Class SuperArray

All Implemented Interfaces:
>   List

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public class **SuperArray**
extends java.lang.Object
implements List

Resizable array-like collection that implements the List interface. **Note: for the APCS A course students do not need to know that SuperArray implements the List interface.** In the A course, the SuperArray class is a growable array that stores objects (not primitive types). The first valid position for an SuperArray object list is the index zero/0, the last valid position is list.size()-1.

Constructor Detail

SuperArray

```
public SuperArray()
```

Constructs an empty SuperArray.

Method Detail

add

```
public boolean add(java.lang.Object o)
```

Append (adds) the argument to the end of this SuperArray.

>   **Specified by:**
>>   add in interface List
>   **Parameters:**
>>   o - is the element appended to this list.
>   **Returns:**
>>   true as required by the java.util.Collection interface

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add

```
public void add(int index,
                java.lang.Object o)
```

Inserts the argument at the specified position in this list. Shifts the elements at the specified position and higher to the right (adds one to their indices).

> **Parameters:**
> > index - is the position at which the new element is added
> > o - is the new element added to this list
> **Throws:**
> > java.lang.IndexOutOfBoundsException - if index < 0 || index $>=$ size()

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size

```
public int size()
```

Returns the number of elements in this list.

> **Specified by:**
> > size in interface List
> **Returns:**
> > the number of elements in this list

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get

```
public java.lang.Object get(int index)
```

Returns the element at the specified position in this list.

> **Specified by:**
> > get in interface List
> **Parameters:**
> > index - is the position of the element returned
> **Returns:**
> > the element in this list whose position is the argument
> **Throws:**
> > java.lang.IndexOutOfBoundsException - if index < 0 || index $>=$ size()

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set

```
public java.lang.Object set(int index,
                            java.lang.Object o)
```

Replaces the element at the specified position in this list with the specified object.

> **Specified by:**
>> set in interface List
>
> **Parameters:**
>> index - is the position of the element that will be replaced
>> o - is the object to be stored at the specified position
>
> **Returns:**
>> the element previously stored at the specified position
>
> **Throws:**
>> java.lang.IndexOutOfBoundsException - if index < 0 || index >= size()

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remove

```
public java.lang.Object remove(int index)
```

Removes the element at the specified position from this list. All elements to the right of the specified position are shifted left (1 is subtracted from their indices) and the size of this list is one less than before the method is called.

> **Parameters:**
>> index - is the position of the element removed
>
> **Returns:**
>> the element previously stored at the specified position
>
> **Throws:**
>> java.lang.IndexOutOfBoundsException - if index < 0 || index >= size()