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org.apache.commons.collections4.map

## Class AbstractOrderedMapDecorator<K,V>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [org.apache.commons.collections4.map.AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html)<K,V>
    - [org.apache.commons.collections4.map.AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<K,V>
      * org.apache.commons.collections4.map.AbstractOrderedMapDecorator<K,V>
* Type Parameters: K - the type of the keys in this map V - the type of the values in this map All Implemented Interfaces: [Map](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)<K,V>, [Get](http://docs.google.com/org/apache/commons/collections4/Get.html)<K,V>, [IterableGet](http://docs.google.com/org/apache/commons/collections4/IterableGet.html)<K,V>, [IterableMap](http://docs.google.com/org/apache/commons/collections4/IterableMap.html)<K,V>, [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<K,V>, [Put](http://docs.google.com/org/apache/commons/collections4/Put.html)<K,V> Direct Known Subclasses: [UnmodifiableOrderedMap](http://docs.google.com/org/apache/commons/collections4/map/UnmodifiableOrderedMap.html)  
    
  public abstract class AbstractOrderedMapDecorator<K,V>  
  extends [AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<K,V>  
  implements [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<K,V>  
  Provides a base decorator that enables additional functionality to be added to an OrderedMap via decoration.  
  Methods are forwarded directly to the decorated map.  
  This implementation does not perform any special processing with the map views. Instead it simply returns the set/collection from the wrapped map. This may be undesirable, for example if you are trying to write a validating implementation it would provide a loophole around the validation. But, you might want that loophole, so this class is kept simple.Since: 3.0

### Nested Class Summary

### Nested classes/interfaces inherited from interface java.util.[**Map**](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)[Map.Entry](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)<[K](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true),[V](https://docs.oracle.com/javase/7/docs/api/java/util/Map.Entry.html?is-external=true)>

### Constructor SummaryConstructors

|  |  |
| --- | --- |
| * + Modifier | * + Constructor and Description |
| * + protected | * + [AbstractOrderedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#AbstractOrderedMapDecorator--)() Constructor only used in deserialization, do not use otherwise. |
|  | * + [AbstractOrderedMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#AbstractOrderedMapDecorator-org.apache.commons.collections4.OrderedMap-)([OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> map) Constructor that wraps (not copies). |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + protected [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> | * + [decorated](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#decorated--)() Gets the map being decorated. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) | * + [firstKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#firstKey--)() Gets the first key currently in this map. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) | * + [lastKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#lastKey--)() Gets the last key currently in this map. |
| * + [OrderedMapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMapIterator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> | * + [mapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#mapIterator--)() Obtains a MapIterator over the map. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) | * + [nextKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#nextKey-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) key) Gets the next key after the one specified. |
| * + [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) | * + [previousKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html#previousKey-K-)([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) key) Gets the previous key before the one specified. |

### Methods inherited from class org.apache.commons.collections4.map.[**AbstractMapDecorator**](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)[clear](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#clear--), [containsKey](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsKey-java.lang.Object-), [containsValue](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#containsValue-java.lang.Object-), [entrySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#entrySet--), [equals](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#equals-java.lang.Object-), [get](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#get-java.lang.Object-), [hashCode](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#hashCode--), [isEmpty](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#isEmpty--), [keySet](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#keySet--), [put](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#put-K-V-), [putAll](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#putAll-java.util.Map-), [remove](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#remove-java.lang.Object-), [size](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#size--), [toString](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#toString--), [values](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#values--)

### 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 java.util.[**Map**](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true)[clear](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#clear--), [compute](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#compute-K-java.util.function.BiFunction-), [computeIfAbsent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#computeIfAbsent-K-java.util.function.Function-), [computeIfPresent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#computeIfPresent-K-java.util.function.BiFunction-), [containsKey](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsKey-java.lang.Object-), [containsValue](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#containsValue-java.lang.Object-), [entrySet](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#entrySet--), [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#equals-java.lang.Object-), [forEach](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#forEach-java.util.function.BiConsumer-), [get](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#get-java.lang.Object-), [getOrDefault](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#getOrDefault-java.lang.Object-V-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#hashCode--), [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#isEmpty--), [keySet](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#keySet--), [merge](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#merge-K-V-java.util.function.BiFunction-), [put](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#put-K-V-), [putAll](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#putAll-java.util.Map-), [putIfAbsent](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#putIfAbsent-K-V-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#remove-java.lang.Object-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#remove-java.lang.Object-java.lang.Object-), [replace](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replace-K-V-), [replace](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replace-K-V-V-), [replaceAll](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#replaceAll-java.util.function.BiFunction-), [size](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#size--), [values](https://docs.oracle.com/javase/7/docs/api/java/util/Map.html?is-external=true#values--)

### Methods inherited from interface org.apache.commons.collections4.[**Put**](http://docs.google.com/org/apache/commons/collections4/Put.html)[clear](http://docs.google.com/org/apache/commons/collections4/Put.html#clear--), [put](http://docs.google.com/org/apache/commons/collections4/Put.html#put-K-V-), [putAll](http://docs.google.com/org/apache/commons/collections4/Put.html#putAll-java.util.Map-)

### Methods inherited from interface org.apache.commons.collections4.[**Get**](http://docs.google.com/org/apache/commons/collections4/Get.html)[containsKey](http://docs.google.com/org/apache/commons/collections4/Get.html#containsKey-java.lang.Object-), [containsValue](http://docs.google.com/org/apache/commons/collections4/Get.html#containsValue-java.lang.Object-), [entrySet](http://docs.google.com/org/apache/commons/collections4/Get.html#entrySet--), [get](http://docs.google.com/org/apache/commons/collections4/Get.html#get-java.lang.Object-), [isEmpty](http://docs.google.com/org/apache/commons/collections4/Get.html#isEmpty--), [keySet](http://docs.google.com/org/apache/commons/collections4/Get.html#keySet--), [remove](http://docs.google.com/org/apache/commons/collections4/Get.html#remove-java.lang.Object-), [size](http://docs.google.com/org/apache/commons/collections4/Get.html#size--), [values](http://docs.google.com/org/apache/commons/collections4/Get.html#values--)

### Constructor Detail

#### AbstractOrderedMapDecorator protected AbstractOrderedMapDecorator() Constructor only used in deserialization, do not use otherwise.Since: 3.1

#### AbstractOrderedMapDecorator public AbstractOrderedMapDecorator([OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> map) Constructor that wraps (not copies).Parameters: map - the map to decorate, must not be null Throws: [NullPointerException](https://docs.oracle.com/javase/7/docs/api/java/lang/NullPointerException.html?is-external=true) - if the map is null

### Method Detail

#### decorated protected [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> decorated() Gets the map being decorated.Overrides: [decorated](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html#decorated--) in class [AbstractMapDecorator](http://docs.google.com/org/apache/commons/collections4/map/AbstractMapDecorator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Returns: the decorated map

#### firstKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) firstKey() Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#firstKey--) Gets the first key currently in this map.Specified by: [firstKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#firstKey--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Returns: the first key currently in this map

#### lastKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) lastKey() Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#lastKey--) Gets the last key currently in this map.Specified by: [lastKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#lastKey--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Returns: the last key currently in this map

#### nextKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) nextKey([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) key) Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#nextKey-K-) Gets the next key after the one specified.Specified by: [nextKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#nextKey-K-) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Parameters: key - the key to search for next from Returns: the next key, null if no match or at end

#### previousKey public [K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) previousKey([K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html) key) Description copied from interface: [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#previousKey-K-) Gets the previous key before the one specified.Specified by: [previousKey](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#previousKey-K-) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Parameters: key - the key to search for previous from Returns: the previous key, null if no match or at start

#### mapIterator public [OrderedMapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMapIterator.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> mapIterator() Description copied from class: [AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html#mapIterator--) Obtains a MapIterator over the map. A map iterator is an efficient way of iterating over maps. There is no need to access the entry set or use Map Entry objects. IterableMap<String,Integer> map = new HashedMap<String,Integer>(); MapIterator<String,Integer> it = map.mapIterator(); while (it.hasNext()) { String key = it.next(); Integer value = it.getValue(); it.setValue(value + 1); } Specified by: [mapIterator](http://docs.google.com/org/apache/commons/collections4/IterableGet.html#mapIterator--) in interface [IterableGet](http://docs.google.com/org/apache/commons/collections4/IterableGet.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Specified by: [mapIterator](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html#mapIterator--) in interface [OrderedMap](http://docs.google.com/org/apache/commons/collections4/OrderedMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Overrides: [mapIterator](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html#mapIterator--) in class [AbstractIterableMap](http://docs.google.com/org/apache/commons/collections4/map/AbstractIterableMap.html)<[K](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html),[V](http://docs.google.com/org/apache/commons/collections4/map/AbstractOrderedMapDecorator.html)> Returns: a map iterator

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