In [5]:

```
1#Write a Python program to replace all occurrences of a space, comma, or dot with a colon.


Text = 'Python exercise ,PHP exercise.'

x= Text.replace(' ',':',).replace(',',':').replace('.',':')

print (x)
```

```
Python:exercise::PHP:exercise:
```

In [77]:

```
2#Create a dataframe using the dictionary below and remove everything (commas (,), !, XXXX, ;, etc.) from the c

import pandas as pd

import re

data = {'SUMMARY' : ['hello,world!]', 'XXXX test','123four,five:; six...']}

df = pd.DataFrame(data)
df['SUMMARY'] = df['SUMMARY'].apply(lambda x: re.sub(r'[^\w\s]',' ',x))
```

In [38]:

```
 4#Create a function in python to find all three, four, and five character words in a string. The use of the re



     import re

    def find_words(string):
        pattern=
    re.compile(r'\b\w{3,5}\b')
     matches =
    pattern.findall(string)
    return matches

    string = "This is a sample string with words of different lengths."
    result = find_words (string)
    print (result)
```

```
  File <tokenize>:6
    def find_words(string):
    ^
IndentationError: unindent does not match any outer indentation level
```

In [43]:

```
6#Write a python program to remove the parenthesis area from the text stored in the text file using Regular Exp

import re
text = ["example (.com)", "hr@fliprobo (.com)", "github (.com)", "Hello (Data Science World)", "Data (Scientist
for textfile in text:
    print(re.sub(r" ?\([^)]+\)", "", textfile))
```

```
example
hr@fliprobo
github
Hello
Data
```

In [53]:

```
7#Write a regular expression in Python to split a string into uppercase letters.

import re

text ="ImportanceOfRegularExpressionsInPython"

uppercase_letters = re.split(r"[A-Z]", text)
print (uppercase_letters)
```

```
['', 'mportance', 'f', 'egular', 'xpressions', 'n', 'ython']
```

In [61]:

```
8#Create a function in python to insert spaces between words starting with numbers.


data_str = "RegularExpression1IsAn2ImportantTopic3InPython"

num="0123456789"
for i in data_str:
    if i in num:
        data_str=data_str.replace(i," "+i+"")
res=data_str

print(str(res))
```

```
RegularExpression 1IsAn 2ImportantTopic 3InPython
```

In [65]:

```
9#Create a function in python to insert spaces between words starting with capital letters or with numbers.



data_str = "RegularExpression1IsAn2ImportantTopic3InPython"
```

```
num="0123456789"
for i in data_str:
    if i in num:
        data_str=data_str.replace(i," "+i+"")
res=data_str

print(str(res))
```

```
RegularExpression 1IsAn 2ImportantTopic 3InPython
```

In [70]:

```
10#Use the github link below to read the data and create a dataframe


import pandas as pd

url = "https://raw.githubusercontent.com/dsrscientist/DSData/master/happiness_score_dataset.csv"
df = pd.read_csv(url)
df ['first_five_letter'] = df['Country'].apply(lambda x : x[:])


print (df['Country'].apply(lambda x : x[:]))
```

```
0      Switzerland
1          Iceland
2          Denmark
3           Norway
4           Canada
          ...
153         Rwanda
154          Benin
155          Syria
156        Burundi
157           Togo
Name: Country, Length: 158, dtype: object
```

In [76]:

```
11#Write a Python program to match a string that contains only upper and lowercase letters, numbers, and unders


def match_string(string):
    pattern = r'^[a-zA-Z0-9_]+$'
    if re.match(pattern,string):
        print("string matches the pattern")
    else:
        print("string does not match the pattern")
```

In [79]:

```
12#Write a Python program where a string will start with a specific number.


def check_startin_number(string,number):
    if string.startswith(str(number)):
        return true
    else:
        return false
```

In [83]:

```
13#Write a Python program to remove leading zeros from an IP address

import re

ip = "206.05.104.106"
string = re.sub('\.[0]*','.',ip)
print(string)
```

```
206.5.104.106
```

In [93]:

```
14#Write a regular expression in python to match a date string in the form of Month name followed by day number


import re

text = "On August 15th 1947 that India was declared independent from British colonialism, and the reins of cont

pattern = r"\b[A-Z][a-z]+\d{1,2}(?:st|nd|rd|th)?\d{4}\b"
matches =  re.findall(pattern,text)
print (matches)
```

```
[]
```

In [97]:

```
15#Write a Python program to search some literals strings in a string.



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!')
```

```
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!
```

In [101…

```
16#Write a Python program to search a literals string in a string and also find the location within the origina

import re
pattern = 'fox'
text = 'The quick brown fox jumps over the lazy dog.'
match = re.search(pattern, text)
s = match.start()
e = match.end()
print('Found "%s" in "%s" from %d to %d ' % \
    (match.re.pattern, match.string, s, e))
```

```
Found "fox" in "The quick brown fox jumps over the lazy dog." from 16 to 19
```

In [110…

```
17#Write a Python program to find the substrings within a string.


import re
text = 'Python exercises, PHP exercises, C# exercises'
pattern = 'exercises'
for match in re.findall(pattern, text):
    print('Found "%s"' % match)
```

```
Found "exercises"
Found "exercises"
Found "exercises"
```

In [116…

```
18#Write a Python program to find the occurrence and position of the substrings within a string.

import re
text = 'Python exercises, PHP exercises, C# exercises'
pattern = 'exercises'
for match in re.finditer(pattern, text):
    s = match.start()
    e = match.end()
    print('Found "%s" at %d:%d' % (text[s:e], s, e))
```

```
Found "exercises" at 7:16
Found "exercises" at 22:31
Found "exercises" at 36:45
```

In [123…

```
19#Write a Python program to convert a date of yyyy-mm-dd format to dd-mm-yyyy format.

import re
def change_date_format(dt):
        return re.sub(r'(\d{4})-(\d{1,2})-(\d{1,2})', '\\3-\\2-\\1', dt)
dt1 = "2026-01-02"
print("Original date in YYY-MM-DD Format: ",dt1)
print("New date in DD-MM-YYYY Format: ",change_date_format(dt1))
```

```
Original date in YYY-MM-DD Format:  2026-01-02
New date in DD-MM-YYYY Format:  02-01-2026
```

In [130…

```
20#Create a function in python to find all decimal numbers with a precision of 1 or 2 in a string. The use of t


import re

def find_decimal_numbers(string):
  pattern = re.compile(r'\d+\.\d{1,2}')
  decimal_numbers = re.findall(pattern, string)
  return decimal_numbers

sample_text = "01.12 0132.123 2.31875 145.8 3.01 27.25 0.25"
expected_output = find_decimal_numbers(sample_text)
print(expected_output)
```

```
['01.12', '0132.12', '2.31', '145.8', '3.01', '27.25', '0.25']
```

In [136…

```
21#Write a Python program to separate and print the numbers and their position of a given string.

import re
Data = "The following example creates an ArrayList with a capacity of 50 elements. Four elements are then added

for m in re.finditer("\d+", Data):
    print(m.group(0))
    print("Index position:", m.start())
```

```
50
Index position: 62
```

In [ ]:

```
22#Write a regular expression in python program to extract maximum/largest numeric value from a string.
```

```
not done sorry
```

In [137…

```
23#Create a function in python to insert spaces between words starting with capital letters.

import re
text = "RegularExpressionIsAnImportantTopicInPython"
 not done still
```

In [146…

```
24#Python regex to find sequences of one upper case letter followed by lower case letters


import re
def text_match(text):
        patterns = '[A-Z]+[a-z]+$'
        if re.search(patterns, text):
                return 'Found a match!'
        else:
                return('Not matched!')
print(text_match("AaBbGg"))
print(text_match("Python"))
print(text_match("python"))
print(text_match("PYTHON"))
print(text_match("aA"))
print(text_match("Aa"))
```

```
Found a match!
Found a match!
Not matched!
Not matched!
Not matched!
Found a match!
```

In [148…

```
25#Write a Python program to remove continuous duplicate words from Sentence using Regular Expression.

import re

def remove_duplicates(sentence):
  pattern = r'\b(\w+)(\s+\1\b)+'
  return re.sub(pattern, r'\1', sentence)


Data = "Hello hello world world"
result = remove_duplicates(Data)
print(result)
```

```
Hello hello world
```

In [ ]:

```
26#Write a python program using RegEx to accept string ending with alphanumeric character.

not done
```

In [ ]:

```
27#
```

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