

Lab. 8 Regex (collaborative)

Members:

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1. Review the following resource

- <https://www.programiz.com/python-programming/regex>

2. Given the following program discuss with your teammates what each of the lines does and write them in the code as comments:

```
import re
def text_match(text):
    patterns = '^[a-z]+_[a-z]+$'
    if not re.search(patterns, text):
        return 'Found a match!'
    else:
        return('Not matched!')

print(text_match("aab_cbbbc"))
print(text_match("aab_Abbbc"))
print(text_match("Aaab_abbbc"))
```

Comments;

```
223 / ...
234 import re #The "re" regular expression library is imported.
235
236 def text_match(text): #A variable is defined as "text_mach".
237     patterns = '^[a-z]+_[a-z]+$' #A variable "patterns" with defined instructions is defined.
238     if not re.search(patterns, text): #An "if not" is created where the variable "patterns" is searched for a match in the introduced variable "text".
239         return ('Found a match!') #If it finds a similar variable it will return "Found a match".
240     else: #If it does not find a match
241         return('Not matched!') #It will return "Not matched".
242 print(text_match("aab_cbbbc")) #Different variables to evaluate
243 print(text_match("aab_Abbbc")) #Different variables to evaluate
244 print(text_match("Aaab_abbbc")) #Different variables to evaluate
```

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```
PS C:\Users\isaia> & C:/Robot/Python37/python.exe c:/Users/isaia/OneDrive/Documentos/Intel_Trabajo/Trabajos/Python/Prueba.py
Not matched!
Found a match!
Found a match!
PS C:\Users\isaia>
```

They can be aided by: <https://regex101.com/> to review what the Code pattern performs, also taking the resource provided as a reference.

This program search some literals strings in a string.

- Sample text : 'The quick brown fox jumps over the lazy
- dog.'
- Searched words : 'fox', 'dog', 'horse'

```

import re
patterns = [ 'fox', 'dog', 'horse' ]
text = 'The quick brown fox jumps over the lazy
dog.'
for pattern in patterns:
    print('Searching for "%s" in "%s" ->' %
(pattern, text),)
    if re.search(pattern, text):
        print('Matched!')
    else:
        print('Not Matched!')

```

- What is the meaning of the Yellow line?
- Each time the for is performed, it will print "searching for" and the word that is described in the "patterns" part of the vector, and defines that it will be searched in the text with the extension "text".

```

235 import re
236 patterns = [ 'fox', 'dog', 'horse' ]
237 text = 'The quick brown fox jumps over the lazy dog.'
238 for pattern in patterns:
239     print('Searching for "%s" in "%s" ->' % (pattern, text),)
240     if re.search(pattern, text):
241         print('Matched!')
242     else:
243         print('Not Matched!')

```

PROBLEMAS SALIDA TERMINAL CONSOLA DE DEPURACIÓN

```

PS C:\Users\isaia> & C:/RoboDK/Python37/python.exe c:/Users/isaia/OneDrive/Documentos/Intel_Trabajo/Trabajos/Python/Prueba.py
Searching for "fox" in "The quick brown fox jumps over the lazy dog." ->
Matched!
Searching for "dog" in "The quick brown fox jumps over the lazy dog." ->
Matched!
Searching for "horse" in "The quick brown fox jumps over the lazy dog." ->
Not Matched!
PS C:\Users\isaia>

```

Write a simple program that simulates the operation of the grep command in Unix. It should prompt the user to enter a regular expression and count the number of lines that match it: \$ python grep.py Ingresa una expresión regular: ^Author

- mbox.txt tiene 1798 líneas que coinciden con ^Author
- \$ python grep.py Ingresa una expresión regular: ^X-
- mbox.txt tiene 14368 líneas que coinciden con ^X-
- \$ python grep.py Ingresa una expresión regular: java\$
- mbox.txt tiene 4175 líneas que coinciden con java\$

```

1 import re
2 patterns=input("find: ")
3 #patterns='java\$'
4 counter=0
5 def text_match(text):
6     global counter
7     global patterns
8     text=text.lstrip()
9     if re.search(patterns,text):
10         #print (text)
11         counter+=1
12
13 with open('mbox.txt') as f:
14     line = f.readline()
15     while line:
16         line = f.readline()
17         text_match(line)
18 print(counter)

```

```

chris@DESKTOP-8LCLCKD /cygdrive/c/users/chris/Desktop/carpeta007
$ python grep_lab8.py
find: ^Author
4

chris@DESKTOP-8LCLCKD /cygdrive/c/users/chris/Desktop/carpeta007
$ python grep_lab8.py
find: ^X-
3

chris@DESKTOP-8LCLCKD /cygdrive/c/users/chris/Desktop/carpeta007
$ python grep_lab8.py
find: java\$
1

chris@DESKTOP-8LCLCKD /cygdrive/c/users/chris/Desktop/carpeta007
$ |

```

mbox.txt content:

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