

Red-black tree

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Chapter 1

Class Index

1.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

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Chapter 2

Class Documentation

2.1 RedBlackTree< KeyType > Class Template Reference

Public Member Functions

- void `insert` (KeyType key)
Inserts the key 'key' into the tree.
- RBTreeNode< KeyType > * `search` (KeyType key)
Returns the pointer to the node with the key 'key'.
- RBTreeNode< KeyType > * `getRoot` ()
Returns the pointer to the root.
- void `print` (std::ostream &out=std::cout)
Prints the tree according to the inorder traversal.
- void `clear` ()
Deletes (free the memory) all nodes.

2.1.1 Member Function Documentation

2.1.1.1 `getRoot()`

```
template<typename KeyType >
RBTreeNode< KeyType > * RedBlackTree< KeyType >::getRoot [inline]
```

Returns the pointer to the root.

If the tree is not empty, returns the not null pointer to the root node. Otherwise, returns null pointer.

2.1.1.2 `search()`

```
template<typename KeyType >
RBTreeNode< KeyType > * RedBlackTree< KeyType >::search (
    KeyType key ) [inline]
```

Returns the pointer to the node with the key 'key'.

If the node with the key 'key' exists, returns the not null pointer to that node. Otherwise, returns null pointer.

The documentation for this class was generated from the following file:

- C:/Users/TimurKrasnopir/Desktop/rbtree-doxygen/RedBlackTree.h

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