Exercise 04: Functions and their parameters

INSTRUCTIONS: Create a Python program that will solve the problem below. Save the file as <surname>_ex4.py (e.g. trese_ex4.py). Submit your work on Google Classroom and turn it in. Write your name, section, and code description on the upper part of your document. Do not forget to document your work.

Problem: You are tasked with creating a simple cash register program for your new online store, Silverlock's Coffee Shop. The store currently offers a delivery-only option and sells a variety of coffee drinks. Your program should implement the following features:

1. **Main Menu Function**

    Create a function that displays the main menu with the following options:

    ```
    [1] Choose coffee

    [2] Enter discount coupon

    [3] Compute total and pay

    [0] Exit
    ```

    The function should **return** the user's choice.

2. **Choose Coffee Function**

    A function for `[1] Choose coffee`. The function should print the available menu items.

    ```
    [1] Espresso: P150.00

    [2] Cappuccino: P200.00

    [3] Latte: P180.00

    [4] Americano: P140.00

    [5] Mocha: P220.00

    [0] Back to main menu
    ```

    The user must input their choice. The user can select items multiple times. The function should keep track of the total price of the selected coffee drinks. When `[0]` is chosen, the function should **return** the total price of the items chosen and go back to the main menu.

3. **Discount Coupon Function**

    A function for `[2] Enter discount coupon`. Create a function that takes the total price as a parameter and prompts the user to enter a discount coupon. The function should check the validity of the coupon and apply the appropriate discount:

    "COFFEELOVER" -> *returns 15% discounted price*

    "FREESHOT" -> *returns 10% discounted price*

If the coupon does not exist, return the current total price (0% discount).

4. **Compute Total and Pay Function**

A function for option `[3] Compute total and pay`. Create a function that takes the total price (after selecting coffee drinks and applying any discounts) and performs the following steps:

   A. **Display the Total Price:**
      a. Show the user the total price.
   B. **Add Delivery Charge:**
      a. Compute and display the total price with an additional 7% delivery charge.
      b. <u>You must use a function</u> to calculate the total price with the 7% delivery charge.
   C. **Apply Senior Citizen or PWD Discount:**
      a. Ask the user if they have a PWD ID or a Senior Citizen ID (`y/n`).
      b. If yes, apply a 20% discount to the total price (after adding the delivery charge).
      c. You must use a function to calculate the total price with the 20% discount.
      d. If no, display the total price (with the delivery charge but no additional discount).
   D. **Payment:**
      a. Ask the user for the amount they are paying.
      b. Display the change.

Sample Run:

```
WELCOME TO SILVERLOCK's COFFEE SHOP!

MAIN MENU
 [1] Choose coffee
 [2] Enter discount coupon
 [3] Compute total and pay
 [0] Exit
Enter choice: 1

COFFEES
 [1] Espresso: P150.00
 [2] Cappuccino: P200.00
 [3] Latte: P180.00
 [4] Americano: P140.00
 [5] Mocha: P220.00
 [0] Back to main menu
Enter your choice: 1

COFFEES
 [1] Espresso: P150.00
 [2] Cappuccino: P200.00
 [3] Latte: P180.00
 [4] Americano: P140.00
 [5] Mocha: P220.00
 [0] Back to main menu
Enter your choice: 4

COFFEES
 [1] Espresso: P150.00
 [2] Cappuccino: P200.00
 [3] Latte: P180.00
 [4] Americano: P140.00
 [5] Mocha: P220.00
 [0] Back to main menu
Enter your choice: 0

 Your current price to pay is:  290.00
```

```
MAIN MENU
 [1] Choose coffee
 [2] Enter discount coupon
 [3] Compute total and pay
 [0] Exit
Enter choice: 2
Enter the your coupon: COFFEELOVER

Your current price to pay is:  246.50

MAIN MENU
 [1] Choose coffee
 [2] Enter discount coupon
 [3] Compute total and pay
 [0] Exit
Enter choice: 3

Your total is:  246.5
Your total with service charge of 7%:  263.75
Do you have a PWD ID or a Senior Citizen ID? (y/n) y
Your total with 20% discount:  211.00
Enter amount to pay: 500
Your change is:  289.00

Thank you for shopping!

MAIN MENU
 [1] Choose coffee
 [2] Enter discount coupon
 [3] Compute total and pay
 [0] Exit
Enter choice: 0

Goodbye!
```

References:

- Angcana, CAG (29, September 2022). Cash register for Coffee shop
- Isungga, ENC (30, January 2023). Cash Register Program for ETINUM REGRUB.

ABDoria, 2024