

edu.gmu.cs.swe619.assignments.assignment04

Class GrowListMutation1<E>

java.lang.Object

edu.gmu.cs.swe619.assignments.assignment04.GrowListMutation1<E>

```
public class GrowListMutation1<E>
    extends java.lang.Object
```

GrowList is a mutable list that only gets longer.

Constructor Summary

Constructors

Constructor and Description

GrowListMutation1()

Create a new GrowList

Method Summary

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

GrowListMutation1

```
public GrowListMutation1()
```

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, **contains a mutation**.

NOTE: This method contains a mutation that makes it incorrect because the validity of the index is not checked!!

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

