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Uses of Class

org.apache.commons.collections4.collection.AbstractCollectionDecorator

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

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| * Package | * Description |
| * [org.apache.commons.collections4.bag](#3znysh7) | * This package contains implementations of the [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html) and [SortedBag](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) interfaces. |
| * [org.apache.commons.collections4.bidimap](#2et92p0) | * This package contains implementations of the [BidiMap](http://docs.google.com/org/apache/commons/collections4/BidiMap.html), [OrderedBidiMap](http://docs.google.com/org/apache/commons/collections4/OrderedBidiMap.html) and [SortedBidiMap](http://docs.google.com/org/apache/commons/collections4/SortedBidiMap.html) interfaces. |
| * [org.apache.commons.collections4.collection](#tyjcwt) | * 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.list](#3dy6vkm) | * This package contains implementations of the [List](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true) interface. |
| * [org.apache.commons.collections4.map](#1t3h5sf) | * This package contains implementations of the [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true), [IterableMap](http://docs.google.com/org/apache/commons/collections4/IterableMap.html), [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html) and [SortedMap](https://docs.oracle.com/javase/7/docs/api/java/util/SortedMap.html?is-external=true) interfaces. |
| * [org.apache.commons.collections4.multiset](#4d34og8) | * This package contains implementations of the [MultiSet](http://docs.google.com/org/apache/commons/collections4/MultiSet.html) interface. |
| * [org.apache.commons.collections4.queue](#2s8eyo1) | * This package contains implementations for the [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) interface. |
| * [org.apache.commons.collections4.set](#17dp8vu) | * This package contains implementations of the [Set](https://docs.oracle.com/javase/7/docs/api/java/util/Set.html?is-external=true), [SortedSet](https://docs.oracle.com/javase/7/docs/api/java/util/SortedSet.html?is-external=true) and [NavigableSet](https://docs.oracle.com/javase/7/docs/api/java/util/NavigableSet.html?is-external=true) interfaces. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.bag**](http://docs.google.com/org/apache/commons/collections4/bag/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.bag](http://docs.google.com/org/apache/commons/collections4/bag/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [AbstractBagDecorator](http://docs.google.com/org/apache/commons/collections4/bag/AbstractBagDecorator.html)<E> Decorates another Bag to provide additional behaviour. |
| * + class | * + [AbstractSortedBagDecorator](http://docs.google.com/org/apache/commons/collections4/bag/AbstractSortedBagDecorator.html)<E> Decorates another SortedBag to provide additional behaviour. |
| * + class | * + [CollectionBag](http://docs.google.com/org/apache/commons/collections4/bag/CollectionBag.html)<E> Decorates another [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html) to comply with the Collection contract. |
| * + class | * + [CollectionSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/CollectionSortedBag.html)<E> Decorates another [SortedBag](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) to comply with the Collection contract. |
| * + class | * + [PredicatedBag](http://docs.google.com/org/apache/commons/collections4/bag/PredicatedBag.html)<E> Decorates another [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html) to validate that additions match a specified predicate. |
| * + class | * + [PredicatedSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/PredicatedSortedBag.html)<E> Decorates another [SortedBag](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) to validate that additions match a specified predicate. |
| * + class | * + [TransformedBag](http://docs.google.com/org/apache/commons/collections4/bag/TransformedBag.html)<E> Decorates another [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html) to transform objects that are added. |
| * + class | * + [TransformedSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/TransformedSortedBag.html)<E> Decorates another [SortedBag](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) to transform objects that are added. |
| * + class | * + [UnmodifiableBag](http://docs.google.com/org/apache/commons/collections4/bag/UnmodifiableBag.html)<E> Decorates another [Bag](http://docs.google.com/org/apache/commons/collections4/Bag.html) to ensure it can't be altered. |
| * + class | * + [UnmodifiableSortedBag](http://docs.google.com/org/apache/commons/collections4/bag/UnmodifiableSortedBag.html)<E> Decorates another [SortedBag](http://docs.google.com/org/apache/commons/collections4/SortedBag.html) to ensure it can't be altered. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.bidimap**](http://docs.google.com/org/apache/commons/collections4/bidimap/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.bidimap](http://docs.google.com/org/apache/commons/collections4/bidimap/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + protected static class | * + [AbstractDualBidiMap.EntrySet](http://docs.google.com/org/apache/commons/collections4/bidimap/AbstractDualBidiMap.EntrySet.html)<K,V> Inner class EntrySet. |
| * + protected static class | * + [AbstractDualBidiMap.KeySet](http://docs.google.com/org/apache/commons/collections4/bidimap/AbstractDualBidiMap.KeySet.html)<K> Inner class KeySet. |
| * + protected static class | * + [AbstractDualBidiMap.Values](http://docs.google.com/org/apache/commons/collections4/bidimap/AbstractDualBidiMap.Values.html)<V> Inner class Values. |
| * + protected static class | * + [AbstractDualBidiMap.View](http://docs.google.com/org/apache/commons/collections4/bidimap/AbstractDualBidiMap.View.html)<K,V,E> Inner class View. |

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

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [IndexedCollection](http://docs.google.com/org/apache/commons/collections4/collection/IndexedCollection.html)<K,C> An IndexedCollection is a Map-like view onto a Collection. |
| * + class | * + [PredicatedCollection](http://docs.google.com/org/apache/commons/collections4/collection/PredicatedCollection.html)<E> Decorates another [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) to validate that additions match a specified predicate. |
| * + class | * + [TransformedCollection](http://docs.google.com/org/apache/commons/collections4/collection/TransformedCollection.html)<E> Decorates another [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) to transform objects that are added. |
| * + class | * + [UnmodifiableBoundedCollection](http://docs.google.com/org/apache/commons/collections4/collection/UnmodifiableBoundedCollection.html)<E> [UnmodifiableBoundedCollection](http://docs.google.com/org/apache/commons/collections4/collection/UnmodifiableBoundedCollection.html) decorates another [BoundedCollection](http://docs.google.com/org/apache/commons/collections4/BoundedCollection.html) to ensure it can't be altered. |
| * + class | * + [UnmodifiableCollection](http://docs.google.com/org/apache/commons/collections4/collection/UnmodifiableCollection.html)<E> Decorates another [Collection](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true) to ensure it can't be altered. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.list**](http://docs.google.com/org/apache/commons/collections4/list/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.list](http://docs.google.com/org/apache/commons/collections4/list/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [AbstractListDecorator](http://docs.google.com/org/apache/commons/collections4/list/AbstractListDecorator.html)<E> Decorates another [List](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true) to provide additional behaviour. |
| * + class | * + [AbstractSerializableListDecorator](http://docs.google.com/org/apache/commons/collections4/list/AbstractSerializableListDecorator.html)<E> Serializable subclass of AbstractListDecorator. |
| * + class | * + [FixedSizeList](http://docs.google.com/org/apache/commons/collections4/list/FixedSizeList.html)<E> Decorates another List to fix the size preventing add/remove. |
| * + class | * + [GrowthList](http://docs.google.com/org/apache/commons/collections4/list/GrowthList.html)<E> Decorates another List to make it seamlessly grow when indices larger than the list size are used on add and set, avoiding most IndexOutOfBoundsExceptions. |
| * + class | * + [LazyList](http://docs.google.com/org/apache/commons/collections4/list/LazyList.html)<E> Decorates another List to create objects in the list on demand. |
| * + class | * + [PredicatedList](http://docs.google.com/org/apache/commons/collections4/list/PredicatedList.html)<E> Decorates another List to validate that all additions match a specified predicate. |
| * + class | * + [SetUniqueList](http://docs.google.com/org/apache/commons/collections4/list/SetUniqueList.html)<E> Decorates a List to ensure that no duplicates are present much like a Set. |
| * + class | * + [TransformedList](http://docs.google.com/org/apache/commons/collections4/list/TransformedList.html)<E> Decorates another List to transform objects that are added. |
| * + class | * + [UnmodifiableList](http://docs.google.com/org/apache/commons/collections4/list/UnmodifiableList.html)<E> Decorates another List to ensure it can't be altered. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.map**](http://docs.google.com/org/apache/commons/collections4/map/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.map](http://docs.google.com/org/apache/commons/collections4/map/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [UnmodifiableEntrySet](http://docs.google.com/org/apache/commons/collections4/map/UnmodifiableEntrySet.html)<K,V> Decorates a map entry Set to ensure it can't be altered. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.multiset**](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.multiset](http://docs.google.com/org/apache/commons/collections4/multiset/package-summary.html)

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

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.queue**](http://docs.google.com/org/apache/commons/collections4/queue/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.queue](http://docs.google.com/org/apache/commons/collections4/queue/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [AbstractQueueDecorator](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)<E> Decorates another [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) to provide additional behaviour. |
| * + class | * + [PredicatedQueue](http://docs.google.com/org/apache/commons/collections4/queue/PredicatedQueue.html)<E> Decorates another [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) to validate that additions match a specified predicate. |
| * + class | * + [TransformedQueue](http://docs.google.com/org/apache/commons/collections4/queue/TransformedQueue.html)<E> Decorates another [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) to transform objects that are added. |
| * + class | * + [UnmodifiableQueue](http://docs.google.com/org/apache/commons/collections4/queue/UnmodifiableQueue.html)<E> Decorates another [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) to ensure it can't be altered. |

### Uses of [**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [**org.apache.commons.collections4.set**](http://docs.google.com/org/apache/commons/collections4/set/package-summary.html)Subclasses of [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html) in [org.apache.commons.collections4.set](http://docs.google.com/org/apache/commons/collections4/set/package-summary.html)

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| * + Modifier and Type | * + Class and Description |
| * + class | * + [AbstractNavigableSetDecorator](http://docs.google.com/org/apache/commons/collections4/set/AbstractNavigableSetDecorator.html)<E> Decorates another NavigableSet to provide additional behaviour. |
| * + class | * + [AbstractSerializableSetDecorator](http://docs.google.com/org/apache/commons/collections4/set/AbstractSerializableSetDecorator.html)<E> Serializable subclass of AbstractSetDecorator. |
| * + class | * + [AbstractSetDecorator](http://docs.google.com/org/apache/commons/collections4/set/AbstractSetDecorator.html)<E> Decorates another Set to provide additional behaviour. |
| * + class | * + [AbstractSortedSetDecorator](http://docs.google.com/org/apache/commons/collections4/set/AbstractSortedSetDecorator.html)<E> Decorates another SortedSet to provide additional behaviour. |
| * + class | * + [ListOrderedSet](http://docs.google.com/org/apache/commons/collections4/set/ListOrderedSet.html)<E> Decorates another Set to ensure that the order of addition is retained and used by the iterator. |
| * + class | * + [PredicatedNavigableSet](http://docs.google.com/org/apache/commons/collections4/set/PredicatedNavigableSet.html)<E> Decorates another NavigableSet to validate that all additions match a specified predicate. |
| * + class | * + [PredicatedSet](http://docs.google.com/org/apache/commons/collections4/set/PredicatedSet.html)<E> Decorates another Set to validate that all additions match a specified predicate. |
| * + class | * + [PredicatedSortedSet](http://docs.google.com/org/apache/commons/collections4/set/PredicatedSortedSet.html)<E> Decorates another SortedSet to validate that all additions match a specified predicate. |
| * + class | * + [TransformedNavigableSet](http://docs.google.com/org/apache/commons/collections4/set/TransformedNavigableSet.html)<E> Decorates another NavigableSet to transform objects that are added. |
| * + class | * + [TransformedSet](http://docs.google.com/org/apache/commons/collections4/set/TransformedSet.html)<E> Decorates another Set to transform objects that are added. |
| * + class | * + [TransformedSortedSet](http://docs.google.com/org/apache/commons/collections4/set/TransformedSortedSet.html)<E> Decorates another SortedSet to transform objects that are added. |
| * + class | * + [UnmodifiableNavigableSet](http://docs.google.com/org/apache/commons/collections4/set/UnmodifiableNavigableSet.html)<E> Decorates another NavigableSet to ensure it can't be altered. |
| * + class | * + [UnmodifiableSet](http://docs.google.com/org/apache/commons/collections4/set/UnmodifiableSet.html)<E> Decorates another Set to ensure it can't be altered. |
| * + class | * + [UnmodifiableSortedSet](http://docs.google.com/org/apache/commons/collections4/set/UnmodifiableSortedSet.html)<E> Decorates another SortedSet to ensure it can't be altered. |

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