

列表list

列表的定义

- 定义一个空列表

```
list = []
```

- 定义一个包含元素的列表，元素可以是任意类型，包括数值类型，列表，字符串等均可。

```
list = ["fentiao", 4, 'gender']
```

```
list1 = ['fentiao',(4,'male')]
```

列表的索引

- 下标是从0开始计算，比如list[0]读取的是列表的第1个元素；
- list[-1]读取的是列表的倒数第1个元素；

列表的切片

- 0代表从哪个索引开始切片；
- 3代表切片到哪个位置，并且不包含第三个索引；
- 2代表切片的步长；

```
>>> list1
```

```
['fentiao', 5, 'male']
```

```
>>> list1[0:3:2]
```

```
['fentiao', 'male']
```

列表的添加

- 列表可通过append方法添加元素;

```
In [15]: ipolist = ['172.25.254.1', '172.25.254.19']

In [16]: ipolist.append('172.25.254.17')

In [17]: print ipolist
['172.25.254.1', '172.25.254.19', '172.25.254.17']

In [18]: ipolist.append(('172.25.254.89', '172.25.254.99'))

In [19]: print ipolist
['172.25.254.1', '172.25.254.19', '172.25.254.17', ('172.25.254.89', '172.25.254.99')]
```

思考:如果我想添加多个元素呢?append方法可以实现么?

列表的添加

- 列表可通过方法添加元素；

```
In [21]: ipolist.extend(['172.25.254.189', '172.25.254.199'])
```

```
In [22]: print ipolist
```

```
['172.25.254.1', '172.25.254.19', '172.25.254.17', ('172.25.254.89',  
'172.25.254.99'), '172.25.254.189', '172.25.254.199']
```

```
In [23]: ipolist.append(['172.25.254.189', '172.25.254.199'])
```

```
In [24]: print ipolist
```

```
['172.25.254.1', '172.25.254.19', '172.25.254.17', ('172.25.254.89',  
'172.25.254.99'), '172.25.254.189', '172.25.254.199', ['172.25.254.  
189', '172.25.254.199']]
```

列表的添加

- 在指定位置添加元素使用insert方法;
L.insert(index, object)

```
In [33]: list1 = ['fentiao',5,'male']
```

```
In [34]: list1.insert(1,"fendai")
```

```
In [35]: print list1  
['fentiao', 'fendai', 5, 'male']
```

列表的修改

- 修改列表的元素:直接重新赋值;

```
In [25]: list1 = ['fentiao',5,'male']
```

```
In [26]: list1[0] = 'fendai'
```

```
In [27]: print list1  
['fendai', 5, 'male']
```


列表的查看

- 查看某个列表元素的下表用index方法;
- 查看某个列表元素出现的次数用count方法;

```
In [43]: list1
Out[43]: ['fentiao', 'fendai', 5, 'male']

In [44]: list1.index('fentiao')
Out[44]: 0

In [45]: list1.append('fentiao')

In [46]: list1.index('fentiao')
Out[46]: 0

In [47]: list1.index('fentiao',1,5)
Out[47]: 4

In [48]: list1.count('fentiao')
Out[48]: 2
```

列表的删除

- `list.remove(list[])`

```
In [5]: list1 = ['fentiao', 5, 'male']
```

```
In [6]: list1.remove('fentiao')
```

```
In [7]: print list1  
[5, 'male']
```

```
In [8]: list1.remove(list1[1])
```

```
In [9]: print list1  
[5]
```

列表的删除

- `del(list[])`

```
In [10]: list1 = ['fentiao', 5, 'male']
```

```
In [11]: del(list1)
```

```
In [12]: print list1
```

```
-----  
NameError                                Traceback (most recent call last)
```

```
<ipython-input-12-b0af4949e4b3> in <module>()  
----> 1 print list1
```

```
NameError: name 'list1' is not defined
```

over !