu. The function displays the menu and allows the user to enter in the value. The function then returns the value selected. There is no validation in the function itself. That is done in the code that calls the function.
2. A function that displays a generic error message. The function has no return value. This function is called anytime the code determines that an entered value is invalid.
3. A function to allow the entry of the tip. The function must validate that the entry is greater than or equal to 0. If it is not, the function calls the generic error message function and requires the user to reenter the tip amount until the entry is valid. Once a valid entry is made, the function returns the tip amount.

The program must do the following:

1. Display the title of the program
2. Ask the user if this is a pickup or a delivery
    a. The code must validate the input; if the input is invalid, the code must call the function to display the appropriate error message. The code then allows the user to reenter their input.
    b. The code must repeat until the user enters a valid input.
    c. If the user wants this to be a delivery, the code must require the user to enter in the delivery address
    d. Pizza delivery costs $5.00; pickup is free
3. Complete taking the pizza order with the following code
    a. Call the function to display a menu of pizzas available and an option to checkout
    b. The code must validate the input; if the input is invalid, the code must call the function to display the appropriate error message. The code then allows the user to reenter their input.
    c. The code must repeat until the user enters a valid input
    d. If the user selects a pizza, the code must calculate the cost of the pizza (including 6% sales tax). The pizza costs are:
        i. Cheese - $17.10
        ii. Garden Fresh - $18.49
        iii. Meat Lovers - $19.75
    e. The code must accumulate the total cost of every pizza ordered until the user selects to checkout

f. Once the user selects to checkout, the code must:
    i. Call the function to ask the user to enter in the tip
    ii. Calculate the total cost which is the cost of all the pizzas purchased plus 6% sales tax plus the tip (if any) plus the delivery charge (if any); there is no sales tax on the tip or the delivery charge
    iii. Display the total cost and the delivery address (if any)
4. Display a thank you message at the end

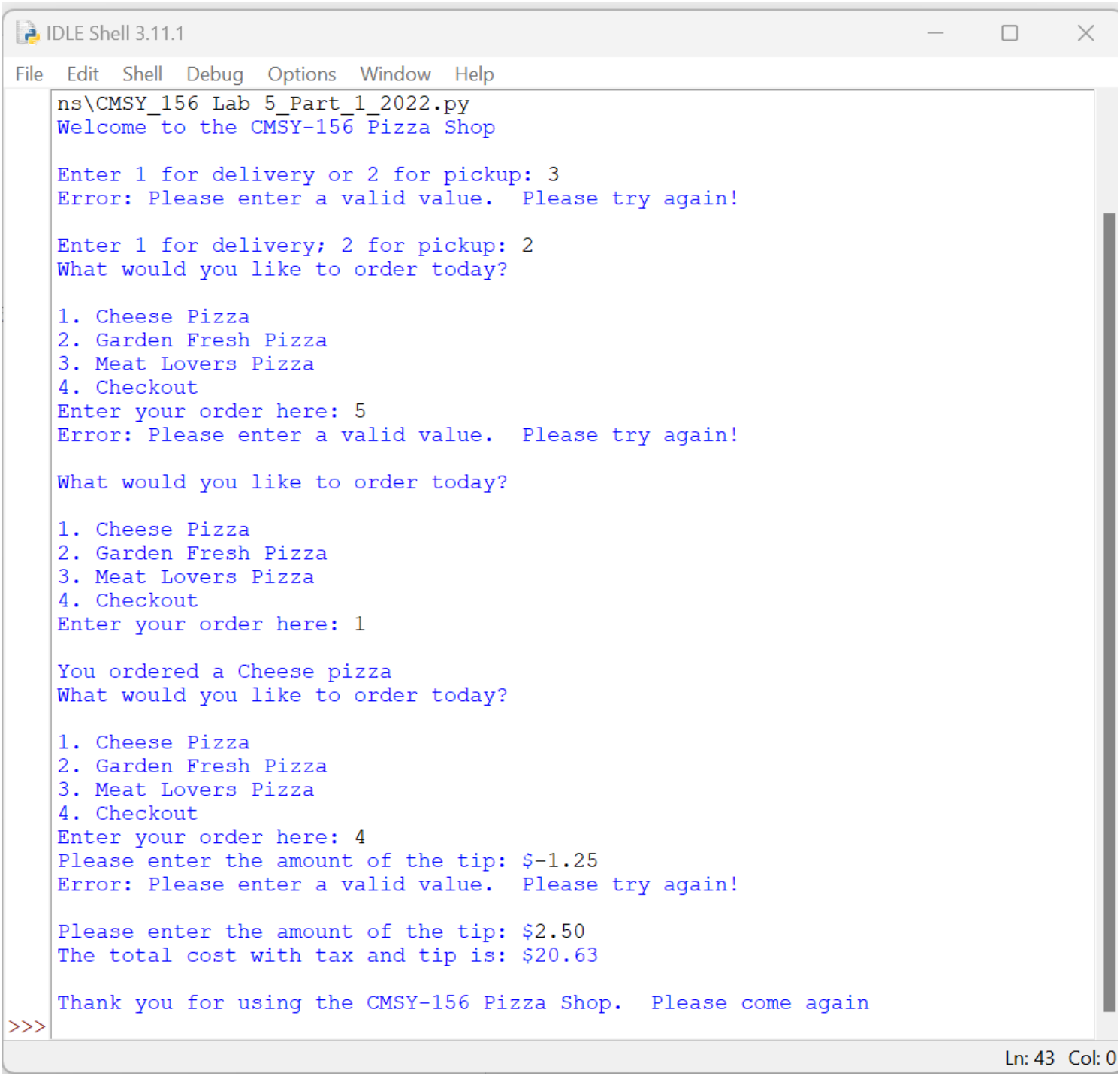
NOTE: All input and output should be in US Dollars. As such, the output should include the "$" and should display to two decimal places.

Rubric: The rubric is located on the assignment page in Canvas. Please review the rubric to make sure you meet all the requirements for this lab.

Please submit your py file as well as a screen shot of the output.

Screen Shots:

Input validation:



Please submit your py file as well as a screen shot of the output.

Multiple Pizzas with Delivery: