

Option #1: Online Shopping Cart

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Mahmudul Alam
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Option #1: Online Shopping Cart
'''

class ItemToPurchase:
    def __init__(self, name='none', price=0, quantity=0, details='none'):
        self.item_name = name
        self.item_description = details
        self.item_price = price
        self.item_quantity = quantity

    def print_item_description(self):
        print(self.item_name, ":", end='')
        print(self.item_description)

class ShoppingCart:
    def __init__(self, name='none', date='January 1, 2020', items=[]):
        self.customer_name = name
        self.current_date = date
        self.cart_items = items

    def add_item(self, totalPurchase):
        self.cart_items.append(totalPurchase)

    def remove_item(self, itemName):
        item_removed = False
        for item in self.cart_items:
            if item.item_name == itemName:
                self.cart_items.remove(item)
                item_removed = True
                break
        if not item_removed:
            print('There is no items to be removed.')
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def modify_item(self, totalPurchase):
    item_Modified = False
    for i in range(len(self.cart_items)):
        if self.cart_items[i].item_name == totalPurchase.item_name:
            item_Modified = True
            self.cart_items[i].item_quantity = totalPurchase.item_quantity
            break
    if not item_Modified:
        print('We did not find any items to modify.')

def get_num_items_in_cart(self):
    num_items = 0
    for item in self.cart_items:
        num_items = num_items + item.item_quantity
    return num_items

def get_cost_of_cart(self):
    total_cost = 0
    cost = 0
    for item in self.cart_items:
        cost = (item.item_quantity * item.item_price)
        total_cost += cost
    return total_cost

def print_total(self):
    total_cost = self.get_cost_of_cart()
    if (total_cost == 0):
        print('YOUR SHOPPING CART IS EMPTY')
    else:
        print(format(self.customer_name), ' Shopping Cart ', format(self.current_date))
        print('Number of Items: %d\n' % self.get_num_items_in_cart())
        for item in self.cart_items:
            total = item.item_price * item.item_quantity
            print('%s %d @ $%d = $%d' % (item.item_name, item.item_quantity, item.item_price, total))
        print('\nTotal: $', total_cost)

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def print_descriptions(self):
    if len(self.cart_items) == 0:
        print('YOUR SHOPPING CART IS EMPTY')
    else:
        print('{}\s Shopping Cart - {}'.format(self.customer_name, self.current_date))
        print('\nItem Descriptions')
        for item in self.cart_items:
            item.print_item_description()

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def print_menu(newCart):
    customer_Cart = newCart
    menu = ('\nMENU\n'
            'a - Add item to cart\n'
            'r - Remove item from the cart\n'
            'c - Change item quantity\n'
            'i - Output item's descriptions\n'
            'o - Output shopping cart\n'
            'q - Quit\n')

    latter = ''
    while (latter != 'q'):
        print(menu)
        latter = input('Choose an option:')
        while (
            latter != 'a' and latter != 'o' and latter != 'i' and latter != 'q' and latter != 'r' and latter != 'c'):
            latter = input('Choose an option:\n')
        if (latter == 'a'):
            print("\nADD ITEM TO CART")
            item_name = input('Enter the item name:\n')
            item_description = input('Enter the item description:\n')
            item_price = int(input('Enter the item price:\n'))
            item_quantity = int(input('Enter the item quantity:\n'))
            itemtoPurchase = ItemToPurchase(item_name, item_price, item_quantity, item_description)
            customer_Cart.add_item(itemtoPurchase)

        elif (latter == 'o'):
            print('\nOUTPUT SHOPPING CART')
            customer_Cart.print_total()

        elif (latter == 'i'):
            print('\nOUTPUT ITEMS\ DESCRIPTIONS')
            customer_Cart.print_descriptions()

        elif (latter == 'r'):
            print('REMOVE ITEM FROM CART')
            itemName = input('Enter the name of the item to remove :\n')
            customer_Cart.remove_item(itemName)

        elif (latter == 'c'):
            print('\nCHANGE ITEM QUANTITY')
            itemName = input('Enter the name of the item :\n')
            qty = int(input('Enter the new quantity :\n'))
            totalPurchase = ItemToPurchase(itemName, 0, qty)
            customer_Cart.modify_item(totalPurchase)

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if __name__ == "__main__":
    customer_name = input("Enter customer's name:\n")
    current_date = input("Enter today's date:\n")
    print("\nCustomer name: ", end='')
    print(customer_name)
    print("Today's date: ", end='')
    print(current_date)
    customerInfo = ShoppingCart(customer_name, current_date)
    print_menu(customerInfo)

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```
Enter customer's name:
John Doe
Enter today's date:
February 1, 2020

Customer name: John Doe
Today's date: February 1, 2020

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:a

ADD ITEM TO CART
Enter the item name:
Nike Romaleos
Enter the item description:
Volt color, Weightlifting shoes
Enter the item price:
189
Enter the item quantity:
2

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:a
```

```
ADD ITEM TO CART
Enter the item name:
Chocolate Chips
Enter the item description:
Semi-sweet
Enter the item price:
3
Enter the item quantity:
5
```

```
MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit
```

Choose an option:a

```
ADD ITEM TO CART
Enter the item name:
Powerbeats 2 Headphones
Enter the item description:
Bluetooth headphones
Enter the item price:
128
Enter the item quantity:
1
```

```
MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit
```

Choose an option:o

```
OUTPUT SHOPPING CART
John Doe  Shopping Cart  February 1, 2020
Number of Items: 8

Nike Romaleos  2 @ $189 = $378
Chocolate Chips 5 @ $3 = $15
Powerbeats 2 Headphones 1 @ $128 = $128

Total: $ 521

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:i

OUTPUT ITEMS' DESCRIPTIONS
John Doe's Shopping Cart - February 1, 2020

Item Descriptions
Nike Romaleos  :Volt color, Weightlifting shoes
Chocolate Chips :Semi-sweet
Powerbeats 2 Headphones :Bluetooth headphones

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:q

Process finished with exit code 0
```

```
Choose an option:r
REMOVE ITEM FROM CART
Enter the name of the item to remove :
Chocolate Chips

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:o

OUTPUT SHOPPING CART
John Doe Shopping Cart February 1, 2020
Number of Items: 3

Nike Romaleos 3 @ $189 = $567

Total: $ 567
```

```
MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:c

CHANGE ITEM QUANTITY
Enter the name of the item :
Nike Romaleos
Enter the new quantity :
3

MENU
a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:i

OUTPUT ITEMS' DESCRIPTIONS
John Doe's Shopping Cart - February 1, 2020

Item Descriptions
Nike Romaleos :Volt color, Weightlifting shoes
```


MENU

a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit

Choose an option:o

OUTPUT SHOPPING CART

John Doe Shopping Cart February 1, 2020

Number of Items: 3

Nike Romaleos 3 @ \$189 = \$567

Total: \$ 567

MENU

a - Add item to cart
r - Remove item from the cart
c - Change item quantity
i - Output item's descriptions
o - Output shopping cart
q - Quit