

Árboles ABB

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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

File Index

2.1 File List

Here is a list of all files with brief descriptions:

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Chapter 3

Class Documentation

3.1 ArbolABB Class Reference

```
#include <ArbolABB.h>
```

Public Member Functions

- [ArbolABB](#) ()
- virtual [~ArbolABB](#) ()
- [NodoArbol](#) * [obtener_raiz](#) ()
- void [insertar](#) (int)
- bool [encuentra_en_arbol_ABB](#) (int)
- string [ver_arbol](#) (int)
- int [cantidad_de_nodos_presente](#) ()
- string [ruta](#) (int)
- string [nodos_hoja](#) ()
- string [nodos_internos_arbol](#) ()
- int [un_nivel_nodos](#) (int)
- int [nivel_de_un_nodo](#) (int)
- int [altura](#) ()
- string [sucesores](#) (int)
- int [obtiene_padre](#) (int)
- [NodoArbol](#) * [obtiene_nodo](#) (int)
- string [recorrer_arbol_por_ancho](#) ()
- bool [arbol_esta_lleno](#) ()
- bool [arbol_esta_completo](#) ()
- bool [son_semejantes](#) ([ArbolABB](#) *)
- bool [son_isomorfos](#) ([ArbolABB](#) *)
- string [arbol_auxiliar_esta_completo](#) ([NodoArbol](#) *, int)
- bool [eliminar_nodo](#) (int)

3.1.1 Detailed Description

Definition at line 8 of file [ArbolABB.h](#).

3.1.2 Constructor & Destructor Documentation

3.1.2.1 ArbolABB()

```
ArbolABB::ArbolABB ( )
```

Definition at line 7 of file ArbolABB.cpp.

3.1.2.2 ~ArbolABB()

```
ArbolABB::~~ArbolABB ( ) [virtual]
```

Definition at line 12 of file ArbolABB.cpp.

3.1.3 Member Function Documentation

3.1.3.1 altura()

```
int ArbolABB::altura ( )
```

Definition at line 211 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.2 arbol_auxiliar_esta_completo()

```
string ArbolABB::arbol_auxiliar_esta_completo (
    NodoArbol * a,
    int cont )
```

Definition at line 352 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.3 arbol_esta_completo()

```
bool ArbolABB::arbol_esta_completo ( )
```

Definition at line 322 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.4 arbol_esta_lleno()

```
bool ArbolABB::arbol_esta_lleno ( )
```

Definition at line 299 of file ArbolABB.cpp.

Here is the caller graph for this function:

3.1.3.5 cantidad_de_nodos_presente()

```
int ArbolABB::cantidad_de_nodos_presente ( )
```

Definition at line 101 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.6 eliminar_nodo()

```
bool ArbolABB::eliminar_nodo (
    int n )
```

Definition at line 386 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.7 encuentra_en_arbol_ABB()

```
bool ArbolABB::encuentra_en_arbol_ABB (
    int dato )
```

Definition at line 35 of file ArbolABB.cpp.

Here is the caller graph for this function:

3.1.3.8 insertar()

```
void ArbolABB::insertar (
    int i )
```

Definition at line 52 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.9 nivel_de_un_nodo()

```
int ArbolABB::nivel_de_un_nodo (
    int dato )
```

Definition at line 193 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.10 nodos_hoja()

```
string ArbolABB::nodos_hoja ( )
```

Definition at line 138 of file ArbolABB.cpp.

3.1.3.11 nodos_internos_arbol()

```
string ArbolABB::nodos_internos_arbol ( )
```

Definition at line 157 of file ArbolABB.cpp.

3.1.3.12 obtener_raiz()

```
NodoArbol * ArbolABB::obtener_raiz ( )
```

Definition at line 18 of file ArbolABB.cpp.

Here is the caller graph for this function:

3.1.3.13 obtiene_nodo()

```
NodoArbol * ArbolABB::obtiene_nodo (
    int dato )
```

Definition at line 260 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.14 obtiene_padre()

```
int ArbolABB::obtiene_padre (
    int dato )
```

Definition at line 243 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.15 recorrer_arbol_por_ancho()

```
string ArbolABB::recorrer_arbol_por_ancho ( )
```

Definition at line 277 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.16 ruta()

```
string ArbolABB::ruta (
    int num )
```

Definition at line 121 of file ArbolABB.cpp.

Here is the call graph for this function:

3.1.3.17 son_isomorfos()

```
bool ArbolABB::son_isomorfos (
    ArbolABB * otroArbol )
```

Definition at line 374 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.18 son_semejantes()

```
bool ArbolABB::son_semejantes (
    ArbolABB * otroArbol )
```

Definition at line 363 of file ArbolABB.cpp.

Here is the call graph for this function: Here is the caller graph for this function:

3.1.3.19 sucesores()

```
string ArbolABB::sucesores (
    int dato )
```

Definition at line 225 of file ArbolABB.cpp.

Here is the call graph for this function:

3.1.3.20 un_nivel_nodos()

```
int ArbolABB::un_nivel_nodos (
    int n )
```

Definition at line 185 of file ArbolABB.cpp.

Here is the caller graph for this function:

3.1.3.21 ver_arbol()

```
string ArbolABB::ver_arbol (
    int tipo )
```

Definition at line 76 of file ArbolABB.cpp.

Here is the caller graph for this function:

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

- [ArbolABB.h](#)
- [ArbolABB.cpp](#)

3.2 NodoArbol Class Reference

```
#include <NodoArbol.h>
```

Public Member Functions

- [NodoArbol](#) (int)
- virtual [~NodoArbol](#) ()
- void [fija_dat](#) (int)
- void [pone_a_la_izquierda](#) (NodoArbol *)
- void [pone_a_la_derecha](#) (NodoArbol *)
- int [obtener_datos](#) ()
- [NodoArbol](#) *& [obtiene_izquierda](#) ()
- [NodoArbol](#) *& [obtiene_derecha](#) ()

3.2.1 Detailed Description

Definition at line 5 of file NodoArbol.h.

3.2.2 Constructor & Destructor Documentation

3.2.2.1 NodoArbol()

```
NodoArbol::NodoArbol (
    int dato )
```

Definition at line 3 of file NodoArbol.cpp.

3.2.2.2 ~NodoArbol()

```
NodoArbol::~~NodoArbol ( ) [virtual]
```

Definition at line 10 of file NodoArbol.cpp.

3.2.3 Member Function Documentation

3.2.3.1 fija_dat()

```
void NodoArbol::fija_dat (
    int dato )
```

Definition at line 17 of file NodoArbol.cpp.

3.2.3.2 obtener_datos()

```
int NodoArbol::obtener_datos ( )
```

Definition at line 29 of file NodoArbol.cpp.

Here is the caller graph for this function:

3.2.3.3 obtiene_derecha()

```
NodoArbol * & NodoArbol::obtiene_derecha ( )
```

Definition at line 37 of file NodoArbol.cpp.

Here is the caller graph for this function:

3.2.3.4 obtiene_izquierda()

```
NodoArbol * & NodoArbol::obtiene_izquierda ( )
```

Definition at line 33 of file NodoArbol.cpp.

Here is the caller graph for this function:

3.2.3.5 pone_a_la_derecha()

```
void NodoArbol::pone_a_la_derecha (
    NodoArbol * der )
```

Definition at line 25 of file NodoArbol.cpp.

3.2.3.6 pone_a_la_izquierda()

```
void NodoArbol::pone_a_la_izquierda (
    NodoArbol * izq )
```

Definition at line 21 of file NodoArbol.cpp.

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

- [NodoArbol.h](#)
- [NodoArbol.cpp](#)

Chapter 4

File Documentation

4.1 ArbolABB.cpp File Reference

```
#include "ArbolABB.h"
#include "NodoArbol.h"
#include <cstdlib>
#include <sstream>
#include <string>
#include <cmath>
```

Include dependency graph for ArbolABB.cpp:

4.2 ArbolABB.h File Reference

```
#include <iostream>
#include "NodoArbol.h"
```

Include dependency graph for ArbolABB.h: This graph shows which files directly or indirectly include this file:

Classes

- class [ArbolABB](#)

4.3 main.cpp File Reference

```
#include <iostream>
#include "NodoArbol.h"
#include "ArbolABB.h"
```

Include dependency graph for main.cpp:

Functions

- int [main](#) ()

4.3.1 Function Documentation

4.3.1.1 main()

```
int main ( )
```

Definition at line 7 of file main.cpp.

Here is the call graph for this function:

4.4 NodoArbol.cpp File Reference

```
#include "NodoArbol.h"  
#include <cstdlib>  
Include dependency graph for NodoArbol.cpp:
```

4.5 NodoArbol.h File Reference

This graph shows which files directly or indirectly include this file:

Classes

- class [NodoArbol](#)

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