

## Assignment Work 3

Date: 9/12/2023 DS 2311

Ans 1: import re

sol: code: 'Python Exercise, PHP exercise'  
Print(re.sub("E", "I", "I", testA))

Output  $\rightarrow$  Python; Exercise II. PHP exercise

Ans 2:  
import pandas as pd  
import numpy as np

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

df = pd.DataFrame(data)  
df['SUMMARY'] = df['SUMMARY'].str.replace('['  
'^a-zA-Z!\\s"]', '', regex=True)

Ans 3:  
import re  
testA = 'never judge a book by its cover'

Print(re.findall(r"\b\w{4,5}\b", testA))

Output  $\rightarrow$  ['never', 'judge', 'book', 'cover']

Ans 4:  
import re  
testA = 'Never Judge a book by its cover.'  
Print(re.findall(r"\b\w{3,4,5}\b", testA))

Output []

Ans5 Python to remove the Parenthesis in a list of Strings.  
instead of the re.compile()

Test A → ["example(.com)", "hi@fliprobo(.com)", "github(.com)", "Hello (Data Science world)", "Data (Scientist)"]

```
In[5]: import re
items = ["example(.com)", "hi@fliprobo(.com)", "github(.com)",
          "Hello (Data Science world)", "Data (Scientist)"]
for item in items:
    print(re.sub(r"\(.*\)", "", item))
```

Output :- example(.com)  
           hi@fliprobo(.com)  
           github(.com)  
           Hello (Data Science world)  
           Data (Scientist)

→ Python Program to remove the Parenthesis area from text stored in the text file  
Qn6 (using RegEx).

items = ["example", "hi@fliprobo", "github", "Hello", "Data"]

```
for item in items:
    print(re.sub(r"\(.*\)", "", item))
```

example

hi@fliprobo

github

Hello

Data

Ans 7 Regular Expression in Python. to split a string into uppercase letters.

(ii):

```
import re
SimpleText = "Importance of Regular Expression In Python"
output = re.findall('([A-Z])[A-Z]*', SimpleText)
print(output)
```

Output :- ['Importance', 'of', 'Regular', 'Expression', 'In', 'Python']

Ans 8 function in python to insert spaces between words starting with numbers.

SampleText:- "Regular Expression Is An 2 Important Topic 3 In Python"

```
print("the Original story is : " + str(SampleText))
for i in SampleText:
```

if i.isdigit():

SimpleText = SampleText.replace(i, " " + i + " ")

res = SimpleText

```
print("the space added string : " + str(res))
```

Output :- Regular Expression Is An 2 Important Topic 3 In Python & quest.

Ans 9 Some Answer used Codes

(Q 10)  
doing



Ans 9 Simple Tant = "Regular Expression Is An 2 Important Topic 3 In Python &quot;"

```
Print ("'" + Str (Simple Tant))
```

```
for i in Simple Tant:
```

```
if i . isdigit ():
```

```
Simpletant = Simpletant . replace (i, "'" + i + "'")
```

```
res = Simpletant
```

```
Print ("'" + Str (res))
```

Output - Regular Expression 1 Is An 2 Important Topic 3 In Python &quot;

Ans 10 Not open the link Github Link

Ans 11 In case of upper letters & Small letters ; number &  
lower case underscores

In [ ]: import re.

```
def matching (text):
```

```
pattern = '^ [a-zA-Z0-9]* $'
```

```
if re . search (pattern, text):
```

```
    Print ("Found a Match !")
```

```
else:
```

```
    Print ("Not matched !!")
```

```
matching ("never judge a book by its cover")
```

```
matching ("NEVER JUDGE A BOOK BY ITS COVER")
```

```
matching ("Never Judge A Book By Its Cover")
```

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Subject \_\_\_\_\_

Python

Programme to Remove Leading Zeros from a IP address.

Answer 13

```
import re  
ip = "226.003.094.786"  
String = re.sub('0.*', ' ', ip)  
Print (String)  
output - 226.3.94.786
```

Answer 12 Python Program where a String will start with a Specific Number.

Ans) :

```
import re  
def match_num (String):  
    text = re.compile(r"^\d{5}")  
    if text.match (String):  
        return True  
    else:  
        return False
```

```
Print (match_num ('5-2345861'))  
Print (match_num ('6-2345861'))
```

Output → True  
False

Ans 14 import re

tant = "on August 15th 1947 that India was declared independent from British colonialism, and the reins of control were handed over to the leaders of the Country."

Matches = re.findall (pattern, tant)

Print (matches)

Output = [ ]

Ans 16 Python Program to Search a literals string in a String and also find the location within the Original String where the pattern occurs.

→ `import re`

`Pattern = "fox"`

`text = 'The quick brown fox jumps over the lazy dog.'`

`match = re.search(pattern, text)`

`s = match.start()`

`c = match.end()`

`print('Found "%s" in "%s" from %d to %d' % (`

`(match.re.pattern, match.string, s, c))`

output → found "Fox" in "The quick brown fox jumps over the lazy dog."  
from 16 to 19.

Ans 15 Python Program to Search for Some literals String in a String.

In C: `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" -> %s' % (pattern, text))`

`if re.search(pattern, text)`

`print("Matched")`

`else:`

`print("Not Matching")`

Ans 17 Python Program to find the Substrings within a string

In[]: `import re`

`tant = 'Python exercise, PHP exercise, C# exercises'`

`Pattern = 'exercise'`

`for match in re.findall(Pattern, tant):`

`print('found "%s" % match')`

Output → found "exercises"

Ans 18 Python Program to find Occurrence and Position of Substrings within a string.

In[]: `import re`

`tant = 'Python exercise, PHP exercise, C# exercises'`

`Pattern = "exercises"`

`for match in re.finditer(pattern, tant):`

`A = match.start()`

`B = match.end()`

`print('Found "%s" at %d : %d (%s[A:B], A, B))`

Output → Found "exercise" at 32:41

Ans 19 Python program to convert a date of 'YYYY-MM-DD' format to 'DD-MM-YYYY' format.

In[]: `import datetime`

`df = datetime.date.today()`

`print(df)`

`2023-12-10`

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import arrowCurrent date = arrow.now().format('DD-MM-YYYY')print(current\_date)Output - 10-12-2023Ans 20 → function in Python to find all decimal numbers with precision of 1 or 2 inimport re (a story use of the re - compile())String : "01.120132.1232.31875.8301270.25"Pattern - re.compile(r'\d+\.\d{1,2}')decimal\_numbers = re.findall(pattern, string)print(decimal\_numbers)→ [126.3, 94.78]Ans 21 Python Program to Separate and Print the numbers  
and their position of a given string.import retant = "Never judge a book by its cover 54"for m in re.finditer("\d+", tant):print(m.group(0))print("Index position:", m.start())Output → 54Index position: 33Ans 22 RegEx in Python program to extract max/largest numeric  
value from a string→ import reString = "347, 896, 926, 524, 734, 950, 642"

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→ number = re.findall('`cl+', string)  
number = map(int, number)  
print("Max Value, Largest Value", max(number))

Output → Max Value, Largest Value 950

Ans 23 A function in Python to insert spaces b/w words starting with capital letter

In[]: import re  
string = "RegularExpressionsIsAnImportantTopicInPython"  
words = re.findall('[A-Z][a-z]\*', string)  
print(" ".join((words)))

Output → Regular Expression Is An Important Topic In Python,

Ans 24 Python RegEx to find Sequences of one upper case letter followed by lower case letters

In[]: import re  
def tank\_match(tant):  
 Patterns = '[A-Z]+[a-z]+\$'  
 if re.search(Patterns, tant)  
 return('Match')  
 else:  
 return('Not-Match')

Print(tank\_match("Python"))

Print(tank\_match("python"))

Print(tank\_match("PYTHON"))



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output → Match  
Not Matched  
Not Matched

Ans-25 Python program to remove continuous duplicate words from Sentence using Regular Expression

```
In[7]: import re
string = "Hello hello world world"
print("".join(dict.fromkeys(string.split())))
```

output → Hello hello world.

Ans-26 Python Program using RegEx to accept string ending with alphanumeric character.

```
In[7]: import re
def check_string(string):
    regex = "^\w{2,20}\w$"
    if (re.search(regex, string)):
        print("Accept")
    else:
        print("Discard")
```

Output1 = "Pushkar786"

Print = (Output1)

Output2 = "Shiv786"

Print = (Output2)

Output → Pushkar786

Shiv786

Ans 27 Python Program using RegEx to extract the hash tags.

fnc: import re

text = "RT @Kapil\_Kawik: #Dollard I mean #xyzabc is 'hash'. by #Demonetization or the same has rendered USELESS <ed><u+00B1><u+0089> acquired funds" No wo """"

Pattern = re.compile(r"\#.\w+")

output = re.findall(Pattern, text)  
print(output)

Output → ['#Dollard', '#xyzabc', '#Demonetization']

Ans 28 Python Program using RegEx to remove <u+..> like Symbols

fnc: import re

input\_text = "@Jays12356 Bharat band on 28??<ed><u+00A0><u+00B1><ed><u+00B1><u+0082> Those who are protesting # demonetization are all different party leaders"

Pattern = re.compile("<u+\w{4}>")

Output\_text = re.sub(Pattern, "", input\_text)

print(Output\_text)

Output → @Jays12356 Bharat on 28??<ed><ed> Those who are protesting # demonetization are all different party leaders.

Ans 29 Python Program to extract dates from the text stored in the text file

In[1]: import re

tant = "Ron was born on 12-09-1992 and he was admitted to School 15-12-1999"

Pattern = r'\d{2}-\d{2}-\d{4}'

dates = re.findall(pattern, tant)

Print(dates)

Output  $\rightarrow [12-09-1992, 15-12-1999]$

Ans 30 A function In Python to remove all words from a string of length b/w 2 and 4.

In[1]: import re

tant = "The following example creates an ArrayList with a capacity of 50 elements. 4 elements are added then added to the ArrayList is trimmed accordingly."

Pattern = re.compile(r'w\*\b\w{1,4}\b')

Print = (Pattern.sub(" ", tant))