**Module 8: Portfolio Project**

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CSC 500: Principles of Programming

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**Online Shopping Cart**

**Pseudocode**

**ItemToPurchase**

class ItemToPurchase

method \_\_init\_\_(name="none", price=0.0, quantity=0, description="none")

set item\_name = name

set item\_price = price

set item\_quantity = quantity

set item\_description = description

method print\_item\_cost()

compute total = item\_price \* item\_quantity

display item\_name, item\_quantity, item\_price, and total in formatted output

method print\_item\_description()

display item\_name and item\_description

**Shopping Cart**

class ShoppingCart

method \_\_init\_\_(customer\_name="none", current\_date="January 1, 2020")

set customer\_name

set current\_date

initialize cart\_items as empty list

method add\_item(item)

append item to cart\_items list

method remove\_item(name)

set found = False

for each item in cart\_items

IF item\_name matches name

remove item from list

set found = True

break

if not found

display "Item not found in cart. Nothing removed."

method modify\_item(item)

set found = False

for each item in cart\_items

if item\_name matches

if quantity is not zero

update item's quantity

set found = True

break

if not found

display "Item not found in cart. Nothing modified."

method get\_num\_items\_in\_cart()

return sum of all item quantities

method get\_cost\_of\_cart()

return sum of (price \* quantity) for all items

method print\_total()

display customer name and date

display number of items

if no items

display "SHOPPING CART IS EMPTY"

else

for each item in cart\_items

call item.print\_item\_cost()

display total cost

method print\_descriptions()

display customer name and date

display "Item Descriptions"

for each item in cart\_items

call item.print\_item\_description()

**Print Menu**

function print\_menu(cart)

Loop

display menu options

get user input for option

if option == 'a'

display "ADD ITEM TO CART"

prompt for item name, description, price, and quantity

create ItemToPurchase object

add item to cart

else if option == 'r'

display "REMOVE ITEM FROM CART"

prompt for item name

call remove\_item on cart

Else if option == 'c'

display "CHANGE ITEM QUANTITY"

prompt for item name and new quantity

create ItemToPurchase with new quantity

call modify\_item on cart

else if option == 'i'

display "OUTPUT ITEMS' DESCRIPTIONS"

call print\_descriptions on cart

else if option == 'o'

display "OUTPUT SHOPPING CART"

call print\_total on cart

else if option == 'q'

break out of loop

else

display "Invalid option, please choose again."

**Main**

prompt for customer's name

prompt for today's date

display name and date

create ShoppingCart object with name and date

call print\_menu(cart)

Program Code

A screen shot of a computer program

AI-generated content may be incorrect.

A screen shot of a computer program

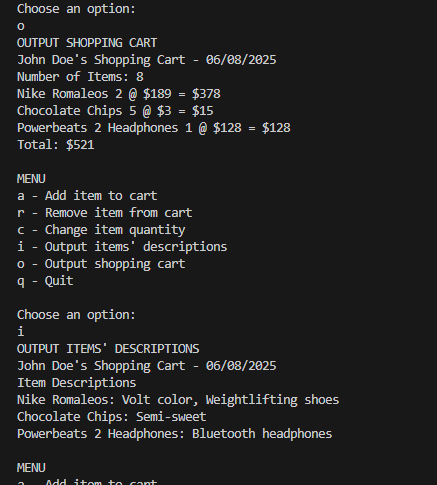
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A screen shot of a computer program

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A computer screen shot of a program

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A screenshot of a computer program

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