Chapter 1

Pythonic Design Patterns

1.1 Core collections

1.1.1 dict-A map of items

> To debug hash collisions, you can use the `hash()` function paired with `collections.Counter`. This will quickly show you where hash collisions occur but it does not take the dict probing sequence into consideration.

In addition to the hash collision performance problem, there is another behavior that might surprise you. When deleting items from a dictionary, it won't actually resize the dictionary in memory. The result is that both copying and iterating over the entire dictionary take O(m) time (where m is the maximum size of the dictionary); n, the current number of items, is not used.

1.1.2 set-Like a dict without values

Chapter 2

Functional Programming-Readability Versus Brevity

2.1 函数式编程

无需过多深入 λ 演算，这意味着仅使用函数参数作为输入来执行计算，并且输出由新变量组成，**而不会改变输入变量**。对于严格函数式编程语言，这种行为将被强制执行，但由于 Python 不是严格函数式语言，因此这不一定成立。

2.1.1 Purely functional

纯函数式编程期望函数没有副作用。这意味着赋予函数的参数不应改变，任何其他外部状态也不应改变。

2.2 lambda functions

Do note that PEP8 dictates that assigning a lambda to a variable is a bad idea. And logically, it is. The idea of an anonymous function is that it is just that—anonymous and without a name. If you are giving it an identity, you should define it as a normal function.