|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| [**List**](http://www.javamadesoeasy.com/2015/04/list-hierarchy-in-java-detailed.html) | **Duplicate elements** | **insertion order** | **Sorted by natural order** | **synchronized** | **null elements** | **Iterator** |
| [**ArrayList**](http://www.javamadesoeasy.com/2015/04/arraylist-in-java.html) | Yes | Yes |  |  | Yes | Iterator & listIterator  are  [Fail-fast](http://www.javamadesoeasy.com/2015/04/concurrentmodificationexception-fail.html) |
| [**LinkedList**](http://www.javamadesoeasy.com/2015/04/linkedlist-in-java.html) | Yes | Yes |  |  | Yes | Iterator & listIterator  are  Fail-fast |
| [**CopyOnWriteArrayList**](http://www.javamadesoeasy.com/2015/04/arraylist-vs-copyonwritearraylist.html) | Yes | Yes |  | Yes | Yes | Iterator & listIterator  are  [**Fail-safe**](http://www.javamadesoeasy.com/2015/04/concurrentmodificationexception-fail.html) |
|  |  |  |  |  |  |  |
| [**Set**](http://www.javamadesoeasy.com/2015/04/set-hierarchy-in-java-detailed-hashset.html) | **Duplicate elements** | **insertion order** | **Sorted by natural order** | **synchronized** | **null elements** | **Iterator** |
| [**HashSet**](http://www.javamadesoeasy.com/2015/04/hashset-in-java.html) |  |  |  |  | Yes | Fail-fast |
| [**LinkedHashSet**](http://www.javamadesoeasy.com/2015/04/hashset-vs-linkedhashset-vs-treeset.html) |  | Yes |  |  | Yes | Fail-fast |
| [**TreeSet**](http://www.javamadesoeasy.com/2015/04/hashset-vs-linkedhashset-vs-treeset.html) |  |  | Yes |  | No | Fail-fast |
| [**ConcurrentSkipListSet**](http://www.javamadesoeasy.com/2015/04/treeset-vs-concurrentskiplistset.html) |  |  | Yes | Yes | No | **Fail-safe** |
|  |  |  |  |  |  |  |
| [**Map**](http://www.javamadesoeasy.com/2015/04/map-hierarchy-in-java-detailed-hashmap.html) | **Duplicate Keys** | **insertion order of keys** | **Sorted by natural order of keys** | **synchronized** | **null keys or null values** | **Iterator**  **Map implementations returns 3 iterators >**  *map.keySet().iterator()*  *map.values().iterator()*  *map.entrySet().iterator()* |
| [**HashMap**](http://www.javamadesoeasy.com/2015/04/hashmap-in-java.html) |  |  |  |  | one null key and many null values | All are Fail-fast |
| [**Hashtable**](http://www.javamadesoeasy.com/2015/04/hashmap-and-hashtable-similarity-and.html) |  |  |  | Yes | No | All are Fail-fast |
| [**ConcurrentHashMap**](http://www.javamadesoeasy.com/2015/04/hashmap-and-concurrenthashmap.html) |  |  |  | Yes | No | All are **Fail-safe** |
| [**TreeMap**](http://www.javamadesoeasy.com/2015/04/hashmap-vs-hashtable-vs-linkedhashmap.html) |  |  | Yes |  | Null key not allowed,  Allow many null values | All are Fail-fast |
| [**ConcurrentSkipListMap**](http://www.javamadesoeasy.com/2015/04/treemap-vs-concurrentskiplistmap.html) |  |  | Yes | Yes | No | All are **Fail-safe** |