

general_ledger

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Contents

1	General Ledger.	1
2	Todo List	3
3	Module Index	5
3.1	Modules	5
4	Class Index	7
4.1	Class Hierarchy	7
5	Class Index	9
5.1	Class List	9
6	File Index	11
6.1	File List	11
7	Module Documentation	13
7.1	General Ledger database module.	13
7.1.1	Detailed Description	13
7.2	Database interaction module	14
7.2.1	Detailed Description	14
7.2.2	Function Documentation	15
7.2.2.1	get_connection	15
7.2.2.2	get_database_type	15
7.3	SQL statements module	16
7.3.1	Detailed Description	16
7.4	Program configuration module	17
7.4.1	Detailed Description	17
7.5	General purpose helpers.	18
7.5.1	Detailed Description	18
7.5.2	Function Documentation	18
7.5.2.1	split	18
7.5.2.2	split	18
7.5.2.3	trim	18

7.5.2.4	trim_back	19
7.5.2.5	trim_front	19
7.6	Reporting program.	20
7.6.1	Detailed Description	20
7.6.2	Function Documentation	20
7.6.2.1	login	20
7.6.2.2	main	20
7.6.2.3	set_configuration	21
7.7	Database program.	22
7.7.1	Detailed Description	22
7.7.2	Function Documentation	22
7.7.2.1	check_db_parameters	22
7.7.2.2	check_help_and_version	22
7.7.2.3	login	23
7.7.2.4	main	23
7.7.2.5	set_configuration	23
8	Class Documentation	25
8.1	genleg::Config Class Reference	25
8.1.1	Detailed Description	25
8.1.2	Constructor & Destructor Documentation	25
8.1.2.1	Config	25
8.1.2.2	~Config	26
8.1.3	Member Function Documentation	26
8.1.3.1	add_cmdline_option	26
8.1.3.2	is_set	26
8.1.3.3	operator[]	26
8.1.3.4	populate_from_cmdline	26
8.1.3.5	populate_from_file	27
8.1.4	Member Data Documentation	27
8.1.4.1	m_opts_set	27
8.1.4.2	m_opts_supp	27
8.2	genleg::ConfigBadConfigFile Class Reference	27
8.2.1	Detailed Description	28
8.2.2	Constructor & Destructor Documentation	28
8.2.2.1	ConfigBadConfigFile	28
8.3	genleg::ConfigBadOption Class Reference	29
8.3.1	Detailed Description	29
8.3.2	Constructor & Destructor Documentation	29
8.3.2.1	ConfigBadOption	30

8.4	genleg::ConfigCouldNotOpenFile Class Reference	30
8.4.1	Detailed Description	31
8.4.2	Constructor & Destructor Documentation	31
8.4.2.1	ConfigCouldNotOpenFile	31
8.5	genleg::ConfigException Class Reference	31
8.5.1	Detailed Description	31
8.5.2	Constructor & Destructor Documentation	32
8.5.2.1	ConfigException	32
8.6	genleg::ConfigOptionNotSet Class Reference	32
8.6.1	Detailed Description	33
8.6.2	Constructor & Destructor Documentation	33
8.6.2.1	ConfigOptionNotSet	33
8.7	gldb::DBConn Class Reference	33
8.7.1	Detailed Description	34
8.7.2	Constructor & Destructor Documentation	34
8.7.2.1	DBConn	34
8.7.2.2	DBConn	34
8.7.3	Member Function Documentation	34
8.7.3.1	operator=	34
8.7.3.2	query	34
8.7.3.3	select	34
8.7.4	Member Data Documentation	35
8.7.4.1	m_imp	35
8.8	gldb::DBConnCouldNotConnect Class Reference	35
8.8.1	Detailed Description	36
8.8.2	Constructor & Destructor Documentation	36
8.8.2.1	DBConnCouldNotConnect	36
8.9	gldb::DBConnCouldNotQuery Class Reference	36
8.9.1	Detailed Description	37
8.9.2	Constructor & Destructor Documentation	37
8.9.2.1	DBConnCouldNotQuery	37
8.10	gldb::DBConnDummy Class Reference	37
8.10.1	Detailed Description	38
8.10.2	Constructor & Destructor Documentation	38
8.10.2.1	DBConnDummy	38
8.10.2.2	DBConnDummy	39
8.10.2.3	~DBConnDummy	39
8.10.3	Member Function Documentation	39
8.10.3.1	operator=	39
8.10.3.2	select	39

8.11	gldb::DBConnException Class Reference	39
8.11.1	Detailed Description	40
8.11.2	Constructor & Destructor Documentation	40
8.11.2.1	DBConnException	40
8.12	gldb::DBConnImp Class Reference	40
8.12.1	Detailed Description	41
8.12.2	Constructor & Destructor Documentation	41
8.12.2.1	DBConnImp	41
8.12.2.2	~DBConnImp	41
8.12.3	Member Function Documentation	41
8.12.3.1	query	41
8.12.3.2	select	42
8.13	gldb::DBConnMySQL Class Reference	42
8.13.1	Detailed Description	43
8.13.2	Constructor & Destructor Documentation	43
8.13.2.1	DBConnMySQL	43
8.13.2.2	DBConnMySQL	43
8.13.2.3	~DBConnMySQL	43
8.13.3	Member Function Documentation	43
8.13.3.1	operator=	44
8.13.3.2	query	44
8.13.3.3	select	44
8.13.4	Member Data Documentation	44
8.13.4.1	m_conn	44
8.14	genleg::DBSQLMySQL Class Reference	44
8.14.1	Detailed Description	45
8.15	genleg::DBSQLStatements Class Reference	45
8.15.1	Detailed Description	46
8.15.2	Constructor & Destructor Documentation	46
8.15.2.1	DBSQLStatements	46
8.15.2.2	~DBSQLStatements	46
8.15.3	Member Function Documentation	47
8.15.3.1	create_table	47
8.15.3.2	create_view	47
8.15.3.3	drop_table	47
8.15.3.4	drop_view	47
8.15.3.5	update_user	47
8.15.3.6	user_by_id	48
8.15.3.7	user_by_username	48
8.16	genleg::GLDatabase Class Reference	48

8.16.1 Detailed Description	50
8.16.2 Constructor & Destructor Documentation	50
8.16.2.1 GLDatabase	50
8.16.2.2 ~GLDatabase	50
8.16.3 Member Function Documentation	50
8.16.3.1 backend	50
8.16.3.2 create_structure	50
8.16.3.3 destroy_structure	50
8.16.3.4 get_user_by_id	51
8.16.3.5 get_user_by_username	51
8.16.3.6 load_sample_data	51
8.16.3.7 update_user	51
8.16.4 Member Data Documentation	52
8.16.4.1 m_dbc	52
8.16.4.2 m_sql	52
8.16.4.3 m_tables	52
8.16.4.4 m_views	52
8.17 genleg::GLDBException Class Reference	52
8.17.1 Detailed Description	52
8.17.2 Constructor & Destructor Documentation	52
8.17.2.1 GLDBException	52
8.18 genleg::GLUser Class Reference	53
8.18.1 Detailed Description	54
8.18.2 Constructor & Destructor Documentation	54
8.18.2.1 GLUser	54
8.18.2.2 ~GLUser	54
8.18.3 Member Function Documentation	54
8.18.3.1 check_password	54
8.18.3.2 enabled	55
8.18.3.3 firstname	55
8.18.3.4 id	55
8.18.3.5 lastname	55
8.18.3.6 pass_hash	55
8.18.3.7 pass_salt	55
8.18.3.8 set_enabled	56
8.18.3.9 set_firstname	56
8.18.3.10 set_lastname	56
8.18.3.11 set_password	56
8.18.3.12 set_username	56
8.18.3.13 username	56

8.18.4	Member Data Documentation	56
8.18.4.1	m_enabled	56
8.18.4.2	m_firstname	57
8.18.4.3	m_id	57
8.18.4.4	m_lastname	57
8.18.4.5	m_pass_hash	57
8.18.4.6	m_pass_salt	57
8.18.4.7	m_username	57
8.19	gldb::Table Class Reference	57
8.19.1	Detailed Description	58
8.19.2	Constructor & Destructor Documentation	58
8.19.2.1	Table	58
8.19.2.2	~Table	58
8.19.3	Member Function Documentation	59
8.19.3.1	append_record	59
8.19.3.2	create_from_file	59
8.19.3.3	get_field	59
8.19.3.4	get_headers	59
8.19.3.5	insert_query	60
8.19.3.6	num_fields	60
8.19.3.7	num_records	60
8.19.3.8	operator[]	60
8.19.3.9	set_quoted	60
8.19.4	Member Data Documentation	61
8.19.4.1	m_headers	61
8.19.4.2	m_quoted	61
8.19.4.3	m_records	61
8.20	gldb::TableBadInputFile Class Reference	61
8.20.1	Detailed Description	62
8.20.2	Constructor & Destructor Documentation	62
8.20.2.1	TableBadInputFile	62
8.21	gldb::TableCouldNotOpenInputFile Class Reference	62
8.21.1	Detailed Description	63
8.21.2	Constructor & Destructor Documentation	63
8.21.2.1	TableCouldNotOpenInputFile	63
8.22	gldb::TableException Class Reference	64
8.22.1	Detailed Description	64
8.22.2	Constructor & Destructor Documentation	64
8.22.2.1	TableException	64
8.23	gldb::TableField Class Reference	65

8.23.1 Detailed Description	66
8.23.2 Constructor & Destructor Documentation	66
8.23.2.1 TableField	66
8.23.2.2 TableField	66
8.23.2.3 ~TableField	66
8.23.3 Member Function Documentation	66
8.23.3.1 length	66
8.23.3.2 operator std::string	66
8.23.3.3 operator+=	66
8.23.3.4 operator+=	67
8.23.3.5 operator=	67
8.23.3.6 operator=	67
8.23.3.7 operator[]	67
8.23.3.8 operator[]	68
8.23.4 Friends And Related Function Documentation	68
8.23.4.1 operator<<	68
8.23.5 Member Data Documentation	68
8.23.5.1 m_data	68
8.24 glDb::TableMismatchedRecordLength Class Reference	68
8.24.1 Detailed Description	69
8.24.2 Constructor & Destructor Documentation	69
8.24.2.1 TableMismatchedRecordLength	69
8.25 glDb::TableNoSuchField Class Reference	70
8.25.1 Detailed Description	70
8.25.2 Constructor & Destructor Documentation	71
8.25.2.1 TableNoSuchField	71
8.26 glDb::TableNoSuchRecord Class Reference	71
8.26.1 Detailed Description	72
8.26.2 Constructor & Destructor Documentation	72
8.26.2.1 TableNoSuchRecord	72
8.27 glDb::TableRow Class Reference	72
8.27.1 Detailed Description	73
8.27.2 Constructor & Destructor Documentation	73
8.27.2.1 TableRow	73
8.27.2.2 TableRow	73
8.27.2.3 TableRow	73
8.27.2.4 ~TableRow	73
8.27.3 Member Function Documentation	73
8.27.3.1 append_field	73
8.27.3.2 append_field	73

8.27.3.3	append_field	74
8.27.3.4	operator[]	74
8.27.3.5	operator[]	74
8.27.3.6	print	74
8.27.3.7	record_string	74
8.27.3.8	record_string	75
8.27.3.9	size	75
8.27.4	Member Data Documentation	75
8.27.4.1	m_fields	75
9	File Documentation	77
9.1	lib/config/config.cpp File Reference	77
9.1.1	Detailed Description	77
9.2	lib/config/config.h File Reference	78
9.2.1	Detailed Description	79
9.3	lib/config/config_getopt.cpp File Reference	79
9.3.1	Detailed Description	79
9.3.2	Macro Definition Documentation	80
9.3.2.1	_XOPEN_SOURCE	80
9.4	lib/database/data_structures.h File Reference	80
9.4.1	Detailed Description	81
9.5	lib/database/database.h File Reference	81
9.5.1	Detailed Description	83
9.6	lib/database/dbconn.cpp File Reference	83
9.6.1	Detailed Description	83
9.7	lib/database/dbconn.h File Reference	84
9.7.1	Detailed Description	85
9.8	lib/database/dbconnimp.h File Reference	85
9.8.1	Detailed Description	87
9.9	lib/database/table.cpp File Reference	87
9.9.1	Detailed Description	87
9.10	lib/database/table.h File Reference	88
9.10.1	Detailed Description	89
9.11	lib/database/tablefield.cpp File Reference	90
9.11.1	Detailed Description	90
9.12	lib/database/tablefield.h File Reference	90
9.12.1	Detailed Description	92
9.13	lib/database/ablerow.cpp File Reference	92
9.13.1	Detailed Description	92
9.14	lib/database/ablerow.h File Reference	93

9.14.1 Detailed Description	94
9.15 lib/database_imp/database_imp.h File Reference	94
9.15.1 Detailed Description	96
9.16 lib/database_imp/dummy/dbconn_dummy_imp.cpp File Reference	96
9.16.1 Detailed Description	97
9.17 lib/database_imp/dummy/dbconn_dummy_imp.h File Reference	97
9.17.1 Detailed Description	99
9.18 lib/database_imp/mysql/dbconn_mysql_imp.cpp File Reference	99
9.18.1 Detailed Description	100
9.19 lib/database_imp/mysql/dbconn_mysql_imp.h File Reference	100
9.19.1 Detailed Description	102
9.20 lib/dbsql/dbsql_mysql.h File Reference	102
9.20.1 Detailed Description	103
9.21 lib/dbsql/dbsqlstatements.cpp File Reference	104
9.21.1 Detailed Description	104
9.22 lib/dbsql/dbsqlstatements.h File Reference	104
9.22.1 Detailed Description	106
9.23 lib/gldb/gldatabase.cpp File Reference	107
9.23.1 Detailed Description	107
9.24 lib/gldb/gldatabase.h File Reference	107
9.24.1 Detailed Description	109
9.25 lib/gldb/gldb.h File Reference	109
9.25.1 Detailed Description	110
9.26 lib/gldb/glexception.h File Reference	110
9.26.1 Detailed Description	111
9.27 lib/gldb/gluser.cpp File Reference	112
9.27.1 Detailed Description	112
9.28 lib/gldb/gluser.h File Reference	112
9.28.1 Detailed Description	113
9.29 lib/gldb/gluser_pass.cpp File Reference	114
9.29.1 Detailed Description	114
9.29.2 Macro Definition Documentation	115
9.29.2.1 _XOPEN_SOURCE	115
9.29.3 Function Documentation	115
9.29.3.1 generate_salt	115
9.30 lib/stringhelp/stringhelp.cpp File Reference	115
9.30.1 Detailed Description	115
9.31 lib/stringhelp/stringhelp.h File Reference	116
9.31.1 Detailed Description	117
9.32 progs/gl_db/gl_db_main.cpp File Reference	117

9.32.1 Detailed Description	118
9.33 progs/gl_report/gl_report_main.cpp File Reference	118
9.33.1 Detailed Description	120
9.34 progs/gl_user/gl_user_main.cpp File Reference	120
9.34.1 Detailed Description	121
9.34.2 Function Documentation	121
9.34.2.1 check_db_parameters	121
9.34.2.2 check_help_and_version	121
9.34.2.3 check_user_password	122
9.34.2.4 enable_user	122
9.34.2.5 login	122
9.34.2.6 main	122
9.34.2.7 set_configuration	122
9.34.2.8 set_user_password	123
9.34.2.9 show_user_details	123

Chapter 1

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.

Chapter 2

Todo List

File [gluser_pass.cpp](#)

Implement a better form of password encryption. In particular, these functions are not re-entrant, and only use the first 8 characters of the password.

Chapter 3

Module Index

3.1 Modules

Here is a list of all modules:

General Ledger database module.	13
Database interaction module	14
SQL statements module	16
Program configuration module	17
General purpose helpers.	18
Reporting program.	20
Database program.	22

Chapter 4

Class Index

4.1 Class Hierarchy

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

genleg::Config	25
genleg::ConfigException	31
genleg::ConfigBadConfigFile	27
genleg::ConfigBadOption	29
genleg::ConfigCouldNotOpenFile	30
genleg::ConfigOptionNotSet	32
gldb::DBConn	33
gldb::DBConnException	39
gldb::DBConnCouldNotConnect	35
gldb::DBConnCouldNotQuery	36
gldb::DBConnImp	40
gldb::DBConnDummy	37
gldb::DBConnMySQL	42
genleg::DBSQLStatements	45
genleg::DBSQLMySQL	44
genleg::GLDatabase	48
genleg::GLDBException	52
genleg::GLUser	53
gldb::Table	57
gldb::TableException	64
gldb::TableBadInputFile	61
gldb::TableCouldNotOpenInputFile	62
gldb::TableMismatchedRecordLength	68
gldb::TableNoSuchField	70
gldb::TableNoSuchRecord	71
gldb::TableField	65
gldb::TableRow	72

Chapter 5

Class Index

5.1 Class List

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

genleg::Config	Configuration options class	25
genleg::ConfigBadConfigFile	Exception class for badly formed configuration file	27
genleg::ConfigBadOption	Exception class for bad provided option	29
genleg::ConfigCouldNotOpenFile	Exception class for when conf file cannot be opened	30
genleg::ConfigException	Configuration module exception base class	31
genleg::ConfigOptionNotSet	Exception class for option not set	32
gldb::DBConn	Database connection class	33
gldb::DBConnCouldNotConnect	Could not connect to database exception class	35
gldb::DBConnCouldNotQuery	Could not execute database query exception class	36
gldb::DBConnDummy	Dummy database implementation class	37
gldb::DBConnException	Base database connection exception class	39
gldb::DBConnImp	Abstract database implementation base class	40
gldb::DBConnMySQL	MySQL database implementation class	42
genleg::DBSQLMySQL	MySQL SQL statements class	44
genleg::DBSQLStatements	SQL statements class	45
genleg::GLDatabase	General ledger database class	48
genleg::GLDBException	Base general ledger database exceptionc class	52
genleg::GLUser	General ledger user class	53
gldb::Table	Database table class	57

gldb::TableBadInputFile	
Could not connect to database exception class	61
gldb::TableCouldNotOpenInputFile	
Could not connect to database exception class	62
gldb::TableException	
Base database connection exception class	64
gldb::TableField	
Database table field class	65
gldb::TableMismatchedRecordLength	
Mismatched record length exception class	68
gldb::TableNoSuchField	
No such field exception class	70
gldb::TableNoSuchRecord	
No such record exception class	71
gldb::TableRow	
Database table row class	72

Chapter 6

File Index

6.1 File List

Here is a list of all documented files with brief descriptions:

lib/config/ config.cpp	
Implementation of program configurations class	77
lib/config/ config.h	
Interface to program configurations class	78
lib/config/ config_getopt.cpp	
Implementation of command line functionality	79
lib/database/ data_structures.h	
Main interface to database data structures	80
lib/database/ database.h	
User interface to database functionality	81
lib/database/ dbconn.cpp	
Implementation of database connection class	83
lib/database/ dbconn.h	
Interface to database connection base class	84
lib/database/ dbconnimp.h	
Interface to abstract database implementation base class	85
lib/database/ table.cpp	
Implementation of database table data structure	87
lib/database/ table.h	
Interface to database table data structure	88
lib/database/ tablefield.cpp	
Implementation of database table field class	90
lib/database/ tablefield.h	
Interface to database table field class	90
lib/database/ tablerow.cpp	
Implementation of database table row data structure	92
lib/database/ tablerow.h	
Interface to database table row data structure	93
lib/database_imp/ database_imp.h	
Interface to database implementation factory function	94
lib/database_imp/dummy/ dbconn_dummy_imp.cpp	
Implementation of Dummy database connection implementation class	96
lib/database_imp/dummy/ dbconn_dummy_imp.h	
Interface to dummy database connection implementation class	97
lib/database_imp/mysql/ dbconn_mysql_imp.cpp	
Implementation of MySQL database connection implementation class	99
lib/database_imp/mysql/ dbconn_mysql_imp.h	
Interface to MySQL database connection implementation class	100

lib/dbsql/ dbsql.h	??
lib/dbsql/ dbsql_functions.h	??
lib/dbsql/ dbsql_implementations.h	??
lib/dbsql/ dbsql_mysql.h	
Interface to MySQL SQL statement class	102
lib/dbsql/ dbsqlstatements.cpp	
Implementation of SQL statement class	104
lib/dbsql/ dbsqlstatements.h	
Interface to SQL statement class	104
lib/gldb/ gldatabase.cpp	
Implementation of General Ledger database class	107
lib/gldb/ gldatabase.h	
Interface to General Ledger database class	107
lib/gldb/ gldb.h	
User interface to General Ledger database module	109
lib/gldb/ glexception.h	
Interface to General Ledger base exception class	110
lib/gldb/ gluser.cpp	
Implementation of user class	112
lib/gldb/ gluser.h	
Interface to user class	112
lib/gldb/ gluser_pass.cpp	
Implementation of password functions for user class	114
lib/stringhelp/ stringhelp.cpp	
Implementation of string helper functions	115
lib/stringhelp/ stringhelp.h	
Interface to string helper functions	116
progs/gl_db/ gl_db_main.cpp	
Main functionality for gl_db program	117
progs/gl_report/ gl_report_main.cpp	
Main functionality for gl_report program	118
progs/gl_user/ gl_user_main.cpp	
Main functionality for gl_user program	120

Chapter 7

Module Documentation

7.1 General Ledger database module.

Classes

- class [genleg::GLDatabase](#)
General ledger database class.
- class [genleg::GLDBException](#)
Base general ledger database exceptionc class.
- class [genleg::GLUser](#)
General ledger user class.

7.1.1 Detailed Description

Module for interacting with the general ledger database model.

7.2 Database interaction module

Classes

- class [gldb::DBConnException](#)
Base database connection exception class.
- class [gldb::DBConnCouldNotConnect](#)
Could not connect to database exception class.
- class [gldb::DBConnCouldNotQuery](#)
Could not execute database query exception class.
- class [gldb::DBConn](#)
Database connection class.
- class [gldb::DBConnImp](#)
Abstract database implementation base class.
- class [gldb::TableException](#)
Base database connection exception class.
- class [gldb::TableNoSuchField](#)
No such field exception class.
- class [gldb::TableNoSuchRecord](#)
No such record exception class.
- class [gldb::TableMismatchedRecordLength](#)
Mismatched record length exception class.
- class [gldb::TableBadInputFile](#)
Could not connect to database exception class.
- class [gldb::TableCouldNotOpenInputFile](#)
Could not connect to database exception class.
- class [gldb::Table](#)
Database table class.
- class [gldb::TableField](#)
Database table field class.
- class [gldb::TableRow](#)
Database table row class.
- class [gldb::DBConnDummy](#)
Dummy database implementation class.
- class [gldb::DBConnMySQL](#)
MySQL database implementation class.

Functions

- [DBConnImp *](#) [gldb::get_connection](#) (const std::string database, const std::string hostname, const std::string username, const std::string password)
Creates and returns a pointer to a database implementation.
- std::string [gldb::get_database_type](#) ()
Returns the name of the compiled-in database type.

7.2.1 Detailed Description

Module for interacting with the database.

7.2.2 Function Documentation

7.2.2.1 DBConnImp * gldb::get_connection (const std::string *database*, const std::string *hostname*, const std::string *username*, const std::string *password*)

Creates and returns a pointer to a database implementation.

The implementation of this function is provided by the individual database implementations. One database implementation is compiled into the program at any one time. Multiple database systems are, or will be, supported, and not every system will possess the libraries and headers to compile every implementation. Therefore, only one implementation is compiled in at a time. The fact that each database implementation will implement this function to return the correct derived class prevents any attempt to compile unsupported library code. This would not be feasible if we were to simply provide each implementation as a subclass.

Parameters

<i>database</i>	The name of the database to which to connect.
<i>hostname</i>	The hostname of the computer running the database.
<i>username</i>	The username with which to log into the database.
<i>password</i>	The password with which to log into the database.

Returns

A pointer to the database implementation.

7.2.2.2 std::string gldb::get_database_type ()

Returns the name of the compiled-in database type.

Returns

The name of the compiled-in database type.

7.3 SQL statements module

Classes

- class [genleg::DBSQLMySQL](#)
MySQL SQL statements class.
- class [genleg::DBSQLStatements](#)
SQL statements class.

7.3.1 Detailed Description

Module for producing SQL statements used by program.

7.4 Program configuration module

Classes

- class [genleg::ConfigException](#)
Configuration module exception base class.
- class [genleg::ConfigOptionNotSet](#)
Exception class for option not set.
- class [genleg::ConfigBadOption](#)
Exception class for bad provided option.
- class [genleg::ConfigCouldNotOpenFile](#)
Exception class for when conf file cannot be opened.
- class [genleg::ConfigBadConfigFile](#)
Exception class for badly formed configuration file.
- class [genleg::Config](#)
Configuration options class.

Enumerations

- enum [genleg::Argument](#)
Enumeration class for option argument specifications.

7.4.1 Detailed Description

Module for getting options from the command line and configuration files.

7.5 General purpose helpers.

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.
- `std::vector< std::string > & pgstring::split (std::vector< std::string > &vec, const std::string &s, const char delim)`
Splits a delimited string into tokens.

7.5.1 Detailed Description

General purpose helper classes and functions.

7.5.2 Function Documentation

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

Splits a delimited string into tokens.

Parameters

<code>s</code>	The string to split.
<code>delim</code>	The delimiter character on which to split.

Returns

A vector of tokens.

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

Splits a delimited string into tokens.

Parameters

<code>vec</code>	The vector into which to add the tokens.
<code>s</code>	The string to split.
<code>delim</code>	The delimiter character on which to split.

Returns

A reference to `vec`.

7.5.2.3 `std::string & pgstring::trim (std::string & s)`

Trims leading and trailing whitespace from a string.

Parameters

<code>s</code>	The string to trim.
----------------	---------------------

Returns

The trimmed string.

7.5.2.4 `std::string & pgstring::trim_back (std::string & s)`

Trims trailing whitespace from a string.

Parameters

<code>s</code>	The string to trim.
----------------	---------------------

Returns

The trimmed string.

7.5.2.5 `std::string & pgstring::trim_front (std::string & s)`

Trims leading whitespace from a string.

Parameters

<code>s</code>	The string to trim.
----------------	---------------------

Returns

The trimmed string.

7.6 Reporting program.

Functions

- static void `set_configuration` (`genleg::Config` &config, int argc, char *argv[])
Sets program configuration options.
- static void `print_usage_message` ()
Prints a program usage message.
- static void `print_version_message` ()
Prints a program version message.
- static void `print_help_message` ()
Prints a program help message.
- static std::string `login` (void)
Gets a password from the terminal.
- int `main` (int argc, char *argv[])
Main function.

Variables

- static const char * `progrname` = "gl_report"
Static variable for program name.

7.6.1 Detailed Description

Administrative reporting program.

7.6.2 Function Documentation

7.6.2.1 static std::string login (void) [static]

Gets a password from the terminal.

Returns

The password.

7.6.2.2 int main (int argc, char * argv[])

Main function.

Parameters

<code>argc</code>	Number of command line arguments.
<code>argv</code>	Command line arguments.

Returns

Exit status code.

7.6.2.3 `static void set_configuration (genleg::Config & config, int argc, char * argv[])` [static]

Sets program configuration options.

Parameters

<i>config</i>	Reference to a Config object.
<i>argc</i>	argc passed to <code>main()</code> .
<i>argv</i>	argv passed to <code>main()</code> .

7.7 Database program.

Functions

- static void `set_configuration` (`Config` &config, int argc, char *argv[])
Sets program configuration options.
- static bool `check_help_and_version` (const `Config` &config)
Prints help or version messages if requested.
- static bool `check_db_parameters` (const `Config` &config)
Checks if database, hostname and username were provided.
- static void `print_usage_message` ()
Prints a program usage message.
- static void `print_version_message` ()
Prints a program version message.
- static void `print_help_message` ()
Prints a program help message.
- static std::string `login` (void)
Gets a password from the terminal.
- int `main` (int argc, char *argv[])
Main function.

Variables

- static const char * `progrname` = "gl_db"
Static variable for program name.

7.7.1 Detailed Description

Administrative database management program.

7.7.2 Function Documentation

7.7.2.1 static bool `check_db_parameters` (const `Config` & *config*) [static]

Checks if database, hostname and username were provided.

Parameters

<i>config</i>	Reference to a Config object.
---------------	-------------------------------

Returns

`true` if the information was provided, `false` otherwise.

7.7.2.2 static bool `check_help_and_version` (const `Config` & *config*) [static]

Prints help or version messages if requested.

Parameters

<i>config</i>	Reference to a Config object.
---------------	-------------------------------

Returns

`true` if the help or version message was requested, `false` otherwise.

7.7.2.3 static std::string login (void) [static]

Gets a password from the terminal.

Returns

The password.

7.7.2.4 int main (int argc, char * argv[])

Main function.

Parameters

<i>argc</i>	Number of command line arguments.
<i>argv</i>	Command line arguments.

Returns

Exit status code.

7.7.2.5 static void set_configuration (Config & config, int argc, char * argv[]) [static]

Sets program configuration options.

Parameters

<i>config</i>	Reference to a Config object.
<i>argc</i>	<code>argc</code> passed to <code>main()</code> .
<i>argv</i>	<code>argv</code> passed to <code>main()</code> .

Chapter 8

Class Documentation

8.1 genleg::Config Class Reference

Configuration options class.

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

Public Member Functions

- [Config](#) ()
- [~Config](#) ()
- void [add_cmdline_option](#) (const std::string option, const enum [Argument](#) arg)
Adds a supported command line option.
- void [populate_from_cmdline](#) (const int argc, char *const *argv)
Populates options from the command line.
- void [populate_from_file](#) (const std::string filename)
Populates options from a configuration file.
- bool [is_set](#) (const std::string option) const
Checks if an option is set.
- const std::string & [operator\[\]](#) (const std::string &option) const
operator[] overload.

Private Attributes

- std::map< std::string, std::string > [m_opts_set](#)
- std::list< std::pair< std::string, enum [Argument](#) > > [m_opts_supp](#)

8.1.1 Detailed Description

Configuration options class.

8.1.2 Constructor & Destructor Documentation

8.1.2.1 Config::Config ()

Constructor

8.1.2.2 Config::~Config ()

Destructor

8.1.3 Member Function Documentation

8.1.3.1 void Config::add_cmdline_option (const std::string *option*, const enum Argument *arg*)

Adds a supported command line option.

Parameters

<i>option</i>	The name of the option.
<i>arg</i>	The argument specification for the option.

8.1.3.2 bool Config::is_set (const std::string *option*) const

Checks is an option is set.

Parameters

<i>option</i>	The name of the option to check.
---------------	----------------------------------

Returns

`true` if the option has been set, `false` if it has not.

8.1.3.3 const std::string & Config::operator[] (const std::string & *option*) const

operator[] overload.

Retrieves the value of a set option.

Parameters

<i>option</i>	The name of the option.
---------------	-------------------------

Returns

The value of the option.

Exceptions

<i>ConfigOptionNotSet</i>	If the named option has not been set.
---	---------------------------------------

8.1.3.4 void Config::populate_from_cmdline (const int *argc*, char *const * *argv*)

Populates options from the command line.

Parameters

<i>argc</i>	<i>argc</i> supplied to <code>main()</code> .
<i>argv</i>	<i>argv</i> supplied to <code>main()</code> .

Exceptions

<i>ConfigBadOption</i>	If an unsupported option is specified, or if a required argument is missing, or if an unexpected argument is found.
--	---

8.1.3.5 void Config::populate_from_file (const std::string filename)

Populates options from a configuration file.

Parameters

<i>filename</i>	The name of the configuration file.
-----------------	-------------------------------------

Exceptions

<i>ConfigCouldNotOpenFile</i>	If the configuration file cannot be opened.
<i>ConfigBadConfigFile</i>	If the configuration file is badly formed.

8.1.4 Member Data Documentation

8.1.4.1 std::map<std::string, std::string> genleg::Config::m_opts_set [private]

Map of options which have been set

8.1.4.2 std::list<std::pair<std::string, enum Argument> > genleg::Config::m_opts_supp [private]

List of options which are supported

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

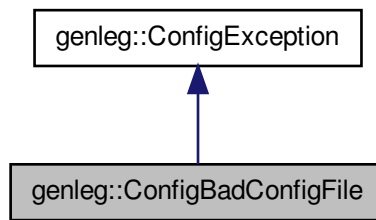
- lib/config/[config.h](#)
- lib/config/[config.cpp](#)
- lib/config/[config_getopt.cpp](#)

8.2 genleg::ConfigBadConfigFile Class Reference

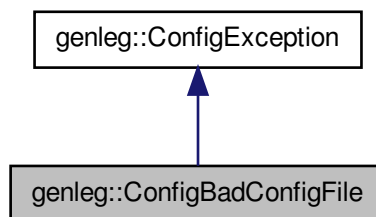
Exception class for badly formed configuration file.

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

Inheritance diagram for `genleg::ConfigBadConfigFile`:



Collaboration diagram for `genleg::ConfigBadConfigFile`:



Public Member Functions

- [ConfigBadConfigFile](#) (const std::string &msg)
Constructor.

8.2.1 Detailed Description

Exception class for badly formed configuration file.

8.2.2 Constructor & Destructor Documentation

8.2.2.1 `genleg::ConfigBadConfigFile::ConfigBadConfigFile (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

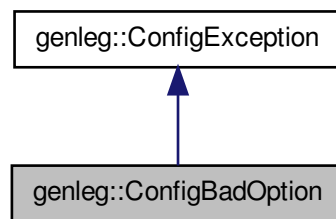
- [lib/config/config.h](#)

8.3 genleg::ConfigBadOption Class Reference

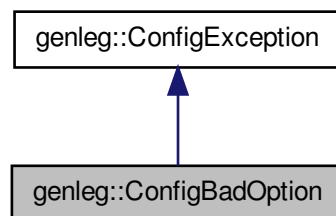
Exception class for bad provided option.

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

Inheritance diagram for genleg::ConfigBadOption:



Collaboration diagram for genleg::ConfigBadOption:



Public Member Functions

- [ConfigBadOption](#) (const std::string &msg)
Constructor.

8.3.1 Detailed Description

Exception class for bad provided option.

8.3.2 Constructor & Destructor Documentation

8.3.2.1 `genleg::ConfigBadOption::ConfigBadOption (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

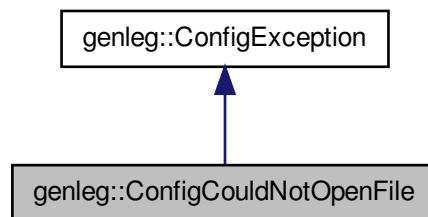
- [lib/config/config.h](#)

8.4 `genleg::ConfigCouldNotOpenFile` Class Reference

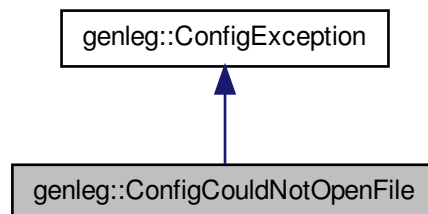
Exception class for when conf file cannot be opened.

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

Inheritance diagram for `genleg::ConfigCouldNotOpenFile`:



Collaboration diagram for `genleg::ConfigCouldNotOpenFile`:



Public Member Functions

- [ConfigCouldNotOpenFile](#) (const std::string &msg)
Constructor.

8.4.1 Detailed Description

Exception class for when conf file cannot be opened.

8.4.2 Constructor & Destructor Documentation

8.4.2.1 `genleg::ConfigCouldNotOpenFile::ConfigCouldNotOpenFile (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

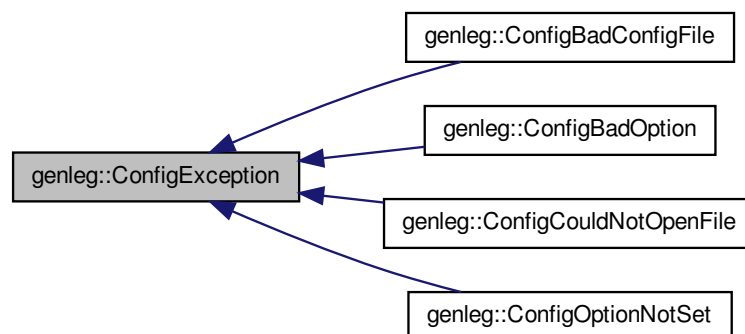
- [lib/config/config.h](#)

8.5 genleg::ConfigException Class Reference

Configuration module exception base class.

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

Inheritance diagram for genleg::ConfigException:



Public Member Functions

- [ConfigException](#) (const std::string &msg)
Constructor.

8.5.1 Detailed Description

Configuration module exception base class.

8.5.2 Constructor & Destructor Documentation

8.5.2.1 `genleg::ConfigException::ConfigException (const std::string & msg) [inline],[explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

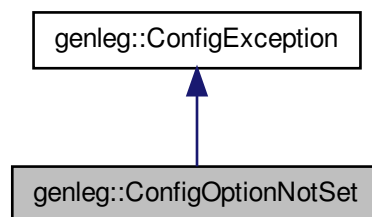
- `lib/config/config.h`

8.6 `genleg::ConfigOptionNotSet` Class Reference

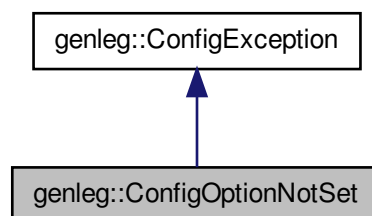
Exception class for option not set.

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

Inheritance diagram for `genleg::ConfigOptionNotSet`:



Collaboration diagram for `genleg::ConfigOptionNotSet`:



Public Member Functions

- [`ConfigOptionNotSet`](#) (const std::string &msg)

Constructor.

8.6.1 Detailed Description

Exception class for option not set.

8.6.2 Constructor & Destructor Documentation

8.6.2.1 genleg::ConfigOptionNotSet::ConfigOptionNotSet (const std::string & msg) [inline],[explicit]

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

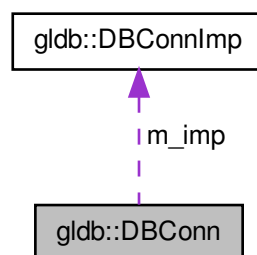
- lib/config/[config.h](#)

8.7 glldb::DBConn Class Reference

Database connection class.

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

Collaboration diagram for glldb::DBConn:



Public Member Functions

- [DBConn](#) ([DBConnImp](#) *imp)
Constructor.
- [~DBConn](#) ()
Destructor..
- void [query](#) (std::string sql_query)
Runs an SQL query.
- [Table select](#) (std::string [query](#))

Runs an SQL SELECT query.

- [DBConn](#) (const [DBConn](#) &)
- [DBConn](#) & `operator=` (const [DBConn](#) &)

Private Attributes

- [DBConnImp](#) * `m_imp`

8.7.1 Detailed Description

Database connection class.

8.7.2 Constructor & Destructor Documentation

8.7.2.1 `DBConn::DBConn (DBConnImp * imp)` `[explicit]`

Constructor.

Parameters

<code>imp</code>	Pointer to database implementation object.
------------------	--

8.7.2.2 `gldb::DBConn::DBConn (const DBConn &)`

Deleted copy constructor

8.7.3 Member Function Documentation

8.7.3.1 `DBConn& gldb::DBConn::operator= (const DBConn &)`

Deleted assignment operator

8.7.3.2 `void DBConn::query (std::string sql_query)`

Runs an SQL query.

Parameters

<code>sql_query</code>	The query.
------------------------	------------

Returns

A [Table](#) object containing the results.

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

Runs an SQL SELECT query.

Parameters

<code>query</code>	The query.
--------------------	------------

Returns

A [Table](#) object containing the results.

8.7.4 Member Data Documentation

8.7.4.1 DBConnImp* glldb::DBConn::m_imp [private]

Pointer to database implementation object.

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

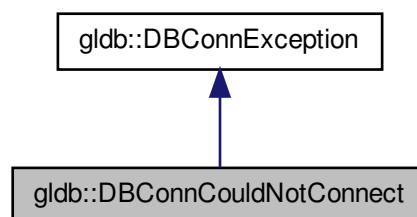
- [lib/database/dbconn.h](#)
- [lib/database/dbconn.cpp](#)

8.8 glldb::DBConnCouldNotConnect Class Reference

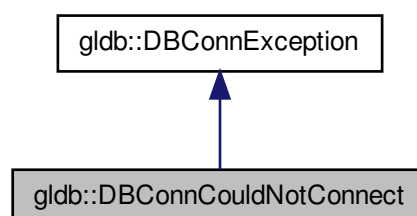
Could not connect to database exception class.

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

Inheritance diagram for glldb::DBConnCouldNotConnect:



Collaboration diagram for glldb::DBConnCouldNotConnect:



Public Member Functions

- [DBConnCouldNotConnect](#) (const std::string &msg)
Constructor.

8.8.1 Detailed Description

Could not connect to database exception class.

8.8.2 Constructor & Destructor Documentation

8.8.2.1 `gldb::DBConnCouldNotConnect::DBConnCouldNotConnect (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

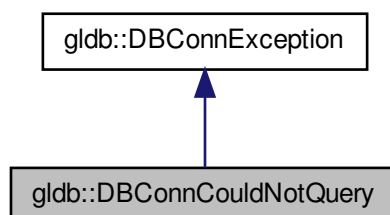
- lib/database/[dbconn.h](#)

8.9 gldb::DBConnCouldNotQuery Class Reference

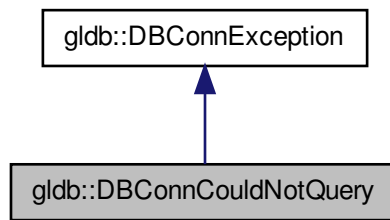
Could not execute database query exception class.

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

Inheritance diagram for gldb::DBConnCouldNotQuery:



Collaboration diagram for glldb::DBConnCouldNotQuery:



Public Member Functions

- [DBConnCouldNotQuery](#) (const std::string &msg)
Constructor.

8.9.1 Detailed Description

Could not execute database query exception class.

8.9.2 Constructor & Destructor Documentation

8.9.2.1 `glldb::DBConnCouldNotQuery::DBConnCouldNotQuery (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

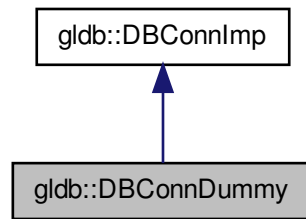
- lib/database/[dbconn.h](#)

8.10 glldb::DBConnDummy Class Reference

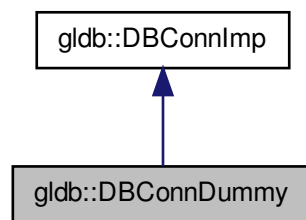
Dummy database implementation class.

```
#include <dbconn_dummy_imp.h>
```

Inheritance diagram for `gldb::DBConnDummy`:



Collaboration diagram for `gldb::DBConnDummy`:



Public Member Functions

- [DBConnDummy](#) (const std::string database, const std::string hostname, const std::string username, const std::string password)
Constructor.
- [DBConnDummy](#) (const [DBConnDummy](#) &)
- virtual [~DBConnDummy](#) ()
- [DBConnDummy](#) & [operator=](#) (const [DBConnDummy](#) &)
- [Table select](#) (std::string query)
Fakes running of an SQL SELECT query.

8.10.1 Detailed Description

Dummy database implementation class.

8.10.2 Constructor & Destructor Documentation

- 8.10.2.1 `DBConnDummy::DBConnDummy (const std::string database, const std::string hostname, const std::string username, const std::string password)`

Constructor.

Parameters

<i>database</i>	The name of the Dummy database.
<i>hostname</i>	The hostname of the server.
<i>username</i>	The username to log into the database.
<i>password</i>	The password to log into the database.

8.10.2.2 gldb::DBConnDummy::DBConnDummy (const DBConnDummy &)

Deleted copy constructor

8.10.2.3 DBConnDummy::~~DBConnDummy () [virtual]

Destructor

8.10.3 Member Function Documentation

8.10.3.1 DBConnDummy& gldb::DBConnDummy::operator= (const DBConnDummy &)

Deleted assignment operator

8.10.3.2 Table DBConnDummy::select (std::string query) [virtual]

Fakes running of an SQL SELECT query.

Parameters

<i>query</i>	Any query.
--------------	------------

Returns

A [Table](#) object containing dummy results.

Implements [gldb::DBConnImp](#).

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

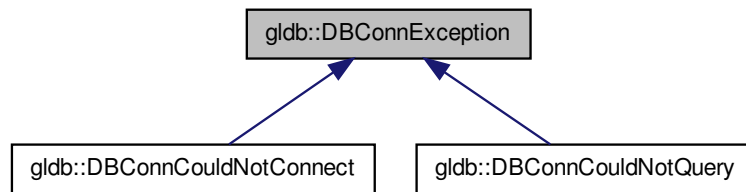
- lib/database_imp/dummy/dbconn_dummy_imp.h
- lib/database_imp/dummy/dbconn_dummy_imp.cpp

8.11 gldb::DBConnException Class Reference

Base database connection exception class.

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

Inheritance diagram for `gldb::DBConnException`:



Public Member Functions

- [DBConnException](#) (const std::string &msg)
Constructor.

8.11.1 Detailed Description

Base database connection exception class.

8.11.2 Constructor & Destructor Documentation

8.11.2.1 `gldb::DBConnException::DBConnException (const std::string & msg)` `[inline]`, `[explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

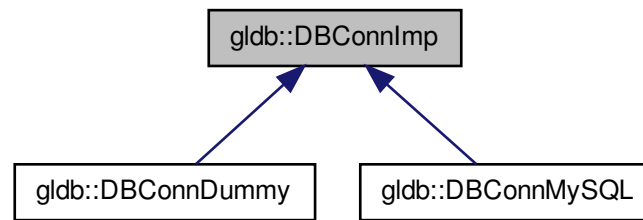
- `lib/database/dbconn.h`

8.12 `gldb::DBConnImp` Class Reference

Abstract database implementation base class.

```
#include <dbconnimp.h>
```

Inheritance diagram for glldb::DBConnImp:



Public Member Functions

- [DBConnImp](#) ()
- virtual [~DBConnImp](#) ()
- virtual void [query](#) (std::string sql_query)=0
Runs an SQL query.
- virtual [Table select](#) (std::string query)=0
Runs an SQL SELECT query.

8.12.1 Detailed Description

Abstract database implementation base class.

8.12.2 Constructor & Destructor Documentation

8.12.2.1 `glldb::DBConnImp::DBConnImp () [inline]`

Constructor

8.12.2.2 `virtual glldb::DBConnImp::~~DBConnImp () [inline],[virtual]`

Destructor

8.12.3 Member Function Documentation

8.12.3.1 `virtual void glldb::DBConnImp::query (std::string sql_query) [pure virtual]`

Runs an SQL query.

Parameters

<i>sql_query</i>	The query.
------------------	------------

Implemented in [glldb::DBConnMySQL](#).

8.12.3.2 virtual Table glldb::DBConnImp::select (std::string *query*) [pure virtual]

Runs an SQL SELECT query.

Parameters

<i>query</i>	The query.
--------------	------------

Returns

A [Table](#) object containing the results.

Implemented in [glldb::DBConnMySQL](#), and [glldb::DBConnDummy](#).

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

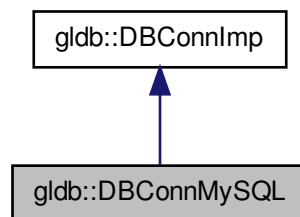
- lib/database/[dbconnimp.h](#)

8.13 glldb::DBConnMySQL Class Reference

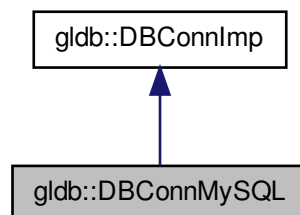
MySQL database implementation class.

```
#include <dbconn_mysql_imp.h>
```

Inheritance diagram for glldb::DBConnMySQL:



Collaboration diagram for glldb::DBConnMySQL:



Public Member Functions

- [DBConnMySQL](#) (const std::string database, const std::string hostname, const std::string username, const std::string password)
Constructor.
- [DBConnMySQL](#) (const [DBConnMySQL](#) &)
- virtual [~DBConnMySQL](#) ()
- [DBConnMySQL](#) & [operator=](#) (const [DBConnMySQL](#) &)
- virtual void [query](#) (std::string sql_query)
Runs an SQL query.
- virtual [Table select](#) (std::string query)
Runs an SQL SELECT query.

Private Attributes

- MySQL * [m_conn](#)

8.13.1 Detailed Description

MySQL database implementation class.

8.13.2 Constructor & Destructor Documentation

- 8.13.2.1 [DBConnMySQL::DBConnMySQL](#) (const std::string *database*, const std::string *hostname*, const std::string *username*, const std::string *password*)

Constructor.

Parameters

<i>database</i>	The name of the MySQL database.
<i>hostname</i>	The hostname of the server.
<i>username</i>	The username to log into the database.
<i>password</i>	The password to log into the database.

Exceptions

DBConnCouldNotConnect	If could not connect to database.
---------------------------------------	-----------------------------------

- 8.13.2.2 [gldb::DBConnMySQL::DBConnMySQL](#) (const [DBConnMySQL](#) &)

Deleted copy constructor

- 8.13.2.3 [DBConnMySQL::~~DBConnMySQL](#) () [virtual]

Destructor

8.13.3 Member Function Documentation

8.13.3.1 DBConnMySQL& glldb::DBConnMySQL::operator= (const DBConnMySQL &)

Deleted assignment operator

8.13.3.2 void DBConnMySQL::query (std::string *sql_query*) [virtual]

Runs an SQL query.

Parameters

<i>sql_query</i>	The query.
------------------	------------

Exceptions

DBConnCouldNotQuery	If could not successfully execute query.
-------------------------------------	--

Implements [glldb::DBConnImp](#).

8.13.3.3 Table DBConnMySQL::select (std::string *query*) [virtual]

Runs an SQL SELECT query.

Parameters

<i>query</i>	The query.
--------------	------------

Returns

A [Table](#) object containing the results.

Exceptions

DBConnCouldNotQuery	If could not successfully execute query.
-------------------------------------	--

Implements [glldb::DBConnImp](#).

8.13.4 Member Data Documentation

8.13.4.1 MYSQL* glldb::DBConnMySQL::m_conn [private]

The initialized MySQL handle.

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

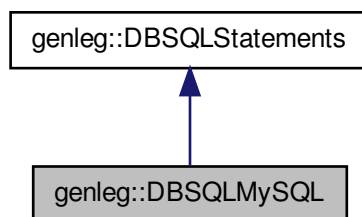
- lib/database_imp/mysql/[dbconn_mysql_imp.h](#)
- lib/database_imp/mysql/[dbconn_mysql_imp.cpp](#)

8.14 genleg::DBSQLMySQL Class Reference

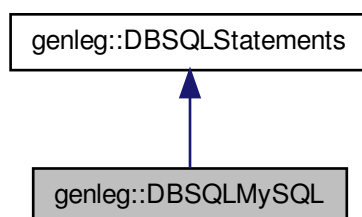
MySQL SQL statements class.

```
#include <dbsql_mysql.h>
```


Inheritance diagram for genleg::DBSQLMySQL:



Collaboration diagram for genleg::DBSQLMySQL:



Additional Inherited Members

8.14.1 Detailed Description

MySQL SQL statements class.

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

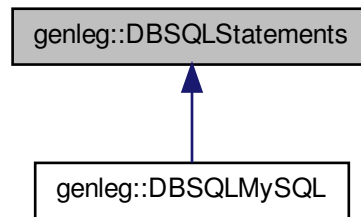
- lib/dbsql/[dbsql_mysql.h](#)

8.15 genleg::DBSQLStatements Class Reference

SQL statements class.

```
#include <dbsqlstatements.h>
```

Inheritance diagram for `genleg::DBSQLStatements`:



Public Member Functions

- [DBSQLStatements](#) ()
- virtual [~DBSQLStatements](#) ()
- virtual `std::string` [create_table](#) (const `std::string` table_name) const
Returns a SQL statement for creating a table.
- virtual `std::string` [drop_table](#) (const `std::string` table_name) const
Returns a SQL statement for dropping a table.
- virtual `std::string` [create_view](#) (const `std::string` view_name) const
Returns a SQL statement for creating a view.
- virtual `std::string` [drop_view](#) (const `std::string` view_name) const
Returns a SQL statement for dropping a view.
- virtual `std::string` [user_by_id](#) (const `std::string` user_id) const
Returns a SQL statement to select a user by ID.
- virtual `std::string` [user_by_username](#) (const `std::string` user_name) const
Returns a SQL statement to select a user by username.
- virtual `std::string` [update_user](#) (const [GLUser](#) &user) const
Returns a SQL UPDATE statement to update a user.

8.15.1 Detailed Description

SQL statements class.

8.15.2 Constructor & Destructor Documentation

8.15.2.1 DBSQLStatements::DBSQLStatements ()

Constructor

8.15.2.2 DBSQLStatements::~~DBSQLStatements () [virtual]

Destructor

8.15.3 Member Function Documentation

8.15.3.1 `std::string DBSQLStatements::create_table (const std::string table_name) const` [virtual]

Returns a SQL statement for creating a table.

Parameters

<i>table_name</i>	The table to create.
-------------------	----------------------

Returns

The SQL statement to create the table.

8.15.3.2 `std::string DBSQLStatements::create_view (const std::string view_name) const` [virtual]

Returns a SQL statement for creating a view.

Parameters

<i>view_name</i>	The view to create.
------------------	---------------------

Returns

The SQL statement to create the view.

8.15.3.3 `std::string DBSQLStatements::drop_table (const std::string table_name) const` [virtual]

Returns a SQL statement for dropping a table.

Parameters

<i>table_name</i>	The table to drop.
-------------------	--------------------

Returns

The SQL statement to drop the table.

8.15.3.4 `std::string DBSQLStatements::drop_view (const std::string view_name) const` [virtual]

Returns a SQL statement for dropping a view.

Parameters

<i>view_name</i>	The view to drop.
------------------	-------------------

Returns

The SQL statement to drop the view.

8.15.3.5 `std::string DBSQLStatements::update_user (const GLUser & user) const` [virtual]

Returns a SQL UPDATE statement to update a user.

Parameters

<i>user</i>	A user object.
-------------	----------------

Returns

The SQL statement.

8.15.3.6 `std::string DBSQLStatements::user_by_id (const std::string user_id) const` `[virtual]`

Returns a SQL statement to select a user by ID.

Parameters

<i>user_id</i>	The user_id
----------------	-------------

Returns

The SQL statement.

8.15.3.7 `std::string DBSQLStatements::user_by_username (const std::string user_name) const` `[virtual]`

Returns a SQL statement to select a user by username.

Parameters

<i>user_name</i>	The username.
------------------	---------------

Returns

The SQL statement.

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

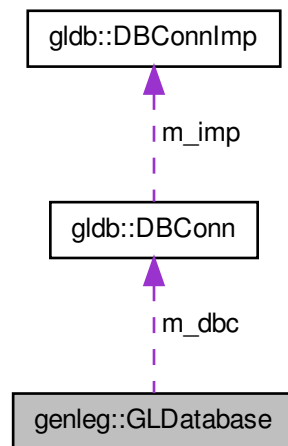
- lib/dbsql/[dbsqlstatements.h](#)
- lib/dbsql/[dbsqlstatements.cpp](#)

8.16 genleg::GLDatabase Class Reference

General ledger database class.

```
#include <gldatabase.h>
```

Collaboration diagram for genleg::GLDatabase:



Public Member Functions

- [GLDatabase](#) (const std::string database, const std::string hostname, const std::string username, const std::string password)
Constructor.
- [~GLDatabase](#) ()
- void [create_structure](#) ()
Creates the database structure.
- void [destroy_structure](#) ()
Destroys the database structure.
- void [load_sample_data](#) (const std::string &dir)
Loads sample data into the database.
- [GLUser get_user_by_id](#) (const std::string &user_id)
Returns a user from an ID.
- [GLUser get_user_by_username](#) (const std::string &user_name)
Returns a user from a user name.
- void [update_user](#) (const [GLUser](#) &user)
Updates a user's details.

Static Public Member Functions

- static std::string [backend](#) ()
Returns the backend database implementation.

Private Attributes

- [glldb::DBConn m_dbc](#)
- std::shared_ptr< [DBSQLStatements](#) > [m_sql](#)
- const std::vector< std::string > [m_tables](#)
- const std::vector< std::string > [m_views](#)

8.16.1 Detailed Description

General ledger database class.

8.16.2 Constructor & Destructor Documentation

8.16.2.1 GLDatabase::GLDatabase (const std::string *database*, const std::string *hostname*, const std::string *username*, const std::string *password*)

Constructor.

Parameters

<i>database</i>	Database name.
<i>hostname</i>	Hostname of database machine.
<i>username</i>	Username to log into database.
<i>password</i>	Password to log into database.

Exceptions

GLDBException	on error.
-------------------------------	-----------

8.16.2.2 GLDatabase::~~GLDatabase ()

Destructor

8.16.3 Member Function Documentation

8.16.3.1 std::string GLDatabase::backend () [static]

Returns the backend database implementation.

This may be called to discover which database platform support has been compiled into the application.

Returns

A string containing the database platform name.

8.16.3.2 void GLDatabase::create_structure ()

Creates the database structure.

Exceptions

GLDBException	on error.
-------------------------------	-----------

8.16.3.3 void GLDatabase::destroy_structure ()

Destroys the database structure.

Exceptions

GLDBException	on error.
-------------------------------	-----------

8.16.3.4 GLUser GLDatabase::get_user_by_id (const std::string & *user_id*)

Returns a user from an ID.

Parameters

<i>user_id</i>	The user ID.
----------------	--------------

Returns

The user.

Exceptions

<i>GLDBException</i>	if the user cannot be found.
--------------------------------------	------------------------------

8.16.3.5 GLUser GLDatabase::get_user_by_username (const std::string & *user_name*)

Returns a user from a user name.

Parameters

<i>user_name</i>	The user name.
------------------	----------------

Returns

The user.

Exceptions

<i>GLDBException</i>	if the user cannot be found.
--------------------------------------	------------------------------

8.16.3.6 void GLDatabase::load_sample_data (const std::string & *dir*)

Loads sample data into the database.

Parameters

<i>dir</i>	The directory containing the sample data. Individual files in that directory should be named after the table they are intended to populate.
------------	---

Exceptions

<i>GLDBException</i>	on error.
--------------------------------------	-----------

8.16.3.7 void GLDatabase::update_user (const GLUser & *user*)

Updates a user's details.

Parameters

<i>user</i>	The user object.
-------------	------------------

8.16.4 Member Data Documentation

8.16.4.1 `gldb::DBConn` `genleg::GLDatabase::m_dbc` [private]

Database connection

8.16.4.2 `std::shared_ptr<DBSQLStatements>` `genleg::GLDatabase::m_sql` [private]

SQL statements object

8.16.4.3 `const std::vector<std::string>` `genleg::GLDatabase::m_tables` [private]

Vector containing database table names

8.16.4.4 `const std::vector<std::string>` `genleg::GLDatabase::m_views` [private]

Vector containing database view names

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

- [lib/gldb/gldatabase.h](#)
- [lib/gldb/gldatabase.cpp](#)

8.17 `genleg::GLDBException` Class Reference

Base general ledger database exceptionc class.

```
#include <glexception.h>
```

Public Member Functions

- [GLDBException](#) (const std::string &msg)
Constructor.

8.17.1 Detailed Description

Base general ledger database exceptionc class.

8.17.2 Constructor & Destructor Documentation

8.17.2.1 `genleg::GLDBException::GLDBException (const std::string & msg)` [inline], [explicit]

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

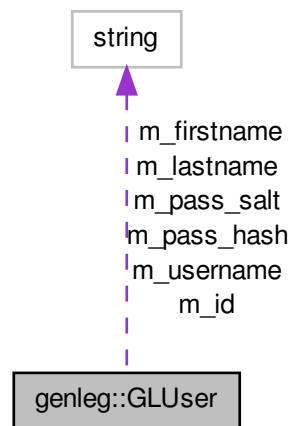
- [lib/gldb/glexception.h](#)

8.18 genleg::GLUser Class Reference

General ledger user class.

```
#include <gluser.h>
```

Collaboration diagram for genleg::GLUser:



Public Member Functions

- [GLUser](#) (const std::string [id](#), const std::string [username](#), const std::string [firstname](#), const std::string [lastname](#), const std::string [pass_hash](#), const std::string [pass_salt](#), const bool [enabled](#))
Constructor.
- [~GLUser](#) ()
- std::string [id](#) () const
Returns the user ID.
- std::string [username](#) () const
Returns the username.
- std::string [firstname](#) () const
Returns the user's first name.
- std::string [lastname](#) () const
Returns the user's last name.
- std::string [pass_hash](#) () const
Returns the user's hashed password.
- std::string [pass_salt](#) () const
Returns the user's password salt.
- bool [enabled](#) () const
Returns the user's enabled status.
- void [set_username](#) (const std::string &new_username)
Sets a user's username.
- void [set_firstname](#) (const std::string &new_firstname)
Sets a user's first name.
- void [set_lastname](#) (const std::string &new_lastname)

Sets a user's last name.

- void `set_enabled` (const bool new_enabled)

Sets a user's enabled status.

- void `set_password` (const std::string &new_pass)

Sets a user's password hash and salt.

- bool `check_password` (const std::string &check_pass)

Checks a password against the user's hash.

Private Attributes

- std::string `m_id`
- std::string `m_username`
- std::string `m_firstname`
- std::string `m_lastname`
- bool `m_enabled`
- std::string `m_pass_hash`
- std::string `m_pass_salt`

8.18.1 Detailed Description

General ledger user class.

8.18.2 Constructor & Destructor Documentation

8.18.2.1 `GLUser::GLUser (const std::string id, const std::string username, const std::string firstname, const std::string lastname, const std::string pass_hash, const std::string pass_salt, const bool enabled)`

Constructor.

Parameters

<i>id</i>	User ID
<i>username</i>	Username
<i>firstname</i>	First name
<i>lastname</i>	Last name
<i>pass_hash</i>	The hashed password
<i>pass_salt</i>	The salt for the hashed password
<i>enabled</i>	true if user is enabled, false otherwise.

8.18.2.2 `GLUser::~GLUser ()`

Destructor

8.18.3 Member Function Documentation

8.18.3.1 `bool GLUser::check_password (const std::string & check_pass)`

Checks a password against the user's hash.

Parameters

<i>check_pass</i>	The password to check, must be > 8 characters.
-------------------	--

Returns

`true` is the password matches, `false` otherwise.

8.18.3.2 bool GLUser::enabled () const

Returns the user's enabled status.

Returns

The user's enabled status.

8.18.3.3 std::string GLUser::firstname () const

Returns the user's first name.

Returns

The user's first name.

8.18.3.4 std::string GLUser::id () const

Returns the user ID.

Returns

The user ID.

8.18.3.5 std::string GLUser::lastname () const

Returns the user's last name.

Returns

The user's last name.

8.18.3.6 std::string GLUser::pass_hash () const

Returns the user's hashed password.

Returns

The user's hashed password.

8.18.3.7 std::string GLUser::pass_salt () const

Returns the user's password salt.

Returns

The user's password salt.

8.18.3.8 void GLUser::set_enabled (const bool *new_enabled*)

Sets a user's enabled status.

Parameters

<i>new_enabled</i>	The user's new enabled status.
--------------------	--------------------------------

8.18.3.9 void GLUser::set_firstname (const std::string & *new_firstname*)

Sets a user's first name.

Parameters

<i>new_firstname</i>	The user's new first name.
----------------------	----------------------------

8.18.3.10 void GLUser::set_lastname (const std::string & *new_lastname*)

Sets a user's last name.

Parameters

<i>new_lastname</i>	The user's new last name.
---------------------	---------------------------

8.18.3.11 void GLUser::set_password (const std::string & *new_pass*)

Sets a user's password hash and salt.

Parameters

<i>new_pass</i>	The new password, must be > 8 characters.
-----------------	---

8.18.3.12 void GLUser::set_username (const std::string & *new_username*)

Sets a user's username.

Parameters

<i>new_username</i>	The user's new username.
---------------------	--------------------------

8.18.3.13 std::string GLUser::username () const

Returns the username.

Returns

The username.

8.18.4 Member Data Documentation**8.18.4.1 bool genleg::GLUser::m_enabled [private]**

User's enabled status

8.18.4.2 `std::string genleg::GLUser::m_firstname` [private]

User's first name

8.18.4.3 `std::string genleg::GLUser::m_id` [private]

User ID

8.18.4.4 `std::string genleg::GLUser::m_lastname` [private]

User's last name

8.18.4.5 `std::string genleg::GLUser::m_pass_hash` [private]

User's hashed password

8.18.4.6 `std::string genleg::GLUser::m_pass_salt` [private]

User's password salt

8.18.4.7 `std::string genleg::GLUser::m_username` [private]

Username

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

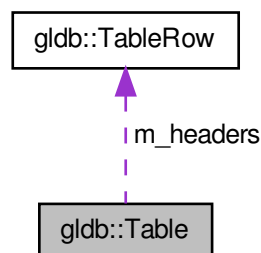
- [lib/gldb/gluser.h](#)
- [lib/gldb/gluser.cpp](#)
- [lib/gldb/gluser_pass.cpp](#)

8.19 glldb::Table Class Reference

Database table class.

```
#include <table.h>
```

Collaboration diagram for glldb::Table:



Public Member Functions

- [Table](#) (const [TableRow](#) &headers)
Constructor.
- [~Table](#) ()
- [size_t num_fields](#) () const
Returns the number of fields in each row.
- [size_t num_records](#) () const
Returns the number of record in the table.
- void [set_quoted](#) (std::vector< bool > &vec)
Sets the quote flags for the records.
- const [TableRow](#) & [get_headers](#) () const
Returns the field names.
- const [TableRow](#) & [operator\[\]](#) (const [size_t](#) idx) const
Overloaded index operator.
- void [append_record](#) (const [TableRow](#) &new_record)
Appends a record to the table.
- std::string [insert_query](#) (const std::string table_name, const [size_t](#) idx)
Creates an SQL INSERT query from a table record.
- std::string [get_field](#) (const std::string field_name, const [size_t](#) row_index)
Gets a field from a record by field name.

Static Public Member Functions

- static [Table create_from_file](#) (const std::string filename, const char delim)
Creates a table from an input file.

Private Attributes

- [TableRow m_headers](#)
- std::vector< [TableRow](#) > [m_records](#)
- std::vector< bool > [m_quoted](#)

8.19.1 Detailed Description

Database table class.

8.19.2 Constructor & Destructor Documentation

8.19.2.1 [Table::Table](#) (const [TableRow](#) & *headers*) [explicit]

Constructor.

Parameters

<i>headers</i>	Table row containing field names.
----------------	---

8.19.2.2 [Table::~~Table](#) ()

Destructor

8.19.3 Member Function Documentation

8.19.3.1 void Table::append_record (const TableRow & new_record)

Appends a record to the table.

Parameters

<i>new_record</i>	The record to append.
-------------------	-----------------------

8.19.3.2 Table Table::create_from_file (const std::string filename, const char delim) [static]

Creates a table from an input file.

Parameters

<i>filename</i>	The name of the input file.
<i>delim</i>	The delimiting character.

Returns

The table.

Exceptions

<i>TableBadInputFile</i>	on badly formed input file.
<i>TableCouldNotOpenInputFile</i>	on bad filename.

8.19.3.3 std::string Table::get_field (const std::string field_name, const size_t row_index)

Gets a field from a record by field name.

Parameters

<i>field_name</i>	The name of the field.
<i>row_index</i>	The index of the row.

Returns

The contents of the field.

Exceptions

<i>TableNoSuchField</i>	if <i>field_name</i> is not a valid field name.
<i>TableNoSuchRecord</i>	if there is no record at index <i>row_index</i> .

8.19.3.4 const TableRow & Table::get_headers () const

Returns the field names.

Returns

The field names.

8.19.3.5 `std::string Table::insert_query (const std::string table_name, const size_t idx)`

Creates an SQL INSERT query from a table record.

Parameters

<i>table_name</i>	The name of the table into which to INSERT.
<i>idx</i>	The index of the record.

Returns

A string containing the query.

8.19.3.6 `size_t Table::num_fields () const`

Returns the number of fields in each row.

Returns

The number of fields in each row.

8.19.3.7 `size_t Table::num_records () const`

Returns the number of record in the table.

Returns

The number of records in the table.

8.19.3.8 `const TableRow & Table::operator[] (const size_t idx) const`

Overloaded index operator.

Parameters

<i>idx</i>	The zero-based index of the record.
------------	-------------------------------------

Returns

The selected record.

8.19.3.9 `void Table::set_quoted (std::vector< bool > & vec)`

Sets the quote flags for the records.

Parameters

<i>vec</i>	A vector of bools. The size must match the size of the records.
------------	---

8.19.4 Member Data Documentation

8.19.4.1 TableRow glldb::Table::m_headers [private]

The names of the fields

8.19.4.2 std::vector<bool> glldb::Table::m_quoted [private]

A vector to show if fields should be quoted for INSERT

8.19.4.3 std::vector<TableRow> glldb::Table::m_records [private]

A vector of the records

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

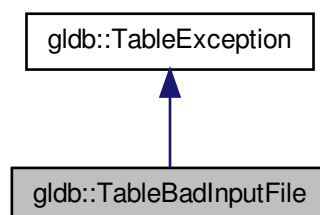
- lib/database/[table.h](#)
- lib/database/[table.cpp](#)

8.20 glldb::TableBadInputFile Class Reference

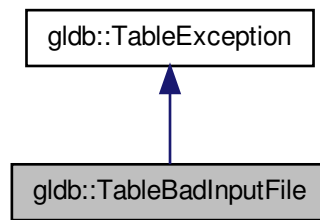
Could not connect to database exception class.

```
#include <table.h>
```

Inheritance diagram for glldb::TableBadInputFile:



Collaboration diagram for `gldb::TableBadInputFile`:



Public Member Functions

- [TableBadInputFile](#) (const std::string &msg)
Constructor.

8.20.1 Detailed Description

Could not connect to database exception class.

8.20.2 Constructor & Destructor Documentation

8.20.2.1 `gldb::TableBadInputFile::TableBadInputFile (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

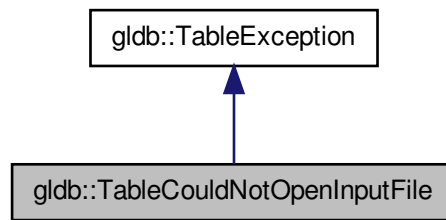
- lib/database/[table.h](#)

8.21 gldb::TableCouldNotOpenInputFile Class Reference

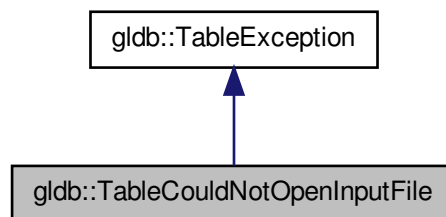
Could not connect to database exception class.

```
#include <table.h>
```

Inheritance diagram for glldb::TableCouldNotOpenInputFile:



Collaboration diagram for glldb::TableCouldNotOpenInputFile:



Public Member Functions

- [TableCouldNotOpenInputFile](#) (const std::string &msg)
Constructor.

8.21.1 Detailed Description

Could not connect to database exception class.

8.21.2 Constructor & Destructor Documentation

8.21.2.1 `glldb::TableCouldNotOpenInputFile::TableCouldNotOpenInputFile (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

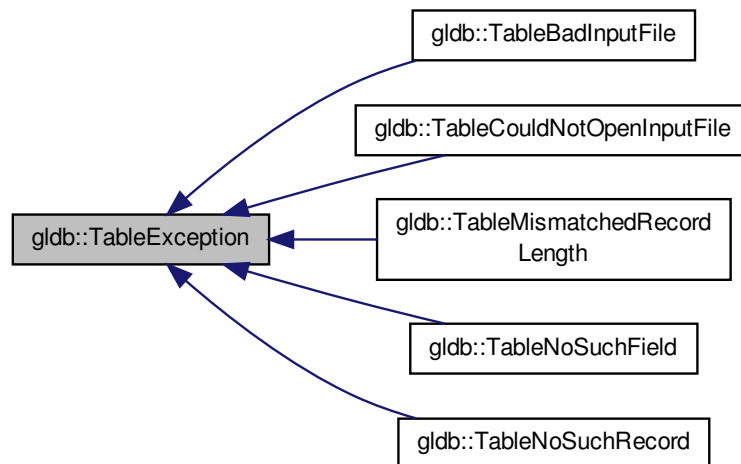
- [lib/database/table.h](#)

8.22 glldb::TableException Class Reference

Base database connection exception class.

```
#include <table.h>
```

Inheritance diagram for glldb::TableException:



Public Member Functions

- [TableException](#) (const std::string &msg)
Constructor.

8.22.1 Detailed Description

Base database connection exception class.

8.22.2 Constructor & Destructor Documentation

8.22.2.1 glldb::TableException::TableException (const std::string & msg) [inline], [explicit]

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

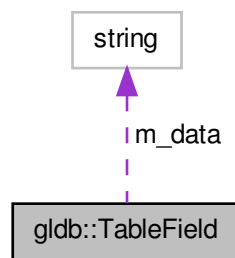
- [lib/database/table.h](#)

8.23 glldb::TableField Class Reference

Database table field class.

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

Collaboration diagram for glldb::TableField:



Public Member Functions

- [TableField](#) (const char *data)
*Constructor accepting `const char *` data.*
- [TableField](#) (const std::string &data)
Constructor accepting `std::string` data.
- [~TableField](#) ()
- [size_t length](#) () const
Returns the length of the field.
- [operator std::string](#) () const
Overridden conversion operator.
- [TableField & operator=](#) (const char *data)
*Overridden assignment operator for `const char *`.*
- [TableField & operator=](#) (const std::string &data)
Overridden assignment operator for `std::string`.
- char & [operator\[\]](#) (const size_t idx)
Overridden index operator.
- const char & [operator\[\]](#) (const size_t idx) const
Overridden index operator.
- [TableField & operator+=](#) (const char &c)
Overridden compound assignment operator.
- [TableField & operator+=](#) (const std::string &data)
Overridden compound assignment operator.

Private Attributes

- std::string [m_data](#)

Friends

- `std::ostream & operator<< (std::ostream &out, const TableField &field)`
Overridden << operator for printing a field.

8.23.1 Detailed Description

Database table field class.

8.23.2 Constructor & Destructor Documentation

8.23.2.1 `TableField::TableField (const char * data) [explicit]`

Constructor accepting `const char * data`.

Parameters

<i>data</i>	The initial contents of the field.
-------------	------------------------------------

8.23.2.2 `TableField::TableField (const std::string & data) [explicit]`

Constructor accepting `std::string data`.

Parameters

<i>data</i>	The initial contents of the field.
-------------	------------------------------------

8.23.2.3 `TableField::~~TableField ()`

Destructor

8.23.3 Member Function Documentation

8.23.3.1 `size_t TableField::length () const`

Returns the length of the field.

Returns

The length of the field.

8.23.3.2 `TableField::operator std::string () const`

Overridden conversion operator.

Returns the field contents as a string.

8.23.3.3 `TableField & TableField::operator+= (const char & c)`

Overridden compound assignment operator.

Parameters

<i>c</i>	The character to append to the field.
----------	---------------------------------------

Returns

A reference to the same field.

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

Overridden compound assignment operator.

Parameters

<i>data</i>	The string to append to the field.
-------------	------------------------------------

Returns

A reference to the same field.

8.23.3.5 TableField & TableField::operator= (const char * *data*)

Overridden assignment operator for `const char *`.

Parameters

<i>data</i>	The new contents of the field.
-------------	--------------------------------

Returns

A reference to the same field.

8.23.3.6 TableField & TableField::operator= (const std::string & *data*)

Overridden assignment operator for `std::string`.

Parameters

<i>data</i>	The new contents of the field.
-------------	--------------------------------

Returns

A reference to the same field.

8.23.3.7 char & TableField::operator[] (const size_t *idx*)

Overridden index operator.

Parameters

<i>idx</i>	The desired index.
------------	--------------------

Returns

A reference to the character at the specified index.

8.23.3.8 `const char & TableField::operator[] (const size_t idx) const`

Overridden index operator.

Parameters

<i>idx</i>	The desired index.
------------	--------------------

Returns

A const reference to the character at the specified index.

8.23.4 Friends And Related Function Documentation**8.23.4.1** `std::ostream& operator<< (std::ostream & out, const TableField & field)` `[friend]`

Overridden << operator for printing a field.

Parameters

<i>out</i>	The ostream to which to print.
<i>field</i>	A reference to the field.

Returns

A reference to `out`.

8.23.5 Member Data Documentation**8.23.5.1** `std::string glldb::TableField::m_data` `[private]`

The field contents

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

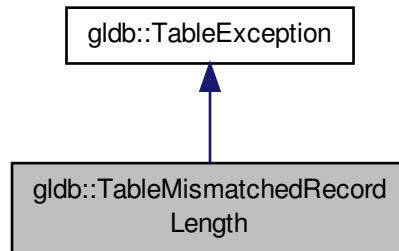
- lib/database/[tablefield.h](#)
- lib/database/[tablefield.cpp](#)

8.24 glldb::TableMismatchedRecordLength Class Reference

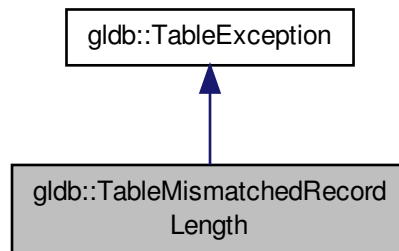
Mismatched record length exception class.

```
#include <table.h>
```


Inheritance diagram for glldb::TableMismatchedRecordLength:



Collaboration diagram for glldb::TableMismatchedRecordLength:



Public Member Functions

- [TableMismatchedRecordLength](#) (const std::string &msg)
Constructor.

8.24.1 Detailed Description

Mismatched record length exception class.

8.24.2 Constructor & Destructor Documentation

8.24.2.1 `glldb::TableMismatchedRecordLength::TableMismatchedRecordLength (const std::string & msg) [inline], [explicit]`

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

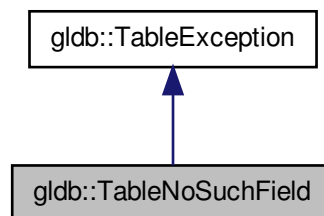
- lib/database/[table.h](#)

8.25 glldb::TableNoSuchField Class Reference

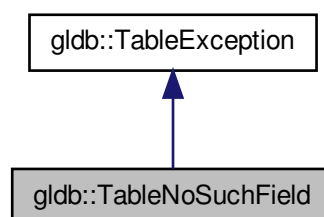
No such field exception class.

```
#include <table.h>
```

Inheritance diagram for glldb::TableNoSuchField:



Collaboration diagram for glldb::TableNoSuchField:



Public Member Functions

- [TableNoSuchField](#) (const std::string &msg)
Constructor.

8.25.1 Detailed Description

No such field exception class.

8.25.2 Constructor & Destructor Documentation

8.25.2.1 glldb::TableNoSuchField::TableNoSuchField (const std::string & msg) [inline], [explicit]

Constructor.

Parameters

<i>msg</i>	Database error message
------------	------------------------

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

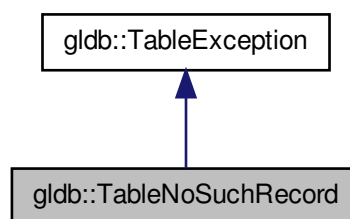
- lib/database/[table.h](#)

8.26 glldb::TableNoSuchRecord Class Reference

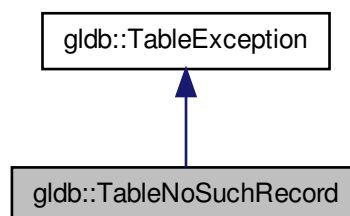
No such record exception class.

```
#include <table.h>
```

Inheritance diagram for glldb::TableNoSuchRecord:



Collaboration diagram for glldb::TableNoSuchRecord:



Public Member Functions

- [TableNoSuchRecord](#) (const std::string &msg)

Constructor.

8.26.1 Detailed Description

No such record exception class.

8.26.2 Constructor & Destructor Documentation

8.26.2.1 `gldb::TableNoSuchRecord::TableNoSuchRecord (const std::string & msg) [inline],[explicit]`

Constructor.

Parameters

<code>msg</code>	Database error message
------------------	------------------------

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

- lib/database/[table.h](#)

8.27 `gldb::TableRow` Class Reference

Database table row class.

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

Public Member Functions

- [TableRow](#) ()
- [TableRow](#) (const size_t [size](#))
Constructor with initial number of fields.
- [TableRow](#) (std::vector< std::string > &vec)
Constructor with string vector.
- [~TableRow](#) ()
- size_t [size](#) () const
Returns the number of fields.
- [TableField](#) & [operator\[\]](#) (const size_t idx)
Overridden index operator.
- const [TableField](#) & [operator\[\]](#) (const size_t idx) const
Overridden index operator.
- void [append_field](#) (const char *new_field)
Appends a field to the row.
- void [append_field](#) (const std::string &new_field)
Appends a field to the row.
- void [append_field](#) (const [TableField](#) &new_field)
Appends a field to the row.
- void [print](#) (std::ostream &stream) const
Prints a row.
- std::string [record_string](#) (const std::vector< bool > "ed)
Creates a comma separated string of fields.
- std::string [record_string](#) ()
Creates an unquoted comma separated string of fields.

Private Attributes

- `std::vector< TableField > m_fields`

8.27.1 Detailed Description

Database table row class.

8.27.2 Constructor & Destructor Documentation

8.27.2.1 `TableRow::TableRow ()`

Default constructor

8.27.2.2 `TableRow::TableRow (const size_t size) [explicit]`

Constructor with initial number of fields.

Parameters

<i>size</i>	The initial number of fields.
-------------	-------------------------------

8.27.2.3 `TableRow::TableRow (std::vector< std::string > & vec) [explicit]`

Constructor with string vector.

Parameters

<i>vec</i>	The vector.
------------	-------------

8.27.2.4 `TableRow::~~TableRow ()`

Destructor

8.27.3 Member Function Documentation

8.27.3.1 `void TableRow::append_field (const char * new_field)`

Appends a field to the row.

Parameters

<i>new_field</i>	The contents of the new field.
------------------	--------------------------------

8.27.3.2 `void TableRow::append_field (const std::string & new_field)`

Appends a field to the row.

Parameters

<i>new_field</i>	The contents of the new field.
------------------	--------------------------------

8.27.3.3 void TableRow::append_field (const TableField & *new_field*)

Appends a field to the row.

Parameters

<i>new_field</i>	A field from which to copy.
------------------	-----------------------------

8.27.3.4 TableField & TableRow::operator[] (const size_t *idx*)

Overridden index operator.

Parameters

<i>idx</i>	The zero-based index of the field.
------------	------------------------------------

Returns

A reference to the field at the specified index.

8.27.3.5 const TableField & TableRow::operator[] (const size_t *idx*) const

Overridden index operator.

Parameters

<i>idx</i>	The zero-based index of the field.
------------	------------------------------------

Returns

A const reference to the field at the specified index.

8.27.3.6 void TableRow::print (std::ostream & *stream*) const

Prints a row.

Parameters

<i>stream</i>	The ostream to which to print.
---------------	--------------------------------

8.27.3.7 std::string TableRow::record_string (const std::vector< bool > & *quoted*)

Creates a comma separated string of fields.

Parameters

<i>quoted</i>	A vector of <code>bool</code> , for each field <code>true</code> means that field will be enclosed in single quotes in the comma separated string, <code>false</code> means it will not be.
---------------	---

Returns

The comma separated string.

8.27.3.8 `std::string TableRow::record_string ()`

Creates an unquoted comma separated string of fields.

Returns

The unquoted comma separated string.

8.27.3.9 `size_t TableRow::size () const`

Returns the number of fields.

Returns

The number of fields.

8.27.4 Member Data Documentation

8.27.4.1 `std::vector<TableField> glDb::TableRow::m_fields` `[private]`

A vector of fields

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

- [lib/database/ablerow.h](#)
- [lib/database/ablerow.cpp](#)

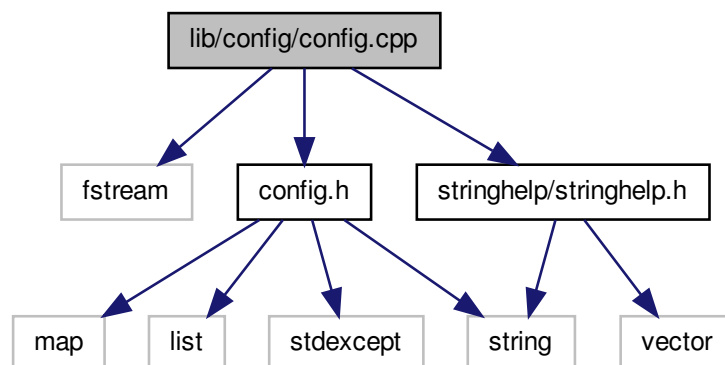
Chapter 9

File Documentation

9.1 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:
```



9.1.1 Detailed Description

Implementation of program configurations class.

Author

Paul Griffiths

Copyright

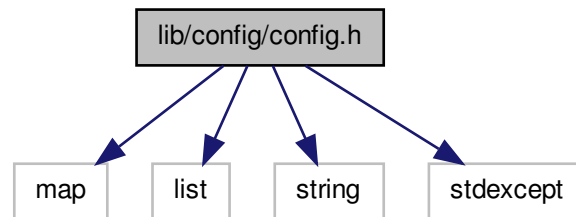
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9.2 lib/config/config.h File Reference

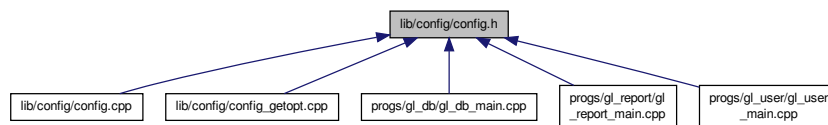
Interface to program configurations class.

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

Include dependency graph for config.h:



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



Classes

- class [genleg::ConfigException](#)
Configuration module exception base class.
- class [genleg::ConfigOptionNotSet](#)
Exception class for option not set.
- class [genleg::ConfigBadOption](#)
Exception class for bad provided option.
- class [genleg::ConfigCouldNotOpenFile](#)
Exception class for when conf file cannot be opened.
- class [genleg::ConfigBadConfigFile](#)
Exception class for badly formed configuration file.
- class [genleg::Config](#)
Configuration options class.

Enumerations

- enum [genleg::Argument](#)
Enumeration class for option argument specifications.

9.2.1 Detailed Description

Interface to program configurations class.

Author

Paul Griffiths

Copyright

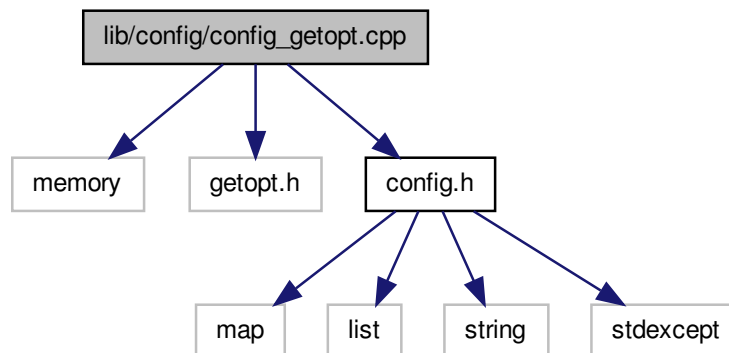
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9.3 lib/config/config_getopt.cpp File Reference

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`

9.3.1 Detailed Description

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

Author

Paul Griffiths

Copyright

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9.3.2 Macro Definition Documentation

9.3.2.1 `#define _XOPEN_SOURCE 600`

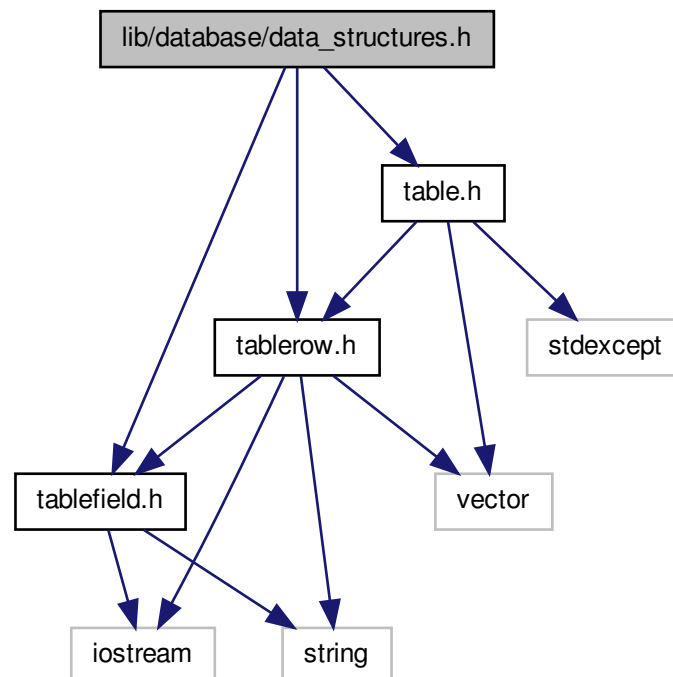
UNIX feature test macro for getopt library

9.4 `lib/database/data_structures.h` File Reference

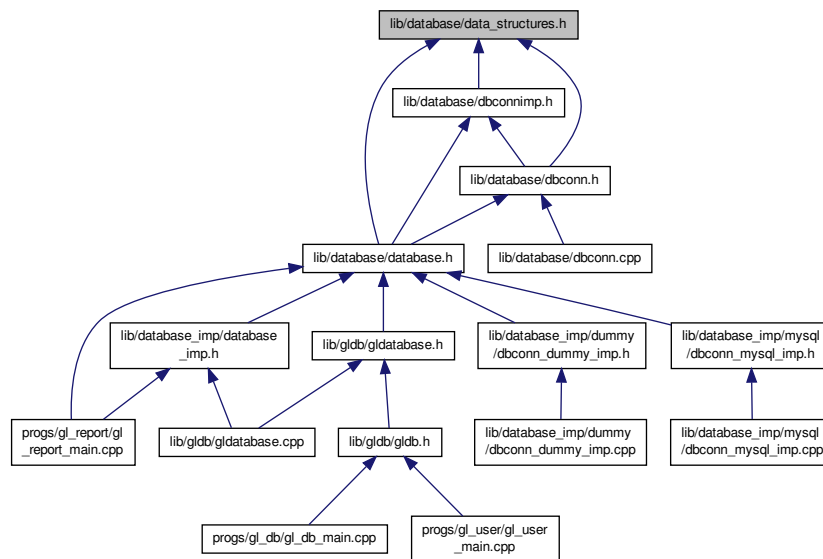
Main interface to database data structures.

```
#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:



9.4.1 Detailed Description

Main interface to database data structures.

Author

Paul Griffiths

Copyright

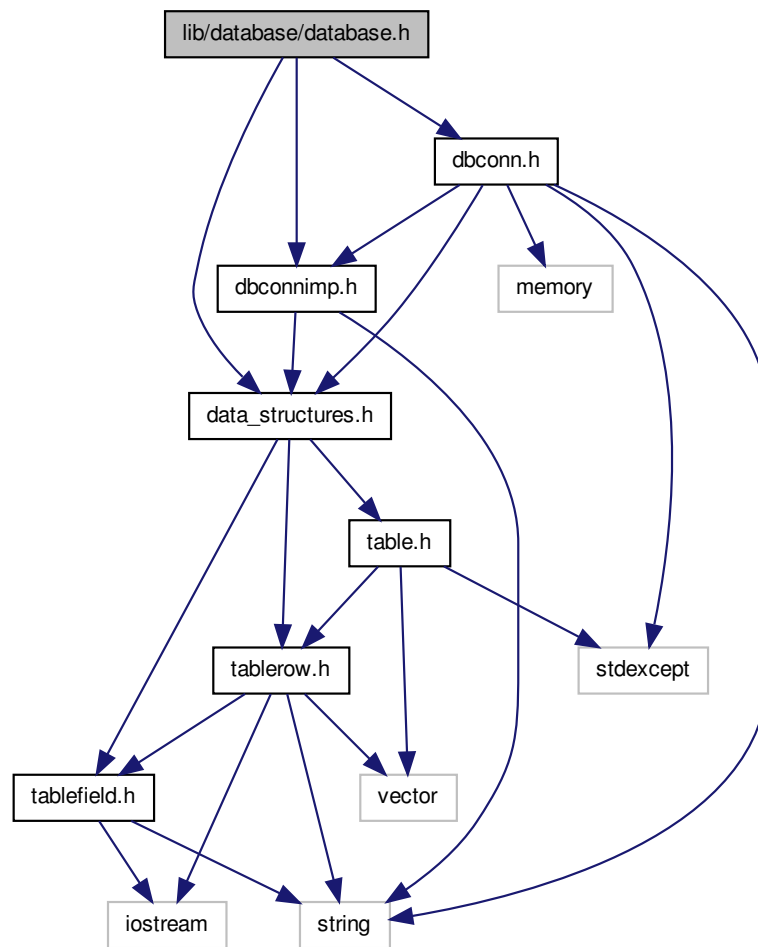
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9.5 lib/database/database.h File Reference

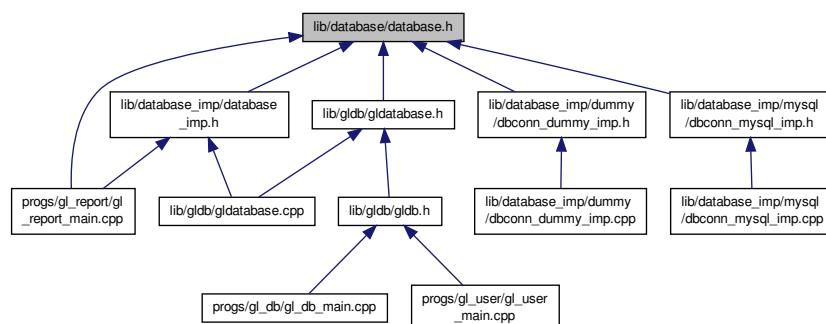
User interface to database functionality.

```
#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:



9.5.1 Detailed Description

User interface to database functionality.

Author

Paul Griffiths

Copyright

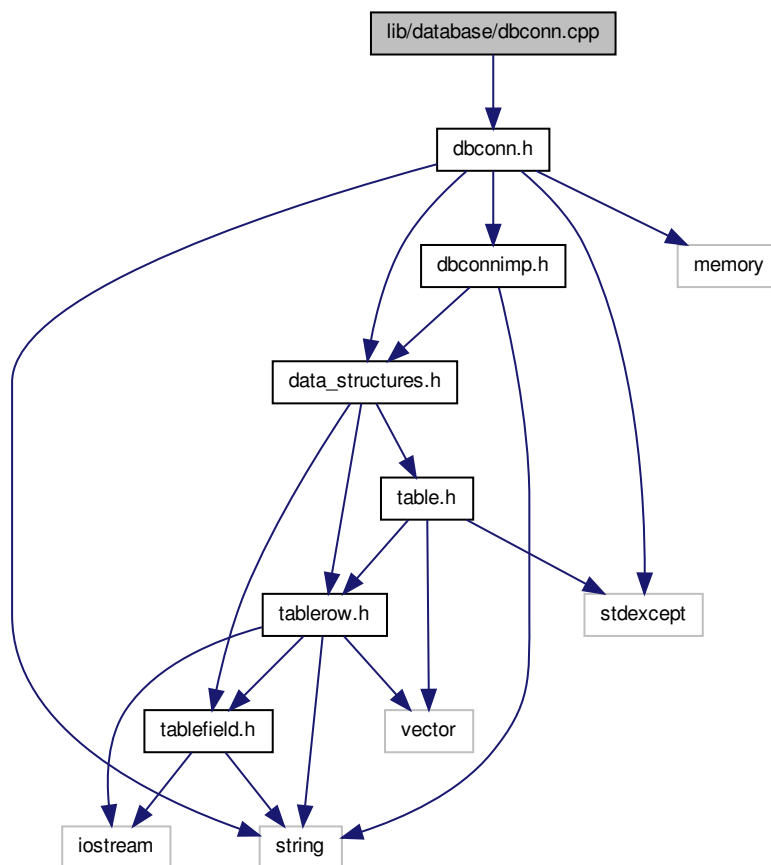
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9.6 lib/database/dbconn.cpp File Reference

Implementation of database connection class.

```
#include "dbconn.h"
```

Include dependency graph for dbconn.cpp:



9.6.1 Detailed Description

Implementation of database connection class.

Author

Paul Griffiths

Copyright

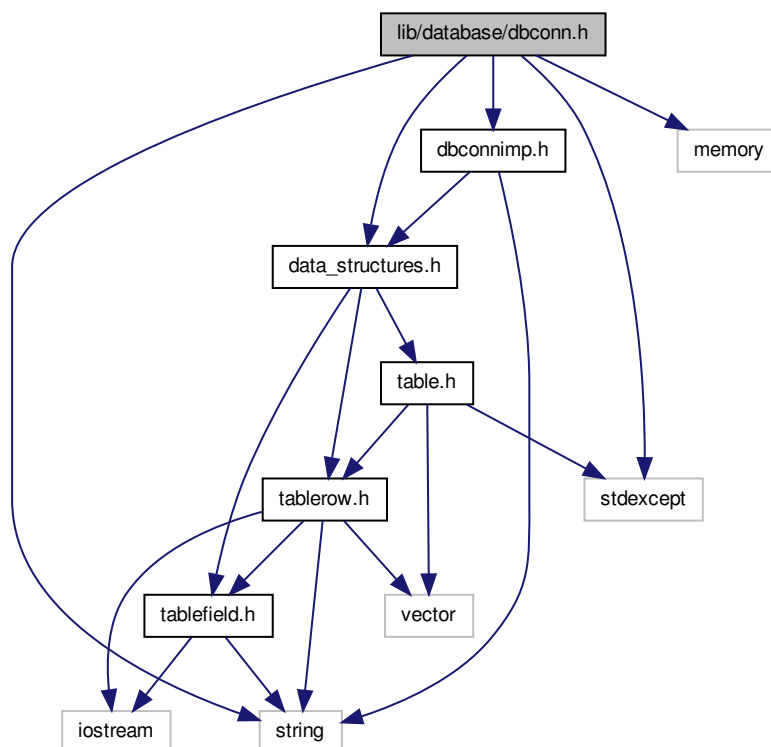
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9.7 lib/database/dbconn.h File Reference

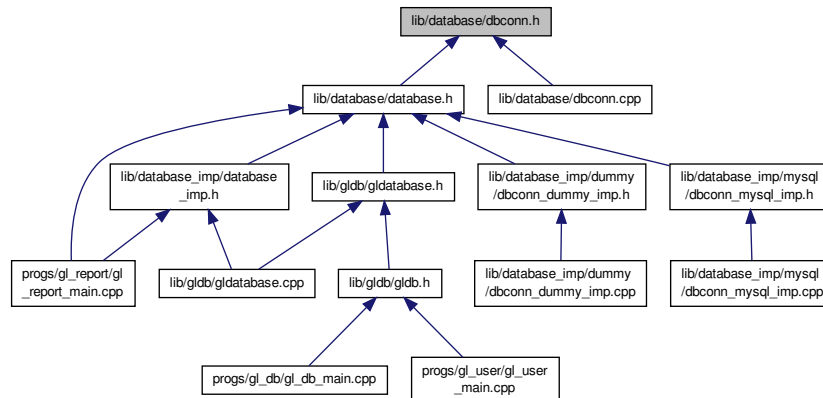
Interface to database connection base class.

```
#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::DBConnException](#)
Base database connection exception class.
- class [gldb::DBConnCouldNotConnect](#)
Could not connect to database exception class.
- class [gldb::DBConnCouldNotQuery](#)
Could not execute database query exception class.
- class [gldb::DBConn](#)
Database connection class.

9.7.1 Detailed Description

Interface to database connection base class.

Author

Paul Griffiths

Copyright

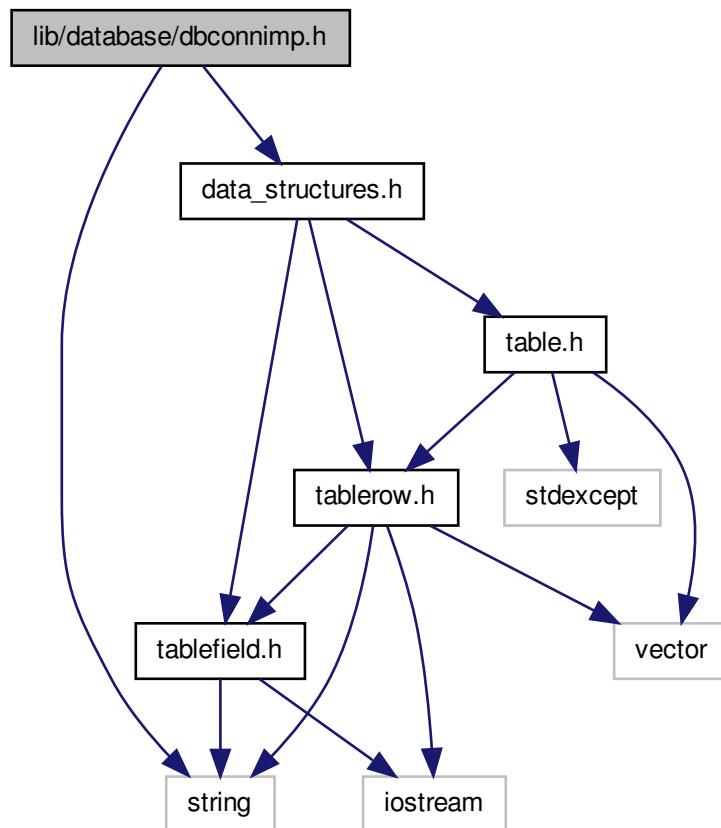
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9.8 lib/database/dbconnimp.h File Reference

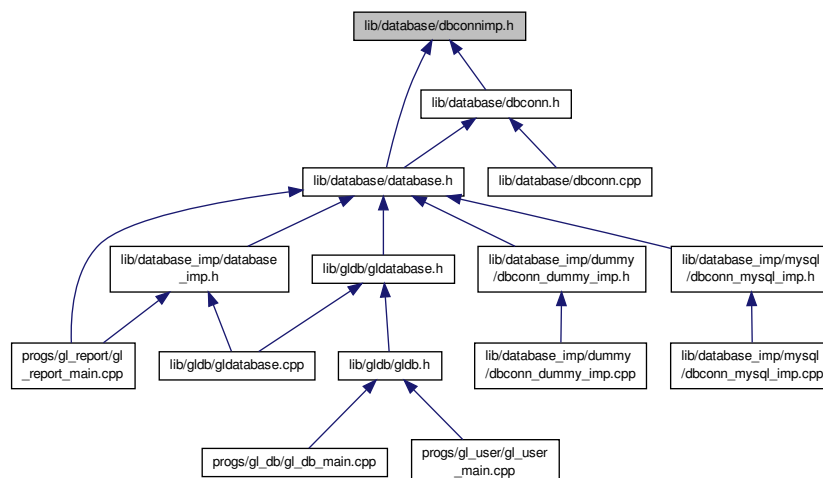
Interface to abstract database implementation base class.

```
#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](#)
Abstract database implementation base class.

9.8.1 Detailed Description

Interface to abstract database implementation base class.

Author

Paul Griffiths

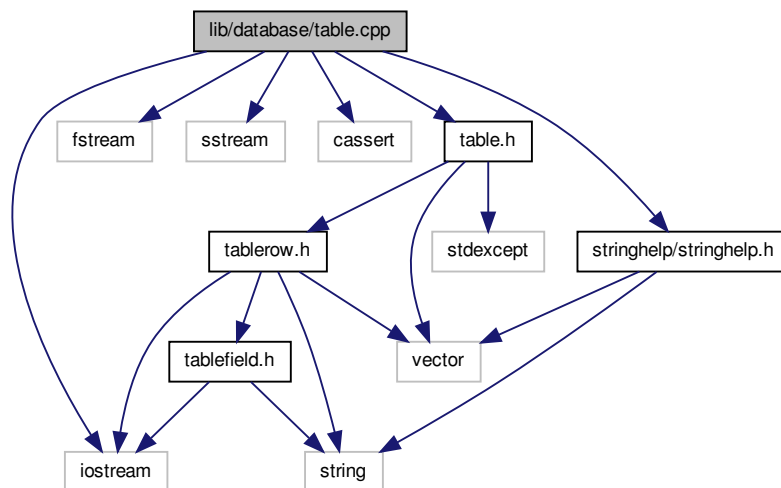
Copyright

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9.9 lib/database/table.cpp File Reference

Implementation of database table data structure.

```
#include <iostream>
#include <fstream>
#include <sstream>
#include <cassert>
#include "table.h"
#include "stringhelp/stringhelp.h"
Include dependency graph for table.cpp:
```



9.9.1 Detailed Description

Implementation of database table data structure.

Author

Paul Griffiths

Copyright

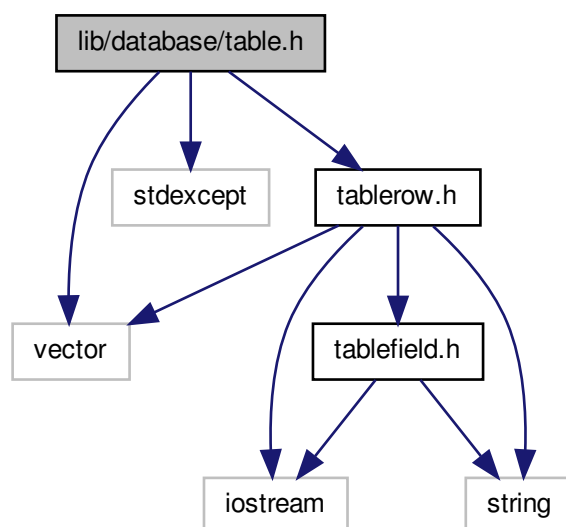
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9.10 lib/database/table.h File Reference

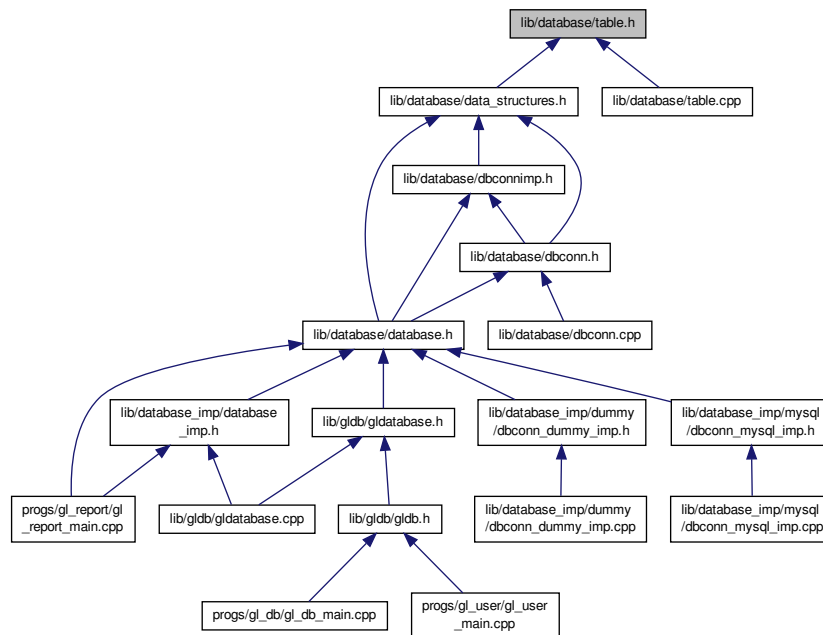
Interface to database table data structure.

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

Include dependency graph for table.h:



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



Classes

- class `gldb::TableException`
Base database connection exception class.
- class `gldb::TableNoSuchField`
No such field exception class.
- class `gldb::TableNoSuchRecord`
No such record exception class.
- class `gldb::TableMismatchedRecordLength`
Mismatched record length exception class.
- class `gldb::TableBadInputFile`
Could not connect to database exception class.
- class `gldb::TableCouldNotOpenInputFile`
Could not connect to database exception class.
- class `gldb::Table`
Database table class.

9.10.1 Detailed Description

Interface to database table data structure.

Author

Paul Griffiths

Copyright

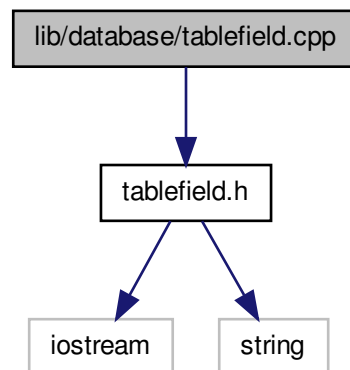
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9.11 lib/database/tablefield.cpp File Reference

Implementation of database table field class.

```
#include "tablefield.h"
```

Include dependency graph for tablefield.cpp:



9.11.1 Detailed Description

Implementation of database table field class.

Author

Paul Griffiths

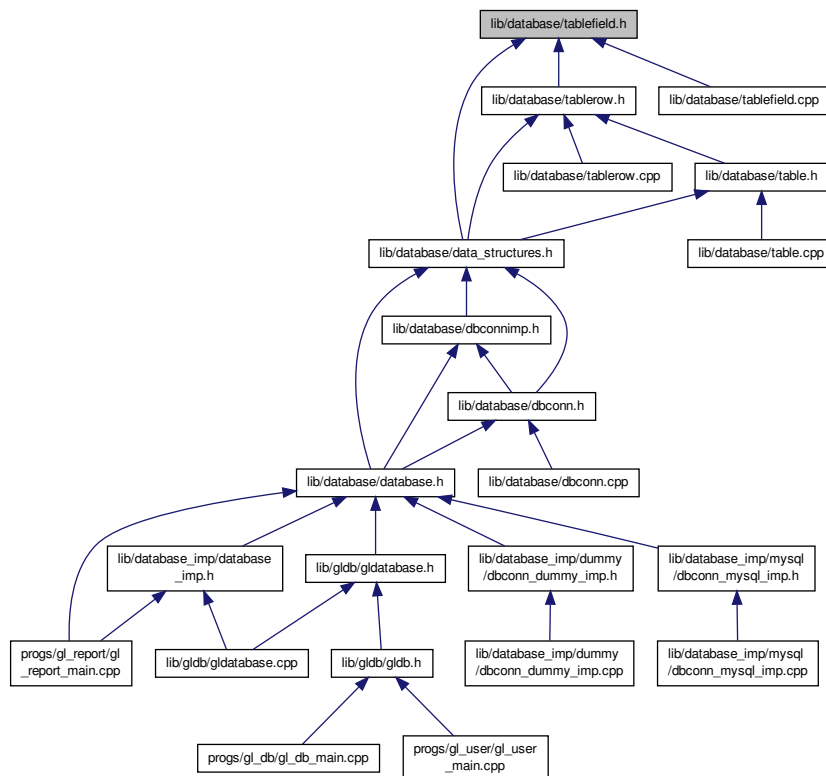
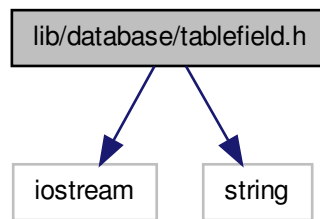
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9.12 lib/database/tablefield.h File Reference

Interface to database table field class.

```
#include <iostream>
#include <string>
```



- class `gldb::TableField`
Database table field class.

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

Overridden << operator for printing a field.

9.12.1 Detailed Description

Interface to database table field class.

Author

Paul Griffiths

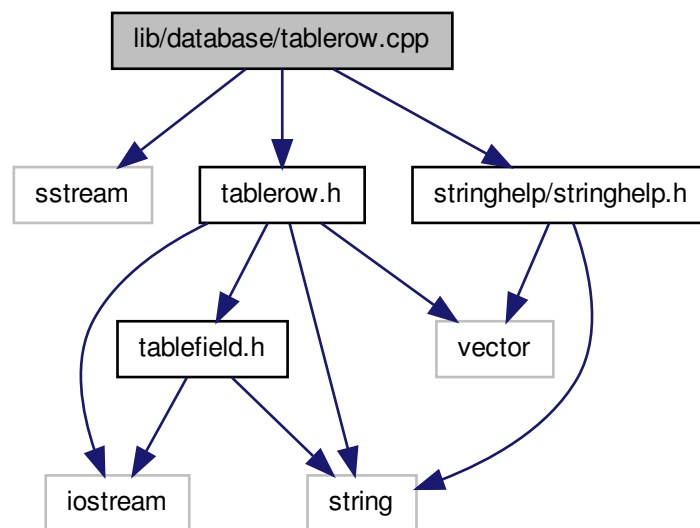
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9.13 lib/database/tablerow.cpp File Reference

Implementation of database table row data structure.

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



9.13.1 Detailed Description

Implementation of database table row data structure.

Author

Paul Griffiths

Copyright

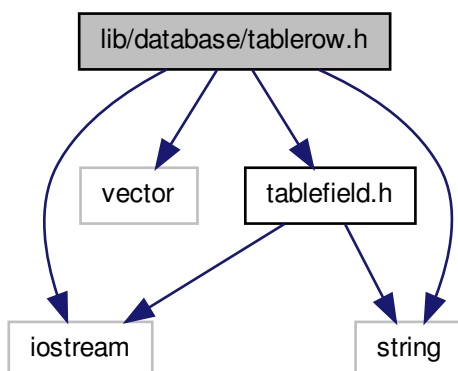
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9.14 lib/database/tablerow.h File Reference

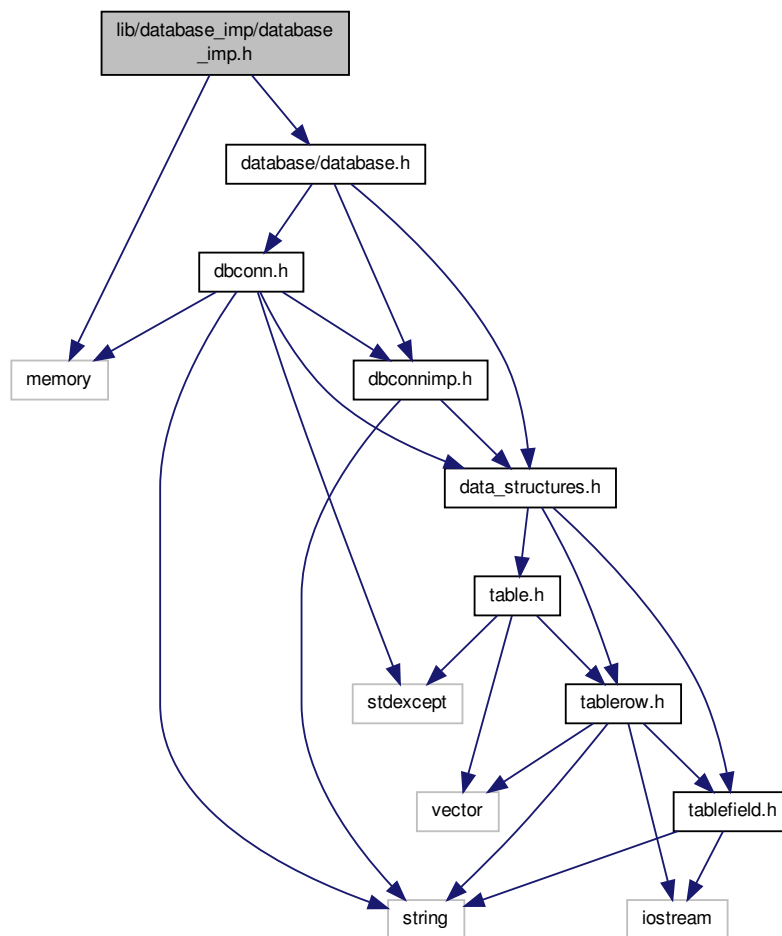
Interface to database table row data structure.

```
#include <iostream>
#include <vector>
#include <string>
#include "tablefield.h"
```

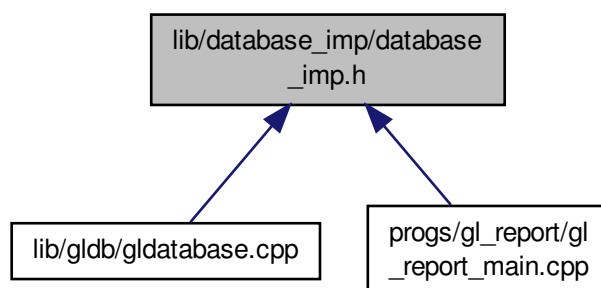
Include dependency graph for tablerow.h:



Include dependency graph for database_imp.h:



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



Functions

- `DBConnImp * glldb::get_connection` (const std::string database, const std::string hostname, const std::string username, const std::string password)

Creates and returns a pointer to a database implementation.

- `std::string glldb::get_database_type` ()

Returns the name of the compiled-in database type.

9.15.1 Detailed Description

Interface to database implementation factory function.

Author

Paul Griffiths

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9.16 lib/database_imp/dummy/dbconn_dummy_imp.cpp File Reference

Implementation of Dummy database connection implementation class.

```
#include <sstream>
#include "dbconn_dummy_imp.h"
```

```

graph TD
    Root["lib/database_imp/dummy/dbconn_dummy_imp.cpp"] --> sstream[sstream]
    Root --> dbconn_dummy_imp_h["dbconn_dummy_imp.h"]
    dbconn_dummy_imp_h --> database_database_h["database/database.h"]
    database_database_h --> dbconn_h["dbconn.h"]
    database_database_h --> memory[memory]
    database_database_h --> dbconnimp_h["dbconnimp.h"]
    database_database_h --> data_structures_h["data_structures.h"]
    database_database_h --> string[string]
    dbconn_h --> memory
    dbconn_h --> stdexcept[stdexcept]
    dbconn_h --> vector(vector)
    dbconn_h --> string
    dbconn_h --> table_h[table.h]
    memory --> string
    dbconnimp_h --> string
    data_structures_h --> table_h
    data_structures_h --> tablerow_h["tablerow.h"]
    data_structures_h --> tablefield_h["tablefield.h"]
    data_structures_h --> iostream[iostream]
    table_h --> vector
    table_h --> string
    tablerow_h --> vector
    tablerow_h --> tablefield_h
    tablerow_h --> string
    tablefield_h --> iostream

```

Implementation of Dummy database connection implementation class.

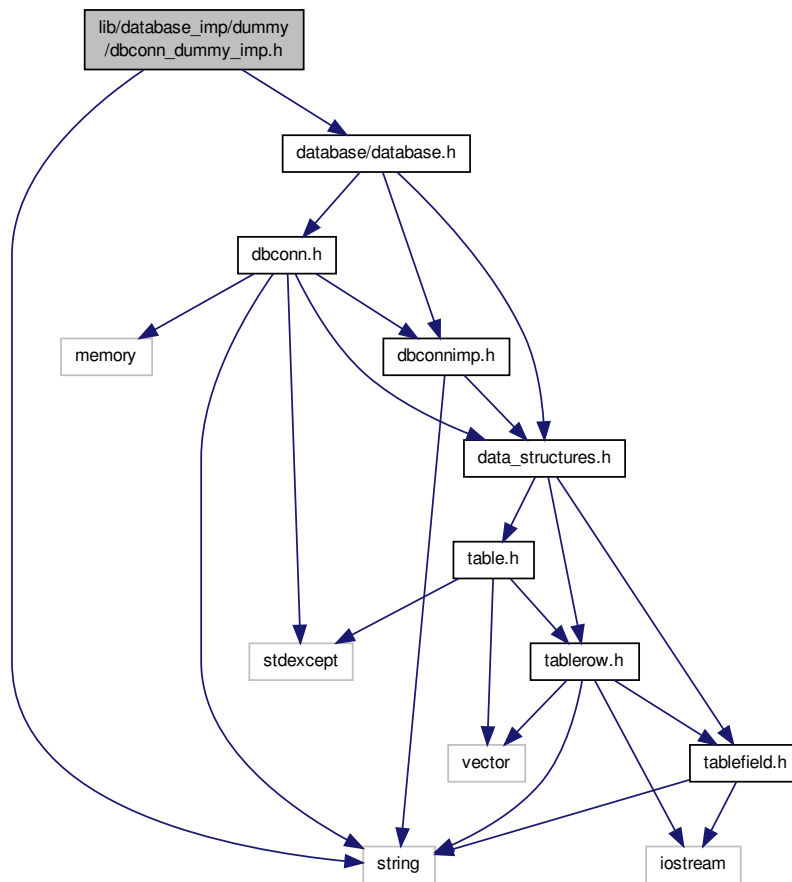
Paul Griffiths

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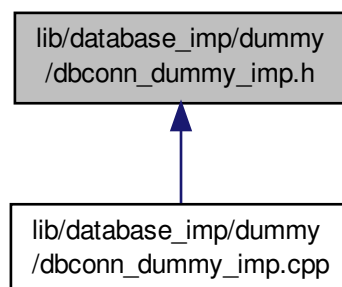
Interface to dummy database connection implementation class.

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

Include dependency graph for dbconn_dummy_imp.h:



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



Classes

- class `gldb::DBConnDummy`

Dummy database implementation class.

9.17.1 Detailed Description

Interface to dummy database connection implementation class.

Author

Paul Griffiths

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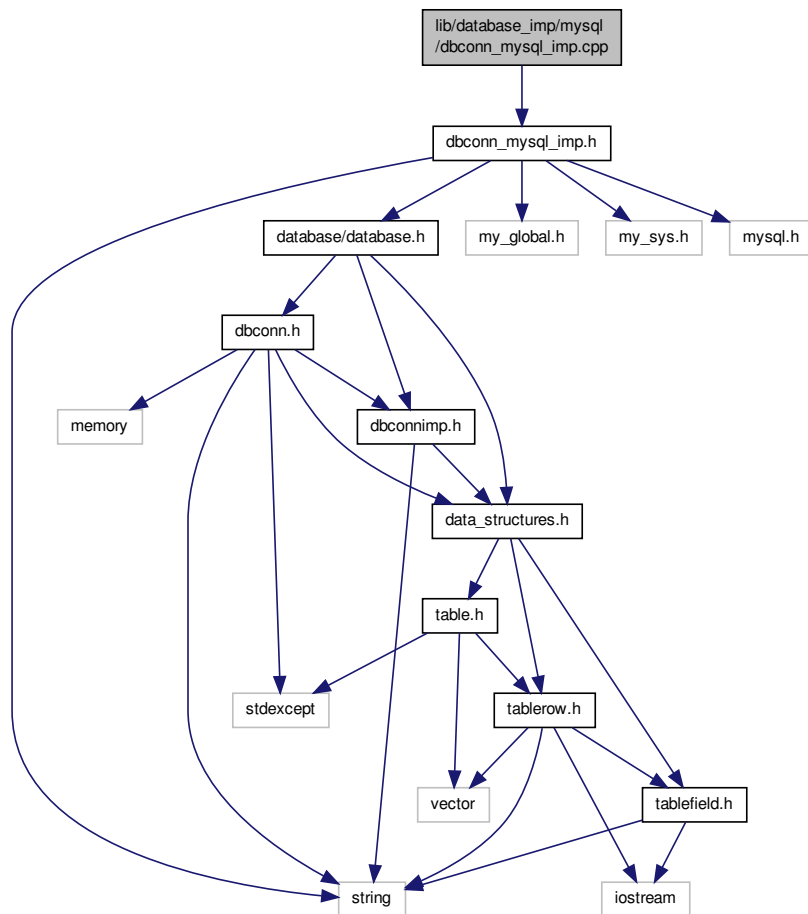
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9.18 lib/database_imp/mysql/dbconn_mysql_imp.cpp File Reference

Implementation of MySQL database connection implementation class.

```
#include "dbconn_mysql_imp.h"
```

Include dependency graph for dbconn_mysql_imp.cpp:



9.18.1 Detailed Description

Implementation of MySQL database connection implementation class.

Author

Paul Griffiths

Copyright

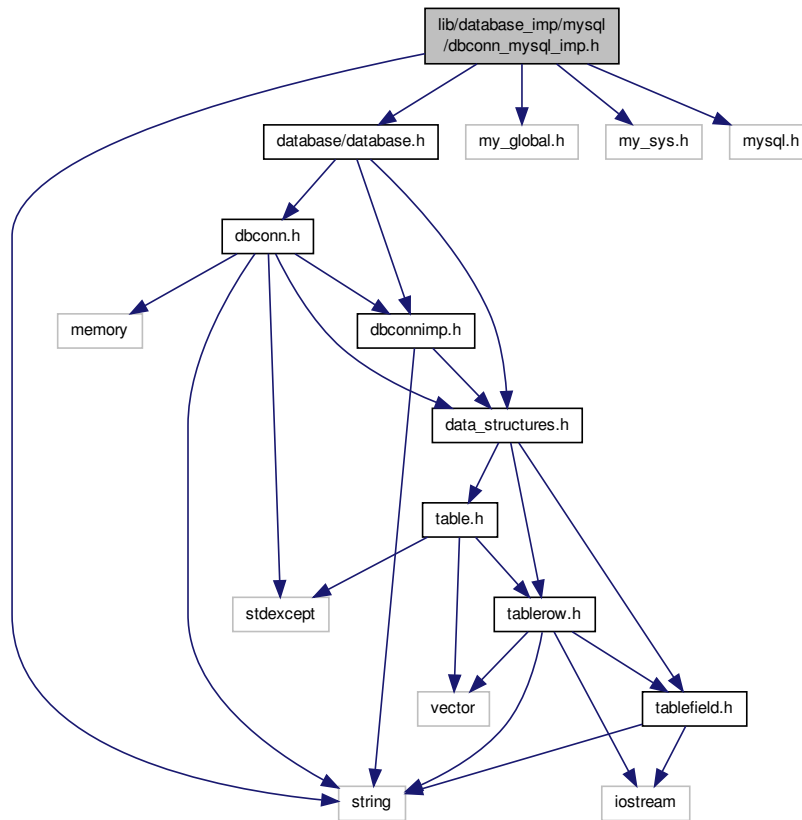
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9.19 lib/database_imp/mysql/dbconn_mysql_imp.h File Reference

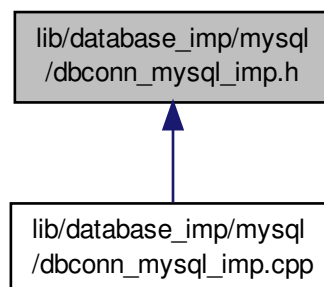
Interface to MySQL database connection implementation class.


```
#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](#)

MySQL database implementation class.

9.19.1 Detailed Description

Interface to MySQL database connection implementation class.

Author

Paul Griffiths

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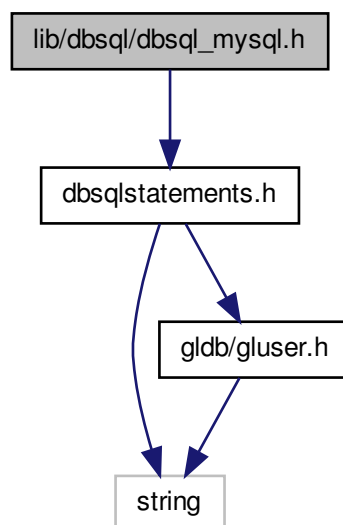
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9.20 lib/dbsql/dbsql_mysql.h File Reference

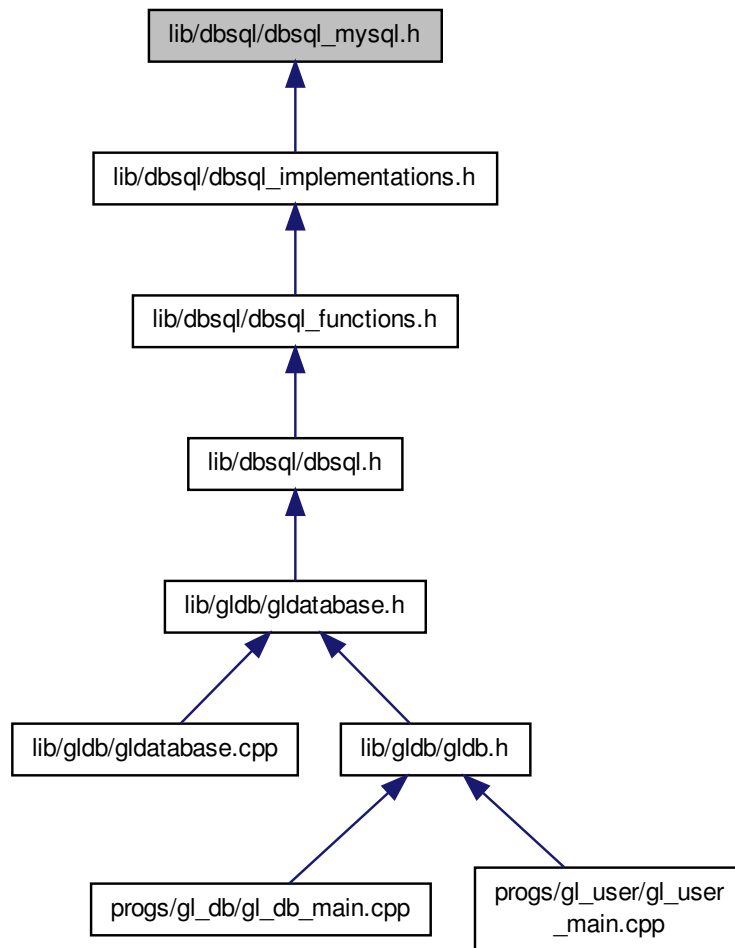
Interface to MySQL SQL statement class.

```
#include "dbsqlstatements.h"
```

Include dependency graph for `dbsql_mysql.h`:



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



Classes

- class [genleg::DBSQLMySQL](#)
MySQL SQL statements class.

9.20.1 Detailed Description

Interface to MySQL SQL statement class. Interface to MySQL SQL statement class

Author

Paul Griffiths

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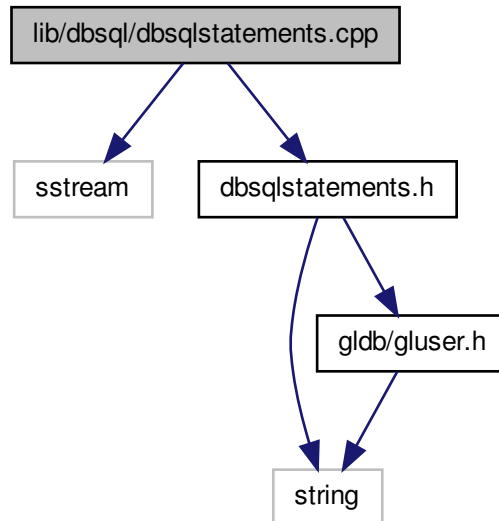
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9.21 lib/dbsql/dbsqlstatements.cpp File Reference

Implementation of SQL statement class.

```
#include <sstream>
#include "dbsqlstatements.h"
```

Include dependency graph for dbsqlstatements.cpp:



9.21.1 Detailed Description

Implementation of SQL statement class. Implementation of SQL statement class

Author

Paul Griffiths

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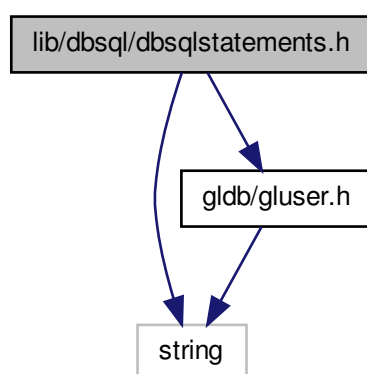
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9.22 lib/dbsql/dbsqlstatements.h File Reference

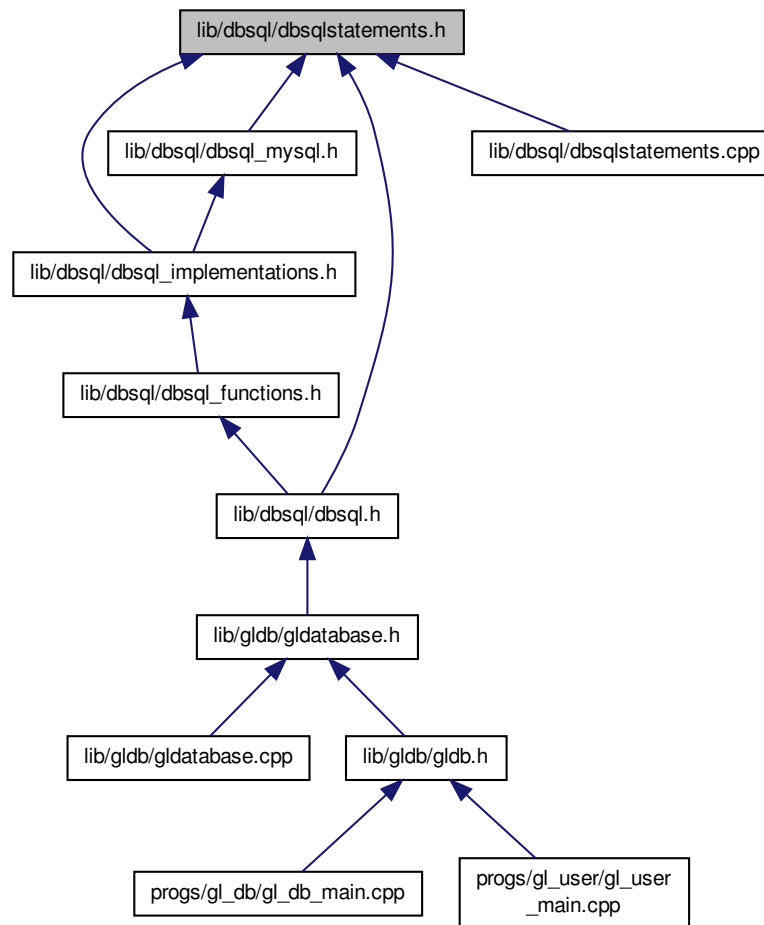
Interface to SQL statement class.

```
#include <string>
#include "gldb/gluser.h"
```

Include dependency graph for `dbsqlstatements.h`:



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



Classes

- class [genleg::DBSQLStatements](#)

SQL statements class.

9.22.1 Detailed Description

Interface to SQL statement class.

Author

Paul Griffiths

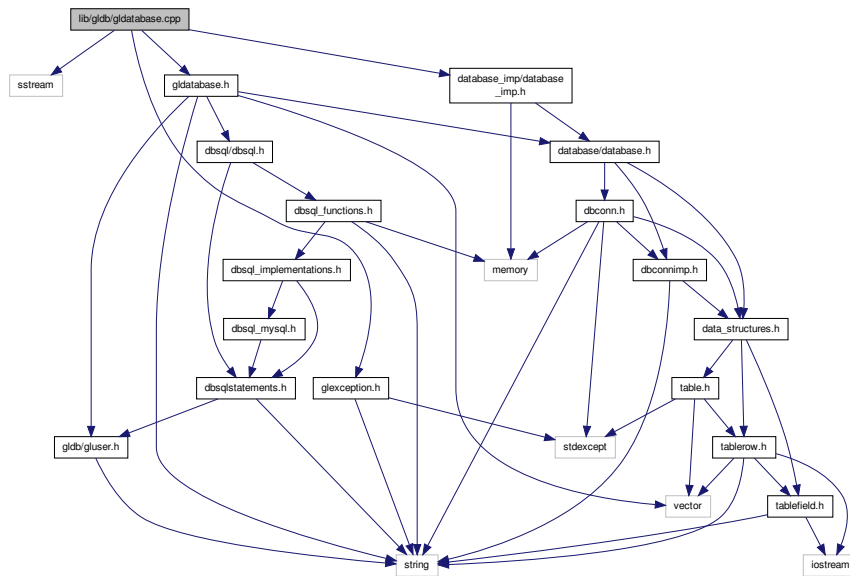
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9.23 lib/gldb/gldatabase.cpp File Reference

Implementation of General Ledger database class.

```
#include <sstream>
#include "gldatabase.h"
#include "glexception.h"
#include "database_imp/database_imp.h"
Include dependency graph for gldatabase.cpp:
```



Functions

- **m_views** ({"current_trial_balance","check_total","all_jes"})

9.23.1 Detailed Description

Implementation of General Ledger database class.

Author

Paul Griffiths

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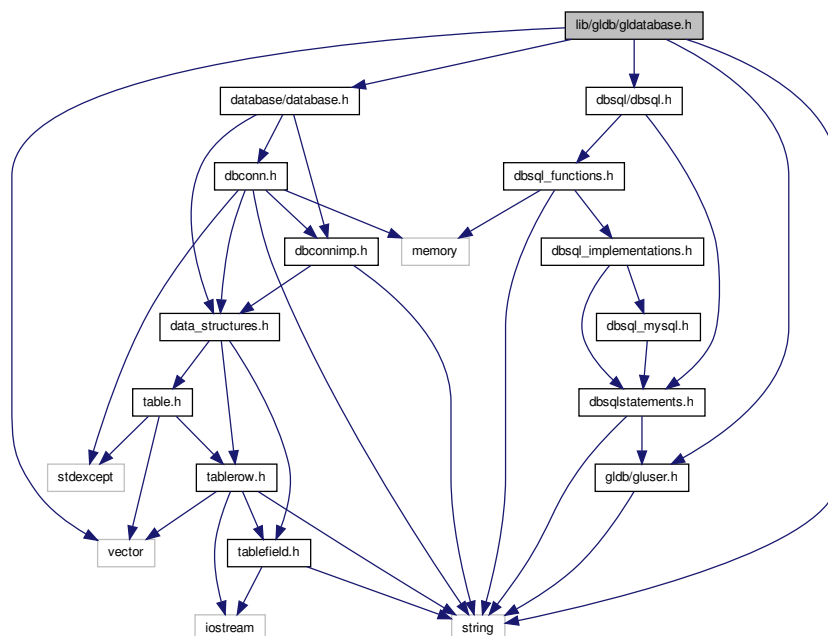
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9.24 lib/gldb/gldatabase.h File Reference

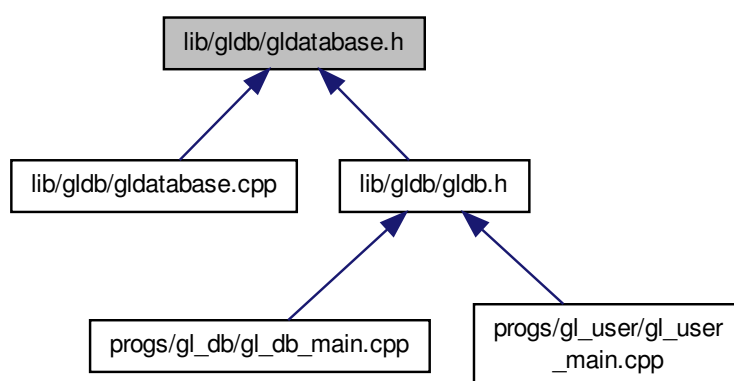
Interface to General Ledger database class.

```
#include <vector>
#include <string>
#include "database/database.h"
#include "dbsql/dbsql.h"
#include "gluser.h"
```

Include dependency graph for glatabase.h:



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



Classes

- class [genleg::GLDatabase](#)

General ledger database class.

9.24.1 Detailed Description

Interface to General Ledger database class.

Author

Paul Griffiths

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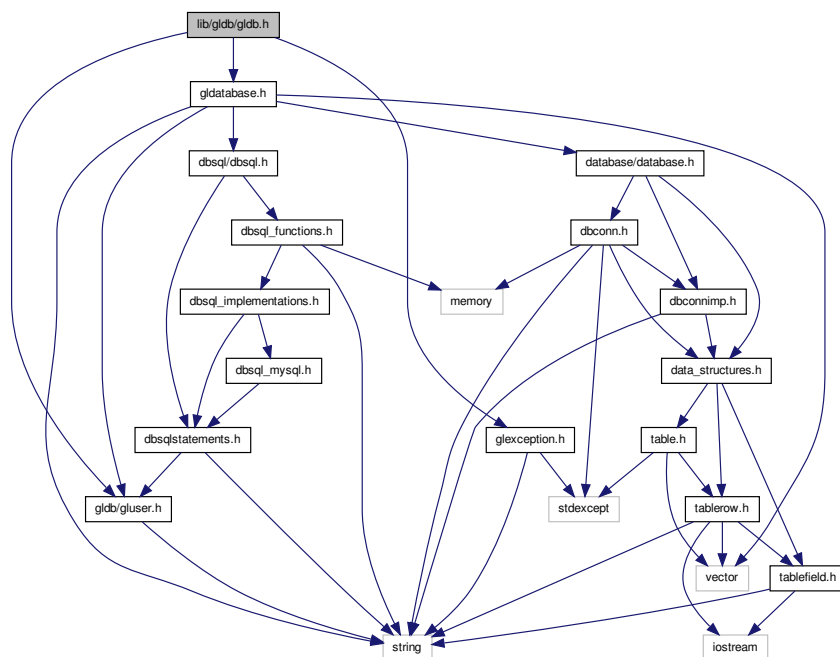
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9.25 lib/gldb/gldb.h File Reference

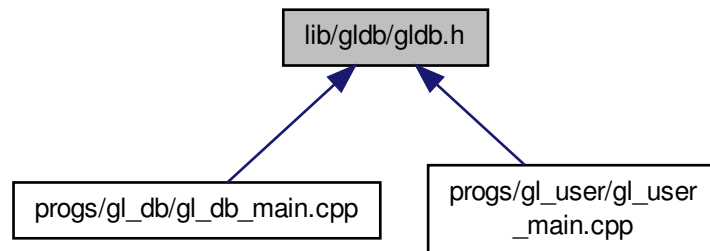
User interface to General Ledger database module.

```
#include "glexception.h"
#include "gldatabase.h"
#include "gluser.h"
```

Include dependency graph for gldb.h:



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



9.25.1 Detailed Description

User interface to General Ledger database module.

Author

Paul Griffiths

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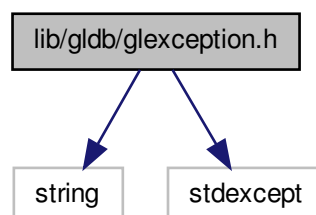
9.26 lib/gldb/glexception.h File Reference

Interface to General Ledger base exception class.

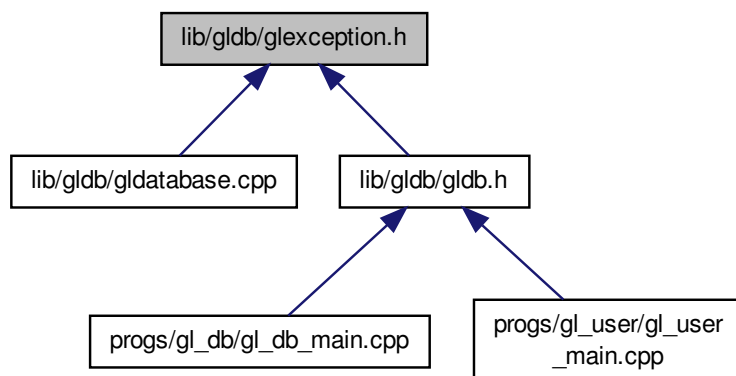
```
#include <string>
```

```
#include <stdexcept>
```

Include dependency graph for `glexception.h`:



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



Classes

- class [genleg::GLDBException](#)

Base general ledger database exception class.

9.26.1 Detailed Description

Interface to General Ledger base exception class.

Author

Paul Griffiths

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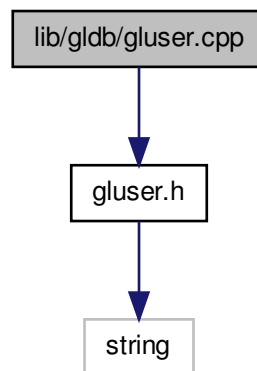
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9.27 lib/gdb/gluser.cpp File Reference

Implementation of user class.

```
#include "gluser.h"
```

Include dependency graph for gluser.cpp:



9.27.1 Detailed Description

Implementation of user class. Implementation of user class

Author

Paul Griffiths

Copyright

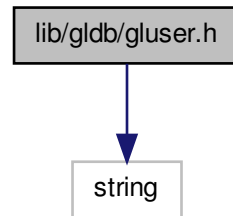
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9.28 lib/gdb/gluser.h File Reference

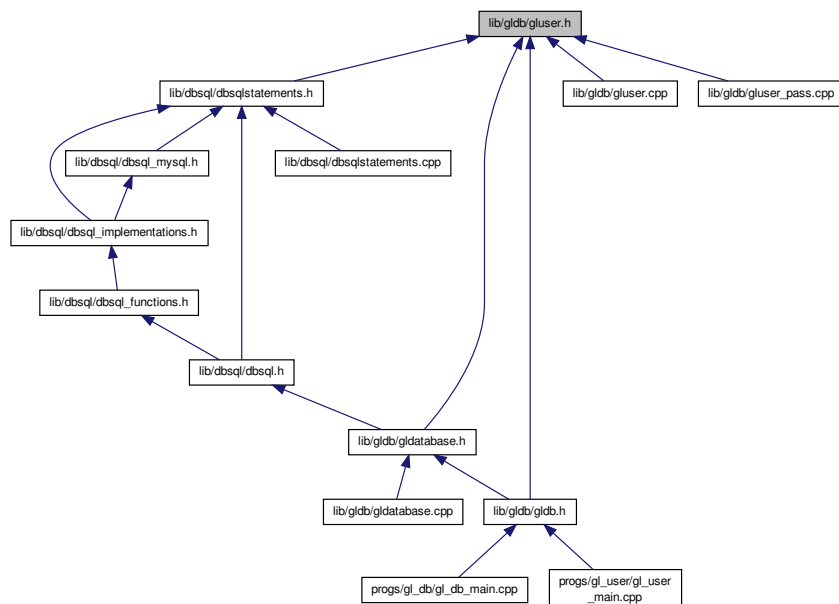
Interface to user class.

```
#include <string>
```

Include dependency graph for gluser.h:



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



Classes

- class [genleg::GLUser](#)
General ledger user class.

9.28.1 Detailed Description

Interface to user class. Interface to user class

Author

Paul Griffiths

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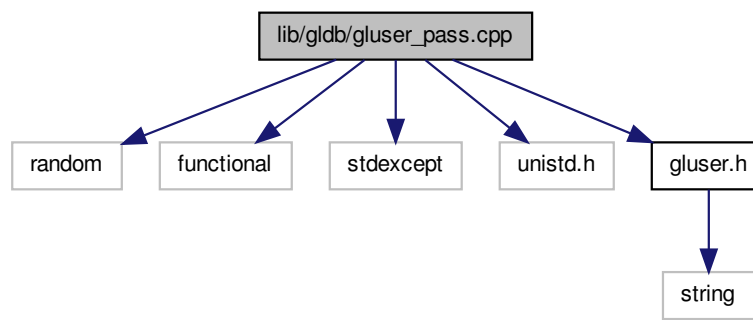
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9.29 lib/glib/gluser_pass.cpp File Reference

Implementation of password functions for user class.

```
#include <random>
#include <functional>
#include <stdexcept>
#include <unistd.h>
#include "gluser.h"
```

Include dependency graph for gluser_pass.cpp:



Macros

- `#define _XOPEN_SOURCE 600`

Functions

- static std::string `generate_salt()`
Generates a random two-character salt for crypt()

9.29.1 Detailed Description

Implementation of password functions for user class.

Todo Implement a better form of password encryption. In particular, these functions are not re-entrant, and only use the first 8 characters of the password.

Author

Paul Griffiths

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9.29.2 Macro Definition Documentation

9.29.2.1 `#define _XOPEN_SOURCE 600`

UNIX feature test macro

9.29.3 Function Documentation

9.29.3.1 `static std::string generate_salt () [static]`

Generates a random two-character salt for crypt()

Returns

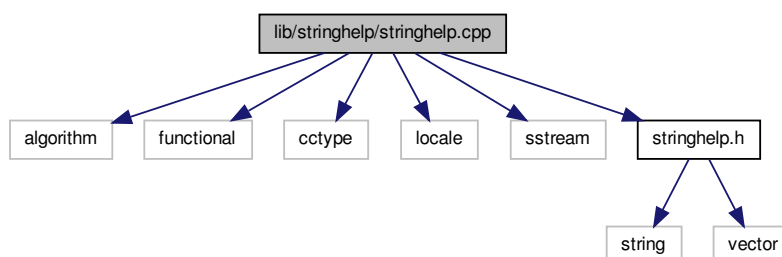
The two-character salt.

9.30 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:



9.30.1 Detailed Description

Implementation of string helper functions.

Author

Paul Griffiths

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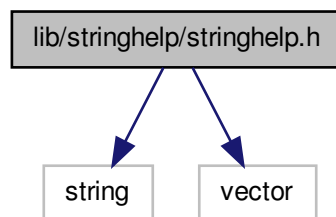
9.31 lib/stringhelp/stringhelp.h File Reference

Interface to string helper functions.

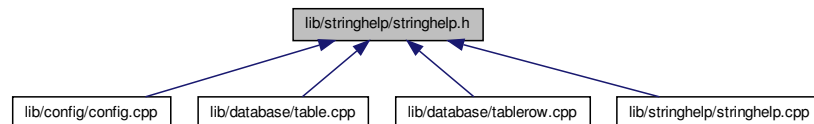
```
#include <string>
```

```
#include <vector>
```

Include dependency graph for stringhelp.h:



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



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.
- `std::vector< std::string > & pgstring::split (std::vector< std::string > &vec, const std::string &s, const char delim)`
Splits a delimited string into tokens.
- `bool pgstring::next_content_line (std::istream &if, std::string &s)`
Gets the next content line from a stream.

- `std::vector< std::string > & pgstring::content_lines` (`std::vector< std::string > &vec`, `std::istream &ifs`)
Populates a vector of content lines from a stream.
- `std::vector< std::vector< std::string > > & pgstring::split_lines` (`std::vector< std::vector< std::string > > &vec`, `std::istream &ifs`, `const char delim`)
Populates a vector of vectors of fields from a stream.
- `std::string & pgstring::join` (`std::vector< std::string > &vec`, `std::string &s`, `const char delim`)
Joins a vector of strings into a delimited line.
- `bool pgstring::replace` (`std::string &str`, `const std::string &from`, `const std::string &to`)
Replaces a substring with another string.

9.31.1 Detailed Description

Interface to string helper functions.

Author

Paul Griffiths

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9.32 progs/gl_db/gl_db_main.cpp File Reference

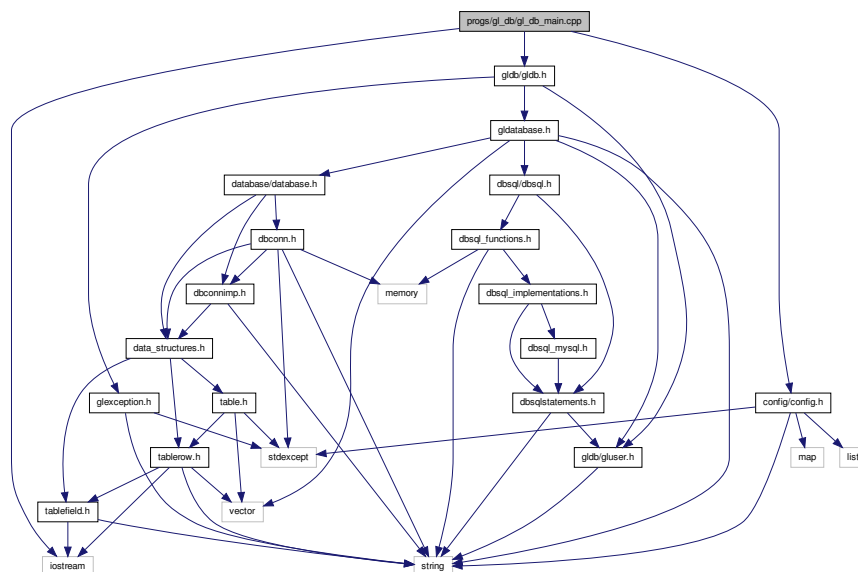
Main functionality for gl_db program.

```
#include <iostream>
```

```
#include "gldb/gldb.h"
```

```
#include "config/config.h"
```

Include dependency graph for gl_db_main.cpp:



Functions

- static void `set_configuration` (`Config` &config, int argc, char *argv[])
Sets program configuration options.
- static bool `check_help_and_version` (const `Config` &config)
Prints help or version messages if requested.
- static bool `check_db_parameters` (const `Config` &config)
Checks if database, hostname and username were provided.
- static void `print_usage_message` ()
Prints a program usage message.
- static void `print_version_message` ()
Prints a program version message.
- static void `print_help_message` ()
Prints a program help message.
- static std::string `login` (void)
Gets a password from the terminal.
- int `main` (int argc, char *argv[])
Main function.

Variables

- static const char * `programe` = "gl_db"
Static variable for program name.

9.32.1 Detailed Description

Main functionality for gl_db program.

Author

Paul Griffiths

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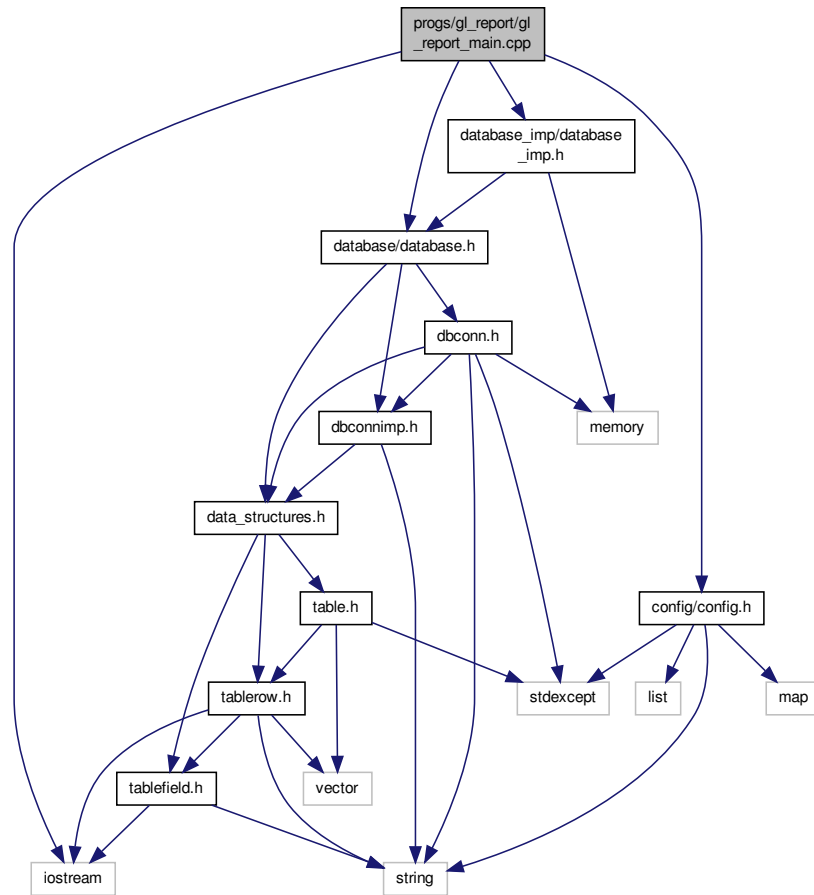
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9.33 progs/gl_report/gl_report_main.cpp File Reference

Main functionality for gl_report program.

```
#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[])
Sets program configuration options.
- static void `print_usage_message` ()
Prints a program usage message.
- static void `print_version_message` ()
Prints a program version message.
- static void `print_help_message` ()
Prints a program help message.
- static std::string `login` (void)
Gets a password from the terminal.
- int `main` (int argc, char *argv[])
Main function.

Variables

- static const char * `progrname` = "gl_report"
Static variable for program name.

- Enables or disables a user.*
- static void `set_user_password` (`GLUser` &user, `Config` &config, `GLDatabase` &gdb)
 - Sets a user's password.*
- static void `check_user_password` (`GLUser` &user, `Config` &config)
 - Checks a user's password.*
- static void `print_usage_message` ()
 - Prints a program usage message.*
- static void `print_version_message` ()
 - Prints a program version message.*
- static void `print_help_message` ()
 - Prints a program help message.*
- static std::string `login` (void)
 - Gets a password from the terminal.*
- int `main` (int argc, char *argv[])
 - Main function.*

Variables

- static const char * `progrname` = "gl_user"
 - Static variable for program name.*

9.34.1 Detailed Description

Main functionality for gl_user program.

Author

Paul Griffiths

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9.34.2 Function Documentation

9.34.2.1 static bool check_db_parameters (const `Config` & *config*) [static]

Checks if database, hostname and username were provided.

Parameters

<i>config</i>	Reference to a Config object.
---------------	-------------------------------

Returns

`true` if the information was provided, `false` otherwise.

9.34.2.2 static bool check_help_and_version (const `Config` & *config*) [static]

Prints help or version messages if requested.

Parameters

<i>config</i>	Reference to a Config object.
---------------	-------------------------------

Returns

`true` if the help or version message was requested, `false` otherwise.

9.34.2.3 `static void check_user_password (GLUser & user, Config & config) [static]`

Checks a user's password.

Parameters

<i>user</i>	Reference to user.
<i>config</i>	Reference to program configuration options.

9.34.2.4 `static void enable_user (GLUser & user, Config & config, GLDatabase & gdb) [static]`

Enables or disables a user.

Parameters

<i>user</i>	Reference to user.
<i>config</i>	Reference to program configuration.
<i>gdb</i>	Reference to database object.

9.34.2.5 `static std::string login (void) [static]`

Gets a password from the terminal.

Returns

The password.

9.34.2.6 `int main (int argc, char * argv[])`

Main function.

Parameters

<i>argc</i>	Number of command line arguments.
<i>argv</i>	Command line arguments.

Returns

Exit status code.

9.34.2.7 `static void set_configuration (Config & config, int argc, char * argv[]) [static]`

Sets program configuration options.

Parameters

<i>config</i>	Reference to a Config object.
<i>argc</i>	argc passed to <code>main()</code> .
<i>argv</i>	argv passed to <code>main()</code> .

9.34.2.8 `static void set_user_password (GLUser & user, Config & config, GLDatabase & gdb)` `[static]`

Sets a user's password.

Parameters

<i>user</i>	Reference to user.
<i>config</i>	Reference to program configuration.
<i>gdb</i>	Reference to database object.

9.34.2.9 `static void show_user_details (const GLUser & user)` `[static]`

Outputs details for a user.

Parameters

<i>user</i>	Reference to user.
-------------	--------------------

Index

- ~Config
 - genleg::Config, [25](#)
- ~DBConnDummy
 - gldb::DBConnDummy, [39](#)
- ~DBConnImp
 - gldb::DBConnImp, [41](#)
- ~DBConnMySQL
 - gldb::DBConnMySQL, [43](#)
- ~DBSQLStatements
 - genleg::DBSQLStatements, [46](#)
- ~GLDatabase
 - genleg::GLDatabase, [50](#)
- ~GLUser
 - genleg::GLUser, [54](#)
- ~Table
 - gldb::Table, [58](#)
- ~TableField
 - gldb::TableField, [66](#)
- ~TableRow
 - gldb::TableRow, [73](#)
- _XOPEN_SOURCE
 - config_getopt.cpp, [80](#)
 - gluser_pass.cpp, [115](#)
- add_cmdline_option
 - genleg::Config, [26](#)
- append_field
 - gldb::TableRow, [73](#)
- append_record
 - gldb::Table, [59](#)
- backend
 - genleg::GLDatabase, [50](#)
- check_db_parameters
 - Database program., [22](#)
 - gl_user_main.cpp, [121](#)
- check_help_and_version
 - Database program., [22](#)
 - gl_user_main.cpp, [121](#)
- check_password
 - genleg::GLUser, [54](#)
- check_user_password
 - gl_user_main.cpp, [122](#)
- Config
 - genleg::Config, [25](#)
- config_getopt.cpp
 - _XOPEN_SOURCE, [80](#)
- ConfigBadConfigFile
 - genleg::ConfigBadConfigFile, [28](#)
- ConfigBadOption
 - genleg::ConfigBadOption, [29](#)
- ConfigCouldNotOpenFile
 - genleg::ConfigCouldNotOpenFile, [31](#)
- ConfigException
 - genleg::ConfigException, [32](#)
- ConfigOptionNotSet
 - genleg::ConfigOptionNotSet, [33](#)
- create_from_file
 - gldb::Table, [59](#)
- create_structure
 - genleg::GLDatabase, [50](#)
- create_table
 - genleg::DBSQLStatements, [47](#)
- create_view
 - genleg::DBSQLStatements, [47](#)
- DBConn
 - gldb::DBConn, [34](#)
- DBConnCouldNotConnect
 - gldb::DBConnCouldNotConnect, [36](#)
- DBConnCouldNotQuery
 - gldb::DBConnCouldNotQuery, [37](#)
- DBConnDummy
 - gldb::DBConnDummy, [38, 39](#)
- DBConnException
 - gldb::DBConnException, [40](#)
- DBConnImp
 - gldb::DBConnImp, [41](#)
- DBConnMySQL
 - gldb::DBConnMySQL, [43](#)
- DBSQLStatements
 - genleg::DBSQLStatements, [46](#)
- Database interaction module, [14](#)
 - get_connection, [15](#)
 - get_database_type, [15](#)
- Database program., [22](#)
 - check_db_parameters, [22](#)
 - check_help_and_version, [22](#)
 - login, [23](#)
 - main, [23](#)
 - set_configuration, [23](#)
- destroy_structure
 - genleg::GLDatabase, [50](#)
- drop_table
 - genleg::DBSQLStatements, [47](#)
- drop_view
 - genleg::DBSQLStatements, [47](#)
- enable_user

- gl_user_main.cpp, 122
- enabled
 - genleg::GLUser, 55
- firstname
 - genleg::GLUser, 55
- GLDBException
 - genleg::GLDBException, 52
- GLDatabase
 - genleg::GLDatabase, 50
- GLUser
 - genleg::GLUser, 54
- General Ledger database module., 13
- General purpose helpers., 18
 - split, 18
 - trim, 18
 - trim_back, 19
 - trim_front, 19
- generate_salt
 - gluser_pass.cpp, 115
- genleg::Config, 25
 - ~Config, 25
 - add_cmdline_option, 26
 - Config, 25
 - is_set, 26
 - m_opts_set, 27
 - m_opts_supp, 27
 - populate_from_cmdline, 26
 - populate_from_file, 27
- genleg::ConfigBadConfigFile, 27
 - ConfigBadConfigFile, 28
- genleg::ConfigBadOption, 29
 - ConfigBadOption, 29
- genleg::ConfigCouldNotOpenFile, 30
 - ConfigCouldNotOpenFile, 31
- genleg::ConfigException, 31
 - ConfigException, 32
- genleg::ConfigOptionNotSet, 32
 - ConfigOptionNotSet, 33
- genleg::DBSQLMySQL, 44
- genleg::DBSQLStatements, 45
 - ~DBSQLStatements, 46
 - create_table, 47
 - create_view, 47
 - DBSQLStatements, 46
 - drop_table, 47
 - drop_view, 47
 - update_user, 47
 - user_by_id, 48
 - user_by_username, 48
- genleg::GLDBException, 52
 - GLDBException, 52
- genleg::GLDatabase, 48
 - ~GLDatabase, 50
 - backend, 50
 - create_structure, 50
 - destroy_structure, 50
 - GLDatabase, 50
 - get_user_by_id, 51
 - get_user_by_username, 51
 - load_sample_data, 51
 - m_dbc, 52
 - m_sql, 52
 - m_tables, 52
 - m_views, 52
 - update_user, 51
- genleg::GLUser, 53
 - ~GLUser, 54
 - check_password, 54
 - enabled, 55
 - firstname, 55
 - GLUser, 54
 - id, 55
 - lastname, 55
 - m_enabled, 56
 - m_firstname, 56
 - m_id, 57
 - m_lastname, 57
 - m_pass_hash, 57
 - m_pass_salt, 57
 - m_username, 57
 - pass_hash, 55
 - pass_salt, 55
 - set_enabled, 55
 - set_firstname, 56
 - set_lastname, 56
 - set_password, 56
 - set_username, 56
 - username, 56
- get_connection
 - Database interaction module, 15
- get_database_type
 - Database interaction module, 15
- get_field
 - gldb::Table, 59
- get_headers
 - gldb::Table, 59
- get_user_by_id
 - genleg::GLDatabase, 51
- get_user_by_username
 - genleg::GLDatabase, 51
- gl_user_main.cpp
 - check_db_parameters, 121
 - check_help_and_version, 121
 - check_user_password, 122
 - enable_user, 122
 - login, 122
 - main, 122
 - set_configuration, 122
 - set_user_password, 123
 - show_user_details, 123
- gldb::DBConn, 33
 - DBConn, 34
 - m_imp, 35
 - operator=, 34
 - query, 34

- select, 34
- gldb::DBConnCouldNotConnect, 35
 - DBConnCouldNotConnect, 36
- gldb::DBConnCouldNotQuery, 36
 - DBConnCouldNotQuery, 37
- gldb::DBConnDummy, 37
 - ~DBConnDummy, 39
 - DBConnDummy, 38, 39
 - operator=, 39
 - select, 39
- gldb::DBConnException, 39
 - DBConnException, 40
- gldb::DBConnImp, 40
 - ~DBConnImp, 41
 - DBConnImp, 41
 - query, 41
 - select, 41
- gldb::DBConnMySQL, 42
 - ~DBConnMySQL, 43
 - DBConnMySQL, 43
 - m_conn, 44
 - operator=, 43
 - query, 44
 - select, 44
- gldb::Table, 57
 - ~Table, 58
 - append_record, 59
 - create_from_file, 59
 - get_field, 59
 - get_headers, 59
 - insert_query, 60
 - m_headers, 61
 - m_quoted, 61
 - m_records, 61
 - num_fields, 60
 - num_records, 60
 - set_quoted, 60
 - Table, 58
- gldb::TableBadInputFile, 61
 - TableBadInputFile, 62
- gldb::TableCouldNotOpenInputFile, 62
 - TableCouldNotOpenInputFile, 63
- gldb::TableException, 64
 - TableException, 64
- gldb::TableField, 65
 - ~TableField, 66
 - length, 66
 - m_data, 68
 - operator std::string, 66
 - operator<<, 68
 - operator+=, 66, 67
 - operator=, 67
 - TableField, 66
- gldb::TableMismatchedRecordLength, 68
 - TableMismatchedRecordLength, 69
- gldb::TableNoSuchField, 70
 - TableNoSuchField, 71
- gldb::TableNoSuchRecord, 71
 - TableNoSuchRecord, 72
- gldb::TableRow, 72
 - ~TableRow, 73
 - append_field, 73
 - m_fields, 75
 - print, 74
 - record_string, 74
 - size, 75
 - TableRow, 73
- gluser_pass.cpp
 - _XOPEN_SOURCE, 115
 - generate_salt, 115
- id
 - genleg::GLUser, 55
- insert_query
 - gldb::Table, 60
- is_set
 - genleg::Config, 26
- lastname
 - genleg::GLUser, 55
- length
 - gldb::TableField, 66
- lib/config/config.cpp, 77
- lib/config/config.h, 78
- lib/config/config_getopt.cpp, 79
- lib/database/data_structures.h, 80
- lib/database/database.h, 81
- lib/database/dbconn.cpp, 83
- lib/database/dbconn.h, 84
- lib/database/dbconnimp.h, 85
- lib/database/table.cpp, 87
- lib/database/table.h, 88
- lib/database/tablefield.cpp, 90
- lib/database/tablefield.h, 90
- lib/database/tablerow.cpp, 92
- lib/database/tablerow.h, 93
- lib/database_imp/database_imp.h, 94
- lib/database_imp/dummy/dbconn_dummy_imp.cpp, 96
- lib/database_imp/dummy/dbconn_dummy_imp.h, 97
- lib/database_imp/mysql/dbconn_mysql_imp.cpp, 99
- lib/database_imp/mysql/dbconn_mysql_imp.h, 100
- lib/dbsql/dbsql_mysql.h, 102
- lib/dbsql/dbsqlstatements.cpp, 104
- lib/dbsql/dbsqlstatements.h, 104
- lib/gldb/gldatabase.cpp, 107
- lib/gldb/gldatabase.h, 107
- lib/gldb/gldb.h, 109
- lib/gldb/glexception.h, 110
- lib/gldb/gluser.cpp, 112
- lib/gldb/gluser.h, 112
- lib/gldb/gluser_pass.cpp, 114
- lib/stringhelp/stringhelp.cpp, 115
- lib/stringhelp/stringhelp.h, 116
- load_sample_data
 - genleg::GLDatabase, 51
- login
 - Database program., 23

- gl_user_main.cpp, 122
- Reporting program., 20
- m_conn
 - gldb::DBConnMySQL, 44
- m_data
 - gldb::TableField, 68
- m_dbc
 - genleg::GLDatabase, 52
- m_enabled
 - genleg::GLUser, 56
- m_fields
 - gldb::TableRow, 75
- m_firstname
 - genleg::GLUser, 56
- m_headers
 - gldb::Table, 61
- m_id
 - genleg::GLUser, 57
- m_imp
 - gldb::DBConn, 35
- m_lastname
 - genleg::GLUser, 57
- m_opts_set
 - genleg::Config, 27
- m_opts_supp
 - genleg::Config, 27
- m_pass_hash
 - genleg::GLUser, 57
- m_pass_salt
 - genleg::GLUser, 57
- m_quoted
 - gldb::Table, 61
- m_records
 - gldb::Table, 61
- m_sql
 - genleg::GLDatabase, 52
- m_tables
 - genleg::GLDatabase, 52
- m_username
 - genleg::GLUser, 57
- m_views
 - genleg::GLDatabase, 52
- main
 - Database program., 23
 - gl_user_main.cpp, 122
 - Reporting program., 20
- num_fields
 - gldb::Table, 60
- num_records
 - gldb::Table, 60
- operator std::string
 - gldb::TableField, 66
- operator<<
 - gldb::TableField, 68
- operator+=
 - gldb::TableField, 66, 67
- operator=
 - gldb::DBConn, 34
 - gldb::DBConnDummy, 39
 - gldb::DBConnMySQL, 43
 - gldb::TableField, 67
- pass_hash
 - genleg::GLUser, 55
- pass_salt
 - genleg::GLUser, 55
- populate_from_cmdline
 - genleg::Config, 26
- populate_from_file
 - genleg::Config, 27
- print
 - gldb::TableRow, 74
- Program configuration module, 17
- progs/gl_db/gl_db_main.cpp, 117
- progs/gl_report/gl_report_main.cpp, 118
- progs/gl_user/gl_user_main.cpp, 120
- query
 - gldb::DBConn, 34
 - gldb::DBConnImp, 41
 - gldb::DBConnMySQL, 44
- record_string
 - gldb::TableRow, 74
- Reporting program., 20
 - login, 20
 - main, 20
 - set_configuration, 21
- SQL statements module, 16
- select
 - gldb::DBConn, 34
 - gldb::DBConnDummy, 39
 - gldb::DBConnImp, 41
 - gldb::DBConnMySQL, 44
- set_configuration
 - Database program., 23
 - gl_user_main.cpp, 122
 - Reporting program., 21
- set_enabled
 - genleg::GLUser, 55
- set_firstname
 - genleg::GLUser, 56
- set_lastname
 - genleg::GLUser, 56
- set_password
 - genleg::GLUser, 56
- set_quoted
 - gldb::Table, 60
- set_user_password
 - gl_user_main.cpp, 123
- set_username
 - genleg::GLUser, 56
- show_user_details
 - gl_user_main.cpp, 123

- size
 - gldb::TableRow, [75](#)
- split
 - General purpose helpers., [18](#)
- Table
 - gldb::Table, [58](#)
- TableBadInputFile
 - gldb::TableBadInputFile, [62](#)
- TableCouldNotOpenInputFile
 - gldb::TableCouldNotOpenInputFile, [63](#)
- TableException
 - gldb::TableException, [64](#)
- TableField
 - gldb::TableField, [66](#)
- TableMismatchedRecordLength
 - gldb::TableMismatchedRecordLength, [69](#)
- TableNoSuchField
 - gldb::TableNoSuchField, [71](#)
- TableNoSuchRecord
 - gldb::TableNoSuchRecord, [72](#)
- TableRow
 - gldb::TableRow, [73](#)
- trim
 - General purpose helpers., [18](#)
- trim_back
 - General purpose helpers., [19](#)
- trim_front
 - General purpose helpers., [19](#)
- update_user
 - genleg::DBSQLStatements, [47](#)
 - genleg::GLDatabase, [51](#)
- user_by_id
 - genleg::DBSQLStatements, [48](#)
- user_by_username
 - genleg::DBSQLStatements, [48](#)
- username
 - genleg::GLUser, [56](#)