You can be a Python Developer !

Strings Imp Questions

1. How would you confirm that 2 strings have same identity ?

The `is` operator returns `True` if 2 names point to the same location in memory(identity.)

```
initial_language = ['Python','R','Ruby','Swift']
another_language = initial_language

print(initial_language == another_language) # True
print(initial_language is another_language) # True

even_more_lnguag = ['C','C++','C#']

print(initial_language == even_more_lnguag)  # False
print(initial_language is even_more_lnguag)  # False

final_langauge  = ['Python','R','Ruby','Swift']

print(initial_language == final_langauge)     # True
print(initial_language is final_langauge)     # False
```

```
True
True
False
False
True
False
```

2. How would you check if each word in a string begins with a capital letter ?

The `istitle` function checks for the each word capitalization.

```
print('Python language'.istitle())  #False
print('Python Language'.istitle())  #True
```

```
False
True
```

3. Check if the strings contains a specific substring.

The `in` operator will return `True` if a string contains substrings.

```
sen = 'This is a Sentence.'
print('This' in sen) # True
```

```
True
```

4. Find the index of the first occurred of a substring in a string

Methods : `find ()` , `index ()`

Errors : `-1` , `ValueError`

```
print(sen.find('This'))
print(sen.find('cool'))

# Index Method

print(sen.index('This'))
print(sen.index('cool')) #ValueError
```

```
0
-1
0
```

5. Count the Total Number of characters in the string.

The `len` of the string will give the total number of charc in string.

```
print(len('Total Strings')),
```

```
13
```

6. Count the number of a specific character in a string

method : `count`

```
'Total Strings'.count('Strings')
```

```
1
```

Capitalize the first character of the string

Method : `Capitalize()`

```
'capaitalize it !'.capitalize()
```

```
'Capaitalize it !'
```

8. What is a f-string and how do you use it?

F - string makes string interpolation. Using f-strings is similar to the use of `format ()` .

F - strings are denoted by the f before the opening quote.

```
1   name = 'Alex' ; Age = '26'
2   f'Hello. My Name is {name} and I am {Age} years old.'
```

```
'Hello. My Name is Alex and I am 26 years old.'
```

9.Search a specific part of a string for a string | method : `index` , start, end

```
1   'the happiest person in the whole widen world.'.index('the',10,44)
```

```
23
```

```
1   'the happiest person in the whole widen world.'.index('the')
```

```
0
```

10. Interpolate a vraiable into a string using format( ) | method : `format`

```
1   difficulty = 'easy' ; thing = 'exam'
2   'That {} was {} !'.format(thing,difficulty)
```

```
'That exam was easy !'
```

11. Check if a string contains only numbers |Methods : `isnumeric`

```
1   '12122020'.isnumeric()
```

```
True
```

```
1   '1.0454'.isnumeric()
```

```
False
```

12. Split a String on Specific Characters | Method : `Split`

```
1   'This is great'.split(' '), 'not--so--great'.split('--')
```

```
(['This', 'is', 'great'], ['not', 'so', 'great'])
```

13. Check that if a string is composed of all the lower letters |Method : `islower()`

```
1   'all lower case'.islower()
```

```
True
```

14. Check if the first character in a string is lowercase. | Method : `islower()` , `indexing`

```
'First Character'[0].islower(), 'lOWER'[0].islower()
```

```
(False, True)
```

15. Can an integer be added to a string ? Conditions : `only if the integer is converted into str`

```
'String' + 10 # TypeError
```

16. Reverse the string |method : `reversed, join`

```
''.join(reversed('A String'))
```

```
'gnirtS A'
```

17. Join the list of strings into a single string delimited by hypehns | method : `join()`

```
'-'.join(['x','y','z'])
```

```
'x-y-z'
```

18.Check if the charcters in a string conform to ASCII |method : isascii()

```
print('Ω'.isascii())
print('C'.isascii())
```

```
False
True
```

19. Uppercase first and last character of a string |methodd : `upper`

```
animal = 'panda'
animal[0].upper() + animal[1:-1] + animal[-1].upper()
```

```
'PandA'
```

20. Check if characters in a string are in upper case |method: isupper()

```
'cow'.isupper(), 'COW'.isupper()
```

```
(False, True)
```

```
string = input('Enter a word : ').casefold()
rev = reversed(string)
if list(string) == list(rev):
```

```
if list(string) == list(rev):
    print('Palindrome')
else:
    print('Not Palindrome')
```

```
Enter a word : mom
Palindrome
```

21. When would you use splitlines ( ) ?

| Method : Splitlines, are used to splits a string on line breaks.

```
sent = 'Machine Learning is the subset of Artificial Intelligence.\n Deep Learn
sent.splitlines()
```

```
['Machine Learning is the subset of Artificial Intelligence.',
 ' Deep Learning is the subset of subset of Artificial Intelligence.']
```

22. Give an example of string slicing | Methods : Indexing, Slicing | `string [ index_start : index_end: step/interval ]`

```
string = 'There are 7 continents.'
```

```
len(string)
```

```
23
```

```
string[:6]
```

```
'There '
```

```
string[7:13], string[0:-1:2]
```

```
('re 7 c', 'Teeae7cniet')
```

23. Convert an integer to a string.

```
str(45)
```

```
'45'
```

24. Check if a string contains only characters of the alphabets. | Method: isalpha()

```
'string'.isalpha() , 'string12'.isalpha()
```

```
(True, False)
```

25. Replace all instances of a substring in a string. | Method : Replace

```
sentence = 'Sally sells sea shells by the sea shore'
sentence.replace('sea','mountain')
```

```
'Sally sells mountain shells by the mountain shore'
```

26. Return the minimum character of a string `min() will return the character with the lowest index`

```
min('khfgsjafbi'),min('xhgjiduebd'),min('fksirckwn')
```

```
('a', 'b', 'c')
```

27. Check if all the characters in a string are alphanumeric | Method : isalnum()

```
'Str '.isalnum(), 'Str12'.isalnum()
```

```
(False, True)
```

28. Remove the white spaces from the left, right, both sides of a string. | Method : strip ( )

```
'     strip from the left side'.lstrip(), 'strip from the right    '.rstrip(),
```

```
('strip from the left side', 'strip from the right', 'strip from both sides')
```

29. Check if a string begins with or ends with a specific character ? Method : startswith( ) , endswith ()

```
city = 'London'
city.startswith('L'),city.endswith('N'),city.endswith('n')
```

```
(True, False, True)
```

30. Encode a given string as ASCII. Method : encode ()

```
'Fresh Tuna'.encode('ascii')
```

```
b'Fresh Tuna'
```

```
'Fresh Tuna √ '.encode('ascii')
```

```
---------------------------------------------------------------------------
UnicodeEncodeError                        Traceback (most recent call last)
<ipython-input-21-59726862442d> in <module>
----> 1 'Fresh Tuna √ '.encode('ascii')
```

31. Check if all the character are whitespace characters. | Method : isspace ()

```
11: ordinal not in range(128)
```

```
1  ''.isspace(), ' '.isspace(), '    '.isspace() ,'the  '.isspace()
```

```
(False, True, True, False)
```

32. Give an example of string replication

```
1  'Dog - ' * 10
```

```
'Dog - Dog - Dog - Dog - Dog - Dog - Dog - Dog - Dog - Dog - '
```

33. Give an example of concatenation.

```
1  x = 'D' ; x+= 'og'
```

```
1  x
```

```
'Dog'
```

34. Capitalize the first character of each word in a string. | method : capitalize ()

```
1  'this is a lower case'.title()
```

```
'This Is A Lower Case'
```

35.Split the input from the user of a website by '.' | Method : split ( )

```
1  web = input('Enter a website: ').split('.')
2  print(web)
```

```
Enter a website: www.google.co.in
['www', 'google', 'co', 'in']
```

36. Give an example of using the partition () function | Method : Partition ( )

```
1  se = 'If you want to be a Ninja Hattori.'
2  print(se.partition('want'))
```

```
('If you ', 'want', ' to be a Ninja Hattori.')
```

37. What does it mean for a string to be immutable in Python

Answer :

Once a string object has been created, it can't be changed. 'Modifying' that string creates a whole new object in the memory. It can be proved by using id ()

```
proverb = 'Rise each day before the sun'
print(id(proverb))
```

```
140431233439344
```

```
proverb_two = 'Rise each day before the sun' + ' if it is a weekday'
print(id(proverb_two))
```

```
140431234211440
```

38. Does defining a string twice (associated with 2 different variable names) create one or two objectsin a memory

```
animal = 'dog' ; pet = 'dog'
print(id(animal), id(pet))
```

```
140431241361136 140431241361136
```

39. Give an example of using maketrans() and translate()

`maketrans ( )` creates a mapping from the characters to other ones. `translate ( )` creates or then applies their mapping to translate a string.

```
# creating a mapping
mapping  = str.maketrans('abcs','123S')

#translate string
'abc are the fibrst three letters'.translate(mapping)
```

```
'123 1re the fi2rSt three letterS'
```

40. Remove the vowels from a string.

```
string = 'Hello 1 Students 2'
vowels = ('a','e','i','o','u')
''.join([c for c in string if c not in vowels])
```

```
'Hll 1 Stdnts 2'
```

41. When would you use rfind() ?

```
string = 'This is a string'
```

```
1  string = 'this is a string'
2  string.rfind('is')
```

```
5
```