# Port Folio Milestone

**Online Shopping Cart**

**Step 1:** Build the ItemToPurchase class with the following specifications:

* Attributes
* item\_name (string)
* item\_price (float)
* item\_quantity (int)
* Default constructor
* Initializes item's name = "none", item's price = 0, item's quantity = 0
* Method
* print\_item\_cost()

**Example of print\_item\_cost() output:**Bottled Water 10 @ $1 = $10

**Step 2:** In the main section of your code, prompt the user for two items and create two objects of the ItemToPurchase class.

**Example:**

Item 1

Enter the item name:

Chocolate Chips

Enter the item price:

3

Enter the item quantity:

1

Item 2

Enter the item name:

Bottled Water

Enter the item price:

1

Enter the item quantity:

10

**Step 3:** Add the costs of the two items together and output the total cost.

**Example:**

TOTAL COST

Chocolate Chips 1 @ $3 = $3

Bottled Water 10 @ $1 = $10

Total: $13

## Python Code

# Step 1: Build the ItemToPurchase class with the following specifications:

# Attributes

# item\_name (string)

# item\_price (float)

# item\_quantity (int)

# Default constructor

# Initializes item's name = "none", item's price = 0, item's quantity = 0

# Method

# print\_item\_cost()

# Example of print\_item\_cost() output:

# Bottled Water 10 @ $1 = $10

# Define ItemsToPurchase class

class ItemsToPurchase:

item\_name = ''

item\_price = 0.0

item\_quantity = 0

def \_\_init\_\_(self,item\_name = 'none',item\_price = 0,item\_quantity = 0):

self.item\_name = item\_name

self.item\_price = item\_price

self.item\_quantity = item\_quantity

def print\_item\_cost(self):

print('{} {} @${:.2f} = ${:.2f}'.format(self.item\_name,self.item\_quantity,self.item\_price,self.item\_price\*self.item\_quantity))

# Example of print\_item\_cost() output:

# Bottled Water 10 @ $1 = $10

# Step 2: In the main section of your code, prompt the user for two items and create two objects of the ItemToPurchase class.

#

# Example:

# Item 1

# Enter the item name:

# Chocolate Chips

# Enter the item price:

# 3

# Enter the item quantity:

# 1

# Item 2

# Enter the item name:

# Bottled Water

# Enter the item price:

# 1

# Enter the item quantity:

# 10

# Constant which defines the number of items in the shopping cart

number\_of\_items = 2

# Create shopping cart with the specified number of items

Items = []

for i in range(number\_of\_items):

Items.append(ItemsToPurchase())

# Put items in the shopping cart

number = 0

for x in Items:

print('Item {}'.format(number+1))

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

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

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

number += 1

# Step 3: Add the costs of the two items together and output the total cost.

#

# Example:

# TOTAL COST

# Chocolate Chips 1 @ $3 = $3

# Bottled Water 10 @ $1 = $10

# Total: $13

total\_cost = 0

number = 0

print('TOTAL COST')

for x in Items:

x.print\_item\_cost()

total\_cost = total\_cost + x.item\_quantity \* x.item\_price

number += 1

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

## Output

A screenshot of a computer program

Description automatically generated

# Port Folio Milestone – Extended

This code can be extended to handle 1 or more items in the shopping cart with the use of a while loop and a sentinel character.

## Python Code

# Define ItemsToPurchase class

class ItemsToPurchase:

item\_name = ''

item\_price = 0.0

item\_quantity = 0

def \_\_init\_\_(self,item\_name = 'none',item\_price = 0,item\_quantity = 0):

self.item\_name = item\_name

self.item\_price = item\_price

self.item\_quantity = item\_quantity

def print\_item\_cost(self):

print('{} {} @${:.2f} = ${:.2f}'.format(self.item\_name,self.item\_quantity,self.item\_price,self.item\_price\*self.item\_quantity))

# Initialize Items list

Items = []

# Initialize Sentinel Character

user\_input = ''

# Gather shopping cart entries until the user enters a 'q'

while user\_input != 'q':

Items.append(ItemsToPurchase())

print('Item {}'.format(len(Items)))

Items[-1].item\_name = input('Enter the item name:')

Items[-1].item\_price = float(input('Enter the item price:'))

Items[-1].item\_quantity = int(input('Enter the item quantity:'))

user\_input = input('Enter q to quit, any other key to add another item.')

# Print out cost of each item and the total cost

total\_cost = 0

print('TOTAL COST')

for x in Items:

x.print\_item\_cost()

total\_cost = total\_cost + x.item\_quantity \* x.item\_price

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

## Output

A screenshot of a computer program

Description automatically generated

# Git-repo

<https://github.com/tlerunner/git-repo/tree/main/Module%204/Portfolio%20Milestone>