

edu.gmu.cs.swe619.assignments.assignment04

## Class **GrowList<E>**

java.lang.Object

edu.gmu.cs.swe619.assignments.assignment04.GrowList<E>

```
public class GrowList<E>
```

```
extends java.lang.Object
```

GrowList is a mutable list that only gets longer.

### Constructor Summary

#### Constructors

##### Constructor and Description

**GrowList()**

Create a new GrowList

### Method Summary

All Methods	Static Methods	Instance Methods	Concrete Methods
Modifier and Type	Method and Description		
void	<b>add(E o)</b>	Add to the end of the list	
<b>E</b>	<b>get(int i)</b>	Get ith value in list	
static void	<b>main(java.lang.String[] args)</b>	Main method with a simple test routine	
<b>E</b>	<b>set(int i, E o)</b>	Update ith value in list	
int	<b>size()</b>	Number of elements in list	
java.lang.String	<b>toString()</b>	Serves as the abstraction function (AF) for GrowList	

## Methods inherited from class java.lang.Object

equals, getClass, hashCode, notify, notifyAll, wait, wait, wait

### Constructor Detail

#### GrowList

```
public GrowList()
```

Create a new GrowList

### Method Detail

#### add

```
public void add(E o)
```

Add to the end of the list

**Parameters:**

o - the new element to add to the list

**Throws:**

java.lang.RuntimeException - if the rep invariant is violated

#### size

```
public int size()
```

Number of elements in list

**Returns:**

size of the list

#### get

```
public E get(int i)
```

Get ith value in list

**Parameters:**

i - the index to retrieve an element from

**Returns:**

the element at index i

**Throws:**

java.lang.IndexOutOfBoundsException - if index i is not valid

## set

```
public E set(int i,  
             E o)
```

Update ith value in list

**Parameters:**

i - index of element to replace

o - new element to save at index i

**Returns:**

previous value or null if none

**Throws:**

java.lang.IndexOutOfBoundsException - if index i is not valid

java.lang.RuntimeException - if the rep invariant is violated

## toString

```
public java.lang.String toString()
```

Serves as the abstraction function (AF) for GrowList

**Overrides:**

toString in class java.lang.Object

**Returns:**

a string representing the GrowList

## main

```
public static void main(java.lang.String[] args)
```

Main method with a simple test routine

**Parameters:**

args - command line arguments

