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org.apache.commons.collections4.multiset

## Class HashMultiSet<E>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [java.util.AbstractCollection](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true)<E>
    - [org.apache.commons.collections4.multiset.AbstractMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html)<E>
      * [org.apache.commons.collections4.multiset.AbstractMapMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html)<E>
        + org.apache.commons.collections4.multiset.HashMultiSet<E>
* Type Parameters: E - the type held in the multiset All Implemented Interfaces: [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true), [Iterable](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)<E>, [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<E>, [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E>  
    
  public class HashMultiSet<E>  
  extends [AbstractMapMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html)<E>  
  implements [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true)  
  Implements MultiSet, using a [HashMap](https://docs.oracle.com/javase/7/docs/api/java/util/HashMap.html?is-external=true) to provide the data storage. This is the standard implementation of a multiset.  
  A MultiSet stores each object in the collection together with a count of occurrences. Extra methods on the interface allow multiple copies of an object to be added or removed at once.Since: 4.1 See Also: [Serialized Form](http://docs.google.com/serialized-form.html#org.apache.commons.collections4.multiset.HashMultiSet)

### Nested Class Summary

### Nested classes/interfaces inherited from class org.apache.commons.collections4.multiset.[**AbstractMapMultiSet**](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html)[AbstractMapMultiSet.EntrySetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.EntrySetIterator.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.EntrySetIterator.html)>, [AbstractMapMultiSet.MultiSetEntry](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.MultiSetEntry.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.MultiSetEntry.html)>, [AbstractMapMultiSet.MutableInteger](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.MutableInteger.html), [AbstractMapMultiSet.UniqueSetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.UniqueSetIterator.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.UniqueSetIterator.html)>

### Nested classes/interfaces inherited from class org.apache.commons.collections4.multiset.[**AbstractMultiSet**](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html)[AbstractMultiSet.AbstractEntry](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.AbstractEntry.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.AbstractEntry.html)>, [AbstractMultiSet.EntrySet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.EntrySet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.EntrySet.html)>, [AbstractMultiSet.UniqueSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.UniqueSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.UniqueSet.html)>

### Nested classes/interfaces inherited from interface org.apache.commons.collections4.[**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)[MultiSet.Entry](http://docs.google.com/org/apache/commons/collections4/MultiSet.Entry.html)<[E](http://docs.google.com/org/apache/commons/collections4/MultiSet.Entry.html)>

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [HashMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html#HashMultiSet--)() Constructs an empty [HashMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html). |
| * + [HashMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html#HashMultiSet-java.util.Collection-)([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [E](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html)> coll) Constructs a multiset containing all the members of the given collection. |

### Method Summary

### Methods inherited from class org.apache.commons.collections4.multiset.[**AbstractMapMultiSet**](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html)[add](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#add-E-int-), [clear](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#clear--), [contains](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#contains-java.lang.Object-), [createEntrySetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#createEntrySetIterator--), [createUniqueSetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#createUniqueSetIterator--), [doReadObject](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#doReadObject-java.io.ObjectInputStream-), [doWriteObject](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#doWriteObject-java.io.ObjectOutputStream-), [equals](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#equals-java.lang.Object-), [getCount](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#getCount-java.lang.Object-), [getMap](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#getMap--), [hashCode](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#hashCode--), [isEmpty](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#isEmpty--), [iterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#iterator--), [remove](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#remove-java.lang.Object-int-), [setMap](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#setMap-java.util.Map-), [size](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#size--), [toArray](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#toArray--), [toArray](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#toArray-T:A-), [uniqueElements](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html#uniqueElements--)

### Methods inherited from class org.apache.commons.collections4.multiset.[**AbstractMultiSet**](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html)[add](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#add-E-), [createEntrySet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#createEntrySet--), [createUniqueSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#createUniqueSet--), [entrySet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#entrySet--), [remove](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#remove-java.lang.Object-), [removeAll](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#removeAll-java.util.Collection-), [setCount](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#setCount-E-int-), [toString](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#toString--), [uniqueSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html#uniqueSet--)

### Methods inherited from class java.util.[**AbstractCollection**](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true)[addAll](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true#addAll-java.util.Collection-), [containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true#containsAll-java.util.Collection-), [retainAll](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true#retainAll-java.util.Collection-)

### Methods inherited from class java.lang.[**Object**](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[clone](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#clone--), [finalize](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#finalize--), [getClass](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#getClass--), [notify](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notify--), [notifyAll](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#notifyAll--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait--), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-), [wait](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#wait-long-int-)

### Methods inherited from interface org.apache.commons.collections4.[**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)[containsAll](http://docs.google.com/org/apache/commons/collections4/MultiSet.html#containsAll-java.util.Collection-), [retainAll](http://docs.google.com/org/apache/commons/collections4/MultiSet.html#retainAll-java.util.Collection-)

### Methods inherited from interface java.util.[**Collection**](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)[addAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#addAll-java.util.Collection-), [parallelStream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#parallelStream--), [removeIf](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeIf-java.util.function.Predicate-), [spliterator](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#spliterator--), [stream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#stream--)

### Methods inherited from interface java.lang.[**Iterable**](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true)[forEach](https://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html?is-external=true#forEach-java.util.function.Consumer-)

### Constructor Detail

#### HashMultiSet public HashMultiSet() Constructs an empty [HashMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html).

#### HashMultiSet public HashMultiSet([Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)<? extends [E](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html)> coll) Constructs a multiset containing all the members of the given collection.Parameters: coll - a collection to copy into this multiset

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