Post Mortem Review Question	Response
What was the purpose of your program?	To tell the user about the store's products. And to check if the user is eligible for a gift with their purchase of 200$ or more
How could your program be useful in the real world?	Stores could adopt a system like this as an inventory system. And to tell the user what isle an item is in
What is a problem you ran into, and how did you fix it?	I personally didn't run into any issues while writing my code.
Describe one thing you would do differently the next time you write a program.	Maybe attach a database for the store’s products instead. Or attach a website to it so all products would be in the database and can be added/removed
How could your program be generalized and useful in other areas?	It could be used in all industries to tell a user what inventory they have. and how much a product is and how much is left

Pseudocode

START

- Initialize products the seller has
- Initialize how many items will be listed at a time
- Define function showProducts(amount_spent, amountToShow):
    - Initialize your incrementor
    - For each product in the list products
        - If the product is the same as amountToShow return
    - Get the price from the product dict
    - If the price is less than or equal to the amount spent
        - Increment the incrementor
        - Tell the user then can afford the item
- Define function checkIfQuit(input):
    - If the input quals “quit” set hasRan to True and return True
- Define function `main()`:
    - Welcome the user
    - Try to get numbers from the inputs except Value Error
        - Check if amount_spent is quit then quit the program
        - Convert amount_spent to a float
        - If amount_spent is less than 1
            - Print "Invalid Input. Value must be a positive input!"
            - Return
        - Get input for productsToSee
        - Cgheck if productsToSee is equle to “quit”
        - If productsToSee is empty or whitespace
            - Set productsToSee to productListLimit
        - Else
            - Convert productsToSee to an integer
    - Set hasRan to True
    - Show the user the products they can afford using showProducts(amount_spent, productsToSee)
    - Get input for seeMore
    - Check if seeMore is “y” “ye” or “yes”
        - run showProducts(amount_spent, productsToSee * 2)
    - Recomend products based on amount_spent
        - If amount_spent is greater than or equal to 100 and less than 200
            - Print "We recommend our best-selling items within your budget."

        - Else if amount_spent greater than or equal to 200
            - Print "Congratulations! You qualify for a free gift with your purchase."
        - Else
            - Print "You need to spend an additional $amountNeeded to receive a free gift.
- Print "Type 'quit' at anytime to quit the program"
- While hasRan is false
    - Run main()
- Print "Thank you for shopping with us today!"

END

Code

```
# Jonathan Meyer
# 8/23/24

hasRan = False
# how many items to show that the user can buy
productListLimit = 2
# the products that the store sells
products = [
    {"price":11.99, "itemName":"Product1"},
    {"price":100, "itemName":"Product2"},
    {"price":7.00, "itemName":"Product3"},
    {"price":50, "itemName":"Product4"},
    {"price":70, "itemName":"Product5"},
    {"price":19, "itemName":"Product6"},
    {"price":200, "itemName":"Product7"}
]
# sort the list based on the price fom high to low
```

```
products = sorted(products, key=lambda x: 200-x["price"])
# a functio nto show the user x(amountToShow) products based on y(amount_spent)
def showProducts(amount_spent,amountToShow):
    productLimit =0

    for product in products:
        if (productLimit==amountToShow): return
        price = product.get("price")
        if (price<=amount_spent):
            productLimit+=1
            print("You can afford " + str(product.get("itemName")) + " for $" +
str(price))
        else:
            continue
        # check if the user inputted teh word "quit"
def checkIfQuit(input):
    global hasRan
    if (input == "quit"):
        hasRan=True
        return True
    return False

# main function
def main():
    global hasRan
    #spacer
    print("")
    # Print a description of the online store
    print("Welcome to our online store! Recieve a free gift for qualifying
purchases over $200 or more")
    try:
    # try to Obtain user input except if the value is a non-positive float or
isnt a float
        amount_spent =  input("How much money would you like to spend today?: ")
        # @see {checkIfQuit}
        if (checkIfQuit(amount_spent)): return

        amount_spent = float(amount_spent)
        #check if the input is a non positive number
        if (amount_spent<1):
            print("Invalid Input. Value must be a positive input!")
            return
```

```
        productsToSee = input(f"How many products would you like to see? Default
({productListLimit}): ")
        # @see {checkIfQuit}
        if (checkIfQuit(productsToSee)): return

        if (productsToSee=="" or productsToSee==" " or productsToSee==None):
productsToSee=productListLimit
        else: productsToSee=int(productsToSee)
    except ValueError:
        print("Invalid Input. Value must be a Number!")
        return
    # tell the program that all of the inputs are valid and to kill the program
after this current run
    hasRan=True
    # print a list of products the user can buy based on the productListLimit(How
many can be listed)
    showProducts(amount_spent,productsToSee)
    seeMore = input("Want to see more? Default(n) (y/n):")
    if (checkIfQuit(seeMore)): return
    if (seeMore=="y" or seeMore=="yes" or seeMore=="ye"):
showProducts(amount_spent,productsToSee*2)

    # Recommend a product based on the amount spent
    if amount_spent >= 100 and amount_spent < 200:
        print("We recommend our best-selling items within your budget.")
    elif amount_spent >= 200:
        print("Congratulations! You qualify for a free gift with your purchase.")
    else:
        # Calculate how much more is needed
        print(f"You need to spend an additional ${200 - amount_spent:.2f} to
receive a free gift.")



print("Type 'quit' at anytime to quit the program")
# run the program till the user how fully inputted all values correctly
while (not hasRan):
    # run teh main function
    main()
# thank the user for shopping
print("Thank you for shopping with us today!")
```