

## map&reduce

--map(func, iterable)

FX:

```
>>> def f(x):
...     return x * x
...
>>> r = map(f, [1, 2, 3, 4, 5, 6, 7, 8, 9])
>>> list(r)
[1, 4, 9, 16, 25, 36, 49, 64, 81]
>>> list(map(str, [1, 2, 3, 4, 5, 6, 7, 8, 9]))
['1', '2', '3', '4', '5', '6', '7', '8', '9']
```

--functools.reduce(func, iterable)

func接收两个参数，reduce把结果继续和序列的下一个元素做累积计算

FE:

```
>>> from functools import reduce
>>> def add(x, y):
...     return x + y
...
>>> reduce(add, [1, 3, 5, 7, 9])
25
>>> from functools import reduce
>>> def fn(x, y):
...     return x * 10 + y
...
>>> def char2num(s):
...     return {'0': 0, '1': 1, '2': 2, '3': 3, '4': 4, '5': 5, '6': 6, '7': 7, '8': 8, '9': 9}[s]
...
>>> reduce(fn, map(char2num, '13579'))
13579
```