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#Betty Lewis
#P5LAB
#User-defined function

#Define function

def disperse_change(change):

    if change == 0:
        print("No Change Due")

    #Calculate the amount of each coin needed
    #integer division - //

    num_dollars = change // 100
    change = change - (num_dollars * 100)

    num_quarters = change // 25
    change = change - (num_quarters * 25)

    num_dimes = change // 10
    change = change - (num_dimes * 10)

    num_nickles = change // 5
    change = change - (num_nickles * 5)

    num_pennies = change // 1

    #Display coins owed

    if num_dollars > 0:
        print(num_dollars, end=" ")
        if num_dollars == 1:
            print("Dollar")
        else:
            print("Dollars")

    if num_quarters > 0:
        print(num_quarters, end=" ")
        if num_quarters == 1:
            print("Quarter")
        else:
            print("Quarters")

    if num_dimes > 0:
        print(num_dimes, end=" ")
        if num_dimes == 1:
            print("Dime")
        else:
            print("Dimes")

    if num_nickles > 0:
        print(num_nickles, end=" ")
        if num_nickles == 1:
            print("Nickle")
        else:
            print("Nickles")

    if num_pennies > 0:
        print(num_pennies, end=" ")
        if num_pennies == 1:
            print("Penny")
        else:
            print("Pennies")

def show_avail_items(dictionary):
    print(f"{'Grocery Item':<25}{'Price'}")
    print("-----")
    for key, value in dictionary.items():
        print(f"{key:<25}${value:.2f}")
    print("-----")

def add_items(dictionary):
    cart = []
    items = input("Enter an item to add to the cart or type ' end' to stop adding items: ")
    while items != "end":
        if items in dictionary.keys():
            cart.append(items)
        else:
            print(f"{items} is not in stock")
            items = input("Enter an item to add to the cart or type ' end' to stop adding items: ")
    return cart

def get_total(cart, dictionary):
    print()

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print("Grocery Receipt")
print("-----")
total = 0
for item in cart:
    print(f"{item:<20} ${dictionary[item]:.2f}")
    total += dictionary[item]
#Display totals
print()
print(f"SUBTOTAL:          ${total:.2f}")
tax = total * .07
final_total = total + tax
print(f"TAX:                ${tax:.2f}")
print(f"TOTAL:                ${final_total:.2f}")
print()
return total

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#Main logic stars here
#call function
def main():
    #Create dictionary with items and prices
    items = {"apples":3.69, "berries":4.00, "chocolate":2.89, "turkey":6.99,
             "cheese":4.00, "pepsi":7.89, "eggs": 3.50, "bread":3.00}
    #Call the show_avail_items function
    show_avail_items(items)

    #Call the add_item function
    cart = add_items(items)

    #Display items in cart
    print()
    print("The items currently in your cart are: ")
    for item in cart:
        print(item)

    #Call the get total function
    final_total = get_total(cart, items)

    cust_input = float(input("How much cash will you put into the machine? "))

    change_owed = cust_input - final_total

    print()
    print(f"Change owed to customer: ${change_owed:.2f}")
    print()

    change_owed = round(change_owed * 100)

    #print(f"Change owed to customer: ${change_owed:.2f}")

    disperse_change(change_owed)

#Call the main
main()

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