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Uses of Interface

org.apache.commons.collections4.MultiSet

* Packages that use [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * Package | * Description |
| * [org.apache.commons.collections4](#3znysh7) | * This package contains the interfaces and utilities shared across all the subpackages of this component. |
| * [org.apache.commons.collections4.collection](#2et92p0) | * This package contains implementations of the [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) interface. |
| * [org.apache.commons.collections4.multimap](#tyjcwt) | * This package contains implementations of the [MultiValuedMap](http://docs.google.com/org/apache/commons/collections4/MultiValuedMap.html) interfaces. |
| * [org.apache.commons.collections4.multiset](#3dy6vkm) | * This package contains implementations of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface. |

### Uses of [**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) in [**org.apache.commons.collections4**](http://docs.google.com/org/apache/commons/collections4/package-summary.html)Fields in [org.apache.commons.collections4](http://docs.google.com/org/apache/commons/collections4/package-summary.html) declared as [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Field and Description |
| * + static [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) | * + MultiSetUtils.[EMPTY\_MULTISET](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#EMPTY_MULTISET) An empty unmodifiable multiset. |

* + Methods in [org.apache.commons.collections4](http://docs.google.com/org/apache/commons/collections4/package-summary.html) that return [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[emptyMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#emptyMultiSet--)() Get an empty MultiSet. |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[K](http://docs.google.com/org/apache/commons/collections4/MultiValuedMap.html)> | * + MultiValuedMap.[keys](http://docs.google.com/org/apache/commons/collections4/MultiValuedMap.html#keys--)() Returns a [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) view of the keys contained in this multi-valued map. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[predicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#predicatedMultiSet-org.apache.commons.collections4.MultiSet-org.apache.commons.collections4.Predicate-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate) Returns a predicated (validating) multiset backed by the given multiset. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[synchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#synchronizedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset) Returns a synchronized (thread-safe) multiset backed by the given multiset. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[unmodifiableMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#unmodifiableMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<? extends E> multiset) Returns an unmodifiable view of the given multiset. |

* + Methods in [org.apache.commons.collections4](http://docs.google.com/org/apache/commons/collections4/package-summary.html) with parameters of type [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[predicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#predicatedMultiSet-org.apache.commons.collections4.MultiSet-org.apache.commons.collections4.Predicate-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate) Returns a predicated (validating) multiset backed by the given multiset. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[synchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#synchronizedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset) Returns a synchronized (thread-safe) multiset backed by the given multiset. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + MultiSetUtils.[unmodifiableMultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSetUtils.html#unmodifiableMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<? extends E> multiset) Returns an unmodifiable view of the given multiset. |

### Uses of [**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) in [**org.apache.commons.collections4.collection**](http://docs.google.com/org/apache/commons/collections4/collection/package-summary.html)Methods in [org.apache.commons.collections4.collection](http://docs.google.com/org/apache/commons/collections4/collection/package-summary.html) that return [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html)> | * + PredicatedCollection.Builder.[createPredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html#createPredicatedMultiSet--)() Create a new predicated multiset filled with the accepted elements. |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html)> | * + PredicatedCollection.Builder.[createPredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html#createPredicatedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html)> multiset) Decorates the given multiset with validating behavior using the predicate. |

* + Methods in [org.apache.commons.collections4.collection](http://docs.google.com/org/apache/commons/collections4/collection/package-summary.html) with parameters of type [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html)> | * + PredicatedCollection.Builder.[createPredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html#createPredicatedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.Builder.html)> multiset) Decorates the given multiset with validating behavior using the predicate. |

### Uses of [**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) in [**org.apache.commons.collections4.multimap**](http://docs.google.com/org/apache/commons/collections4/multimap/package-summary.html)Methods in [org.apache.commons.collections4.multimap](http://docs.google.com/org/apache/commons/collections4/multimap/package-summary.html) that return [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[K](http://docs.google.com/org/apache/commons/collections4/multimap/AbstractMultiValuedMap.html)> | * + AbstractMultiValuedMap.[keys](http://docs.google.com/org/apache/commons/collections4/multimap/AbstractMultiValuedMap.html#keys--)() Returns a [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) view of the key mapping contained in this map. |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[K](http://docs.google.com/org/apache/commons/collections4/multimap/AbstractMultiValuedMapDecorator.html)> | * + AbstractMultiValuedMapDecorator.[keys](http://docs.google.com/org/apache/commons/collections4/multimap/AbstractMultiValuedMapDecorator.html#keys--)() |
| * + [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[K](http://docs.google.com/org/apache/commons/collections4/multimap/UnmodifiableMultiValuedMap.html)> | * + UnmodifiableMultiValuedMap.[keys](http://docs.google.com/org/apache/commons/collections4/multimap/UnmodifiableMultiValuedMap.html#keys--)() |

### Uses of [**MultiSet**](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) in [**org.apache.commons.collections4.multiset**](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html)Classes in [org.apache.commons.collections4.multiset](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html) that implement [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [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. |
| * + class | * + [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. |
| * + class | * + [AbstractMultiSetDecorator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html)<E> Decorates another MultSet to provide additional behaviour. |
| * + class | * + [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. |
| * + class | * + [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. |
| * + class | * + [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. |
| * + class | * + [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. |

* + Methods in [org.apache.commons.collections4.multiset](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html) that return [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + protected [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html)> | * + AbstractMultiSetDecorator.[decorated](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html#decorated--)() Gets the multiset being decorated. |
| * + protected [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html)> | * + PredicatedMultiSet.[decorated](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html#decorated--)() Gets the decorated multiset. |
| * + protected [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html)> | * + SynchronizedMultiSet.[decorated](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html#decorated--)() Gets the multiset being decorated. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + UnmodifiableMultiSet.[unmodifiableMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/UnmodifiableMultiSet.html#unmodifiableMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<? extends E> multiset) Factory method to create an unmodifiable multiset. |

* + Methods in [org.apache.commons.collections4.multiset](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html) with parameters of type [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Modifier and Type | * + Method and Description |
| * + static <E> [PredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html)<E> | * + PredicatedMultiSet.[predicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html#predicatedMultiSet-org.apache.commons.collections4.MultiSet-org.apache.commons.collections4.Predicate-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super E> predicate) Factory method to create a predicated (validating) multiset. |
| * + static <E> [SynchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html)<E> | * + SynchronizedMultiSet.[synchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html#synchronizedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> multiset) Factory method to create a synchronized multiset. |
| * + static <E> [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<E> | * + UnmodifiableMultiSet.[unmodifiableMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/UnmodifiableMultiSet.html#unmodifiableMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<? extends E> multiset) Factory method to create an unmodifiable multiset. |

* + Constructors in [org.apache.commons.collections4.multiset](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html) with parameters of type [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)

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| * + Constructor and Description |
| * + [AbstractMultiSetDecorator](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html#AbstractMultiSetDecorator-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/AbstractMultiSetDecorator.html)> multiset) Constructor that wraps (not copies). |
| * + [PredicatedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html#PredicatedMultiSet-org.apache.commons.collections4.MultiSet-org.apache.commons.collections4.Predicate-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html)> multiset, [Predicate](http://docs.google.com/org/apache/commons/collections4/Predicate.html)<? super [E](http://docs.google.com/org/apache/commons/collections4/multiset/PredicatedMultiSet.html)> predicate) Constructor that wraps (not copies). |
| * + [SynchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html#SynchronizedMultiSet-org.apache.commons.collections4.MultiSet-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html)> multiset) Constructor that wraps (not copies). |
| * + [SynchronizedMultiSet](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html#SynchronizedMultiSet-org.apache.commons.collections4.MultiSet-java.lang.Object-)([MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html)<[E](http://docs.google.com/org/apache/commons/collections4/multiset/SynchronizedMultiSet.html)> multiset, [Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) lock) Constructor that wraps (not copies). |

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* Next
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* [No Frames](http://docs.google.com/MultiSet.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)

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