## general\_ledger

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# **Contents**

1	Gen	eral Lec	lger.											1
2	Nam	nespace	Index											3
	2.1	Names	space List					 	 	 	 	 		3
3	Clas	s Index												5
	3.1	Class I	Hierarchy					 	 	 	 	 		5
4	Clas	s Index												7
	4.1	Class I	_ist					 	 	 	 	 		7
5	File	Index												9
	5.1	File Lis	st					 	 	 	 	 		9
6	Nam	nespace	Docume	ntation										11
	6.1	genleg	Namespa	ce Reference	е			 	 	 	 	 		11
		6.1.1	Enumera	ation Type Do	cumentat	tion		 	 	 	 	 		11
			6.1.1.1	Argument .				 	 	 	 	 		11
	6.2	gldb N	amespace	Reference .				 	 	 	 	 		11
		6.2.1	Function	Documentat	ion			 	 	 	 	 		12
			6.2.1.1	get_connec	ction			 	 	 	 	 		12
			6.2.1.2	operator<	<			 	 	 	 	 		12
	6.3	pgstrin	g Namesp	ace Referen	ce			 	 	 	 	 		12
		6.3.1	Function	Documentat	ion			 	 	 	 	 		12
			6.3.1.1	split				 	 	 	 	 		12
			6.3.1.2	trim				 	 	 	 	 		12
			6.3.1.3	trim_back .				 	 	 	 	 		12
			6.3.1.4	trim_front .				 	 	 	 	 		13
7	Clas	s Docu	mentatior	1										15
	7.1	genleg	::Config C	lass Referen	ce			 	 	 	 	 		15
		7.1.1	Construc	ctor & Destru	ctor Docu	mentati	on .	 	 	 	 	 		15
			7.1.1.1	Config				 	 	 	 	 		15
			7.1.1.2	$\sim$ Config .				 	 	 	 	 		15

ii CONTENTS

	7.1.2	Member	Function Documentation	15
		7.1.2.1	add_cmdline_option	15
		7.1.2.2	is_set	15
		7.1.2.3	operator[]	15
		7.1.2.4	populate_from_cmdline	15
		7.1.2.5	populate_from_file	16
7.2	genleg	::ConfigBa	adConfigFile Class Reference	16
7.3	genleg	::ConfigBa	adOption Class Reference	16
7.4	genleg	::ConfigCo	ouldNotOpenFile Class Reference	16
7.5	genleg	::ConfigOp	otionNotSet Class Reference	16
7.6	gldb::D	BConn Cl	ass Reference	16
	7.6.1	Construc	tor & Destructor Documentation	17
		7.6.1.1	DBConn	17
		7.6.1.2	~DBConn	17
		7.6.1.3	DBConn	17
	7.6.2	Member	Function Documentation	17
		7.6.2.1	operator=	17
		7.6.2.2	select	17
7.7	gldb::D	BConnCo	uldNotConnect Class Reference	17
	7.7.1	Construc	tor & Destructor Documentation	17
		7.7.1.1	DBConnCouldNotConnect	17
7.8	gldb::D	BConnCo	uldNotQuery Class Reference	17
	7.8.1	Construc	tor & Destructor Documentation	17
		7.8.1.1	DBConnCouldNotQuery	17
7.9	gldb::D	BConnlmp	p Class Reference	18
	7.9.1	Construc	tor & Destructor Documentation	18
		7.9.1.1	DBConnImp	18
		7.9.1.2	$\sim\!\!DBConnImp$	18
	7.9.2	Member	Function Documentation	18
		7.9.2.1	select	18
7.10	gldb::D	BConnMy	SQL Class Reference	18
	7.10.1	Construc	tor & Destructor Documentation	19
		7.10.1.1	DBConnMySQL	19
		7.10.1.2	DBConnMySQL	20
		7.10.1.3	$\sim$ DBConnMySQL	20
	7.10.2	Member	Function Documentation	20
		7.10.2.1	operator=	20
		7.10.2.2	select	20
7.11	gldb::Ta	able Class	Reference	20
	7.11.1	Construc	tor & Destructor Documentation	20

CONTENTS

8	File Documen	tation		25
	7	7.13.2.7	size	23
			print	23
			operator[]	23
			operator[]	23
			append_field	23
			append_field	23
		7.13.2.1	append_field	23
			Function Documentation	23
			~TableRow	23
			TableRow	23
	7	7.13.1.1	TableRow	22
	7.13.1 C	Construct	or & Destructor Documentation	22
	7.13 gldb::Tab	leRow C	lass Reference	22
			operator<<	22
	7.12.3 F	riends A	nd Related Function Documentation	22
	7	7.12.2.8	operator[]	22
	7	7.12.2.7	operator[]	22
	7	7.12.2.6	operator=	22
	7	7.12.2.5	operator=	22
	7	7.12.2.4	operator+=	22
	7	7.12.2.3	operator+=	22
	7	7.12.2.2	operator std::string	22
	7	7.12.2.1	length	22
	7.12.2 N	/lember F	Function Documentation	22
	7	7.12.1.4	$\sim$ TableField	21
	7	7.12.1.3	TableField	21
	7	7.12.1.2	TableField	21
	7	'.12.1.1	TableField	21
	7.12.1 C	Construct	or & Destructor Documentation	21
	7.12 gldb::Tab	leField C	lass Reference	21
	7	'.11.2.5	operator[]	21
	7	7.11.2.4	num_records	21
	7	7.11.2.3	num_fields	21
	7	7.11.2.2	get_headers	20
	7	7.11.2.1	append_record	20
	7.11.2 N	/lember F	Function Documentation	20
	7	'.11.1.2	~Table	20
	7	7.11.1.1	Table	20

iv CONTENTS

8.1	general_ledger.dox File Reference	25
8.2	lib/config/config.cpp File Reference	25
	8.2.1 Detailed Description	25
8.3	lib/config/config.h File Reference	26
	8.3.1 Detailed Description	27
8.4	lib/config/config_getopt.cpp File Reference	27
	8.4.1 Detailed Description	27
	8.4.2 Macro Definition Documentation	28
	8.4.2.1 _XOPEN_SOURCE	28
8.5	lib/database/data_structures.h File Reference	28
	8.5.1 Detailed Description	29
8.6	lib/database/database.h File Reference	30
	8.6.1 Detailed Description	31
8.7	lib/database/dbconn.cpp File Reference	31
	8.7.1 Detailed Description	32
8.8	lib/database/dbconn.h File Reference	33
	8.8.1 Detailed Description	34
8.9	lib/database/dbconnimp.h File Reference	34
	8.9.1 Detailed Description	36
8.10	lib/database/table.cpp File Reference	36
	8.10.1 Detailed Description	37
8.11	lib/database/table.h File Reference	37
	8.11.1 Detailed Description	39
8.12	lib/database/tablefield.cpp File Reference	39
	8.12.1 Detailed Description	39
8.13	lib/database/tablefield.h File Reference	40
	8.13.1 Detailed Description	41
8.14	lib/database/tablerow.cpp File Reference	42
	8.14.1 Detailed Description	42
8.15	lib/database/tablerow.h File Reference	42
	8.15.1 Detailed Description	44
	lib/database_imp/database_imp.h File Reference	44
8.17	lib/database_imp/mysql/dbconn_mysql_get_connection.cpp File Reference	46
8.18	lib/database_imp/mysql/dbconn_mysql_imp.cpp File Reference	47
	8.18.1 Detailed Description	48
8.19	lib/database_imp/mysql/dbconn_mysql_imp.h File Reference	48
	8.19.1 Detailed Description	50
8.20	lib/stringhelp/stringhelp.cpp File Reference	50
	8.20.1 Detailed Description	50
8.21	lib/stringhelp/stringhelp.h File Reference	51

CONTENTS

	8.21.1	Detailed	Descripti	ion						 		 					52
8.22	progs/g	gl_report/g	l_report_	_main.c	pp File	Refe	rend	ce .		 		 					52
	8.22.1	Function	Docume	ntation						 		 					53
		8.22.1.1	login .							 		 					53
		8.22.1.2	main .							 		 					53
		8.22.1.3	print_h	elp_me	ssage					 		 					53
		8.22.1.4	print_us	sage_m	nessage	е				 		 					53
		8.22.1.5	print_ve	ersion_ı	messag	ge .				 		 					53
		8.22.1.6	set_cor	nfigurati	on					 		 					53
	8.22.2	Variable I	Docume	ntation						 		 					53
		8 22 2 1	progna	me													53

# General Ledger.

General Ledger will be a fully-featured, multi-user, open-source general ledger system. The project is in the early stages of development.

2 General Ledger.

# Namespace Index

	2.1	<b>Names</b>	pace	List
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Horo	ie	a liet	of	all	namespaces	with	hriaf	descriptions	٠.
пеге	ıs	a iisi	OI -	all	namespaces	WILLI	briei	descriptions	Ś.

genieg					 ٠					•				•				 						- 1	ı
gldb .																		 						1	1
pgstring																								1:	2

Namespace Index

# **Class Index**

## 3.1 Class Hierarchy

This inheritance list is sorted roughly, but not completely, alphabetically:

genleg::Config	15
genleg::ConfigBadConfigFile	16
genleg::ConfigBadOption	16
genleg::ConfigCouldNotOpenFile	16
genleg::ConfigOptionNotSet	16
gldb::DBConn	16
gldb::DBConnCouldNotConnect	17
gldb::DBConnCouldNotQuery	
gldb::DBConnImp	18
gldb::DBConnMySQL	18
gldb::Table	20
gldb::TableField	21
gldb::TableRow	22

6 Class Index

# **Class Index**

## 4.1 Class List

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

nleg::Config	15
nleg::ConfigBadConfigFile	
nleg::ConfigBadOption	16
nleg::ConfigCouldNotOpenFile	
nleg::ConfigOptionNotSet	
db::DBConn	
db::DBConnCouldNotConnect	
db::DBConnCouldNotQuery	
db::DBConnImp	
db::DBConnMySQL	
db::Table	
db::TableField	
db::TableBow	22

8 Class Index

# File Index

## 5.1 File List

Here is a list of all files with brief descriptions:

lib/config/config.cpp	
Implementation of program configurations class	25
lib/config/config.h	
Interface to program configurations class	26
lib/config_getopt.cpp	
Implementation of command line functionality	27
lib/database/data_structures.h	
Main interface to database data structures	28
lib/database/database.h	
User interface to database functionality	30
lib/database/dbconn.cpp	
Implementation of database connection abstract base class	31
lib/database/dbconn.h	
Interface to database connection abstract base class	33
lib/database/dbconnimp.h	
Interface to abstract database implementation base class	34
lib/database/table.cpp	
Implementation of table data structure	36
lib/database/table.h	
Interface to table data structure	37
lib/database/tablefield.cpp	
Implementation of table field class	39
lib/database/tablefield.h	
Interface to table field class	40
lib/database/tablerow.cpp	
Implementation of table row data structure	42
lib/database/tablerow.h	
Interface to table row data structure	42
lib/database_imp/database_imp.h	44
lib/database_imp/mysql/dbconn_mysql_get_connection.cpp	46
lib/database_imp/mysql/dbconn_mysql_imp.cpp	
Implementation of MySQL database connection implementation class	47
lib/database_imp/mysql/dbconn_mysql_imp.h	
Interface to MySQL database connection implementation class	48
lib/stringhelp/stringhelp.cpp	
Implementation of string helper functions	50
lib/stringhelp/stringhelp.h	
Interface to string helper functions	51

10			File Index
ŗ	progs/gl_report/gl_report_main.cpp	)	52

## **Namespace Documentation**

## 6.1 genleg Namespace Reference

### Classes

- · class ConfigOptionNotSet
- class ConfigBadOption
- class ConfigCouldNotOpenFile
- · class ConfigBadConfigFile
- · class Config

## **Enumerations**

- enum Argument
- 6.1.1 Enumeration Type Documentation
- 6.1.1.1 enum genleg::Argument

## 6.2 gldb Namespace Reference

### Classes

- class DBConnCouldNotConnect
- class DBConnCouldNotQuery
- class DBConn
- class DBConnImp
- class Table
- class TableField
- class TableRow
- · class DBConnMySQL

## **Functions**

- std::ostream & operator<< (std::ostream &out, const TableField &field)
- DBConnImp \* get\_connection (const std::string database, const std::string hostname, const std::string user-name, const std::string password)

### 6.2.1 Function Documentation

- 6.2.1.1 DBConnImp \* gldb::get\_connection ( const std::string database, const std::string hostname, const std::string username, const std::string password )
- 6.2.1.2 std::ostream & gldb::operator<< ( std::ostream & out, const TableField & field )

## 6.3 pgstring Namespace Reference

#### **Functions**

• std::string & trim\_front (std::string &s)

Trims leading whitespace from a string.

• std::string & trim\_back (std::string &s)

Trims trailing whitespace from a string.

• std::string & trim (std::string &s)

Trims leading and trailing whitespace from a string.

• std::vector< std::string > split (const std::string &s, const char delim)

Splits a delimited string into tokens.

### 6.3.1 Function Documentation

6.3.1.1 std::vector < std::string > pgstring::split ( const std::string & s, const char delim )

Splits a delimited string into tokens.

#### **Parameters**

S	The string to split.
delim	The delimiter character on which to split.

#### **Returns**

A vector of tokens.

6.3.1.2 std::string & pgstring::trim ( std::string & s )

Trims leading and trailing whitespace from a string.

### Parameters

s	The string to trim.

#### **Returns**

The trimmed string.

6.3.1.3 std::string & pgstring::trim\_back ( std::string & s )

Trims trailing whitespace from a string.

### **Parameters**

S	The string to trim.

## Returns

The trimmed string.

6.3.1.4 std::string & pgstring::trim\_front ( std::string & s )

Trims leading whitespace from a string.

### **Parameters**

s	The string to trim.

### Returns

The trimmed string.

Namespace Doc	cumentatio	n
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## **Class Documentation**

## 7.1 genleg::Config Class Reference

```
#include <config.h>
```

#### **Public Member Functions**

• Config ()

Constructor for Config class.

• ~Config ()

Destructor for Config class.

- void add\_cmdline\_option (const std::string option, const enum Argument arg)
- void populate\_from\_cmdline (const int argc, char \*const \*argv)
- void populate\_from\_file (const std::string filename)
- bool is\_set (const std::string option) const
- const std::string & operator[] (const std::string &option) const

#### 7.1.1 Constructor & Destructor Documentation

```
7.1.1.1 Config::Config()
```

Constructor for Config class.

```
7.1.1.2 Config:: ∼ Config ( )
```

Destructor for Config class.

### 7.1.2 Member Function Documentation

- 7.1.2.1 void Config::add\_cmdline\_option ( const std::string option, const enum Argument arg )
- 7.1.2.2 bool Config::is\_set ( const std::string option ) const
- 7.1.2.3 const std::string & Config::operator[] ( const std::string & option ) const
- 7.1.2.4 void Config::populate\_from\_cmdline ( const int argc, char \*const \* argv )

16 Class Documentation

7.1.2.5 void Config::populate\_from\_file ( const std::string filename )

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

- · lib/config/config.h
- · lib/config/config.cpp
- lib/config/config\_getopt.cpp

## 7.2 genleg::ConfigBadConfigFile Class Reference

```
#include <config.h>
```

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

· lib/config/config.h

## 7.3 genleg::ConfigBadOption Class Reference

```
#include <config.h>
```

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

· lib/config/config.h

## 7.4 genleg::ConfigCouldNotOpenFile Class Reference

```
#include <config.h>
```

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

· lib/config/config.h

## 7.5 genleg::ConfigOptionNotSet Class Reference

```
#include <config.h>
```

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

• lib/config/config.h

## 7.6 gldb::DBConn Class Reference

```
#include <dbconn.h>
```

## **Public Member Functions**

- DBConn (DBConnImp \*imp)
- ∼DBConn ()
- Table select (std::string query)
- DBConn (const DBConn &)
- DBConn & operator= (const DBConn &)

#### 7.6.1 Constructor & Destructor Documentation

```
7.6.1.1 DBConn::DBConn ( DBConnImp * imp )
7.6.1.2 DBConn::∼DBConn ( )
7.6.1.3 gldb::DBConn::DBConn ( const DBConn & )
7.6.2 Member Function Documentation
```

7.6.2.1 DBConn& gldb::DBConn::operator= ( const DBConn & )

```
7.6.2.2 Table DBConn::select ( std::string query )
```

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

- lib/database/dbconn.h
- lib/database/dbconn.cpp

## 7.7 gldb::DBConnCouldNotConnect Class Reference

```
#include <dbconn.h>
```

#### **Public Member Functions**

DBConnCouldNotConnect (const std::string &msg)

## 7.7.1 Constructor & Destructor Documentation

7.7.1.1 gldb::DBConnCouldNotConnect::DBConnCouldNotConnect ( const std::string & msg ) [inline]

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

· lib/database/dbconn.h

## 7.8 gldb::DBConnCouldNotQuery Class Reference

```
#include <dbconn.h>
```

### **Public Member Functions**

DBConnCouldNotQuery (const std::string &msg)

#### 7.8.1 Constructor & Destructor Documentation

7.8.1.1 gldb::DBConnCouldNotQuery::DBConnCouldNotQuery ( const std::string & msg ) [inline]

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

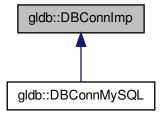
· lib/database/dbconn.h

18 Class Documentation

## 7.9 gldb::DBConnImp Class Reference

#include <dbconnimp.h>

Inheritance diagram for gldb::DBConnImp:



#### **Public Member Functions**

- DBConnImp ()
- virtual ~DBConnImp ()
- virtual Table select (std::string query)=0

## 7.9.1 Constructor & Destructor Documentation

```
7.9.1.1 gldb::DBConnlmp::DBConnlmp( ) [inline]
```

7.9.1.2 virtual gldb::DBConnlmp::~DBConnlmp( ) [inline], [virtual]

## 7.9.2 Member Function Documentation

**7.9.2.1 virtual Table gldb::DBConnlmp::select ( std::string** *query* **)** [pure virtual]

Implemented in gldb::DBConnMySQL.

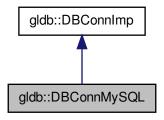
The documentation for this class was generated from the following file:

• lib/database/dbconnimp.h

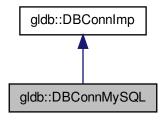
## 7.10 gldb::DBConnMySQL Class Reference

#include <dbconn\_mysql\_imp.h>

Inheritance diagram for gldb::DBConnMySQL:



Collaboration diagram for gldb::DBConnMySQL:



#### **Public Member Functions**

• DBConnMySQL (const std::string database, const std::string hostname, const std::string username, const std::string password)

Constructor for DBConnMySQL\_imp class.

- DBConnMySQL (const DBConnMySQL &)
- virtual  $\sim$ DBConnMySQL ()

Destructor for DBConnMySQL\_imp class.

- DBConnMySQL & operator= (const DBConnMySQL &)
- Table select (std::string query)

### 7.10.1 Constructor & Destructor Documentation

7.10.1.1 DBConnMySQL::DBConnMySQL ( const std::string *database*, const std::string *hostname*, const std::string *username*, const std::string *password* )

Constructor for DBConnMySQL\_imp class.

20 Class Documentation

```
7.10.1.2 gldb::DBConnMySQL::DBConnMySQL ( const DBConnMySQL & )
7.10.1.3 DBConnMySQL::~DBConnMySQL( ) [virtual]
Destructor for DBConnMySQL_imp class.
7.10.2 Member Function Documentation
7.10.2.1 DBConnMySQL& gldb::DBConnMySQL::operator= ( const DBConnMySQL & )
7.10.2.2 Table DBConnMySQL::select ( std::string query ) [virtual]
Implements gldb::DBConnImp.
The documentation for this class was generated from the following files:
    • lib/database imp/mysql/dbconn mysql imp.h

    lib/database_imp/mysql/dbconn_mysql_imp.cpp

7.11
        gldb::Table Class Reference
#include <table.h>
Public Member Functions
    • Table (const TableRow &headers)
         Constructor for Table class.

    ~Table ()

         Destructor for Table class.
    • size_t num_fields () const
    · size t num records () const
    · const TableRow & get_headers () const

    const TableRow & operator[] (const size_t idx) const

    void append_record (const TableRow &new_record)

7.11.1 Constructor & Destructor Documentation
7.11.1.1 Table::Table ( const TableRow & headers )
Constructor for Table class.
7.11.1.2 Table:: ∼Table ( )
Destructor for Table class.
7.11.2 Member Function Documentation
7.11.2.1 void Table::append_record ( const TableRow & new_record )
7.11.2.2 const TableRow & Table::get_headers ( ) const
```

```
7.11.2.3 size_t Table::num_fields ( ) const
7.11.2.4 size_t Table::num_records ( ) const
7.11.2.5 const TableRow & Table::operator[] ( const size_t idx ) const
```

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

- · lib/database/table.h
- lib/database/table.cpp

## 7.12 gldb::TableField Class Reference

```
#include <tablefield.h>
```

#### **Public Member Functions**

• TableField ()

Constructor for TableField class.

- TableField (const char \*data)
- TableField (const std::string &data)
- ∼TableField ()

Destructor for TableField class.

- size t length () const
- operator std::string () const
- TableField & operator= (const char \*data)
- TableField & operator= (const std::string &data)
- char & operator[] (const size\_t idx)
- const char & operator[] (const size\_t idx) const
- TableField & operator+= (const char &c)
- TableField & operator+= (const std::string &data)

## **Friends**

• std::ostream & operator<< (std::ostream &out, const TableField &field)

## 7.12.1 Constructor & Destructor Documentation

```
7.12.1.1 TableField::TableField()
```

Constructor for TableField class.

```
7.12.1.2 TableField::TableField ( const char * data )
```

7.12.1.3 TableField::TableField ( const std::string & data )

7.12.1.4 TableField::~TableField()

Destructor for TableField class.

22 Class Documentation

#### 7.12.2 Member Function Documentation

```
7.12.2.1 size_t TableField::length ( ) const
```

7.12.2.2 TableField::operator std::string ( ) const

7.12.2.3 TableField & TableField::operator+= ( const char & c )

7.12.2.4 TableField & TableField::operator+= ( const std::string & data )

7.12.2.5 TableField & TableField::operator= ( const char \* data )

7.12.2.6 TableField & TableField::operator= ( const std::string & data )

7.12.2.7 char & TableField::operator[] ( const size\_t idx )

7.12.2.8 const char & TableField::operator[] ( const size\_t idx ) const

### 7.12.3 Friends And Related Function Documentation

7.12.3.1 std::ostream& operator<<( std::ostream & out, const TableField & field ) [friend]

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

- · lib/database/tablefield.h
- · lib/database/tablefield.cpp

## 7.13 gldb::TableRow Class Reference

```
#include <tablerow.h>
```

#### **Public Member Functions**

• TableRow ()

Constructor for TableRow class.

- TableRow (const size t size)
- ∼TableRow ()

Destructor for TableRow class.

- size\_t size () const
- TableField & operator[] (const size\_t idx)
- const TableField & operator[] (const size\_t idx) const
- void append\_field (const char \*new\_field)
- void append\_field (const std::string &new\_field)
- void append\_field (const TableField &new\_field)
- · void print (std::ostream &stream) const

## 7.13.1 Constructor & Destructor Documentation

7.13.1.1 TableRow::TableRow ( )

Constructor for TableRow class.

```
7.13.1.2 TableRow::TableRow ( const size_t size )
7.13.1.3 TableRow::~TableRow ( )
Destructor for TableRow class.
7.13.2 Member Function Documentation
7.13.2.1 void TableRow::append_field ( const char * new_field )
7.13.2.2 void TableRow::append_field ( const std::string & new_field )
7.13.2.3 void TableRow::append_field ( const TableField & new_field )
7.13.2.4 TableField & TableRow::operator[] ( const size_t idx )
7.13.2.5 const TableField & TableRow::operator[] ( const size_t idx ) const
7.13.2.6 void TableRow::print ( std::ostream & stream ) const
7.13.2.7 size_t TableRow::size ( ) const
```

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

- lib/database/tablerow.h
- lib/database/tablerow.cpp

24 Class Documentation

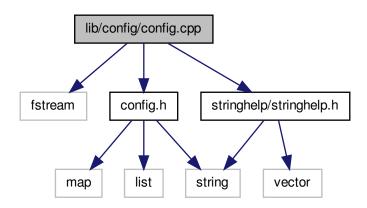
## **File Documentation**

## 8.1 general\_ledger.dox File Reference

## 8.2 lib/config/config.cpp File Reference

Implementation of program configurations class.

```
#include <fstream>
#include "config.h"
#include "stringhelp/stringhelp.h"
Include dependency graph for config.cpp:
```



## 8.2.1 Detailed Description

Implementation of program configurations class.

**Author** 

Paul Griffiths

26 File Documentation

## Copyright

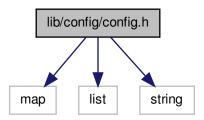
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## 8.3 lib/config/config.h File Reference

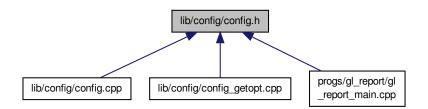
Interface to program configurations class.

```
#include <map>
#include <list>
#include <string>
```

Include dependency graph for config.h:



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



#### **Classes**

- class genleg::ConfigOptionNotSet
- class genleg::ConfigBadOption
- class genleg::ConfigCouldNotOpenFile
- class genleg::ConfigBadConfigFile
- · class genleg::Config

## **Namespaces**

namespace genleg

### **Enumerations**

• enum genleg::Argument

## 8.3.1 Detailed Description

Interface to program configurations class. Interface to program configurations class

Author

Paul Griffiths

### Copyright

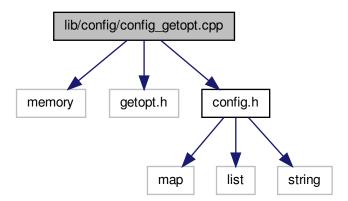
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## 8.4 lib/config/config\_getopt.cpp File Reference

Implementation of command line functionality.

```
#include <memory>
#include <getopt.h>
#include "config.h"
```

Include dependency graph for config\_getopt.cpp:



#### **Macros**

• #define \_XOPEN\_SOURCE 600

## 8.4.1 Detailed Description

Implementation of command line functionality. Included in separate file to isolate usage of non-standard getopt library.

28 File Documentation

#### Author

Paul Griffiths

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#### 8.4.2 Macro Definition Documentation

8.4.2.1 #define \_XOPEN\_SOURCE 600

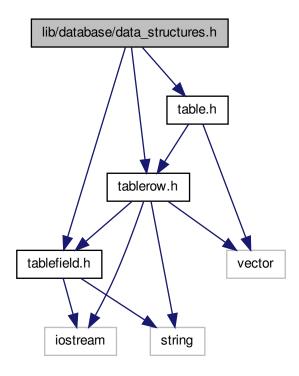
UNIX feature test macro for getopt library

## 8.5 lib/database/data\_structures.h File Reference

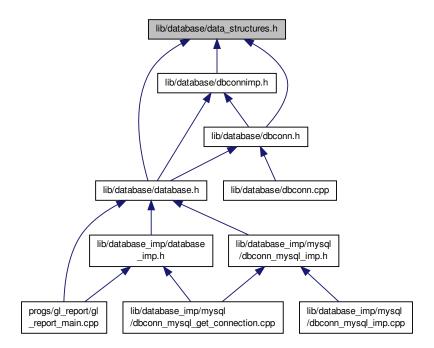
Main interface to database data structures.

```
#include "tablefield.h"
#include "tablerow.h"
#include "table.h"
```

Include dependency graph for data\_structures.h:



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



# 8.5.1 Detailed Description

Main interface to database data structures.

Author

Paul Griffiths

# Copyright

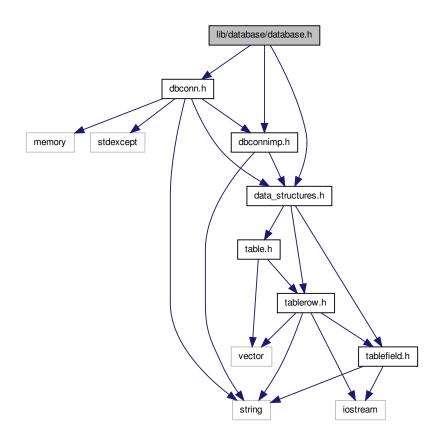
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# 8.6 lib/database/database.h File Reference

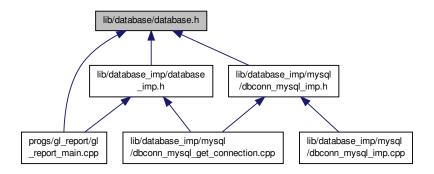
User interface to database functionality.

```
#include "data_structures.h"
#include "dbconnimp.h"
#include "dbconn.h"
```

Include dependency graph for database.h:



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



# 8.6.1 Detailed Description

User interface to database functionality.

Author

Paul Griffiths

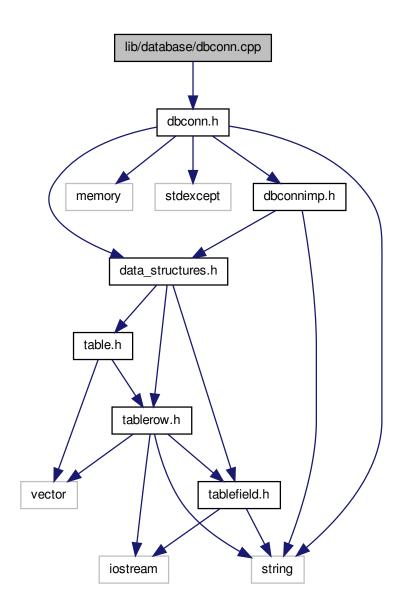
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# 8.7 lib/database/dbconn.cpp File Reference

Implementation of database connection abstract base class.

#include "dbconn.h"
Include dependency graph for dbconn.cpp:



# 8.7.1 Detailed Description

Implementation of database connection abstract base class. Implementation of database connection abstract base class

Author

Paul Griffiths

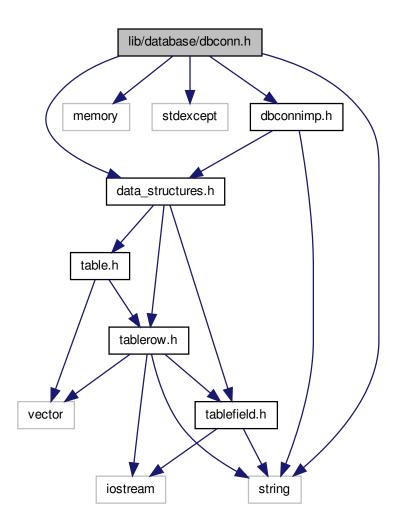
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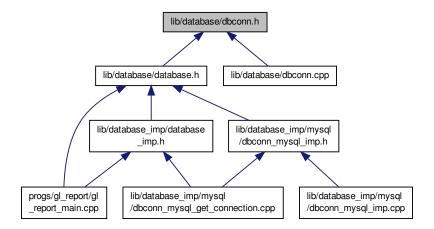
# 8.8 lib/database/dbconn.h File Reference

Interface to database connection abstract base class.

```
#include <string>
#include <memory>
#include <stdexcept>
#include "data_structures.h"
#include "dbconnimp.h"
Include dependency graph for dbconn.h:
```



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



#### **Classes**

• class gldb::DBConnCouldNotConnect

class gldb::DBConnCouldNotQuery

• class gldb::DBConn

# **Namespaces**

· namespace gldb

#### 8.8.1 Detailed Description

Interface to database connection abstract base class. Interface to database connection abstract base class

**Author** 

Paul Griffiths

#### Copyright

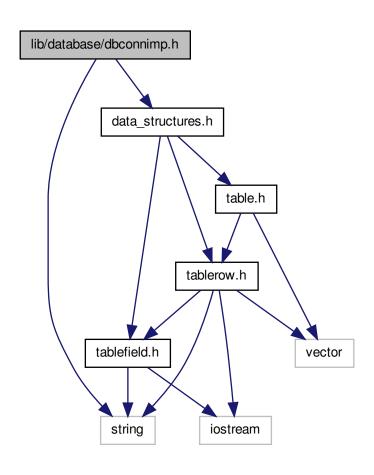
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# 8.9 lib/database/dbconnimp.h File Reference

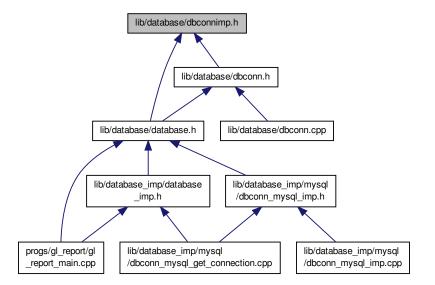
Interface to abstract database implementation base class.

```
#include <string>
#include "data_structures.h"
```

Include dependency graph for dbconnimp.h:



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



#### Classes

• class gldb::DBConnImp

# **Namespaces**

namespace gldb

# 8.9.1 Detailed Description

Interface to abstract database implementation base class. Interface to abstract database implementation base class

Author

Paul Griffiths

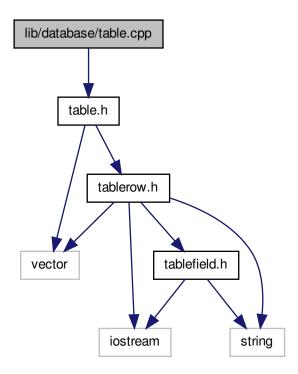
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# 8.10 lib/database/table.cpp File Reference

Implementation of table data structure.

```
#include "table.h"
Include dependency graph for table.cpp:
```



# 8.10.1 Detailed Description

Implementation of table data structure. Implementation of table data structure

Author

Paul Griffiths

# Copyright

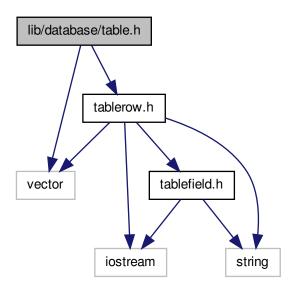
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# 8.11 lib/database/table.h File Reference

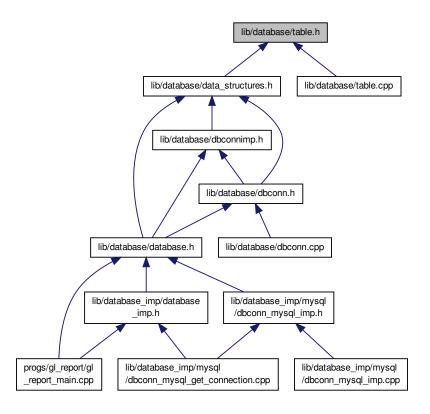
Interface to table data structure.

```
#include <vector>
#include "tablerow.h"
```

Include dependency graph for table.h:



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



#### Classes

· class gldb::Table

#### **Namespaces**

namespace gldb

# 8.11.1 Detailed Description

Interface to table data structure. Interface to table data structure

**Author** 

Paul Griffiths

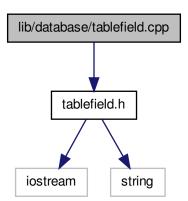
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# 8.12 lib/database/tablefield.cpp File Reference

Implementation of table field class.

```
#include "tablefield.h"
Include dependency graph for tablefield.cpp:
```



# 8.12.1 Detailed Description

Implementation of table field class. Implementation of table field class

Author

Paul Griffiths

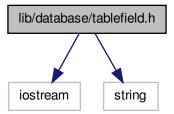
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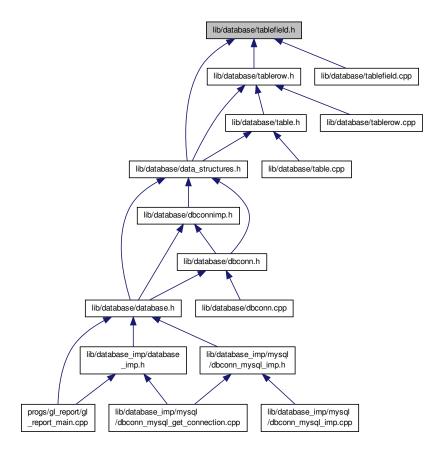
# 8.13 lib/database/tablefield.h File Reference

Interface to table field class.

#include <iostream>
#include <string>
Include dependency graph for tablefield.h:



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



#### Classes

· class gldb::TableField

# **Namespaces**

namespace gldb

# **Functions**

• std::ostream & gldb::operator<< (std::ostream &out, const TableField &field)

# 8.13.1 Detailed Description

Interface to table field class. Interface to table field class

#### **Author**

Paul Griffiths

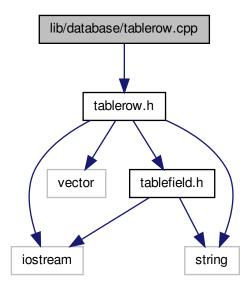
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# 8.14 lib/database/tablerow.cpp File Reference

Implementation of table row data structure.

#include "tablerow.h"
Include dependency graph for tablerow.cpp:



# 8.14.1 Detailed Description

Implementation of table row data structure. Implementation of table row data structure

Author

Paul Griffiths

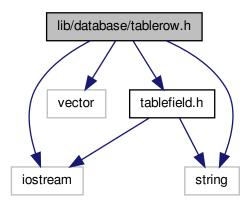
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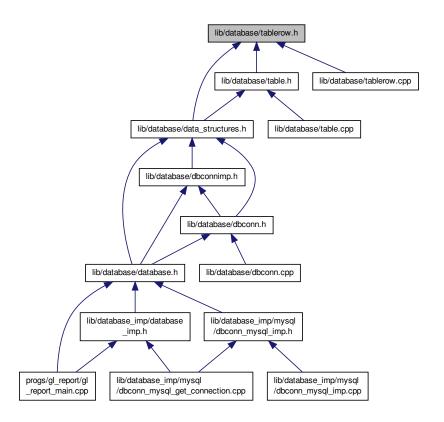
# 8.15 lib/database/tablerow.h File Reference

Interface to table row data structure.

```
#include <iostream>
#include <vector>
#include <string>
#include "tablefield.h"
Include dependency graph for tablerow.h:
```



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



Classes	í
---------	---

class gldb::TableRow

# **Namespaces**

· namespace gldb

# 8.15.1 Detailed Description

Interface to table row data structure. Interface to table row data structure

# Author

Paul Griffiths

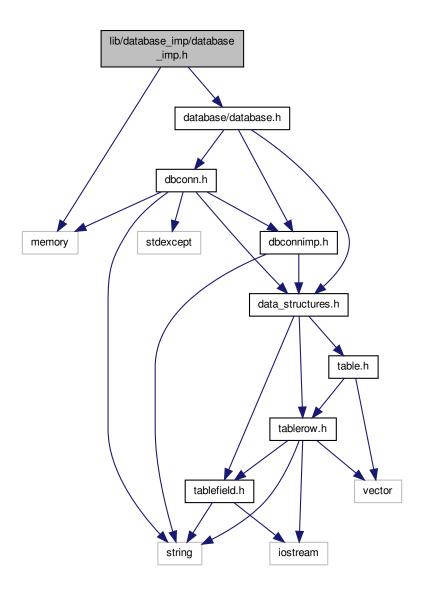
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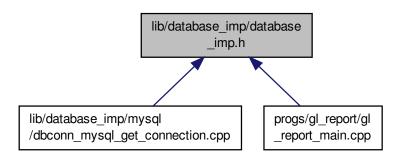
# 8.16 lib/database\_imp/database\_imp.h File Reference

```
#include <memory>
#include "database/database.h"
```

Include dependency graph for database\_imp.h:



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



# **Namespaces**

· namespace gldb

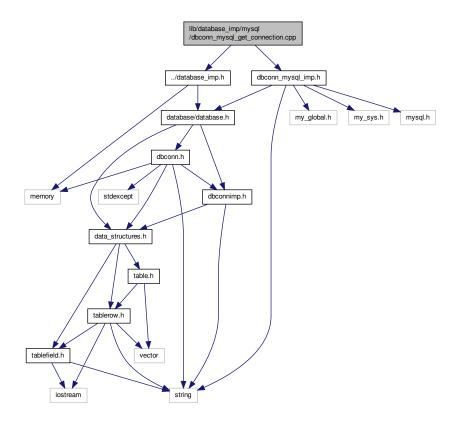
# **Functions**

• DBConnImp \* gldb::get\_connection (const std::string database, const std::string hostname, const std::string username, const std::string password)

# 8.17 lib/database\_imp/mysql/dbconn\_mysql\_get\_connection.cpp File Reference

```
#include "../database_imp.h"
#include "dbconn_mysql_imp.h"
```

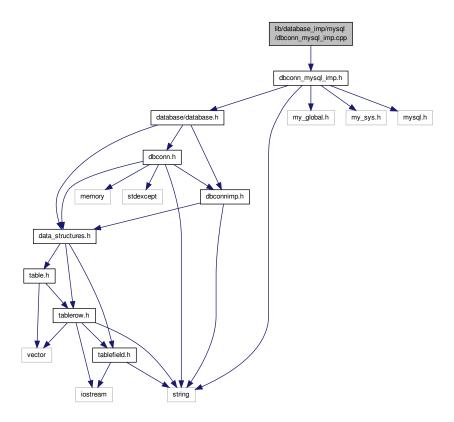
Include dependency graph for dbconn\_mysql\_get\_connection.cpp:



# 8.18 lib/database\_imp/mysql/dbconn\_mysql\_imp.cpp File Reference

 $Implementation \ of \ MySQL \ database \ connection \ implementation \ class.$ 

#include "dbconn\_mysql\_imp.h"
Include dependency graph for dbconn\_mysql\_imp.cpp:



# 8.18.1 Detailed Description

Implementation of MySQL database connection implementation class. Implementation of MySQL database connection implementation class

#### **Author**

Paul Griffiths

#### Copyright

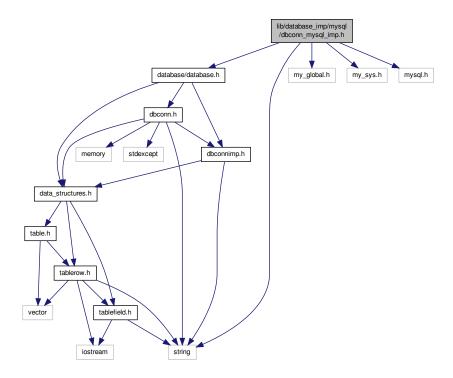
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# 8.19 lib/database\_imp/mysql/dbconn\_mysql\_imp.h File Reference

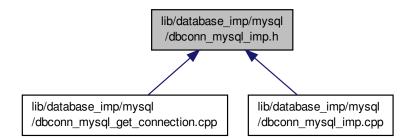
Interface to MySQL database connection implementation class.

```
#include <string>
#include "database/database.h"
#include <my_global.h>
#include <my_sys.h>
#include <mysql.h>
```

Include dependency graph for dbconn\_mysql\_imp.h:



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



# Classes

• class gldb::DBConnMySQL

# **Namespaces**

· namespace gldb

# 8.19.1 Detailed Description

Interface to MySQL database connection implementation class. Interface to MySQL database connection implementation class

**Author** 

Paul Griffiths

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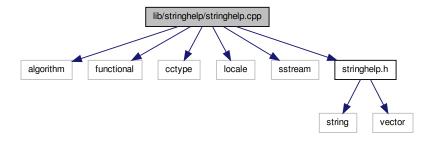
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# 8.20 lib/stringhelp/stringhelp.cpp File Reference

Implementation of string helper functions.

```
#include <algorithm>
#include <functional>
#include <cctype>
#include <locale>
#include <sstream>
#include "stringhelp.h"
```

Include dependency graph for stringhelp.cpp:



#### 8.20.1 Detailed Description

Implementation of string helper functions.

**Author** 

Paul Griffiths

#### Copyright

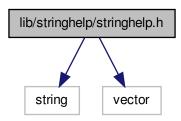
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# 8.21 lib/stringhelp/stringhelp.h File Reference

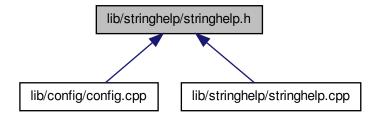
Interface to string helper functions.

#include <string>
#include <vector>

Include dependency graph for stringhelp.h:



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



# **Namespaces**

· namespace pgstring

# **Functions**

• std::string & pgstring::trim\_front (std::string &s)

Trims leading whitespace from a string.

• std::string & pgstring::trim\_back (std::string &s)

Trims trailing whitespace from a string.

• std::string & pgstring::trim (std::string &s)

Trims leading and trailing whitespace from a string.

• std::vector< std::string > pgstring::split (const std::string &s, const char delim)

Splits a delimited string into tokens.

# 8.21.1 Detailed Description

Interface to string helper functions.

Author

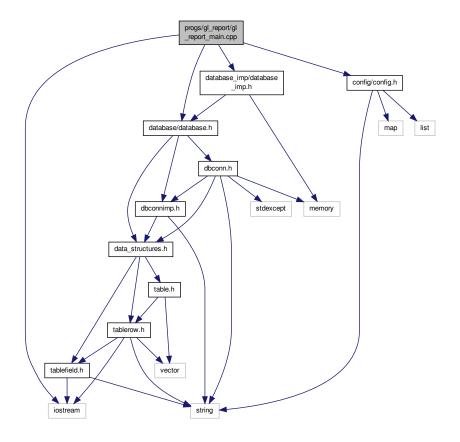
Paul Griffiths

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# 8.22 progs/gl\_report/gl\_report\_main.cpp File Reference

```
#include <iostream>
#include "database/database.h"
#include "database_imp/database_imp.h"
#include "config/config.h"
Include dependency graph for gl_report_main.cpp:
```



#### **Functions**

- static void set\_configuration (genleg::Config &config, int argc, char \*argv[])
- static void print\_usage\_message ()

- static void print\_version\_message ()
- static void print\_help\_message ()
- static std::string login (void)
- int main (int argc, char \*argv[])

#### **Variables**

• static const char \* progname = "gl\_report"

#### 8.22.1 Function Documentation

```
8.22.1.1 static std::string login ( void ) [static]
8.22.1.2 int main ( int argc, char * argv[] )
8.22.1.3 static void print_help_message ( ) [static]
8.22.1.4 static void print_usage_message ( ) [static]
8.22.1.5 static void print_version_message ( ) [static]
8.22.1.6 static void set_configuration ( genleg::Config & config, int argc, char * argv[] ) [static]
8.22.2 Variable Documentation
```

```
8.22.2.1 const char* progname = "gl_report" [static]
```

# Index

$\sim$ Config	populate from amiliae 15
3	populate_from_cmdline, 15
genleg::Config, 15  ∼DBConn	populate_from_file, 15
gldb::DBConn, 17	genleg::ConfigBadConfigFile, 16
~DBConnImp	genleg::ConfigBadOption, 16
gldb::DBConnImp, 18	genleg::ConfigCouldNotOpenFile, 16
~DBConnMySQL	genleg::ConfigOptionNotSet, 16
gldb::DBConnMySQL, 20	get_connection
~Table	gldb, 12
gldb::Table, 20	get_headers
∼TableField	gldb::Table, 20
gldb::TableField, 21	gl_report_main.cpp
~TableRow	login, 53
gldb::TableRow, 23	main, 53
_XOPEN_SOURCE	print_help_message, 53
config_getopt.cpp, 28	print_usage_message, 53
comig_getopt.cpp, 28	print_version_message, 53
add_cmdline_option	progname, 53
genleg::Config, 15	set_configuration, 53
append_field	gldb, 11
gldb::TableRow, 23	get_connection, 12
append record	operator<<, 12
gldb::Table, 20	gldb::DBConn, 16
Argument	∼DBConn, 17
genleg, 11	DBConn, 17
gomog, Ti	operator=, 17
Config	select, 17
genleg::Config, 15	gldb::DBConnCouldNotConnect, 17
config_getopt.cpp	DBConnCouldNotConnect, 17
_XOPEN_SOURCE, 28	gldb::DBConnCouldNotQuery, 17
	DBConnCouldNotQuery, 17
DBConn	gldb::DBConnImp, 18
gldb::DBConn, 17	$\sim$ DBConnImp, 18
DBConnCouldNotConnect	DBConnImp, 18
gldb::DBConnCouldNotConnect, 17	select, 18
DBConnCouldNotQuery	gldb::DBConnMySQL, 18
gldb::DBConnCouldNotQuery, 17	$\sim$ DBConnMySQL, 20
DBConnImp	DBConnMySQL, 19
gldb::DBConnlmp, 18	operator=, 20
DBConnMySQL	select, 20
gldb::DBConnMySQL, 19	gldb::Table, 20
	$\sim$ Table, 20
general_ledger.dox, 25	append_record, 20
genleg, 11	get_headers, 20
Argument, 11	num_fields, 20
genleg::Config, 15	num_records, 21
∼Config, 15	Table, 20
add_cmdline_option, 15	gldb::TableField, 21
Config, 15	$\sim$ TableField, 21
is_set, 15	length, 22

INDEX 55

operator std::string, 22	gldb::TableField, 22
operator<<, 22	,
operator+=, 22	pgstring, 12
operator=, 22	split, 12
TableField, 21	trim, 12
gldb::TableRow, 22	trim_back, 12
$\sim$ TableRow, 23	trim_front, 13
append_field, 23	populate_from_cmdline
print, 23	genleg::Config, 15
size, 23	populate_from_file
TableRow, 22	genleg::Config, 15
	print
is set	gldb::TableRow, 23
genleg::Config, 15	print_help_message
	gl_report_main.cpp, 53
length	print_usage_message
gldb::TableField, 22	gl_report_main.cpp, 53
lib/config/config.cpp, 25	print_version_message
lib/config/config.h, 26	gl_report_main.cpp, 53
lib/config/config_getopt.cpp, 27	progname
lib/database/data_structures.h, 28	gl_report_main.cpp, 53
lib/database/database.h, 30	progs/gl_report/gl_report_main.cpp, 52
lib/database/dbconn.cpp, 31	
lib/database/dbconn.h, 33	select
lib/database/dbconnimp.h, 34	gldb::DBConn, 17
lib/database/table.cpp, 36	gldb::DBConnlmp, 18
lib/database/table.h, 37	gldb::DBConnMySQL, 20
lib/database/tablefield.cpp, 39	set_configuration
lib/database/tablefield.h, 40	gl_report_main.cpp, 53
lib/database/tablerow.cpp, 42	size
lib/database/tablerow.h, 42	gldb::TableRow, 23
lib/database_imp/database_imp.h, 44	split
lib/database_imp/mysql/dbconn_mysql_get_connection	pgstring, 12
cpp, 46	
lib/database_imp/mysql/dbconn_mysql_imp.cpp, 47	Table
lib/database_imp/mysql/dbconn_mysql_imp.h, 48	gldb::Table, <mark>20</mark>
lib/stringhelp/stringhelp.cpp, 50	TableField
lib/stringhelp/stringhelp.h, 51	gldb::TableField, 21
login	TableRow
gl_report_main.cpp, 53	gldb::TableRow, 22
91_10 011_1114111.0 0 0 0	trim
main	pgstring, 12
gl_report_main.cpp, 53	trim_back
9 <u>-</u>	pgstring, 12
num fields	trim_front
gldb::Table, 20	pgstring, 13
num records	
gldb::Table, 21	
g. 45.11.42.15, <u> </u>	
operator std::string	
gldb::TableField, 22	
operator<<	
gldb, 12	
gldb::TableField, 22	
operator+=	
gldb::TableField, 22	
operator=	
gldb::DBConn, 17	
gldb::DBConnMySQL, 20	