

Lab 4 – Part 1 (While Loop)

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In this program, you will be expanding on the pizza shop program that was written for Lab3 Part 1. The program now needs to use a while loop to check for the validity of the entries. And it needs to use a while loop to allow the user to but more than one pizza.

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 display the appropriate error message and allow 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
3. Display a menu of pizzas available and an option to checkout
 - a. The code must validate the input; if the input is invalid, the code must display the appropriate error message and allow the user to reenter their input.
 - b. The code must repeat until the user enters a valid input
 - c. 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
 - d. The code must accumulate the total cost of every pizza ordered until the user selects to checkout
 - e. Once the user selects to checkout, the code must:
 - i. Ask the user to enter in the tip
 - ii. Calculate the total cost which is the cost of all the pizzas purchased plus the tip (if any) plus the delivery charge (if any)
 - 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 similar screen shot of the output.

Screen Shots:

Input validation:

```
IDLE Shell 3.11.1
File Edit Shell Debug Options Window Help
Python 3.11.1 (tags/v3.11.1:a7a450f, Dec 6 2022, 19:58:39) [MSC v.1934 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
= RESTART: I:/!HowardCC/CMSY156-Spring2023/Lab-Ans/Cedwards_156 Lab 4_Part_1_2022.py
Welcome to the CMSY-156 Pizza Shop

Enter 1 for delivery or 2 for pickup: 3
Error: Please enter either 1 or 2. Please try again!

Enter 1 for delivery; 2 for pickup: 2
What would you like to order today?

1. Cheese Pizza
2. Garden Fresh Pizza
3. Meat Lovers Pizza
4. Checkout
Enter your order here: 1

You ordered a Cheese pizza
What would you like to order today?

1. Cheese Pizza
2. Garden Fresh Pizza
3. Meat Lovers Pizza
4. Checkout
Enter your order here: 5
Error: Please enter a valid menu option. Please try again!

What would you like to order today?

1. Cheese Pizza
2. Garden Fresh Pizza
3. Meat Lovers Pizza
4. Checkout
Enter your order here: 4
Please enter the amount of the tip: $2.50
The total cost with tax and tip is: $20.63

Thank you for using the CMSY-156 Pizza Shop. Please come again
>>>
```

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

Multiple Pizzas with Delivery:

```
===== RESTART: C:\Users\bnb21\Downloads\CMSY_156 Lab 4_Part_1.py ==
Welcome to the CMSY-156 Pizza Shop
Enter 1 for delivery or 2 for pickup: 1
Please enter your delivery address: 123 Python Way, Columbia MD 21044
What would you like to order today?

1. Plain Pizza
2. Pepperoni Pizza
3. Veggie Pizza
4. Checkout
Enter your order here: 3

You ordered a veggie pizza
What would you like to order today?

1. Plain Pizza
2. Pepperoni Pizza
3. Veggie Pizza
4. Checkout
Enter your order here: 2

You ordered a pepperoni pizza
What would you like to order today?

1. Plain Pizza
2. Pepperoni Pizza
3. Veggie Pizza
4. Checkout
Enter your order here: 4
Please enter the amount of the tip: $3.50
The total cost with tax, tip and delivery charge is: $36.06
The pizza will be delivered to: 123 Python Way, Columbia MD 21044

Thank you for using the CMSY-156 Pizza Shop. Please come again
>>>
```