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// File: Week 11 Assignment.py
// Name: Benjamin Bartek
// Date: February 21, 2019
// Course: DSC 510 - Introduction to Programming
// Desc: This program functions as a rudimentary cash register for 10 fast food items with fixed prices.
// Usage: The program uses class methods and standalone functions. It 1) displays a welcome message; 2) prompts the user to select
an individual item, then looping to allow unlimited additions of individual items to the order; 3) aggregates and displays the item
count by 1 for each menu selection; 4) adds the selection's price to a running total; and 5) allows the user to end the order,
which a) prints the final item count, amount due, and a final message.
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In [30]: #IMPORTS
import locale #currency formatting

#GLOBALS
locale.setlocale(locale.LC_ALL, '') #currency setting for US dollars
border = (' '*18) #variable to put a star border around RECEIPT

#CLASSES
#This 1st one may not actually be a class
class color:
    bold = '\033[1m'
    end = '\033[0m'

#Main Cash Register Class
class CashRegister:
    count = 0
    total = 0
    price = 0

    #Class Methods Starting With Init
    def __init__(self):
        self.count = CashRegister.count
        self.total = CashRegister.total

    #Adds Item To Cart In Increments of 1 and Adds Individual Item Price to Running Total
    def addItem(self, price):
        self.price = price

        self.total += self.price
        self.count += 1

        self.getCount()
        self.getTotal()

    #Called by addItem to display the cart's running total
    def getTotal(self):
        print('\t\t\t\tSubtotal:\t ' + locale.currency(self.total, grouping=True))
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#Called by addItem to display the current item count in the cart
def getCount(self):
    print('\n\n\t\t\tItem Count:\t', self.count)

#Called in the main program to display the final totals
def getFinal(self):
    print('\n\n')
    print('\t\t\t\t\t', border, 'RECEIPT', border, '\n\t\t\t\t\tTotal Items: ', self.count, '\t\tTotal Due: ' + locale.currency(self.count * 1.09))

#STANDALONE FUNCTIONS
def Welcome():

    welcome_msg1 = (color.bold + 'WELCOME TO SCARLET BURGER' + color.end)
    welcome_msg2 = (color.bold + 'HOME OF SCARLET\'S FRESH CUT FRIES!' + color.end)

    print(welcome_msg1.center(115))
    print(welcome_msg2.center(115))

#Final Message Before Program Terminates
def Quit():
    quit_msg1 = (color.bold + 'Thank You For Your Business. Please Rate Us On Facebook, Google, and Yelp.' + color.end)
    quit_msg2 = (color.bold + 'Enjoy Your Food From SCARLET BURGER!' + color.end)

    print('\n')
    print(quit_msg1.center(115))
    print(quit_msg2.center(115))

def main():
    Welcome()

    #Menu Variables - foods maps to a for statement, prices, maps to a call for addItem.
    #NOTE: selection is called to determine price, but does not print on the menu itself. num does.
    foods = ['Kids Meal', 'Hamburger', 'Cheeseburger', 'Chicken Sandwich', 'Chicken Nuggets', 'Salad', 'Fries',
             'Onion Rings', 'Milkshake', 'Coke']

    prices = [3.79, 1.25, 1.50, 3.25, 3.25, 3.50, 1.15, 1.20, 3.39, 2.29]

    selection = [0, 1, 2, 3, 4, 5, 6, 7, 8, 9]

    #Class Instance: This is vital to getting the Class to work in the main program!
    start_register = CashRegister()

    #Main Loop
    while True:

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#Part 1: Display the menu selections
while True:
    #Top of the loop - continue starts the loop back over again here.
    print('\n\t\t\t\tPlease select from the following items:\n')

    #num is a sentinel value. The for statement iterates through the food example, being called to print the position in the tuple
    num = 0
    for food in foods:
        print('\t\t\t\t{}. {}'.format(num, food)) #Formatting with tuple call
        num += 1

    #Input for the user's menu selection
    loadFood = input('\n\t\t\t\tSelect 0-9 OR 99 to cash out: ')

    #Displays an error message if anything other than an integer goes into the input.
    try:
        int(loadFood)
    except:
        print('\t\t\t\tInvalid Input')
        continue #Loops back to try again

    #Compares input to selections 1-9, then adds the item with a count of 1 and a price that calls on the prices tuple.
    if int(loadFood) in selection:
        start_register.addItem(prices[int(loadFood)])

    #Displays the final totals, a final message, and quits the program.
    elif loadFood == '99':
        start_register.getFinal()
        Quit()
        break #Ends loop, stops program.

    #Error message to catch integers that don't match one of the menu items.
    else:
        print('\t\t\t\tInvalid Input')
        continue #Loops back to try again

#MAIN PROGRAM
main()

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WELCOME TO SCARLET BURGER
HOME OF SCARLET'S FRESH CUT FRIES!

Please select from the following items:

0. Kids Meal
1. Hamburger
2. Cheeseburger
3. Chicken Sandwich
4. Chicken Nuggets
5. Salad

6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 0

Item Count: 1
Subtotal: \$3.79

Please select from the following items:

0. Kids Meal
1. Hamburger
2. Cheeseburger
3. Chicken Sandwich
4. Chicken Nuggets
5. Salad
6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 1

Item Count: 2
Subtotal: \$5.04

Please select from the following items:

0. Kids Meal
1. Hamburger
2. Cheeseburger
3. Chicken Sandwich
4. Chicken Nuggets
5. Salad
6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 2

Item Count: 3
Subtotal: \$6.54

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 3

Item Count: 4
Subtotal: \$9.79

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 4

Item Count: 5
Subtotal: \$13.04

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 5

Item Count: 6
Subtotal: \$16.54

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 6

Item Count: 7
Subtotal: \$17.69

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 7

Item Count: 8
Subtotal: \$18.89

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich

4. Chicken Nuggets
5. Salad
6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 8

Item Count: 9
Subtotal: \$22.28

Please select from the following items:

0. Kids Meal
1. Hamburger
2. Cheeseburger
3. Chicken Sandwich
4. Chicken Nuggets
5. Salad
6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 9

Item Count: 10
Subtotal: \$24.57

Please select from the following items:

0. Kids Meal
1. Hamburger
2. Cheeseburger
3. Chicken Sandwich
4. Chicken Nuggets
5. Salad
6. Fries
7. Onion Rings
8. Milkshake
9. Coke

Select 0-9 OR 99 to cash out: 19
Invalid Input

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: fdsadsf
Invalid Input

Please select from the following items:

- 0. Kids Meal
- 1. Hamburger
- 2. Cheeseburger
- 3. Chicken Sandwich
- 4. Chicken Nuggets
- 5. Salad
- 6. Fries
- 7. Onion Rings
- 8. Milkshake
- 9. Coke

Select 0-9 OR 99 to cash out: 99

***** RECEIPT *****
Total Items: 10 Total Due: \$24.57

**Thank You For Your Business. Please Rate Us On Facebook, Google, and Yelp.
Enjoy Your Food From SCARLET BURGER!**