CS 115 - Introduction to Programming in Python

Lab Guide 05

Lab Objectives: Tuples, Lists, Dictionaries

1) Write a python program that includes the following:
   - `count():` function that takes a string as a parameter, and returns a dictionary where the keys are the unique letters in the string, and the values are the counts. Note: spaces should not be included in the dictionary.
   - `find_ch_most():` function that takes a dictionary as a parameter and returns the character in the dictionary with the highest count.
   - Write a script that inputs a sentence from the user and using the functions above displays the character with the highest count.

   Sample Run:
   ```
   Enter a sentence:hello how are you today?
   Character "o"has occurred the most in "hello how are you today? "
   ```

2) Write a python program that includes the following:
   - `common():` function that takes two strings (first for the name and second for the last name) as parameters, and returns a **list** which will contain the <u>common</u> letters in these strings.
   - `all_unique():` function that takes two strings (first for the name and second for the last name) as parameters, and returns a **tuple** which will contain all of the <u>unique</u> letters in these strings.
   - Write a script that inputs a string which contains the name and surname of a person separated by a space from the user and using the functions above displays the common characters and the all unique characters in the name and surname of the person.

   Sample Run:
   ```
   Enter your name: zeynep kepenek
   common Letters in first name and last name:  ['e', 'n', 'p']
   Unique characters in first name and last name: ('z', 'e', 'y',
   'n', 'p', 'k')
   ```