BinaryTrees1

0.1.0

Generated by Doxygen 1.8.17

Chapter 1

Class Index

1.1 Class List

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

Chapter 2

File Index

2.1 File List

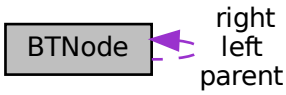
Here is a list of all files with brief descriptions:

Chapter 3

Class Documentation

3.1 BTNode Class Reference

Collaboration diagram for BTNode:



Public Member Functions

- BTNode ()

Public Attributes

- BTNode * left
- BTNode * right
- BTNode * parent

3.1.1 Detailed Description

Binary Tree Node

This is from Open Data Structures in C++ by Pat Morin

Definition at line 18 of file main.cpp.

3.1.2 Constructor & Destructor Documentation

3.1.2.1 BTNode()

```
BTNode::BTNode ( )  [inline]
```

BTNode constructor

Definition at line 27 of file main.cpp.

```
27            {
28       left = NULL;
29       right = NULL;
30       parent = NULL;
31   }
```

3.1.3 Member Data Documentation

3.1.3.1 left

```
BTNode* BTNode::left
```

Definition at line 20 of file main.cpp.

3.1.3.2 parent

```
BTNode* BTNode::parent
```

Definition at line 22 of file main.cpp.

3.1.3.3 right

```
BTNode* BTNode::right
```

Definition at line 21 of file main.cpp.

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

- /home/drseth/CPTR227/20210224BinaryTreeStart/src/main.cpp

Chapter 4

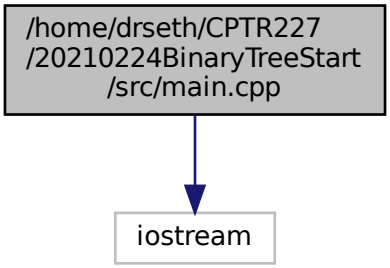
File Documentation

4.1 /home/drseth/CPTR227/20210224BinaryTreeStart/src/main.cpp File Reference

This is a demonstration of simple binary trees.

```
#include <iostream>
```

Include dependency graph for main.cpp:



Classes

- class BTNode

Functions

- BTNode * genExampleTree (BTNode *root)
- int main (int, char **)

4.1.1 Detailed Description

This is a demonstration of simple binary trees.

This is a demo from CPTR 227 class

Author

Seth McNeill

Date

2021 February 24

4.1.2 Function Documentation

4.1.2.1 genExampleTree()

```
BTNode* genExampleTree (
            BTNode * root )
```

This generates a simple tree to play with

It is a bit of a hack.

Definition at line 39 of file main.cpp.

```
39                                          {
40     BTNode* one = new BTNode();
41     BTNode* two = new BTNode();
42     BTNode* three = new BTNode();
43     BTNode* four = new BTNode();
44     BTNode* five = new BTNode();
45     BTNode* six = new BTNode();
46     cout « "Created the nodes" « endl;
47     root->left = one;
48     cout « "Added root->left" « endl;
49     one->parent = root;
50     root->right = two;
51     two->parent = root;
52     two->left = three;
53     three->parent = two;
54     two->right = four;
55     four->parent = two;
56     one->left = five;
57     five->parent = one;
58     five->left = six;
59     six->parent = five;
60     return root;
61 }
```

4.1.2.2 main()

```
int main (
            int ,
            char **  )
```

Definition at line 63 of file main.cpp.

```
63                      {
64     BTNode* rootNode; // pointer to the root node
65     genExampleTree(rootNode);
66     cout « "Hello, world! Binary Trees\n";
67 }
```

Index