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org.apache.commons.collections4.queue

## Class AbstractQueueDecorator<E>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [org.apache.commons.collections4.collection.AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<E>
    - org.apache.commons.collections4.queue.AbstractQueueDecorator<E>
* Type Parameters: E - the type of the elements in the queue 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>, [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<E> Direct Known Subclasses: [UnmodifiableQueue](http://docs.google.com/org/apache/commons/collections4/queue/UnmodifiableQueue.html)  
    
  public abstract class AbstractQueueDecorator<E>  
  extends [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<E>  
  implements [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<E>  
  Decorates another [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true) to provide additional behaviour.  
  Methods are forwarded directly to the decorated queue.  
  This implementation does not forward the hashCode and equals methods through to the backing object, but relies on Object's implementation. This is necessary as some Queue implementations, e.g. LinkedList, have custom a equals implementation for which symmetry can not be preserved. See class javadoc of AbstractCollectionDecorator for more information.Since: 4.0 See Also: [Serialized Form](http://docs.google.com/serialized-form.html#org.apache.commons.collections4.queue.AbstractQueueDecorator)

### Constructor SummaryConstructors

|  |  |
| --- | --- |
| * + Modifier | * + Constructor and Description |
| * + protected | * + [AbstractQueueDecorator](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#AbstractQueueDecorator--)() Constructor only used in deserialization, do not use otherwise. |
| * + protected | * + [AbstractQueueDecorator](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#AbstractQueueDecorator-java.util.Queue-)([Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)> queue) Constructor that wraps (not copies). |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + protected [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)> | * + [decorated](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#decorated--)() Gets the queue being decorated. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) | * + [element](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#element--)() |
| * + boolean | * + [offer](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#offer-E-)([E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) obj) |
| * + [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) | * + [peek](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#peek--)() |
| * + [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) | * + [poll](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#poll--)() |
| * + [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) | * + [remove](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html#remove--)() |

### Methods inherited from class org.apache.commons.collections4.collection.[**AbstractCollectionDecorator**](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)[add](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#add-E-), [addAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#addAll-java.util.Collection-), [clear](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#clear--), [contains](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#contains-java.lang.Object-), [containsAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#containsAll-java.util.Collection-), [isEmpty](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#isEmpty--), [iterator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#iterator--), [remove](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#remove-java.lang.Object-), [removeAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#removeAll-java.util.Collection-), [removeIf](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#removeIf-java.util.function.Predicate-), [retainAll](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#retainAll-java.util.Collection-), [setCollection](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#setCollection-java.util.Collection-), [size](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#size--), [toArray](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toArray--), [toArray](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toArray-T:A-), [toString](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#toString--)

### 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--), [equals](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#equals-java.lang.Object-), [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--), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#hashCode--), [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.[**Queue**](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)[add](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#add-E-)

### 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-), [clear](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#clear--), [contains](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#contains-java.lang.Object-), [containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#containsAll-java.util.Collection-), [equals](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#equals-java.lang.Object-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#hashCode--), [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#isEmpty--), [iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#iterator--), [parallelStream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#parallelStream--), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#remove-java.lang.Object-), [removeAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeAll-java.util.Collection-), [removeIf](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#removeIf-java.util.function.Predicate-), [retainAll](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#retainAll-java.util.Collection-), [size](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#size--), [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--), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#toArray--), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#toArray-T:A-)

### 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

#### AbstractQueueDecorator protected AbstractQueueDecorator() Constructor only used in deserialization, do not use otherwise.

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

### Method Detail

#### decorated protected [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)> decorated() Gets the queue being decorated.Overrides: [decorated](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html#decorated--) in class [AbstractCollectionDecorator](http://docs.google.com/org/apache/commons/collections4/collection/AbstractCollectionDecorator.html)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)> Returns: the decorated queue

#### offer public boolean offer([E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) obj)Specified by: [offer](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#offer-E-) in interface [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)>

#### poll public [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) poll()Specified by: [poll](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#poll--) in interface [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)>

#### peek public [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) peek()Specified by: [peek](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#peek--) in interface [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)>

#### element public [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) element()Specified by: [element](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#element--) in interface [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)>

#### remove public [E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html) remove()Specified by: [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true#remove--) in interface [Queue](https://docs.oracle.com/javase/7/docs/api/java/util/Queue.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/queue/AbstractQueueDecorator.html)>

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