**细节：关联可变集合和不可变集合**

|  |  |  |
| --- | --- | --- |
| **可变集合接口** | **属于JDK还是Guava** | **不可变版本** |
| Collection | JDK | [ImmutableCollection](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableCollection.html) |
| List | JDK | [ImmutableList](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableList.html) |
| Set | JDK | [ImmutableSet](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableSet.html) |
| SortedSet/NavigableSet | JDK | [ImmutableSortedSet](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableSortedSet.html) |
| Map | JDK | [ImmutableMap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableMap.html) |
| SortedMap | JDK | [ImmutableSortedMap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableSortedMap.html) |
| [Multiset](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#Multiset) | Guava | [ImmutableMultiset](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableMultiset.html) |
| SortedMultiset | Guava | [ImmutableSortedMultiset](http://docs.guava-libraries.googlecode.com/git-history/release12/javadoc/com/google/common/collect/ImmutableSortedMultiset.html) |
| [Multimap](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#Multimap) | Guava | [ImmutableMultimap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableMultimap.html) |
| ListMultimap | Guava | [ImmutableListMultimap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableListMultimap.html) |
| SetMultimap | Guava | [ImmutableSetMultimap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableSetMultimap.html) |
| [BiMap](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#BiMap) | Guava | [ImmutableBiMap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableBiMap.html) |
| [ClassToInstanceMap](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#ClassToInstanceMap) | Guava | [ImmutableClassToInstanceMap](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableClassToInstanceMap.html) |
| [Table](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#Table) | Guava | [ImmutableTable](http://docs.guava-libraries.googlecode.com/git-history/release/javadoc/com/google/common/collect/ImmutableTable.html) |

## [Multiset](http://code.google.com/p/guava-libraries/wiki/NewCollectionTypesExplained#Multiset)

HashMultiset是最常用的，其实现是以Map<T,Count>为存储结构，其中的add和remove方法是对Count进行的操作（Count并不是线程安全的），Multiset与Map<T,Integer>最大的不同是，Multiset遍历时可以遍历出Map.keySize \* count个元素