Regular Expressions

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

Sample Text- 'Python Exercises, PHP exercises.'

Expected Output: Python:Exercises::PHP:exercises:

Question 2- Create a dataframe using the dictionary below and remove everything (commas (,), !, XXXX, ;, etc.) from the columns except words.

Dictionary- {'SUMMARY' : ['hello, world!', 'XXXXX test', '123four, five:; six...']}

Expected output-

0   hello world

1   test

2   four five six

Question 3- Create a function in python to find all words that are at least 4 characters long in a string. The use of the re.compile() method is mandatory.

Question 4- Create a function in python to find all three, four, and five character words in a string. The use of the re.compile() method is mandatory.

Question 5- Create a function in Python to remove the parenthesis in a list of strings. The use of the re.compile() method is mandatory.

Sample Text: ["example (.com)", "hr@fliprobo (.com)", "github (.com)", "Hello (Data Science World)", "Data (Scientist)"]

Expected Output:

example.com

hr@fliprobo.com

github.com

Hello Data Science World

Data Scientist

Question 6- Write a python program to remove the parenthesis area from the text stored in the text file using Regular Expression.

Sample Text: ["example (.com)", "hr@fliprobo (.com)", "github (.com)", "Hello (Data Science World)", "Data (Scientist)"]

Expected Output: ["example", "hr@fliprobo", "github", "Hello", "Data"]

Note- Store given sample text in the text file and then to remove the parenthesis area from the text.

Question 7- Write a regular expression in Python to split a string into uppercase letters.

Sample text: "ImportanceOfRegularExpressionsInPython"

Expected Output: ['Importance', 'Of', 'Regular', 'Expression', 'In', 'Python']

Question 8- Create a function in python to insert spaces between words starting with numbers.

Sample Text: "RegularExpression1IsAn2ImportantTopic3InPython"

Expected Output: RegularExpression 1IsAn 2ImportantTopic 3InPython

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

Sample Text: "RegularExpression1IsAn2ImportantTopic3InPython"

Expected Output: RegularExpression 1 IsAn 2 ImportantTopic 3 InPython

Question 10- Use the github link below to read the data and create a dataframe. After creating the dataframe extract the first 6 letters of each country and store in the dataframe under a new column called first_five_letters.

Github Link-
https://raw.githubusercontent.com/dsrscientist/DSData/master/happiness_score_dataset.csv

Question 11- Write a Python program to match a string that contains only upper and lowercase letters, numbers, and underscores.

Question 12- Write a Python program where a string will start with a specific number.

Question 13- Write a Python program to remove leading zeros from an IP address

Question 14- Write a regular expression in python to match a date string in the form of Month name followed by day number and year stored in a text file.

Sample text : ' 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'.

Expected Output- August 15th 1947

Note- Store given sample text in the text file and then extract the date string asked format.

Question 15- Write a Python program to search some literals strings in a string.

Sample text : 'The quick brown fox jumps over the lazy dog.'

Searched words : 'fox', 'dog', 'horse'

Question 16- Write a Python program to search a literals string in a string and also find the location within the original string where the pattern occurs

Sample text : 'The quick brown fox jumps over the lazy dog.'

Searched words : 'fox'

Question 17- Write a Python program to find the substrings within a string.

Sample text : 'Python exercises, PHP exercises, C# exercises'

Pattern : 'exercises'.

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

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

Question 20- Create a function in python to find all decimal numbers with a precision of 1 or 2 in a string. The use of the re.compile() method is mandatory.

Sample Text: "01.12 0132.123 2.31875 145.8 3.01 27.25 0.25"

Expected Output: ['01.12', '145.8', '3.01', '27.25', '0.25']

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

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

Sample Text: 'My marks in each semester are: 947, 896, 926, 524, 734, 950, 642'

Expected Output: 950

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

Sample Text: "RegularExpressionIsAnImportantTopicInPython"

Expected Output: Regular Expression Is An Important Topic In Python

Question 24- Python regex to find sequences of one upper case letter followed by lower case letters

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

Sample Text: "Hello hello world world"

Expected Output: Hello hello world

Question 26- Write a python program using RegEx to accept string ending with alphanumeric character.

Question 27- Write a python program using RegEx to extract the hashtags.

Sample Text: """RT @kapil_kausik: #Doltiwal I mean #xyzabc is "hurt" by #Demonetization as the same has rendered USELESS <ed><U+00A0><U+00BD><ed><U+00B1><U+0089> "acquired funds" No wo"""

Expected Output: ['#Doltiwal', '#xyzabc', '#Demonetization']

Question 28- Write a python program using RegEx to remove <U+..> like symbols

Check the below sample text, there are strange symbols something of the sort <U+..> all over the place. You need to come up with a general Regex expression that will cover all such symbols.

Sample Text: "@Jags123456 Bharat band on 28??<ed><U+00A0><U+00BD><ed><U+00B8><U+0082>Those who are protesting #demonetization are all different party leaders"

Expected Output: @Jags123456 Bharat band on 28??<ed><ed>Those who are protesting #demonetization are all different party leaders

Question 29- Write a python program to extract dates from the text stored in the text file.

Sample Text: Ron was born on 12-09-1992 and he was admitted to school 15-12-1999.

Note- Store this sample text in the file and then extract dates.

Question 30- Create a function in python to remove all words from a string of length between 2 and 4.

The use of the re.compile() method is mandatory.

Sample Text: "The following example creates an ArrayList with a capacity of 50 elements. 4 elements are then added to the ArrayList and the ArrayList is trimmed accordingly."

Expected Output: following example creates ArrayList a capacity elements. 4 elements added ArrayList ArrayList trimmed accordingly.