# CS50P - Problem Set 2

## camelCase

* Implement a program that prompts the user for the name of a variable in **camel case** and outputs the corresponding name in snake case. Assume that the user’s input will indeed be in camel case.
* **for c in list[1:]** (starting at char 2)
* list.**append(**word**)**
* .**lower()**
* “**\_**”**.join(list)** -> Joins list elements into a string with specified separator

## Coke Machine

* Coke machine sells a bottle for **50 cents** and only accepts **25**, **10** and **5** cents
* Implement a program that prompts the user to insert a coin, **one at a time**, each time informing the user of the amount due.
* Once the user has inputted at least 50 cents, **output how many cents in change the user is owed**.
* Assume that the **user will only input integers**, and **ignore any integer that isn’t accepted**
* **while** count < 50**:**

**…**

* **if coin == 25 or coin == 10 …**
* # Ensure the change is **not negative**

print(f”Change Owed: **{count - 50}**”)

## Just setting up my twttr

* Implement a program that prompts the user for a str of text and then outputs that same text but with all vowels (A, E, I, O, and U) omitted, whether imputed in uppercase or lowercase.
* **.append()**
* **“”.join(**list**)**

## Vanity Plates

* Implement a program that prompts the user for a vanity plate and then output **Valid** if it meets all of the requirements or **Invalid** if it does not.
* Assume that any letters in the user’s input will be **uppercase**
* **Is\_valid** returns **True** if **s** meets all the requirements and **False** if it does not.
* Assume that **s** will be a **str**
* Requirements:
  + **Start** with at least **2 letters s[0].isalpha() == False or s[1].isalpha() == False**
  + **Maximum 6 characters** (letters or numbers) **len(6)**
  + **Minimum 2 characters len(2)**
  + **Numbers** must come **at the end** after the letters **if c.isalpha() and i != 0** (range) **and s[i - 1].isdigit()**
  + First number can’t be **“0” if c == "0" and no digit was found before**
  + **No periods, spaces, or punctuation marks if c.isalnum() == False:**
* **zero\_digit\_found = False**

# If current char is a digit equal to zero

# and there was no digit before it (first char is 0) return False

* **if c.isdigit():**

if **c == "0"** and **zero\_digit\_found == False**:

return False

elif **c != "0"**:

**zero\_digit\_found = True**

* for **i**, **c** in enumerate(s)

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## Nutrition Facts

* Implement a program that prompts users to input a **fruit** (**case-insensitive**) and outputs the number of calories in one portion of that fruit, per the FDA’s poster for fruits.
* Assume that users will input fruits exactly as written in the poster.
* Ignore any input that isn’t a fruit
* Use a **dictionary** = {**“**key1**”:** **“**value1**”,** **“**key2**”: “**value2**”**}
* **if** fruit **in** fruit\_dict:

return **fruit\_dict[**fruit**]**

* For the function not to return dictionary value:

In main(), only print **if result != None**