**CSC500 Module 8 Portfolio Milestone**

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**SOURCE CODE (INCLUDING MOD 4 & 6 SOURCE CODE):**

# ItemToPurchase class

class ItemToPurchase:

    def \_\_init\_\_(self, name="none", description="none", price=0, quantity=0):

        self.item\_name = name

        self.item\_description = description

        self.item\_price = price

        self.item\_quantity = quantity

    def print\_item\_cost(self):

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

        print(f"{self.item\_name} {self.item\_quantity} @ ${self.item\_price:.2f} = ${total:.2f}")

    def print\_item\_description(self):

        print(f"{self.item\_name}: {self.item\_description}")

# ShoppingCart class

class ShoppingCart:

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

        self.customer\_name = customer\_name

        self.current\_date = current\_date

        self.cart\_items = []

    def add\_item(self, item):

        self.cart\_items.append(item)

    def remove\_item(self, item\_name):

        found = False

        for item in self.cart\_items:

            if item.item\_name == item\_name:

                self.cart\_items.remove(item)

                found = True

                break

        if not found:

            print("Item not found in cart. Nothing removed.")

    def modify\_item(self, item):

        found = False

        for cart\_item in self.cart\_items:

            if cart\_item.item\_name == item.item\_name:

                if item.item\_description != "none":

                    cart\_item.item\_description = item.item\_description

                if item.item\_price != 0:

                    cart\_item.item\_price = item.item\_price

                if item.item\_quantity != 0:

                    cart\_item.item\_quantity = item.item\_quantity

                found = True

                break

        if not found:

            print("Item not found in cart. Nothing modified.")

    def get\_num\_items\_in\_cart(self):

        total\_quantity = 0

        for item in self.cart\_items:

            total\_quantity += item.item\_quantity

        return total\_quantity

    def get\_cost\_of\_cart(self):

        total\_cost = 0

        for item in self.cart\_items:

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

        return total\_cost

    def print\_total(self):

        print(f"{self.customer\_name}'s Shopping Cart - {self.current\_date}")

        total\_items = self.get\_num\_items\_in\_cart()

        print(f"Number of Items: {total\_items}")

        if total\_items == 0:

            print("SHOPPING CART IS EMPTY")

        else:

            for item in self.cart\_items:

                item.print\_item\_cost()

        print(f"\nTotal: ${self.get\_cost\_of\_cart():.2f}")

    def print\_descriptions(self):

        print(f"{self.customer\_name}'s Shopping Cart - {self.current\_date}")

        print("Item Descriptions")

        for item in self.cart\_items:

            item.print\_item\_description()

# Menu function

def print\_menu(cart):

    choice = ""

    while choice != "q":

        print("\nMENU")

        print("a - Add item to cart")

        print("r - Remove item from cart")

        print("c - Change item quantity")

        print("i - Output items' descriptions")

        print("o - Output shopping cart")

        print("q - Quit")

        choice = input("Choose an option:\n")

        if choice == "a":

            print("\nADD ITEM TO CART")

            name = input("Enter the item name:\n")

            description = input("Enter the item description:\n")

            price = float(input("Enter the item price:\n"))

            quantity = int(input("Enter the item quantity:\n"))

            item = ItemToPurchase(name, description, price, quantity)

            cart.add\_item(item)

        elif choice == "r":

            print("\nREMOVE ITEM FROM CART")

            name = input("Enter name of item to remove:\n")

            cart.remove\_item(name)

        elif choice == "c":

            print("\nCHANGE ITEM QUANTITY")

            name = input("Enter the item name:\n")

            quantity = int(input("Enter the new quantity:\n"))

            item = ItemToPurchase(name=name, quantity=quantity)

            cart.modify\_item(item)

        elif choice == "i":

            print("\nOUTPUT ITEMS' DESCRIPTIONS")

            cart.print\_descriptions()

        elif choice == "o":

            print("\nOUTPUT SHOPPING CART")

            cart.print\_total()

        elif choice == "q":

            break

        else:

            print("Invalid option. Please try again.")

# Main function

def main():

    customer\_name = input("Enter customer's name:\n")

    current\_date = input("Enter today's date:\n")

    print(f"\nCustomer name: {customer\_name}")

    print(f"Today's date: {current\_date}")

    cart = ShoppingCart(customer\_name, current\_date)

    print\_menu(cart)

# Start program

main()

**SCREENSHOTS:**

**A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.A computer screen shot of a person

AI-generated content may be incorrect.A screenshot of a computer

AI-generated content may be incorrect.A screenshot of a computer

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**GIT REPOSITORY:**

[**kaufmancl1/CSC500-Mod-8-Portfolio-Milestone**](https://github.com/kaufmancl1/CSC500-Mod-8-Portfolio-Milestone)