

PACKAGE **CLASS** USE TREE DEPRECATED INDEX HELPPREV CLASS **NEXT CLASS** FRAMES NO FRAMES ALL CLASSES

SUMMARY: NESTED | FIELD | CONSTR | METHOD DETAIL: FIELD | CONSTR | METHOD

Class DisjointSet<E>

java.lang.Object
DisjointSet<E>

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

Constructor Summary

Constructors

Constructor and Description

DisjointSet(java.lang.Iterable<E> items)
initializes a new DisjointSet by - creating a hash map of E (type for key) and DSNode (type for value).

Method Summary

All Methods

Static Methods

Instance Methods

Concrete Methods

Modifier and Type	Method and Description
E	findRep (E item) A recursive approach that finds the DSNode object associated with item in the hash map and returns the representative of the set item belongs to.
E	findRepIter (E item) An iterative approach that finds the DSNode object associated with item in the hash map and returns the representative of the set item belongs to.
static void	main (java.lang.String[] args)
java.lang.String	toString () Represent the set of disjointed sets in String format

```
void union(E d1, E d2)
```

performs a union operation on the two sets d1 and d2 belong to if necessary:

Methods inherited from class java.lang.Object

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

Constructor Detail

DisjointSet

```
public DisjointSet(java.lang.Iterable<E> items)
```

initializes a new DisjointSet by - creating a hash map of E (type for key) and DSNode (type for value). - for each item in items, create a new DSNode object as a wrapper for it and add (item, DSNode object) to the hash map

Parameters:

items -

Method Detail

findReplter

```
public E findRepIter(E item)
```

An iterative approach that finds the DSNode object associated with item in the hash map and returns the representative of the set item belongs to.

Parameters:

item - the target item

Returns:

the representative of the target item

findRep

```
public E findRep(E item)
```

A recursive approach that finds the DSNode object associated with item in the hash map and returns the representative of the set item belongs to.

Parameters:

item - the target item

Returns:

the representative of the target item

union

```
public void union(E d1,  
                 E d2)
```

performs a union operation on the two sets d1 and d2 belong to if necessary:

Parameters:

d1 - the first set

d2 - the second set

toString

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

Represent the set of disjointed sets in String format

Overrides:

toString in class java.lang.Object

Returns:

the string represetation of the disjointed sets

main

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

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