

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