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Package org.apache.commons.collections4.multiset

This package contains implementations of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface.

See: [Description](#3znysh7)

* Class Summary

|  |  |
| --- | --- |
| * Class | * Description |
| * [AbstractMapMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.html)<E> | * Abstract implementation of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface to simplify the creation of subclass implementations. |
| * [AbstractMapMultiSet.EntrySetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.EntrySetIterator.html)<E> | * Inner class EntrySetIterator. |
| * [AbstractMapMultiSet.MultiSetEntry](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.MultiSetEntry.html)<E> | * Inner class MultiSetEntry. |
| * [AbstractMapMultiSet.MutableInteger](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.MutableInteger.html) | * Mutable integer class for storing the data. |
| * [AbstractMapMultiSet.UniqueSetIterator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMapMultiSet.UniqueSetIterator.html)<E> | * Inner class UniqueSetIterator. |
| * [AbstractMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.html)<E> | * Abstract implementation of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface to simplify the creation of subclass implementations. |
| * [AbstractMultiSet.AbstractEntry](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.AbstractEntry.html)<E> | * Inner class AbstractEntry. |
| * [AbstractMultiSet.EntrySet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.EntrySet.html)<E> | * Inner class EntrySet. |
| * [AbstractMultiSet.UniqueSet](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSet.UniqueSet.html)<E> | * Inner class UniqueSet. |
| * [AbstractMultiSetDecorator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html)<E> | * Decorates another MultSet to provide additional behaviour. |
| * [HashMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/HashMultiSet.html)<E> | * 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. |
| * [PredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html)<E> | * Decorates another [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) to validate that additions match a specified predicate. |
| * [SynchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html)<E> | * Decorates another [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) to synchronize its behaviour for a multi-threaded environment. |
| * [UnmodifiableMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/UnmodifiableMultiSet.html)<E> | * Decorates another [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) to ensure it can't be altered. |

## Package org.apache.commons.collections4.multiset Description

This package contains implementations of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface. A multiset stores an object and a count of the number of occurrences of the object.

The following implementations are provided in the package:

* HashMultiSet - implementation that uses a HashMap to store the data

The following decorators are provided in the package:

* Predicated - ensures that only elements that are valid according to a predicate can be added
* Synchronized - synchronizes method access for multi-threaded environments
* Unmodifiable - ensures the multiset cannot be altered

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