JavaScript is disabled on your browser.

[Skip navigation links](#1fob9te)

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/CursorableLinkedList.SubCursor.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-all.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/list/FixedSizeList.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)
* [No Frames](http://docs.google.com/CursorableLinkedList.SubCursor.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* [Field](#3znysh7) |
* [Constr](#tyjcwt) |
* [Method](#3dy6vkm)
* Detail:
* [Field](#3rdcrjn) |
* [Constr](#lnxbz9) |
* [Method](#1ksv4uv)

org.apache.commons.collections4.list

## Class CursorableLinkedList.SubCursor<E>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [org.apache.commons.collections4.list.AbstractLinkedList.LinkedListIterator](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html)<E>
    - [org.apache.commons.collections4.list.CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)<E>
      * org.apache.commons.collections4.list.CursorableLinkedList.SubCursor<E>
* All Implemented Interfaces: [Iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true)<E>, [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<E>, [OrderedIterator](http://docs.google.com/org/apache/commons/collections4/OrderedIterator.html)<E> Enclosing class: [CursorableLinkedList](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.html)>  
    
  protected static class CursorableLinkedList.SubCursor<E>  
  extends [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)<E>  
  A cursor for the sublist based on LinkedSubListIterator.Since: 3.2

### Field SummaryFields

|  |  |
| --- | --- |
| * + Modifier and Type | * + Field and Description |
| * + protected [AbstractLinkedList.LinkedSubList](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedSubList.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> | * + [sub](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#sub) The parent list |

### Fields inherited from class org.apache.commons.collections4.list.[**AbstractLinkedList.LinkedListIterator**](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html)[current](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#current), [expectedModCount](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#expectedModCount), [next](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#next), [nextIndex](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#nextIndex), [parent](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#parent)

### Constructor SummaryConstructors

|  |  |
| --- | --- |
| * + Modifier | * + Constructor and Description |
| * + protected | * + [SubCursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#SubCursor-org.apache.commons.collections4.list.AbstractLinkedList.LinkedSubList-int-)([AbstractLinkedList.LinkedSubList](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedSubList.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> sub, int index) Constructs a new cursor. |

### Method SummaryAll Methods Instance Methods Concrete Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + void | * + [add](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#add-E-)([E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html) obj) Adds an object to the list. |
| * + boolean | * + [hasNext](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#hasNext--)() |
| * + boolean | * + [hasPrevious](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#hasPrevious--)() Checks to see if there is a previous element that can be iterated to. |
| * + int | * + [nextIndex](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#nextIndex--)() Gets the index of the next element to be returned. |
| * + void | * + [remove](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html#remove--)() Removes the item last returned by this iterator. |

### Methods inherited from class org.apache.commons.collections4.list.[**CursorableLinkedList.Cursor**](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)[checkModCount](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#checkModCount--), [close](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#close--), [nodeChanged](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#nodeChanged-org.apache.commons.collections4.list.AbstractLinkedList.Node-), [nodeInserted](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#nodeInserted-org.apache.commons.collections4.list.AbstractLinkedList.Node-), [nodeRemoved](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#nodeRemoved-org.apache.commons.collections4.list.AbstractLinkedList.Node-)

### Methods inherited from class org.apache.commons.collections4.list.[**AbstractLinkedList.LinkedListIterator**](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html)[getLastNodeReturned](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#getLastNodeReturned--), [next](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#next--), [previous](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#previous--), [previousIndex](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#previousIndex--), [set](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#set-E-)

### 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--), [toString](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true#toString--), [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.[**Iterator**](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true)[forEachRemaining](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true#forEachRemaining-java.util.function.Consumer-)

### Field Detail

#### sub protected final [AbstractLinkedList.LinkedSubList](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedSubList.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> sub The parent list

### Constructor Detail

#### SubCursor protected SubCursor([AbstractLinkedList.LinkedSubList](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedSubList.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> sub, int index) Constructs a new cursor.Parameters: sub - the sub list index - the index to start from

### Method Detail

#### hasNext public boolean hasNext()Specified by: [hasNext](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true#hasNext--) in interface [Iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Specified by: [hasNext](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true#hasNext--) in interface [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Overrides: [hasNext](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#hasNext--) in class [AbstractLinkedList.LinkedListIterator](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)>

#### hasPrevious public boolean hasPrevious() Description copied from interface: [OrderedIterator](http://docs.google.com/org/apache/commons/collections4/OrderedIterator.html#hasPrevious--) Checks to see if there is a previous element that can be iterated to.Specified by: [hasPrevious](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true#hasPrevious--) in interface [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Specified by: [hasPrevious](http://docs.google.com/org/apache/commons/collections4/OrderedIterator.html#hasPrevious--) in interface [OrderedIterator](http://docs.google.com/org/apache/commons/collections4/OrderedIterator.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Overrides: [hasPrevious](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html#hasPrevious--) in class [AbstractLinkedList.LinkedListIterator](http://docs.google.com/org/apache/commons/collections4/list/AbstractLinkedList.LinkedListIterator.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Returns: true if the iterator has a previous element

#### nextIndex public int nextIndex() Description copied from class: [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#nextIndex--) Gets the index of the next element to be returned.Specified by: [nextIndex](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true#nextIndex--) in interface [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Overrides: [nextIndex](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#nextIndex--) in class [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Returns: the next index

#### add public void add([E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html) obj) Description copied from class: [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#add-E-) Adds an object to the list. The object added here will be the new 'previous' in the iterator.Specified by: [add](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true#add-E-) in interface [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Overrides: [add](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#add-E-) in class [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Parameters: obj - the object to add

#### remove public void remove() Description copied from class: [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#remove--) Removes the item last returned by this iterator. There may have been subsequent alterations to the list since you obtained this item, however you can still remove it. You can even remove it if the item is no longer in the main list. However, you can't call this method on the same iterator more than once without calling next() or previous().Specified by: [remove](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true#remove--) in interface [Iterator](https://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Specified by: [remove](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true#remove--) in interface [ListIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ListIterator.html?is-external=true)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)> Overrides: [remove](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html#remove--) in class [CursorableLinkedList.Cursor](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)<[E](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)>

[Skip navigation links](#3whwml4)

* [Overview](http://docs.google.com/overview-summary.html)
* [Package](http://docs.google.com/package-summary.html)
* Class
* [Use](http://docs.google.com/class-use/CursorableLinkedList.SubCursor.html)
* [Tree](http://docs.google.com/package-tree.html)
* [Deprecated](http://docs.google.com/deprecated-list.html)
* [Index](http://docs.google.com/index-all.html)
* [Help](http://docs.google.com/help-doc.html)
* [Prev Class](http://docs.google.com/org/apache/commons/collections4/list/CursorableLinkedList.Cursor.html)
* [Next Class](http://docs.google.com/org/apache/commons/collections4/list/FixedSizeList.html)
* [Frames](http://docs.google.com/index.html?org/apache/commons/collections4/list/CursorableLinkedList.SubCursor.html)
* [No Frames](http://docs.google.com/CursorableLinkedList.SubCursor.html)
* [All Classes](http://docs.google.com/allclasses-noframe.html)
* Summary:
* Nested |
* [Field](#3znysh7) |
* [Constr](#tyjcwt) |
* [Method](#3dy6vkm)
* Detail:
* [Field](#3rdcrjn) |
* [Constr](#lnxbz9) |
* [Method](#1ksv4uv)

Copyright © 2001–2019 [The Apache Software Foundation](https://www.apache.org/). All rights reserved.