Python Functional Programming

Home project

Assignment 1

Attached there is a file called `sherlock.txt`. Using elements of Python functional programming, do some processing over this file as it follows:

1. Decode the content of the file by doing the following replacements:

```
1. ! -> s
2. @ -> h
3. # -> e
4. $ -> r
5. % -> l
6. ^ -> o
7. & -> c
8. * -> k
```

2. After decoding the initial file, select all the words starting with the letter "a"
3. Collect all the words above in a list
4. Display that list

Assignment 2

Make a program that will do the following:

a) read a word from the input console
b) Creates all anagrams of that word
c) Compare all anagrams created at the previous step with the words contained in the file `dictionary.txt`, attached to this laboratory (see on the classrooms materials). If the word exists in that dictionary, it means that the word is meaningful and display it.

Important notes:

In order to create the permutations needed in building the anagrams, use the following import:

```
from itertools import permutations
```

Then call that function as follows:

```
result = permutations(word)
```

result is an iterator containing a series of tuples with the result of permutations which can be stepped like:

```
for crt_elem in result:
      do_something()
```