Class Exercise:

Basic Numeric Operators

You work at a grocery store and have been assigned a task to create a program that calculates the total cost of a customer's purchase. Your program should allow the user to enter the quantity and price per item for different grocery items and calculate the subtotal, tax, and total cost of the purchase. Additionally, the program should provide a discount based on the total cost if it exceeds a certain threshold.

Here are the steps to follow:

1. Define a function called calculate\_subtotal that takes two parameters: quantity and price\_per\_item. Inside the function, calculate the subtotal by multiplying the quantity by the price per item and return it.
2. Use a while loop to repeat the following operations until the user chooses to exit:

* Ask the user to enter the name of the grocery item.
* Ask the user to enter the quantity of the item.
* Ask the user to enter the price per item.
* Call the calculate\_subtotal function with the quantity and price per item as arguments to calculate the subtotal.
* Add the subtotal to a running total.
* Display the subtotal to the user.
* Repeat the above steps for multiple grocery items.
* After all items are entered, calculate the tax by multiplying the total cost by the tax rate (e.g., 0.08 for 8% tax).
* Calculate the total cost by adding the tax to the total cost.
* Apply a discount of 10% if the total cost exceeds a certain threshold (e.g., $100).
* Display the tax, discount (if applicable), and final total cost to the user.

# Make ‘calculate\_subtotal’ function here

print("Welcome to the Grocery Store!\n")

# User input for grocery items

item\_count = 1

grocery\_total = 0

grocery\_items = []

while True:

# Your code here

# Calculating tax

# Your code here

# Calculating total cost

# Your code here

# Applying discount if the total cost exceeds a certain threshold

# Your code here

# Displaying the results

# Your code here

Expected output:

Welcome to the Grocery Store!

Enter the details for your grocery items:

Item 1:

Name: Apples

Quantity: 3

Price per item: 2.50

Subtotal: $7.50

Item 2:

Name: Milk

Quantity: 2

Price per item: 1.75

Subtotal: $3.50

Item 3:

Name: Bread

Quantity: 1

Price per item: 3.00

Subtotal: $3.00

Tax: $0.90

Total Cost: $14.90

Congratulations! You qualify for a 10% discount!

Discount: $1.49

Final Total: $13.41