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Exercise 7: Regular Expressions

Q1. Create a text file of your choice with minimum 3 sentences and perform the following

1. Using regular expressions to count the number of times a word is occurring in the file
2. Replace a word with another using regular expression.

```python
import re

text = """Hello world!
Hello, how are you?
I hope you are doing well.
Hello, it's a beautiful day."""

print("Counting the Hello word using regular expression :")
count = re.findall("hello", text, re.IGNORECASE)
print(len(count))

print("Original Text is : "+text)
print("Replacing Hello word with Hi word using regular expression :")
replaced_text = re.sub("Hello", "Hi", text)
print(replaced_text)
```

Output:

```
Python 3.11.0 (main, Oct 24 2022, 18:26:48) [MSC v.1933 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
========= RESTART: D:\MCA\6. Python Programming + LAB\LAB\CAT1\q7_RE.py ========
Counting the Hello word using regular expression :
3
Original Text is : Hello world!
Hello, how are you?
I hope you are doing well.
Hello, it's a beautiful day.
Replacing Hello word with Hi word using regular expression :
Hi world!
Hi, how are you?
I hope you are doing well.
Hi, it's a beautiful day.
>>>
```

Q2. Validate your e-mail using regular expression in PYTHON

```python
import re
EmailID=input("Please enter your EmailId:")
exp="[a-z]{12}[.]{1}[a-z]{5}[0-9]{4}[@]{1}[a-z]{10}[.]{1}[a-z]{2}[.]{1}[a-z]{2}"
p=re.compile(exp)
if(re.search(p,EmailID)and len(EmailID)==39):
    print("valid")
else:
    print("Invalid")


#Input Email Id :
vinayakkumar.singh2023@vitstudent.ac.in
```

Output:

```
>>>
====== RESTART: D:\MCA\6. Python Programming + LAB\LAB\Code\emailverify.py =====
Please enter your EmailId:vinayakkumar.singh2023@vitstudent.ac.in
valid
>>>
```

END