**Module 3: Critical Thinking Assignment**

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# Introduction

In this assignment, I was asked to build an online shopping cart in 3 parts. For part 1, this shopping cart was instructed to have the attributes: name(string), price(float), and quantity(int). I then built another method that would be able to hold the equation or function for the total cost. For part 2, I built my code to allow for any user to input values assigned to the variables item1 and item2. Then with part 3, I tied everything together by printing the total cost of each individual item along with the summed total cost of each.

## Part 1: Build ItemToPurchase class

Source code:

# Online Shopping Cart

class ItemToPurchase:

    def \_\_init\_\_(self):

        self.item\_name = "none"

        self.item\_price = 0.0

        self.item\_quantity = 0

    def print\_item\_cost(self):

        total\_cost = self.item\_price \* self.item\_quantity

        return f'{self.item\_name} {self.item\_quantity} @ ${self.item\_price} = ${total\_cost:.2f}'

# Part 2: Prompt the user to input values

Source code:

# part 2: prompt user to assign values to variables

item1 = ItemToPurchase()

item2 = ItemToPurchase()

item1.item\_name = input('Enter the item name:\n')

item1.item\_price = float(input('Enter the item price:\n'))

item1.item\_quantity = int(input('Enter the item quantity:\n'))

print()

item2.item\_name = input('Enter the item name:\n')

item2.item\_price = float(input('Enter the item price:\n'))

item2.item\_quantity = int(input('Enter the item quantity:\n'))

# Part 3: total cost

Source Code:

# part 3: print values of each item

print()

print('TOTAL COST\n')

print(item1.print\_item\_cost())

print(item2.print\_item\_cost())

# print the totaled amounts

total\_cost\_item1 = item1.item\_price \* item1.item\_quantity

total\_cost\_item2 = item2.item\_price \* item2.item\_quantity

total\_cost = total\_cost\_item1 + total\_cost\_item2

print(f'Total: ${total\_cost:.2f}')

Screenshots:

A screenshot of a computer

Description automatically generatedA screen shot of a computer

Description automatically generated

# **GIT repository link**

<https://github.com/Ch1T1me/CSC500.git>

# **Challenges**

This assignment was very challenging! I kept rewatching the video on programiz reference to be sure I was setting up my classes correctly. I didn’t attempt the portfolio until after I completed his do-it-yourself problem from the video.

Once I figured out for to correctly define the methods it got a bit easier. I remembered how to assign values with ‘.’ from the video I watched and proceeded to define variables, not forgetting to prompt a user to input their own name, quantity, and price.

Now as for part 3, I struggled on the addition part. When we had to sum the total costs from item 1 with item 2. At first I kept making errors because I was attempting to write an equation with a method (which I didn’t know couldn’t be done), [print(item1.print\_item\_cost + item2.print\_item\_cost)].

When I realized that was the error, I attempted to find a way to use the formula that I already had in “def print\_item\_cost(self):” and after moving things around a bit I quit, because I didn’t think it was possibly with the knowledge I currently possess. So instead, I decided to assign new variables of ’total\_cost\_item1’ and ’total\_cost\_item2’, built an addition equation and assigned their value to ‘total\_cost’. Printing the value of the total amount of both, which was $21.95.

# **References**

ZyBooks: CSC500: Principles of Programming

<https://www.programiz.com/python-programming/class>