TP5 Python: Functions

bingzhi.li@yahoo.com
Github: https://github.com/bingzhilee/python4linguists

October 15, 2021

1. Rewrite your pay computation (1.5 times the hourly rate for hours worked above 40 hours) and create a function called `compute_pay()` which takes two parameters `hours and rate` and print the pay. The expected output:

   ```
   >>> compute_pay(45,10)
   475
   ```

1 Tokenisation

2. Write a function `tokenize(s)` that splits a sentence s into a list of words. Each identified word will be displayed in the output. You must also display the characters `"."` and`","` separately. For example, `tokenize("Hello, world.")`, the expected output is :

   ```
   Hello
   ,
   world
   .
   ```

3. Write a function `word_count(s)` that returns the number of words identified in a string of characters s (i.e. sentence).This function must use the function `tokenize()`, but it does not count punctuation.

2 Characters searching

4. Write a function `find_first(c,s)` that returns the position (positive index) of the first occurrence of the character c in the string s. For example, `find_first("a", "character")` returns 2. If the character does not appear in the string the function returns `None`.

5. Write a function `find_last(c,s)` that returns the position (negative index) of the last occurrence of the character c in the string s. For example, `find_last("a", "character")` returns -5. If the character does not appear in the string the function returns `None`.

6. Write a function `find_next(c,s,p)` that returns the position (positive index) of the next occurrence of the character c in the string s starting from from the index position i. For example, `find_next("a", "character",0)` returns 2, and `find_next("a", "character",3)` returns 4. This function calls the `find_first` function.

7. Write a function `find_all(c,s)`, that calls the function `find_next` and displays the (positive) position indices of all occurrences of the character c in the string s. For example, `find_all("i", "linguistics")` will display successively: 1, 5 and 8.