Поиск и подсчет подстрок

```
s = 'Management vlan - vlan 10'
```

```
In [2]: s.replace('vlan', 'VLAN')
Out[2]: 'Management VLAN - VLAN 10'

In [3]: s.replace(' ', '   ')
Out[3]: 'Management   vlan   -   vlan   10'
```

```
In [4]: s.count('a')
Out[4]: 4

In [5]: s.count('an')
Out[5]: 3
```

```
In [6]: s.find('vlan')
Out[6]: 11

In [7]: s.find('Vlan')
Out[7]: -1
```

```
In [8]: s.rfind('vlan')
Out[8]: 18

In [9]: s.rfind('Vlan')
Out[9]: -1
```

```
In [10]: s.index('vlan')
Out[10]: 11

In [11]: s.index('Vlan')
---------------------------------------------------------------
ValueError                    Traceback (most recent call last)
<ipython-input-25-ca7ee491cf3e> in <module>()
----> 1 s.index('Vlan')

ValueError: substring not found
```

```
In [12]: s.rindex('vlan')
Out[12]: 18

In [13]: s.rindex('Vlan')
---------------------------------------------------------------
ValueError                    Traceback (most recent call last)
<ipython-input-29-8753fb83c27c> in <module>()
----> 1 s.rindex('Vlan')

ValueError: substring not found
```

Разделение строки на части

```
In [1]: s = 'FastEthernet0/1    10.1.1.1     255.255.255.0'

In [2]: s.split()
Out[2]: ['FastEthernet0/1', '10.1.1.1', '255.255.255.0']

In [3]: vlans = '10,20,30,31,32,40'

In [4]: vlans.split(',')
Out[4]: ['10', '20', '30', '31', '32', '40']
```

```
In [5]: tunnel = '''
   ...: interface Tunnel0
   ...:  ip address 10.10.10.1 255.255.255.0
   ...:  ip mtu 1416
   ...:  ip ospf hello-interval 5
   ...:  tunnel source FastEthernet1/0
   ...:  tunnel protection ipsec profile DMVPN'''

In [6]: tunnel.splitlines()
Out[6]:
['',
 'interface Tunnel0',
 ' ip address 10.10.10.1 255.255.255.0',
 ' ip mtu 1416',
 ' ip ospf hello-interval 5',
 ' tunnel source FastEthernet1/0',
 ' tunnel protection ipsec profile DMVPN']

In [7]: tunnel.splitlines(keepends=True)
Out[7]:
['\n',
 'interface Tunnel0\n',
 ' ip address 10.10.10.1 255.255.255.0\n',
 ' ip mtu 1416\n',
 ' ip ospf hello-interval 5\n',
 ' tunnel source FastEthernet1/0\n',
 ' tunnel protection ipsec profile DMVPN']
```

```
In [8]: s = 'Management vlan - vlan 10'

In [9]: s.partition('-')
Out[9]: ('Management vlan ', '-', ' vlan 10')
```

Проверка типа символов в строке

```
In [1]: 'a10'.isalnum()
Out[1]: True

In [2]: 'a10-'.isalnum()
Out[2]: False
```

```
In [3]: '10'.isalpha()
Out[3]: False

In [4]: 'abc'.isalpha()
Out[4]: True
```

```
In [5]: '1010'.isdigit()
Out[5]: True

In [6]: 'test1010'.isdigit()
Out[6]: False
```

Проверка начала/конца строки

```
s = 'interface FastEthernet0/1'
```

```
In [7]: s.startswith('interface')
Out[7]: True

In [8]: s.startswith(' interface')
Out[8]: False
```

```
In [9]: s.endswith('0/1')
Out[9]: True

In [10]: s.endswith('1/1')
Out[10]: False
```

Удаление символов в начале/конце строки

```
In [11]: s = '\n\n\tvlan 10\n name Management vlan\n\t'

In [12]: s.strip()
Out[12]: 'vlan 10\n name Management vlan'

In [13]: s.lstrip()
Out[13]: 'vlan 10\n name Management vlan\n\t'

In [14]: s.rstrip()
Out[14]: '\n\n\tvlan 10\n name Management vlan'
```

```
In [15]: s = '#### Hello ####'

In [16]: s.strip('#')
Out[16]: ' Hello '
```

Преобразование регистра

```
s = 'Hello World!'
```

```
In [1]: s.upper()
Out[1]: 'HELLO WORLD!'
```

```
In [2]: s.lower()
Out[2]: 'hello world!'
```

```
In [3]: s.capitalize()
Out[3]: 'Hello world!'
```

```
In [4]: s.swapcase()
Out[4]: 'hELLO wORLD!'
```

```
In [5]: 'hello world!'.title()
Out[5]: 'Hello World!'
```

Проверка регистра

```
In [6]: s.istitle()
Out[6]: True
```

```
In [7]: s.isupper()
Out[7]: False
```

```
In [8]: s.islower()
Out[8]: False
```

Выравнивание текста

```
In [2]: s.center(30)
Out[2]: '         Hello World!         '

In [3]: s.center(30, '#')
Out[3]: '#########Hello World!#########'
```

```
In [4]: s.ljust(30)
Out[4]: 'Hello World!                  '

In [5]: s.ljust(30, '#')
Out[5]: 'Hello World!##################'
```

```
In [6]: s.rjust(30)
Out[6]: '                  Hello World!'

In [7]: s.rjust(30, '#')
Out[7]: '##################Hello World!'
```

```
In [9]: '1010'.zfill(8)
Out[9]: '00001010'
```