

02.04-strings

February 21, 2020

1

1.1

Python"""

```
In [1]: s = "hello, world"
        print (s)
```

hello, world

```
In [2]: s = 'hello world'
        print (s)
```

hello world

1.2

```
In [3]: s = 'hello ' + 'world'
        s
```

```
Out[3]: 'hello world'
```

```
In [4]: "echo" * 3
```

```
Out[4]: 'echoechoecho'
```

```
In [5]: len(s)
```

```
Out[5]: 11
```

1.3

Python

Python

.()

1.3.1

s.split(s\t\n

```
In [6]: line = "1 2 3 4 5"
        numbers = line.split()
        print (numbers)

['1', '2', '3', '4', '5']
```

s.split(sep)seps

```
In [7]: line = "1,2,3,4,5"
        numbers = line.split(',')
        print (numbers)

['1', '2', '3', '4', '5']
```

1.3.2

s.join(str_sequence)sstr_sequence

```
In [8]: s = ' '
        s.join(numbers)
```

```
Out[8]: '1 2 3 4 5'
```

```
In [9]: s = ','
        s.join(numbers)
```

```
Out[9]: '1,2,3,4,5'
```

1.3.3

s.replace(part1, part2)spart1part2

```
In [10]: s = "hello world"
         s.replace('world', 'python')
```

```
Out[10]: 'hello python'
```

s

```
In [11]: s
```

```
Out[11]: 'hello world'
```

1.3.4

```
s.upper()s  
s.lower()s
```

```
In [12]: "hello world".upper()
```

```
Out[12]: 'HELLO WORLD'
```

```
s
```

```
In [13]: s = "HELLO WORLD"  
         print (s.lower())  
         print (s)
```

```
hello world  
HELLO WORLD
```

1.3.5

```
s.strip()s  
s.lstrip()s  
s.rstrip()s
```

```
In [14]: s = "  hello world  "  
         s.strip()
```

```
Out[14]: 'hello world'
```

```
s
```

```
In [15]: s
```

```
Out[15]: '  hello world  '
```

```
In [16]: s.lstrip()
```

```
Out[16]: 'hello world  '
```

```
In [17]: s.rstrip()
```

```
Out[17]: '  hello world'
```

1.4

dir

```
In [18]: dir(s)
```

```
Out[18]: ['__add__',
          '__class__',
          '__contains__',
          '__delattr__',
          '__dir__',
          '__doc__',
          '__eq__',
          '__format__',
          '__ge__',
          '__getattribute__',
          '__getitem__',
          '__getnewargs__',
          '__gt__',
          '__hash__',
          '__init__',
          '__init_subclass__',
          '__iter__',
          '__le__',
          '__len__',
          '__lt__',
          '__mod__',
          '__mul__',
          '__ne__',
          '__new__',
          '__reduce__',
          '__reduce_ex__',
          '__repr__',
          '__rmod__',
          '__rmul__',
          '__setattr__',
          '__sizeof__',
          '__str__',
          '__subclasshook__',
          'capitalize',
          'casefold',
          'center',
          'count',
          'encode',
          'endswith',
          'expandtabs',
          'find',
          'format',
          'format_map',
```

```
'index',
'isalnum',
'isalpha',
'isdecimal',
'isdigit',
'isidentifier',
'islower',
'isnumeric',
'isprintable',
'isspace',
'istitle',
'isupper',
'join',
'ljust',
'lower',
'lstrip',
'maketrans',
'partition',
'replace',
'rfind',
'rindex',
'rjust',
'partition',
'rsplit',
'rstrip',
'split',
'splitlines',
'startswith',
'strip',
'swapcase',
'title',
'translate',
'upper',
'zfill']
```

1.5

Python """ '''

```
In [19]: a = """hello world.
          it is a nice day."""
          print (a)
```

```
hello world.
it is a nice day.
```

```
'\n'
```

```
In [20]: a
```

```
Out[20]: 'hello world.\nit is a nice day.'
```

1.6 () \

- ()
-

```
In [23]: a = ("hello, world. "
             "it's a nice day. "
             "my name is xxx")
a
```

```
Out[23]: "hello, world. it's a nice day. my name is xxx"
```

```
In [24]: a = "hello, world. " \
           "it's a nice day. " \
           "my name is xxx"
a
```

```
Out[24]: "hello, world. it's a nice day. my name is xxx"
```

1.7

- str(ob)ob
- repr(ob)ob

```
In [25]: str(1.1 + 2.2)
```

```
Out[25]: '3.3000000000000003'
```

```
In [26]: repr(1.1 + 2.2)
```

```
Out[26]: '3.3000000000000003'
```

1.8

```
In [27]: hex(255)
```

```
Out[27]: '0xff'
```

```
In [28]: oct(255)
```

```
Out[28]: '0o377'
```

```
In [29]: bin(255)
```

```
Out[29]: '0b11111111'
```

int

```
In [30]: int('23')
```

```
Out[30]: 23
```

```
In [31]: int('FF', 16)
```

```
Out[31]: 255
```

```
In [32]: int('377', 8)
```

```
Out[32]: 255
```

```
In [33]: int('11111111', 2)
```

```
Out[33]: 255
```

float

```
In [34]: float('3.5')
```

```
Out[34]: 3.5
```

1.9

Pythonformat()

{ } format

```
In [35]: '{} {} {}'.format('a', 'b', 'c')
```

```
Out[35]: 'a b c'
```

```
In [36]: '{2} {1} {0}'.format('a', 'b', 'c')
```

```
Out[36]: 'c b a'
```

```
In [37]: '{color} {n} {x}'.format(n=10, x=1.5, color='blue')
```

```
Out[37]: 'blue 10 1.5'
```

```
In [38]: '{color} {0} {x} {1}'.format(10, 'foo', x = 1.5, color='blue')
```

```
Out[38]: 'blue 10 1.5 foo'
```

```
{<field name>:<format>}
```

```
In [39]: from math import pi
```

```
'{0:10} {1:10d} {2:10.2f}'.format('foo', 5, 2 * pi)
```

```
Out[39]: 'foo                5                6.28'
```

```
C  
%
```

```
In [40]: s = "some numbers:"
```

```
x = 1.34
```

```
y = 2
```

```
#
```

```
t = "%s %f, %d" % (s, x, y)
```

```
In [41]: t
```

```
Out[41]: 'some numbers: 1.340000, 2'
```