STRING MANIPULATIONS

Instructions:

Please share your answers filled inline in the word document. Submit code files wherever applicable.

Please ensure you update all the details:

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Topic: Data Pre-Processing

Problem Statement:

It is obvious that as part of data analysis, we encounter a lot of text data which is a collection of strings that in turn is a sequence of characters. Access the text data and manipulate it as per our requirements. you can go through this link for further assistance:

1. Create a string "Grow Gratitude".

Code for the following tasks:

      a) How do you access the letter "G" of "Growth"?

      b) How do you find the length of the string?

      c) Count how many times "G" is in the string?

```python
# Create the string "Grow Gratitude"
string = "Grow Gratitude"
# a) Access the letter "G" of "Grow"
letter_G = string[0]
# b) Find the length of the string
length_of_string = len(string)
# c) Count how many times "G" is in the string
count_G = string.count("G")
letter_G, length_of_string, count_G
```

Name	Type	Size	Value
count_G	int	1	2
length_of_string	int	1	14
letter_G	str	1	G
string	str	14	Grow Gratitude

```
Console 2/A X

Python 3.12.4 | packaged by Anaconda, Inc. | (main, Jun 18
Type "copyright", "credits" or "license" for more informat

IPython 8.25.0 -- An enhanced Interactive Python.

In [1]: string = "Grow Gratitude"

In [2]: letter_G = string[0]

In [3]: length_of_string = len(string)

In [4]: count_G = string.count("G")

In [5]: letter_G, length_of_string, count_G
Out[5]: ('G', 14, 2)
```

2. Create a string "Being aware of a single shortcoming within yourself is far more useful than being aware of a thousand in someone else."

Code for the following:

    a) Count the number of characters in the string.

Create the string

quote = "Being aware of a single shortcoming within yourself is far more useful than being aware of a thousand in someone else."

a) Count the number of characters in the string

number_of_characters = len(quote)
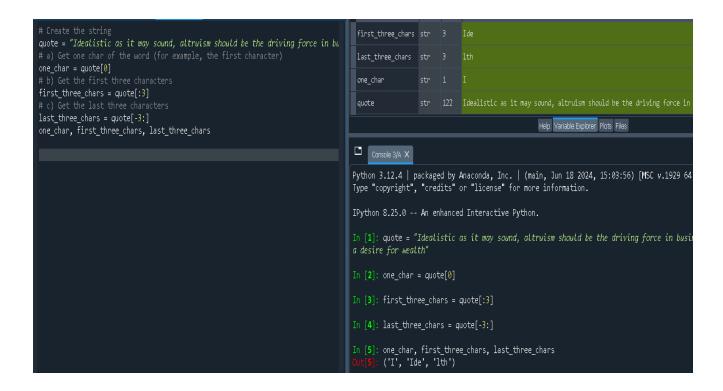
number_of_characters

output:-

118

3. Create a string "Idealistic as it may sound, altruism should be the driving force in business, not just competition and a desire for wealth"

Code for the following tasks:

    a) get one char of the word

    b) get the first three char

    c) get the last three char

```
# Create the string
quote = "Idealistic as it may sound, altruism should be the driving force in bu
# a) Get one char of the word (for example, the first character)
one_char = quote[0]
# b) Get the first three characters
first_three_chars = quote[:3]
# c) Get the last three characters
last_three_chars = quote[-3:]
one_char, first_three_chars, last_three_chars
```

Name	Type	Size	Value
first_three_chars	str	3	Ide
last_three_chars	str	3	lth
one_char	str	1	I
quote	str	122	Idealistic as it may sound, altruism should be the driving force in

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Console 3/A X

```
Python 3.12.4 | packaged by Anaconda, Inc. | (main, Jun 18 2024, 15:03:56) [MSC v.1929 64
Type "copyright", "credits" or "license" for more information.

IPython 8.25.0 -- An enhanced Interactive Python.

In [1]: quote = "Idealistic as it may sound, altruism should be the driving force in busi
a desire for wealth"

In [2]: one_char = quote[0]

In [3]: first_three_chars = quote[:3]

In [4]: last_three_chars = quote[-3:]

In [5]: one_char, first_three_chars, last_three_chars
Out[5]: ('I', 'Ide', 'lth')
```

4. create a string "stay positive and optimistic". Now write a code to split on whitespace.

Write a code to find if:

      a) The string starts with "H"

      b) The string ends with "d"

      c) The string ends with "c"

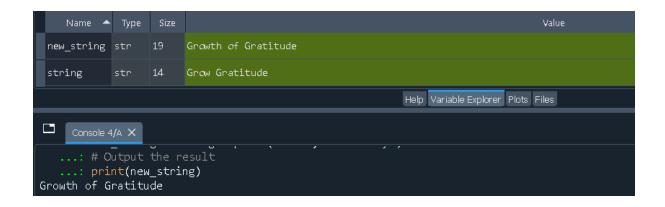5. Write a code to print " 🪐 " one hundred and eight times.

print(" 🪐 " * 108)

6. Create a string "Grow Gratitude" and write a code to replace "Grow" with "Growth of"

Create the string

string = "Grow Gratitude"

Replace "Grow" with "Growth of"

new_string = string.replace("Grow", "Growth of")

Output the result

print(new_string)

Name	Type	Size	Value
new_string	str	19	Growth of Gratitude
string	str	14	Grow Gratitude

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Console 4/A ✕

```
...: # Output the result
...: print(new_string)
Growth of Gratitude
```

7. A story was printed in a pdf, which isn't making any sense. i.e.:

".elgnujehtotniffo deps mehtfohtoB .eerfnoilehttesotseporeht no dewangdnanar eh ,ylkciuQ .elbuortninoilehtdecitondnatsapdeklawesuomeht ,nooS .repmihwotdetratsdnatuotegotgnilggurts saw noilehT .eert a tsniagapumihdeityehT .mehthtiwnoilehtkootdnatserofehtotniemacsretnuhwef a ,yad enO .ogmihteldnaecnedifnocs'esuomeht ta dehgualnoilehT ".emevasuoy fi yademosuoyotplehtaergfo eb lliw I ,uoyesimorp I" .eerfmihtesotnoilehtdetseuqeryletarepsedesuomehtnehwesuomehttaeottuoba saw eH .yrgnaetiuqpuekow eh dna ,peels s'noilehtdebrutsidsihT .nufroftsujydobsihnwoddnapugninnurdetratsesuom a nehwelgnujehtnignipeelsecno saw noil A"

The backward story

backward_story = """.elgnujehtotniffo deps mehtfohtoB .eerfnoilehttesotseporeht no dewangdnanar eh ,ylkciuQ .elbuortninoilehtdecitondnatsapdeklawesuomeht ,nooS .repmihwotdetratsdnatuotegotgnilggurts saw noilehT .eert a tsniagapumihdeityehT .mehthtiwnoilehtkootdnatserofehtotniemacsretnuhwef a ,yad enO .ogmihteldnaecnedifnocs'esuomeht ta dehgualnoilehT ".emevasuoy fi yademosuoyotplehtaergfo eb lliw I ,uoyesimorp I" .eerfmihtesotnoilehtdetseuqeryletarepsedesuomehtnehwesuomehttaeottuoba saw eH .yrgnaetiuqpuekow eh dna ,peels s'noilehtdebrutsidsihT .nufroftsujydobsihnwoddnapugninnurdetratsesuom a nehwelgnujehtnignipeelsecno saw noil A"""

Reverse the story to make it readable

reversed_story = backward_story[::-1]

Output the readable story

print(reversed_story)

Name	Type	Size	Value
backward_story	str	617	.elgnujehtotniffo deps mehtfohtoB .eerfnoilehttesotseporeht no dewangd ...
reversed_story	str	617	A lion was oncesleepinginthejunglewhen a mousestartedrunningupanddownh ...

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Console 6/A ✕

...: print(reversed_story)
A lion was oncesleepinginthejunglewhen a mousestartedrunningupanddownhisbodyjustforfun. Thisdisturbedthelion's sleep, and he
wokeupquiteangry. He was abouttoeatthemousewhenthemousedesperatelyrequestedtheliontosethimfree. "I promiseyou, I will be
ofgreathelptoyousomeday if yousaveme." Thelionlaughed at themouse'sconfidenceandlethimgo. One day, a
fewhunterscameintotheforestandtookthelionwiththem. Theytiedhimupagainst a tree. Thelion was strugglingtogetoutandstartedtowhimper.
Soon, themousewalkedpastandnoticedthelionintrouble. Quickly, he ranandgnawed on theropestosetthelionfree. Bothofthem sped
offintothejungle.