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org.apache.commons.collections4

## Class ArrayStack<E>

* [java.lang.Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)
  + [java.util.AbstractCollection](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true)<E>
    - [java.util.AbstractList](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true)<E>
      * [java.util.ArrayList](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true)<E>
        + org.apache.commons.collections4.ArrayStack<E>
* Type Parameters: E - the type of elements in this list All Implemented Interfaces: [Serializable](https://docs.oracle.com/javase/7/docs/api/java/io/Serializable.html?is-external=true), [Cloneable](https://docs.oracle.com/javase/7/docs/api/java/lang/Cloneable.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>, [List](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true)<E>, [RandomAccess](https://docs.oracle.com/javase/7/docs/api/java/util/RandomAccess.html?is-external=true)  
  Deprecated.   
  use [ArrayDeque](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayDeque.html?is-external=true) instead (available from Java 1.6)  
    
  [@Deprecated](https://docs.oracle.com/javase/7/docs/api/java/lang/Deprecated.html?is-external=true)  
  public class ArrayStack<E>  
  extends [ArrayList](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true)<E>  
  An implementation of the [Stack](https://docs.oracle.com/javase/7/docs/api/java/util/Stack.html?is-external=true) API that is based on an ArrayList instead of a Vector, so it is not synchronized to protect against multi-threaded access. The implementation is therefore operates faster in environments where you do not need to worry about multiple thread contention.  
  The removal order of an ArrayStack is based on insertion order: The most recently added element is removed first. The iteration order is *not* the same as the removal order. The iterator returns elements from the bottom up.  
  Unlike Stack, ArrayStack accepts null entries.  
  **Note:** From version 4.0 onwards, this class does not implement the removed Buffer interface anymore.Since: 1.0 See Also: [Stack](https://docs.oracle.com/javase/7/docs/api/java/util/Stack.html?is-external=true), [Serialized Form](http://docs.google.com/serialized-form.html#org.apache.commons.collections4.ArrayStack)

### Field Summary

### Fields inherited from class java.util.[**AbstractList**](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true)[modCount](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true#modCount)

### Constructor SummaryConstructors

|  |
| --- |
| * + Constructor and Description |
| * + [ArrayStack](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#ArrayStack--)() Deprecated.  Constructs a new empty ArrayStack. |
| * + [ArrayStack](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#ArrayStack-int-)(int initialSize) Deprecated.  Constructs a new empty ArrayStack with an initial size. |

### Method SummaryAll Methods Instance Methods Concrete Methods Deprecated Methods

|  |  |
| --- | --- |
| * + Modifier and Type | * + Method and Description |
| * + boolean | * + [empty](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#empty--)() Deprecated.  Return true if this stack is currently empty. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) | * + [peek](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#peek--)() Deprecated.  Returns the top item off of this stack without removing it. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) | * + [peek](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#peek-int-)(int n) Deprecated.  Returns the n'th item down (zero-relative) from the top of this stack without removing it. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) | * + [pop](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#pop--)() Deprecated.  Pops the top item off of this stack and return it. |
| * + [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) | * + [push](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#push-E-)([E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) item) Deprecated.  Pushes a new item onto the top of this stack. |
| * + int | * + [search](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html#search-java.lang.Object-)([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) Deprecated.  Returns the one-based position of the distance from the top that the specified object exists on this stack, where the top-most element is considered to be at distance 1. |

### Methods inherited from class java.util.[**ArrayList**](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true)[add](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#add-E-), [add](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#add-int-E-), [addAll](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#addAll-java.util.Collection-), [addAll](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#addAll-int-java.util.Collection-), [clear](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#clear--), [clone](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#clone--), [contains](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#contains-java.lang.Object-), [ensureCapacity](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#ensureCapacity-int-), [forEach](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#forEach-java.util.function.Consumer-), [get](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#get-int-), [indexOf](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#indexOf-java.lang.Object-), [isEmpty](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#isEmpty--), [iterator](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#iterator--), [lastIndexOf](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#lastIndexOf-java.lang.Object-), [listIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#listIterator--), [listIterator](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#listIterator-int-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#remove-int-), [remove](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#remove-java.lang.Object-), [removeAll](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#removeAll-java.util.Collection-), [removeIf](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#removeIf-java.util.function.Predicate-), [removeRange](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#removeRange-int-int-), [replaceAll](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#replaceAll-java.util.function.UnaryOperator-), [retainAll](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#retainAll-java.util.Collection-), [set](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#set-int-E-), [size](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#size--), [sort](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#sort-java.util.Comparator-), [spliterator](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#spliterator--), [subList](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#subList-int-int-), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#toArray--), [toArray](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#toArray-T:A-), [trimToSize](https://docs.oracle.com/javase/7/docs/api/java/util/ArrayList.html?is-external=true#trimToSize--)

### Methods inherited from class java.util.[**AbstractList**](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true)[equals](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true#equals-java.lang.Object-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractList.html?is-external=true#hashCode--)

### Methods inherited from class java.util.[**AbstractCollection**](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true)[containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true#containsAll-java.util.Collection-), [toString](https://docs.oracle.com/javase/7/docs/api/java/util/AbstractCollection.html?is-external=true#toString--)

### Methods inherited from class java.lang.[**Object**](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true)[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.[**List**](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true)[containsAll](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true#containsAll-java.util.Collection-), [equals](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true#equals-java.lang.Object-), [hashCode](https://docs.oracle.com/javase/7/docs/api/java/util/List.html?is-external=true#hashCode--)

### Methods inherited from interface java.util.[**Collection**](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true)[parallelStream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#parallelStream--), [stream](https://docs.oracle.com/javase/7/docs/api/java/util/Collection.html?is-external=true#stream--)

### Constructor Detail

#### ArrayStack public ArrayStack() Deprecated.  Constructs a new empty ArrayStack. The initial size is controlled by ArrayList and is currently 10.

#### ArrayStack public ArrayStack(int initialSize) Deprecated.  Constructs a new empty ArrayStack with an initial size.Parameters: initialSize - the initial size to use Throws: [IllegalArgumentException](https://docs.oracle.com/javase/7/docs/api/java/lang/IllegalArgumentException.html?is-external=true) - if the specified initial size is negative

### Method Detail

#### empty public boolean empty() Deprecated.  Return true if this stack is currently empty. This method exists for compatibility with java.util.Stack. New users of this class should use isEmpty instead.Returns: true if the stack is currently empty

#### peek public [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) peek() throws [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) Deprecated.  Returns the top item off of this stack without removing it.Returns: the top item on the stack Throws: [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) - if the stack is empty

#### peek public [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) peek(int n) throws [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) Deprecated.  Returns the n'th item down (zero-relative) from the top of this stack without removing it.Parameters: n - the number of items down to go Returns: the n'th item on the stack, zero relative Throws: [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) - if there are not enough items on the stack to satisfy this request

#### pop public [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) pop() throws [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) Deprecated.  Pops the top item off of this stack and return it.Returns: the top item on the stack Throws: [EmptyStackException](https://docs.oracle.com/javase/7/docs/api/java/util/EmptyStackException.html?is-external=true) - if the stack is empty

#### push public [E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) push([E](http://docs.google.com/org/apache/commons/collections4/ArrayStack.html) item) Deprecated.  Pushes a new item onto the top of this stack. The pushed item is also returned. This is equivalent to calling add.Parameters: item - the item to be added Returns: the item just pushed

#### search public int search([Object](https://docs.oracle.com/javase/7/docs/api/java/lang/Object.html?is-external=true) object) Deprecated.  Returns the one-based position of the distance from the top that the specified object exists on this stack, where the top-most element is considered to be at distance 1. If the object is not present on the stack, return -1 instead. The equals() method is used to compare to the items in this stack.Parameters: object - the object to be searched for Returns: the 1-based depth into the stack of the object, or -1 if not found

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