

Package [main](#)

Class QuadTree

java.lang.Object
main.QuadTree

All Implemented Interfaces:
[IQuadTree](#)

```
public class QuadTree
extends java.lang.Object
implements IQuadTree
```

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Field Summary

Fields		
Modifier and Type	Field	Description
static BaseNode	emptyNode	

Constructor Summary

Constructors	
Constructor	Description
QuadTree ()	Empty constructor of the QuadTree class, which creates an empty QuadTree
QuadTree (BaseNode root)	

Method Summary

All Methods		
Instance Methods		
Concrete Methods		
Modifier and Type	Method	Description



QuadTree

int **getSize()**boolean **insert(Location loc)**

insert() inserts a new Location into the QuadTree

java.util.List<Location> **search**(java.lang.String type, Range range)

search() returns a list of Locations of a given type within a given Range by traversing the QuadTree

void **setSize**(int size)**Methods inherited from class java.lang.Object**

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

Field Detail**emptyNode**

public static final BaseNode emptyNode

Constructor Detail**QuadTree**

public QuadTree()

Empty constructor of the QuadTree class, which creates an empty QuadTree

QuadTree

public QuadTree(BaseNode root)

Parameters:

root -

**insert**

```
public boolean insert(Location loc)
```

Description copied from interface: IQuadTree

insert() inserts a new Location into the QuadTree

Specified by:

[insert](#) in interface [IQuadTree](#)

Parameters:

loc - the new Location that we want to insert into our QuadTree

Returns:

true if the new Location has been successfully inserted and false otherwise

search

```
public java.util.List<Location> search(java.lang.String type,
                                       Range range)
```

Description copied from interface: IQuadTree

search() returns a list of Locations of a given type within a given Range by traversing the QuadTree

Specified by:

[search](#) in interface [IQuadTree](#)

Parameters:

type -

range -

Returns:**enclosingQuad**

```
public Range enclosingQuad(java.util.List<Location> locs)
```

Description copied from interface: IQuadTree

enclosingQuad() returns the smallest possible Range that includes all given Locations; it also re-initialize the root of the QuadTree

Specified by:

[enclosingQuad](#) in interface [IQuadTree](#)

getSize

```
public int getSize()
```

setSize

```
public void setSize(int size)
```