Museum Project

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Chapter 3

Class Documentation

3.1 Hash::_ht Struct Reference

Public Attributes

- · unsigned int count
- · HashElem * chain

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.2 Account Class Reference

Inheritance diagram for Account:



Public Member Functions

- Account (DBTool *db, string name, bool _ifTesting)
 - Account::Account Constructor that initializes table.
- Viewer * login (string _un, string _pw)
 - Account::login (p. 12) Logs the user in if the username and password match.
- Viewer * addNewUser (string UN, string PW, string PIN, string DESC, string PIC)
 - Account::addNewUser (p. 11) Adds new user to the database table if all formatting is correct and PIN matches.
- string removeUser (string)
 - Account::removeUser (p. 13) Removes user by changing the boolean deleted field.
- bool newPIN (string)

Account::newPIN (p. 13) Changes the admin's authentication PIN in the table.

vector< string > userData (string)

Account::userData (p. 15) Returns all data about a given user.

• string getNameFromId (int)

Account::getNameFromId (p. 12) Returns the name of the user given the user's id.

void store_create_sql ()

Account::store_create_sql (p. 10) String that creates SQL query to create a new table.

- virtual void store add row sql ()
- bool add_row (int id, string username, string password, string privelege, string description, string picture, string uniquePW, string deleted)

Account::add_row (p. 11) Adds a new row to the table.

· bool select all ()

Account::select_all (p. 14) Prints out all of the entries in the table.

void select elements sql (string)

Account::select_elements_sql (p. 14) Returns the values of an entire column.

void select cell (string, string, string)

Account::select_cell (p. 14) Finds the requested value in a particular cell.

• void count_rows ()

Account::count_rows (p. 10) Counts how many rows are in the table.

void remove_entries ()

Account::remove_row Removes a row given a column name and key value.

void update_value (string, string, string, string)

Account::update_value (p. 15) Updates the value of a given cell.

vector< string > getAllUsernames ()

Account::getAllUsernames (p. 12) Getter method for allUsernames.

void setAllUsernames (vector< string >)

Account::setAllUsernames (p. 14) Setter method for allUsernames.

Protected Attributes

- string sql_select_all
- · string sql_select

3.2.1 Constructor & Destructor Documentation

3.2.1.1 Account()

Account::Account Constructor that initializes table.

_db	Reference to DBTool (p. 33)
name	Name of the database table
_ifTesting	This is true if we are unit testing

3.2.2 Member Function Documentation

3.2.2.1 add_row()

Account::add_row (p. 11) Adds a new row to the table.

Parameters

id	Unique ID of the user
username	The user's username
password	The user's password
privelege	The privelege level of the user
description	The user's profile description
picture	The user's profile picture file name
uniquePW	The user's PIN, only the admin's cell will be filled
deleted	Whether the admin deleted said account or not

Returns

Whether the addition was successful or not

3.2.2.2 addNewUser()

Account::addNewUser (p. 11) Adds new user to the database table if all formatting is correct and PIN matches.

UN	New username
PW	New password
PIN	The PIN that is supposed to match the Admin (p. 16)'s PIN
DESC	New description
GeReGted by	v Mayyepicture file name

Returns

Reference to the new user

3.2.2.3 getAllUsernames()

```
vector< string > Account::getAllUsernames ( )
```

Account::getAllUsernames (p. 12) Getter method for allUsernames.

Returns

Vector of all usernames in the system

3.2.2.4 getNameFromId()

Account::getNameFromId (p. 12) Returns the name of the user given the user's id.

Parameters

```
ID The user's ID
```

Returns

The username

3.2.2.5 login()

Account::login (p. 12) Logs the user in if the username and password match.

_un	Inputted username
pw	Inputted password

Returns

A reference to the viewer class that contains all user information

3.2.2.6 newPIN()

```
bool Account::newPIN ( \label{eq:string} \mbox{string } p \mbox{ )}
```

Account::newPIN (p. 13) Changes the admin's authentication PIN in the table.

Parameters

p The new PIN	
---------------	--

Returns

Whether the PIN change was successful or not

3.2.2.7 remove_entries()

```
void Account::remove_entries ( )
```

Account::remove_row Removes a row given a column name and key value.

Parameters

n	The key value of the row
cn	The column name to match the key

3.2.2.8 removeUser()

Account::removeUser (p. 13) Removes user by changing the boolean deleted field.

name	The username that should be deleted

Returns

The picture file name of the user so that the file can be deleted in another method

3.2.2.9 select_all()

```
bool Account::select_all ( )
```

Account::select_all (p. 14) Prints out all of the entries in the table.

Returns

Whether the query was successful or not

3.2.2.10 select_cell()

Account::select_cell (p. 14) Finds the requested value in a particular cell.

Parameters

whichRow Key to match so that the row is identified	
	,
row	Column (p. 23) name to match whichRow with to identify the row of the desired cell
col	Column (p. 23) name of the desired cell

3.2.2.11 select_elements_sql()

Account::select_elements_sql (p. 14) Returns the values of an entire column.

col	Column (p. 23) name

3.2.2.12 setAllUsernames()

```
void Account::setAllUsernames ( \mbox{vector} < \mbox{string} \ > \ \mbox{x} \ )
```

Account::setAllUsernames (p. 14) Setter method for allUsernames.

Parameters

```
x New vector that allUsernames will be set to
```

3.2.2.13 update value()

```
void Account::update_value (
    string colName,
    string newValue,
    string rowName,
    string rowValue )
```

Account::update_value (p. 15) Updates the value of a given cell.

Parameters

colName	The column name of the cell that needs to be changed
newValue	New value of the cell
rowName	The column name where the rowValue will be matched with
rowValue	Decides which row to update

3.2.2.14 userData()

Account::userData (p. 15) Returns all data about a given user.

Parameters

```
x The username
```

Returns

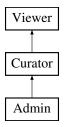
Vector of all of the data

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/account.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/account.cpp

3.3 Admin Class Reference

Inheritance diagram for Admin:



Public Member Functions

• Admin ()

Admin::Admin (p. 16) Default Constructor.

• Admin (int _userID, string _un, string _pw, string _priv, string _desc, string _selfPic, string _uniquePW)

Admin::Admin (p. 16) Constructor that initializes all of the class instance variables.

Additional Inherited Members

3.3.1 Constructor & Destructor Documentation

3.3.1.1 Admin()

Admin::Admin (p. 16) Constructor that initializes all of the class instance variables.

_userID	Admin (p. 16)'s ID
_un	Admin (p. 16)'s username
_pw	Admin (p. 16)'s password
_priv	Admin (p. 16)'s privelege level
_desc	Admin (p. 16)'s self description
_selfPic	Admin (p. 16)'s profile picture
_uniquePW	Admin (p. 16)'s determined unique authentication PIN password

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/admin.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/admin.cpp

3.4 AggInfo Struct Reference

Classes

- struct AggInfo_col
- struct AggInfo_func

Public Attributes

- u8 directMode
- u8 useSortingIdx
- int sortingIdx
- · int sortingldxPTab
- · int nSortingColumn
- · int mnReg
- int mxReg
- ExprList * pGroupBy
- struct AggInfo::AggInfo_col * aCol
- int nColumn
- · int nAccumulator
- struct AggInfo::AggInfo_func * aFunc
- · int nFunc

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.5 AggInfo::AggInfo_col Struct Reference

Public Attributes

- Table * pTab
- int iTable
- int iColumn
- int iSorterColumn
- int iMem
- Expr * pExpr

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.6 AggInfo::AggInfo_func Struct Reference

Public Attributes

- Expr * pExpr
- FuncDef * pFunc
- · int iMem
- · int iDistinct

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.7 analysisInfo Struct Reference

Public Attributes

- sqlite3 * db
- const char * zDatabase

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.8 AuthContext Struct Reference

Public Attributes

- · const char * zAuthContext
- Parse * pParse

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.9 AutoincInfo Struct Reference

Public Attributes

- Autoinclnfo * pNext
- Table * pTab
- int iDb
- · int regCtr

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.10 AuxData Struct Reference

Public Attributes

```
int iAuxOp
int iAuxArg
void * pAux
void(* xDeleteAux )(void *)
AuxData * pNextAux
```

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.11 Bitvec Struct Reference

Public Attributes

```
u32 iSize
u32 nSet
u32 iDivisor
union {
    BITVEC_TELEM aBitmap [BITVEC_NELEM]
    u32 aHash [BITVEC_NINT]
    Bitvec * apSub [BITVEC_NPTR]
}
```

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.12 BtCursor Struct Reference

Public Attributes

- u8 eState
- u8 curFlags
- u8 curPagerFlags
- u8 hints
- int skipNext
- Btree * pBtree
- Pgno * aOverflow
- void * pKey
- BtShared * pBt
- BtCursor * pNext
- · CellInfo info

- i64 nKey
- Pgno pgnoRoot
- i8 iPage
- u8 curIntKey
- u16 ix
- u16 aildx [BTCURSOR_MAX_DEPTH-1]
- struct KeyInfo * pKeyInfo
- MemPage * pPage
- MemPage * apPage [BTCURSOR_MAX_DEPTH-1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.13 BtLock Struct Reference

Public Attributes

- Btree * pBtree
- · Pgno iTable
- u8 eLock
- BtLock * pNext

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

• CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.14 Btree Struct Reference

Public Attributes

- sqlite3 * db
- BtShared * pBt
- u8 inTrans
- u8 sharable
- u8 locked
- u8 hasIncrblobCur
- int wantToLock
- · int nBackup
- u32 iDataVersion
- Btree * pNext
- Btree * pPrev
- BtLock lock

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.15 BtreePayload Struct Reference

Public Attributes

- const void * pKey
- sqlite3_int64 nKey
- const void * pData
- sqlite3_value * aMem
- u16 nMem
- · int nData
- · int nZero

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.16 BtShared Struct Reference

Public Attributes

- · Pager * pPager
- sqlite3 * db
- BtCursor * pCursor
- MemPage * pPage1
- u8 openFlags
- u8 autoVacuum
- u8 incrVacuum
- u8 bDoTruncate
- u8 inTransaction
- u8 max1bytePayload
- u16 btsFlags
- u16 maxLocal
- u16 minLocal
- u16 maxLeaf
- u16 minLeaf
- u32 pageSize
- u32 usableSize
- · int nTransaction
- u32 nPage
- void * pSchema
- void(* xFreeSchema)(void *)
- sqlite3_mutex * mutex
- Bitvec * pHasContent
- · int nRef
- BtShared * pNext
- BtLock * pLock
- Btree * pWriter
- u8 * pTmpSpace

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.17 BusyHandler Struct Reference

Public Attributes

- int(* xBusyHandler)(void *, int)
- void * pBusyArg
- int nBusy
- u8 bExtraFileArg

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.18 CallCount Struct Reference

Public Attributes

- i64 nValue
- i64 nStep
- i64 nTotal

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.19 CellArray Struct Reference

Public Attributes

- · int nCell
- MemPage * pRef
- u8 ** apCell
- u16 * szCell
- u8 * apEnd [NB *2]
- int ixNx [NB *2]

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.20 CellInfo Struct Reference

Public Attributes

- i64 nKey
- u8 * pPayload
- u32 nPayload
- u16 nLocal
- u16 nSize

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.21 CollSeq Struct Reference

Public Attributes

- char * zName
- u8 enc
- void * pUser
- int(* xCmp)(void *, int, const void *, int, const void *)
- void(* xDel)(void *)

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.22 Column Struct Reference

Public Attributes

- · char * zName
- Expr * pDflt
- char * zColl
- u8 notNull
- · char affinity
- u8 szEst
- u16 colFlags

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.23 Comment Class Reference

Inheritance diagram for Comment:



Public Member Functions

Comment (DBTool *db, string name, bool _isTesting)

Comment (p. 24) constructor.

void store create sql ()

store_create_sql sql statement for creates on in table

virtual void store_add_row_sql ()

store_add_row_sql sql statement for row add on ining to table

· bool add_row (int museumld, string author, string content, string deleted)

add row adds entry to Comments database

vector< string > select_cells (string whichRow, string row, string col)

select_cells selects a value for a single field for a single element in the table

vector< string > select_elements_sql (string col)

select_elements_sql gets the entire column of a certain field in the database

· void newComment (int mID, string a, string c)

newComment basically just adds all functionality for a new comment; calls add_row

void update_value (string colName, string newValue, string rowName, string rowValue)

Comment::update_value (p. 27) Updates the value of a given cell.

bool removeComment (string content)

removeComment Changes the boolean status to "Deleted" according to a given comment string

• int count_rows ()

count_rows return number of rows

- vector< string > getMuseumComments (int)
- void setComment (string s)

setComment sets the comment for the current string

• void remove_entries ()

Comment::remove_row Removes a row given a column name and key value.

void setDB (sqlite3 *)

Protected Attributes

- string sql_select_all
- string sql_select

3.23.1 Constructor & Destructor Documentation

3.23.1.1 Comment()

Comment (p. 24) constructor.

Parameters

db	database tool for all comments
name	name for database

3.23.2 Member Function Documentation

3.23.2.1 add_row()

add_row adds entry to Comments database

Parameters

museum← Id	the museum id field
author	the author field
content	the content of the comment

Returns

bool

3.23.2.2 newComment()

newComment basically just adds all functionality for a new comment; calls add_row

Parameters

mID	the id of the museum that is being commented on
а	the author of the comment
С	the content in the comment

3.23.2.3 remove_entries()

```
void Comment::remove_entries ( )
```

Comment::remove_row Removes a row given a column name and key value.

Parameters

n	The key value of the row
cn	The column name to match the key

3.23.2.4 removeComment()

removeComment Changes the boolean status to "Deleted" according to a given comment string

Parameters

content	The comment to be deleted
---------	---------------------------

Returns

whether the deletion was successful or not

3.23.2.5 select_cells()

select_cells selects a value for a single field for a single element in the table

Parameters

whichRow the index of the row we want in the databa	
row	the name of the primary key
col	the field that we are looking for

Returns

vector of selected cells

3.23.2.6 select_elements_sql()

select_elements_sql gets the entire column of a certain field in the database

Parameters

col	the field we are searching for
-----	--------------------------------

Returns

vector of selected elements

3.23.2.7 setComment()

```
void Comment::setComment ( string s )
```

setComment sets the comment for the current string

Parameters

```
s the comment we are writing
```

3.23.2.8 update_value()

```
string rowName,
string rowValue )
```

Comment::update_value (p. 27) Updates the value of a given cell.

Parameters

colName	The column name of the cell that needs to be changed	
newValue	New value of the cell	
rowName	The column name where the rowValue will be matched with	
rowValue	Decides which row to update	

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/comment.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/comment.cpp

3.24 compareInfo Struct Reference

Public Attributes

- u8 matchAll
- u8 matchOne
- u8 matchSet
- u8 noCase

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.25 CountCtx Struct Reference

Public Attributes

• i64 **n**

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

3.26 With::Cte Struct Reference

Public Attributes

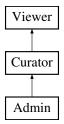
- char * zName
- ExprList * pCols
- · Select * pSelect
- const char * zCteErr

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.27 Curator Class Reference

Inheritance diagram for Curator:



Public Member Functions

· Curator ()

Curator (p. 29) constuctor for curator.

• Curator (int _userID, string _un, string _pw, string _priv, string _desc, string _selfPic)

Curator::Curator (p. 29) Constructor that initializes all class instance variables.

Additional Inherited Members

3.27.1 Constructor & Destructor Documentation

3.27.1.1 Curator() [1/2]

Curator::Curator ()

Curator (p. 29) constuctor for curator.

Curator::Curator (p. 29) Default constructor.

3.27.1.2 Curator() [2/2]

Curator::Curator (p. 29) Constructor that initializes all class instance variables.

Parameters

_userID	Curator (p. 29)'s ID
_un	Curator (p. 29)'s username
_pw	Curator (p. 29)'s password
_priv	Curator (p. 29)'s privelege level
_desc	Curator (p. 29)'s self description
_selfPic	Curator (p. 29)'s Profile Picture

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/curator.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/curator.cpp

3.28 DateTime Struct Reference

Public Attributes

- sqlite3_int64 iJD
- int Y
- int **M**
- int **D**
- int h
- int m
- int **tz**
- double s
- · char validJD
- · char rawS
- · char validYMD
- · char validHMS
- char validTZ
- · char tzSet
- char isError

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

3.29 Db Struct Reference 31

3.29 Db Struct Reference

Public Attributes

- char * zDbSName
- Btree * pBt
- u8 safety_level
- u8 bSyncSet
- Schema * pSchema

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.30 DbFixer Struct Reference

Public Attributes

- Parse * pParse
- Schema * pSchema
- u8 **bTemp**
- const char * zDb
- const char * zType
- · const Token * pName

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.31 DblquoteStr Struct Reference

Public Attributes

- DblquoteStr * pNextStr
- char **z** [8]

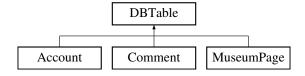
The documentation for this struct was generated from the following file:

3.32 DBTable Class Reference

The **DBTable** (p. 32) class.

#include <dbtable.h>

Inheritance diagram for DBTable:



Public Member Functions

- DBTable (DBTool *db, std::string name)
- void build_table ()
- void store_template_sql ()
- void store_exist_sql ()
- virtual void store_create_sql ()
- void store_drop_sql ()
- void store_size_sql ()
- int dbtemplate ()
- bool exist ()
- · bool create ()
- bool drop ()
- int size ()
- std::string get_name ()
- void set_exists ()
- void unset_exists ()
- void set_size (int cnt)

Protected Attributes

- std::string table_name
- DBTool * curr_db
- std::string sql_template
- std::string sql_exist
- std::string sql_create
- std::string sql_drop
- std::string sql_size
- std::string sql_add_row
- bool table_exists
- int row_cnt

3.32.1 Detailed Description

The **DBTable** (p. 32) class.

This class provides the parent functionality for a class that will be implementing the basic table functionality. The virutal methods also provide examples of the type of functionality that needs to be implemented in the inherited class.

There are also several functions that are not part of the class, but are required by the sqlite software function. The are generally named cb or "call back", indicating that they will be called by the sqlite software to provide functionality back to your code.

A called to sqlite exec is detailed in the exist method, which is how these classes interfaces to the SQLite tool.

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/dbtable.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/dbtable.cpp

3.33 DBTool Class Reference

The Database management tool.

```
#include <dbtool.h>
```

Public Member Functions

- DBTool (std::string name)
- **DBTool** (const char *name)
- DBTool (std::string location, std::string name)
- DBTool (const char *location, const char *name)
- int open_db ()
- · void print (std::ostream &sout)
- bool db_open ()
- sqlite3 * db_ref ()

3.33.1 Detailed Description

The Database management tool.

This object represents the running **sqlite3** (p. 70) database instance, which is run as part of a library. This is the class that loads the sqlite file and will allow for the basic tools for manipulating that object. The Database object is essentially a specialized engine that implements the primary features of a SQL relational database as a local instance.

3.33.2 Member Function Documentation

3.33.2.1 open_db()

```
int DBTool::open_db ( )
```

Method that will open the provided database.

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/dbtool.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/dbtool.cpp

3.34 DistinctCtx Struct Reference

Public Attributes

- u8 isTnct
- u8 eTnctType
- int tabTnct
- · int addrTnct

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.35 et_info Struct Reference

Public Attributes

- · char fmttype
- · etByte base
- etByte flags
- etByte type
- etByte charset
- etByte prefix

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

3.36 Expr Struct Reference

Public Attributes

```
• u8 op

    char affExpr

• u8 op2

    u32 flags

 union {
    char * zToken
    int iValue
 } u

    Expr * pLeft

 Expr * pRight
 union {
     ExprList * pList
    Select * pSelect
 } x
· int nHeight
· int iTable
• ynVar iColumn
• i16 iAgg
• i16 iRightJoinTable

    AggInfo * pAggInfo

 union {
    Table * pTab
    \textbf{Window} * \textbf{pWin}
    struct {
      int iAddr
      int regReturn
    } sub
 } y
```

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.37 ExprList Struct Reference

Classes

struct ExprList_item

Public Attributes

int nExprstruct ExprList::ExprList item a [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.38 ExprList::ExprList_item Struct Reference

Public Attributes

```
    Expr * pExpr
    char * zEName
    u8 sortFlags
    unsigned eEName:2
    unsigned done:1
    unsigned reusable:1
    unsigned bSorterRef:1
    unsigned bNulls: 1
    union {
        struct {
            u16 iOrderByCol
            u16 iAlias
        } x
        int iConstExprReg
    } u
```

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.39 FileChunk Struct Reference

Public Attributes

- FileChunk * pNext
- u8 zChunk [8]

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

3.40 FilePoint Struct Reference

Public Attributes

- sqlite3 int64 iOffset
- FileChunk * pChunk

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.41 FKey Struct Reference

Classes

struct sColMap

Public Attributes

- Table * pFrom
- FKey * pNextFrom
- char * zTo
- FKey * pNextTo
- FKey * pPrevTo
- int nCol
- u8 isDeferred
- u8 aAction [2]
- Trigger * apTrigger [2]
- struct FKey::sColMap aCol [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.42 FrameBound Struct Reference

Public Attributes

- int eType
- Expr * pExpr

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

3.43 fts5 api Struct Reference

Public Attributes

- · int iVersion
- int(* xCreateTokenizer)(fts5_api *pApi, const char *zName, void *pContext, fts5_tokenizer *pTokenizer, void(*xDestroy)(void *))
- int(* xFindTokenizer)(fts5_api *pApi, const char *zName, void **ppContext, fts5_tokenizer *pTokenizer)
- int(* xCreateFunction)(fts5_api *pApi, const char *zName, void *pContext, fts5_extension_function x←
 Function, void(*xDestroy)(void *))

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

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sglite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.44 fts5 tokenizer Struct Reference

Public Attributes

- int(* xCreate)(void *, const char **azArg, int nArg, Fts5Tokenizer **ppOut)
- void(* xDelete)(Fts5Tokenizer *)
- int(* xTokenize)(Fts5Tokenizer *, void *pCtx, int flags, const char *pText, int nText, int(*xToken)(void *pCtx, int tflags, const char *pToken, int nToken, int iStart, int iEnd))

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.45 Fts5ExtensionApi Struct Reference

Public Attributes

- · int iVersion
- void *(* xUserData)(Fts5Context *)
- int(* xColumnCount)(Fts5Context *)
- int(* xRowCount)(Fts5Context *, sqlite3_int64 *pnRow)
- int(* xColumnTotalSize)(Fts5Context *, int iCol, sqlite3_int64 *pnToken)
- int(* xTokenize)(Fts5Context *, const char *pText, int nText, void *pCtx, int(*xToken)(void *, int, const char *, int, int, int, int))
- int(* xPhraseCount)(Fts5Context *)
- int(* xPhraseSize)(Fts5Context *, int iPhrase)
- int(* xInstCount)(Fts5Context *, int *pnInst)
- int(* xInst)(Fts5Context *, int ildx, int *piPhrase, int *piCol, int *piOff)
- sqlite3_int64(* xRowid)(Fts5Context *)
- int(* xColumnText)(Fts5Context *, int iCol, const char **pz, int *pn)
- int(* xColumnSize)(Fts5Context *, int iCol, int *pnToken)

```
    int(* xQueryPhrase )(Fts5Context *, int iPhrase, void *pUserData, int(*)(const Fts5ExtensionApi *, Fts5←
        Context *, void *))
```

- int(* xSetAuxdata)(Fts5Context *, void *pAux, void(*xDelete)(void *))
- void *(* xGetAuxdata)(Fts5Context *, int bClear)
- int(* xPhraseFirst)(Fts5Context *, int iPhrase, Fts5PhraseIter *, int *, int *)
- void(* xPhraseNext)(Fts5Context *, Fts5PhraseIter *, int *piCol, int *piOff)
- int(* xPhraseFirstColumn)(Fts5Context *, int iPhrase, Fts5PhraseIter *, int *)
- void(* xPhraseNextColumn)(Fts5Context *, Fts5PhraseIter *, int *piCol)

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.46 Fts5Phraselter Struct Reference

Public Attributes

- const unsigned char * a
- · const unsigned char * b

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.47 FuncDef Struct Reference

Public Attributes

```
 i8 nArg
```

- u32 funcFlags
- void * pUserData
- FuncDef * pNext
- void(* xSFunc)(sqlite3_context *, int, sqlite3_value **)
- void(* xFinalize)(sqlite3_context *)
- void(* xValue)(sqlite3_context *)
- void(* xInverse)(sqlite3_context *, int, sqlite3_value **)
- · const char * zName

union {

FuncDef * pHash

FuncDestructor * pDestructor

} **u**

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

3.48 FuncDefHash Struct Reference

Public Attributes

• FuncDef * a [SQLITE_FUNC_HASH_SZ]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.49 FuncDestructor Struct Reference

Public Attributes

- · int nRef
- void(* xDestroy)(void *)
- void * pUserData

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.50 Hash Struct Reference

Classes

• struct _ht

Public Attributes

- unsigned int htsize
- · unsigned int count
- HashElem * first
- struct Hash::_ht * ht

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

3.51 HashElem Struct Reference

Public Attributes

- HashElem * next
- · HashElem * prev
- void * data
- const char * pKey

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.52 HiddenIndexInfo Struct Reference

Public Attributes

- WhereClause * pWC
- Parse * pParse

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.53 IdList Struct Reference

Classes

struct IdList_item

Public Attributes

- struct IdList::IdList_item * a
- int nld

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

3.54 IdList::IdList_item Struct Reference

Public Attributes

- · char * zName
- int idx

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.55 IdxCover Struct Reference

Public Attributes

- Index * pldx
- · int iCur

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.56 IdxExprTrans Struct Reference

Public Attributes

- Expr * pldxExpr
- int iTabCur
- int ildxCur
- int ildxCol
- · int iTabCol
- WhereInfo * pWInfo
- sqlite3 * db

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

3.57 Incrblob Struct Reference

Public Attributes

- int **nByte**
- · int iOffset
- u16 iCol
- BtCursor * pCsr
- sqlite3_stmt * pStmt
- sqlite3 * db
- char * zDb
- Table * pTab

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.58 IncrMerger Struct Reference

Public Attributes

- SortSubtask * pTask
- MergeEngine * pMerger
- i64 iStartOff
- int mxSz
- int **bEof**
- int bUseThread
- · SorterFile aFile [2]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.59 Index Struct Reference

Public Attributes

- char * zName
- i16 * aiColumn
- LogEst * aiRowLogEst
- Table * pTable
- char * zColAff
- Index * pNext
- Schema * pSchema
- u8 * aSortOrder
- const char ** azColl
- Expr * pPartIdxWhere
- ExprList * aColExpr

- int tnum
- LogEst szldxRow
- u16 nKeyCol
- u16 nColumn
- u8 onError
- unsigned idxType:2
- unsigned bUnordered:1
- unsigned uniqNotNull:1
- unsigned isResized:1
- unsigned isCovering:1
- unsigned noSkipScan:1
- unsigned hasStat1:1
- unsigned bNoQuery:1
- unsigned bAscKeyBug:1
- unsigned bHasVCol:1
- · Bitmask colNotIdxed

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.60 IndexSample Struct Reference

Public Attributes

- void * p
- int **n**
- tRowcnt * anEq
- tRowcnt * anLt
- tRowcnt * anDLt

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.61 InitData Struct Reference

Public Attributes

- sqlite3 * db
- char ** pzErrMsg
- int iDb
- int rc
- u32 mlnitFlags
- u32 nInitRow

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

3.62 IntegrityCk Struct Reference

Public Attributes

- BtShared * pBt
- Pager * pPager
- u8 * aPgRef
- · Pgno nPage
- int mxErr
- int **nErr**
- · int mallocFailed
- const char * zPfx
- int v1
- int v2
- StrAccum errMsg
- u32 * heap
- · sqlite3 * db

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.63 KeyInfo Struct Reference

Public Attributes

- u32 nRef
- u8 **enc**
- u16 nKeyField
- u16 nAllField
- sqlite3 * db
- u8 * aSortFlags
- · CollSeq * aColl [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.64 LastValueCtx Struct Reference

Public Attributes

- sqlite3_value * pVal
- int nVal

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

3.65 Lookaside Struct Reference

Public Attributes

- u32 bDisable
- u16 sz
- u16 szTrue
- u8 bMalloced
- u32 nSlot
- u32 anStat [3]
- LookasideSlot * plnit
- LookasideSlot * pFree
- LookasideSlot * pSmallInit
- LookasideSlot * pSmallFree
- void * pMiddle
- void * pStart
- void * pEnd

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.66 LookasideSlot Struct Reference

Public Attributes

LookasideSlot * pNext

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

• CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.67 MemJournal Struct Reference

Public Attributes

- const sqlite3_io_methods * pMethod
- int nChunkSize
- · int nSpill
- · int nSize
- FileChunk * pFirst
- · FilePoint endpoint
- FilePoint readpoint
- int flags
- sqlite3_vfs * pVfs
- · const char * zJournal

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

3.68 MemPage Struct Reference

Public Attributes

- u8 islnit
- u8 bBusy
- u8 intKey
- u8 intKeyLeaf
- · Pgno pgno
- u8 leaf
- u8 hdrOffset
- u8 childPtrSize
- u8 max1bytePayload
- u8 nOverflow
- u16 maxLocal
- u16 minLocal
- u16 cellOffset
- int nFree
- u16 nCell
- u16 maskPage
- u16 aiOvfl [4]
- u8 * apOvfl [4]
- BtShared * pBt
- u8 * **aData**
- u8 * aDataEnd
- u8 * aCellIdx
- u8 * aDataOfst
- DbPage * pDbPage
- u16(* xCellSize)(MemPage *, u8 *)
- void(* xParseCell)(MemPage *, u8 *, CellInfo *)

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.69 sqlite3_value::MemValue Union Reference

Public Attributes

- double r
- i64 **i**
- int nZero
- const char * zPType
- FuncDef * pDef

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

3.70 MergeEngine Struct Reference

Public Attributes

- int nTree
- SortSubtask * pTask
- int * aTree
- · PmaReader * aReadr

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.71 Module Struct Reference

Public Attributes

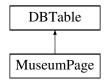
- const sqlite3_module * pModule
- const char * zName
- int nRefModule
- void * pAux
- void(* xDestroy)(void *)
- Table * pEpoTab

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.72 MuseumPage Class Reference

Inheritance diagram for MuseumPage:



Public Member Functions

void store_create_sql ()

store_create_sql sql statement for creates on in table

virtual void store add row sql ()

store_add_row_sql sql statement for row add on ining to table

• bool add_row (int pID, string n, string d, string p, int c)

add row adds row to database

vector< string > select_elements_sql (string)

select_elements_sql selects all elements of specified column

vector< string > select_cell (string, string, string)

select_cell selects info from given cell

vector< string > select_cell_search (string, string)

select_cell_search Uses LIKE SQL query to find valid entries in table

MuseumPage * getMuseumPageFromId (int id)

getMuseumPageFromId returns instance of a museum page from id

• bool addMuseum (int, string, string, string, int, string)

MuseumPage::addMuseum (p. 51) Checks formatting of new museum entry and adds to database if everything is correct.

vector< string > getMuseumChildrenId (int)

MuseumPage::getMuseumChildrenId (p. 52) Retrieves all of the museum IDs of a given parent's children museums.

vector< string > getMuseumChildrenNames (int)

MuseumPage::getMuseumChildrenNames (p. 52) Retrieves all museum names of a give parent's children museums.

vector< string > getMuseumByCuratorId (int)

MuseumPage::getMuseumByCuratorId (p. 51) Retrieves all of the names of the museum's given a curator's ID.

• int getMuseumld (string mname)

MuseumPage::getMuseumId (p. 53) Finds the museum's ID given the museum's name.

• int **getMuseumSearchId** (string mname)

MuseumPage::getMuseumSearchId (p. 53) Finds the museum's ID given the museum's name and specifically uses the like keyword to find similar searches to the inputted query.

void remove_entries ()

MuseumPage::remove_row Removes a row given a column name and key value.

MuseumPage (DBTool *db, std::string name, bool _isTesting)

MuseumPage::MuseumPage (p. 50) Constructor that initializes database class tools.

MuseumPage ()

MuseumPage (p. 48) Constructor for this page.

• MuseumPage (int i)

MuseumPage (p. 48) represents one page for this museum.

- · int getId ()
- · void setId (int)
- string getDescription ()
- void setDescription (string)
- · string getName ()
- void setName (string)
- string getPicString ()
- void setPicString (string)
- int getParentId ()
- void setParentId (int)
- int getCuratorId ()
- void setCuratorId (int)
- void setDB (sqlite3 *)

Public Attributes

• std::string sql_select

sql_select used for select_cell and select_elements_sql methods

Additional Inherited Members

3.72.1 Constructor & Destructor Documentation

3.72.1.1 MuseumPage() [1/3]

MuseumPage::MuseumPage (p. 50) Constructor that initializes database class tools.

Parameters

_db	Reference to DBTool (p. 33) class	
name	Name of the Database table	

3.72.1.2 MuseumPage() [2/3]

```
MuseumPage::MuseumPage ( )
```

MuseumPage (p. 48) Constructor for this page.

MuseumPage::MuseumPage (p. 50) Default Constructor.

3.72.1.3 MuseumPage() [3/3]

```
\label{eq:museumPage:MuseumPage} \mbox{MuseumPage::} \mbox{MuseumPage::} \mbox{int $i$ )}
```

MuseumPage (p. 48) represents one page for this museum.

MuseumPage::MuseumPage (p. 50) Constructor that initializes the ID of museum.

Parameters

i	the id for this page	
i	The desired ID	

3.72.2 Member Function Documentation

3.72.2.1 add_row()

add_row adds row to database

Returns

bool

3.72.2.2 addMuseum()

```
bool MuseumPage::addMuseum (
    int _pID,
    string _n,
    string _d,
    string _p,
    int _c,
    string priv )
```

MuseumPage::addMuseum (p. 51) Checks formatting of new museum entry and adds to database if everything is correct.

Parameters

_pID	The Parent Museum's ID
_n	The name of the new museum
_d	The description of the new museum
_p	The picture file name of the new museum
_c	The ID of the curator that created this new museum
priv	The privelege of the user

Returns

Whether the addition of the museum was successful

3.72.2.3 getMuseumByCuratorId()

MuseumPage::getMuseumByCuratorId (p. 51) Retrieves all of the names of the museum's given a curator's ID.

Parameters

```
CID Curator (p. 29)'s unique ID
```

Returns

A vector full of museum names created by the curator

3.72.2.4 getMuseumChildrenId()

MuseumPage::getMuseumChildrenId (p. 52) Retrieves all of the museum IDs of a given parent's children museums.

Parameters

parent	The ID of the parent museum
--------	-----------------------------

Returns

A vector full of id's of children museum

3.72.2.5 getMuseumChildrenNames()

MuseumPage::getMuseumChildrenNames (p. 52) Retrieves all museum names of a give parent's children museums.

Parameters

parent The ID of the parent muse	eum

Returns

A vector full of names of children museum

3.72.2.6 getMuseumld()

MuseumPage::getMuseumId (p. 53) Finds the museum's ID given the museum's name.

Parameters

Returns

The museum's unique ID

3.72.2.7 getMuseumPageFromId()

getMuseumPageFromId returns instance of a museum page from id

MuseumPage::getMuseumPageFromId (p. 53) Searches for museum by ID and returns all data related to it.

Parameters

```
id the id of the museum
```

Returns

Parameters

\leftarrow	Museum ID
_← id	

Returns

Reference to Museum ID object that contains all needed data

3.72.2.8 getMuseumSearchId()

MuseumPage::getMuseumSearchId (p. 53) Finds the museum's ID given the museum's name and specifically uses the like keyword to find similar searches to the inputted query.

Parameters

mname	The museum's name
-------	-------------------

Returns

The museum's unique ID

3.72.2.9 remove_entries()

```
void MuseumPage::remove_entries ( )
```

MuseumPage::remove_row Removes a row given a column name and key value.

Parameters

n	The key value of the row
cn	The column name to match the key

3.72.2.10 select_cell_search()

select_cell_search Uses LIKE SQL query to find valid entries in table

MuseumPage::select_cell_search (p. 54) Looks for an element in the table using the LIKE keyword.

Returns

List of possible queries

Parameters

whichRow	The pattern in which the LIKE keyword will be compared to	l
row	The row that is desired	
col	The column that is desired	

Returns

The result of the SQL query

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/museumpage.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/museumpage.cpp

3.73 NameContext Struct Reference

Public Attributes

```
    Parse * pParse
    SrcList * pSrcList
    union {
        ExprList * pEList
        AggInfo * pAggInfo
        Upsert * pUpsert
    } uNC
```

- NameContext * pNext
- int nRef
- · int nErr
- · int ncFlags
- Select * pWinSelect

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.74 NthValueCtx Struct Reference

Public Attributes

- i64 nStep
- sqlite3_value * pValue

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

3.75 NtileCtx Struct Reference

Public Attributes

- i64 nTotal
- i64 nParam
- i64 **iRow**

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.76 VdbeOp::p4union Union Reference

Public Attributes

- int i
- void * p
- char * **z**
- i64 * pl64
- double * pReal
- FuncDef * pFunc
- sqlite3_context * pCtx
- CollSeq * pColl
- Mem * pMem
- VTable * pVtab
- KeyInfo * pKeyInfo
- int * **ai**
- SubProgram * pProgram
- Table * pTab
- int(* xAdvance)(BtCursor *, int)

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.77 Pager Struct Reference

Public Attributes

- sqlite3_vfs * pVfs
- u8 exclusiveMode
- u8 journalMode
- u8 useJournal
- u8 noSync
- u8 fullSync
- u8 extraSync
- u8 syncFlags

- u8 walSyncFlags
- u8 tempFile
- u8 noLock
- u8 readOnly
- u8 memDb
- u8 eState
- u8 eLock
- u8 changeCountDone
- u8 setMaster
- u8 doNotSpill
- u8 subjlnMemory
- u8 **bUseFetch**
- u8 hasHeldSharedLock
- · Pgno dbSize
- · Pgno dbOrigSize
- Pgno dbFileSize
- · Pgno dbHintSize
- · int errCode
- · int nRec
- u32 cksumlnit
- u32 nSubRec
- Bitvec * plnJournal
- · sqlite3 file * fd
- · sqlite3_file * jfd
- sqlite3_file * sjfd
- i64 journalOff
- i64 journalHdr
- sqlite3_backup * pBackup
- PagerSavepoint * aSavepoint
- · int nSavepoint
- u32 iDataVersion
- char dbFileVers [16]
- int nMmapOut
- sqlite3_int64 szMmap
- PgHdr * pMmapFreelist
- u16 nExtra
- i16 nReserve
- u32 vfsFlags
- u32 sectorSize
- · int pageSize
- · Pgno mxPgno
- i64 journalSizeLimit
- char * zFilename
- char * zJournal
- int(* xBusyHandler)(void *)
- void * pBusyHandlerArg
- int aStat [4]
- void(* xReiniter)(DbPage *)
- int(* xGet)(Pager *, Pgno, DbPage **, int)
- char * pTmpSpace
- PCache * pPCache
- Wal * pWal
- char * zWal

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

3.78 PagerSavepoint Struct Reference

Public Attributes

- i64 iOffset
- i64 iHdrOffset
- Bitvec * plnSavepoint
- Pgno nOrig
- Pgno iSubRec
- u32 aWalData [WAL_SAVEPOINT_NDATA]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.79 Parse Struct Reference

Public Attributes

- sqlite3 * db
- · char * zErrMsg
- Vdbe * pVdbe
- · int rc
- u8 colNamesSet
- u8 checkSchema
- u8 nested
- u8 nTempReg
- u8 isMultiWrite
- u8 mayAbort
- u8 hasCompound
- u8 okConstFactor
- u8 disableLookaside
- u8 disableVtab
- int nRangeReg
- int iRangeReg
- int nErr
- int nTab
- int nMem
- int szOpAlloc
- int iSelfTab
- int nLabel
- int nLabelAlloc
- int * aLabel
- ExprList * pConstExpr
- · Token constraintName
- yDbMask writeMask
- yDbMask cookieMask
- int regRowid
- int regRoot
- int nMaxArg
- · int nSelect

- int nTableLock
- TableLock * aTableLock
- AutoincInfo * pAinc
- Parse * pToplevel
- Table * pTriggerTab
- Parse * pParentParse
- int addrCrTab
- u32 nQueryLoop
- u32 oldmask
- u32 newmask
- u8 eTriggerOp
- u8 eOrconf
- u8 disableTriggers
- int aTempReg [8]
- · Token sNameToken
- Token sLastToken
- ynVar nVar
- u8 iPkSortOrder
- u8 explain
- u8 eParseMode
- int nVtabLock
- · int nHeight
- int addrExplain
- VList * pVList
- Vdbe * pReprepare
- const char * zTail
- Table * pNewTable
- Index * pNewIndex
- Trigger * pNewTrigger
- const char * zAuthContext
- · Token sArg
- Table ** apVtabLock
- Table * pZombieTab
- TriggerPrg * pTriggerPrg
- With * pWith
- With * pWithToFree
- RenameToken * pRename

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.80 PCache Struct Reference

Public Attributes

- PgHdr * pDirty
- PgHdr * pDirtyTail
- PgHdr * pSynced
- · int nRefSum
- · int szCache

- · int szSpill
- · int szPage
- int szExtra
- u8 **bPurgeable**
- u8 eCreate
- int(* xStress)(void *, PgHdr *)
- void * pStress
- sqlite3_pcache * pCache

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.81 PCache1 Struct Reference

Public Attributes

- PGroup * pGroup
- unsigned int * pnPurgeable
- · int szPage
- · int szExtra
- · int szAlloc
- · int bPurgeable
- · unsigned int nMin
- · unsigned int nMax
- unsigned int n90pct
- unsigned int iMaxKey
- · unsigned int nPurgeableDummy
- · unsigned int nRecyclable
- · unsigned int nPage
- · unsigned int nHash
- PgHdr1 ** apHash
- PgHdr1 * pFree
- void * pBulk

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.82 PgFreeslot Struct Reference

Public Attributes

PgFreeslot * pNext

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

3.83 PgHdr Struct Reference

Public Attributes

- sqlite3_pcache_page * pPage
- void * pData
- void * pExtra
- PCache * pCache
- PgHdr * pDirty
- · Pager * pPager
- · Pgno pgno
- u16 flags
- i16 nRef
- PgHdr * pDirtyNext
- PgHdr * pDirtyPrev

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.84 PgHdr1 Struct Reference

Public Attributes

- sqlite3_pcache_page page
- unsigned int iKey
- u16 isBulkLocal
- u16 isAnchor
- PgHdr1 * pNext
- PCache1 * pCache
- PgHdr1 * pLruNext
- PgHdr1 * pLruPrev

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

CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.85 PGroup Struct Reference

Public Attributes

- sqlite3_mutex * mutex
- unsigned int nMaxPage
- · unsigned int nMinPage
- · unsigned int mxPinned
- · unsigned int nPurgeable
- PgHdr1 Iru

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

3.86 PmaReader Struct Reference

Public Attributes

- i64 iReadOff
- i64 **iEof**
- int nAlloc
- · int nKev
- sqlite3_file * pFd
- u8 * aAlloc
- u8 * aKey
- u8 * aBuffer
- · int nBuffer
- u8 * aMap
- IncrMerger * plncr

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

CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.87 PmaWriter Struct Reference

Public Attributes

- · int eFWErr
- u8 * aBuffer
- · int nBuffer
- int iBufStart
- int iBufEnd
- i64 iWriteOff
- sqlite3 file * pFd

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.88 PragmaName Struct Reference

Public Attributes

- · const char *const zName
- u8 ePragTyp
- u8 mPragFlg
- u8 iPragCName
- u8 nPragCName
- u64 iArg

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

3.89 PragmaVtab Struct Reference

Public Attributes

- · sqlite3_vtab base
- sqlite3 * db
- const PragmaName * pName
- u8 nHidden
- u8 iHidden

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.90 PragmaVtabCursor Struct Reference

Public Attributes

- · sqlite3_vtab_cursor base
- sqlite3_stmt * pPragma
- sqlite_int64 iRowid
- char * azArg [2]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.91 PreUpdate Struct Reference

Public Attributes

- Vdbe * v
- VdbeCursor * pCsr
- int op
- u8 * aRecord
- · KeyInfo keyinfo
- UnpackedRecord * pUnpacked
- UnpackedRecord * pNewUnpacked
- int iNewReg
- i64 **iKey1**
- i64 iKey2
- Mem * aNew
- Table * pTab
- Index * pPk

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

3.92 PrintfArguments Struct Reference

Public Attributes

- int nArg
- int nUsed
- sqlite3_value ** apArg

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.93 RenameCtx Struct Reference

Public Attributes

- RenameToken * pList
- int **nList**
- int iCol
- Table * pTab
- · const char * zOld

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.94 RenameToken Struct Reference

Public Attributes

- void * p
- Token t
- RenameToken * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.95 ReusableSpace Struct Reference

Public Attributes

- u8 * pSpace
- sqlite3_int64 nFree
- sqlite3_int64 nNeeded

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

3.96 RowLoadInfo Struct Reference

Public Attributes

- · int regResult
- u8 ecelFlags

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.97 RowSet Struct Reference

Public Attributes

- struct RowSetChunk * pChunk
- sqlite3 * db
- struct RowSetEntry * pEntry
- struct RowSetEntry * pLast
- struct RowSetEntry * pFresh
- struct RowSetEntry * pForest
- u16 nFresh
- u16 rsFlags
- · int iBatch

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.98 RowSetChunk Struct Reference

Public Attributes

- struct RowSetChunk * pNextChunk
- struct RowSetEntry aEntry [ROWSET_ENTRY_PER_CHUNK]

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

3.99 RowSetEntry Struct Reference

Public Attributes

- i64 **v**
- struct RowSetEntry * pRight
- struct RowSetEntry * pLeft

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.100 Savepoint Struct Reference

Public Attributes

- · char * zName
- i64 nDeferredCons
- i64 nDeferredImmCons
- Savepoint * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.101 ScanStatus Struct Reference

Public Attributes

- int addrExplain
- int addrLoop
- · int addrVisit
- · int iSelectID
- LogEst nEst
- · char * zName

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

3.102 Schema Struct Reference

Public Attributes

- · int schema cookie
- int iGeneration
- · Hash tblHash
- · Hash idxHash
- Hash trigHash
- Hash fkeyHash
- Table * pSeqTab
- u8 file_format
- u8 enc
- u16 schemaFlags
- int cache_size

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.103 FKey::sColMap Struct Reference

Public Attributes

- · int iFrom
- · char * zCol

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.104 Select Struct Reference

Public Attributes

- u8 op
- LogEst nSelectRow
- u32 selFlags
- int iLimit
- · int iOffset
- u32 selld
- int addrOpenEphm [2]
- ExprList * pEList
- SrcList * pSrc
- Expr * pWhere
- ExprList * pGroupBy
- Expr * pHaving
- ExprList * pOrderBy
- · Select * pPrior
- Select * pNext
- Expr * pLimit
- With * pWith
- Window * pWin
- Window * pWinDefn

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

3.105 SelectDest Struct Reference

Public Attributes

- u8 eDest
- · int iSDParm
- · int iSdst
- int nSdst
- char * zAffSdst
- ExprList * pOrderBy

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.106 SortCtx Struct Reference

Public Attributes

- ExprList * pOrderBy
- int nOBSat
- · int iECursor
- int regReturn
- int labelBkOut
- int addrSortIndex
- int labelDone
- int labelOBLopt
- u8 sortFlags
- struct RowLoadInfo * pDeferredRowLoad

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.107 SorterFile Struct Reference

Public Attributes

- sqlite3_file * pFd
- i64 **iEof**

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

3.108 SorterList Struct Reference

Public Attributes

- SorterRecord * pList
- u8 * aMemory
- · int szPMA

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.109 SorterRecord Struct Reference

Public Attributes

```
int nValunion {
    SorterRecord * pNext
    int iNext
} u
```

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.110 SortSubtask Struct Reference

Public Attributes

- SQLiteThread * pThread
- int bDone
- VdbeSorter * pSorter
- UnpackedRecord * pUnpacked
- SorterList list
- int nPMA
- SorterCompare xCompare
- · SorterFile file
- SorterFile file2

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

3.111 sqlite3 Struct Reference

Classes

• struct sqlite3InitInfo

Public Attributes

- sqlite3_vfs * pVfs
- struct Vdbe * pVdbe
- CollSeq * pDfltColl
- sqlite3_mutex * mutex
- Db * aDb
- int nDb
- u32 mDbFlags
- u64 flags
- · i64 lastRowid
- i64 szMmap
- u32 nSchemaLock
- unsigned int openFlags
- · int errCode
- int errMask
- int iSysErrno
- u16 dbOptFlags
- u8 enc
- u8 autoCommit
- u8 temp_store
- u8 mallocFailed
- u8 bBenignMalloc
- u8 dfltLockMode
- signed char nextAutovac
- u8 suppressErr
- u8 vtabOnConflict
- u8 isTransactionSavepoint
- u8 mTrace
- u8 noSharedCache
- u8 nSqlExec
- · int nextPagesize
- u32 magic
- int nChange
- int nTotalChange
- int aLimit [SQLITE_N_LIMIT]
- int nMaxSorterMmap
- struct sqlite3::sqlite3InitInfo init
- · int nVdbeActive
- int nVdbeRead
- int nVdbeWrite
- int nVdbeExec
- int nVDestroy
- int nExtension
- void ** aExtension
- int(* xTrace)(u32, void *, void *, void *)
- void * pTraceArg

```
    void(* xProfile )(void *, const char *, u64)

    void * pProfileArg

    void * pCommitArg

    int(* xCommitCallback )(void *)

    void * pRollbackArg

    void(* xRollbackCallback )(void *)

    void * pUpdateArg

• void(* xUpdateCallback )(void *, int, const char *, const char *, sqlite_int64)

    Parse * pParse

• int(* xWalCallback )(void *, sqlite3 *, const char *, int)

    void * pWalArg

    void(* xCollNeeded )(void *, sqlite3 *, int eTextRep, const char *)

    void(* xCollNeeded16 )(void *, sqlite3 *, int eTextRep, const void *)

    void * pCollNeededArg

• sqlite3_value * pErr
 union {
    volatile int isInterrupted
    double notUsed1
 } u1
```

- · Lookaside lookaside
- sqlite3_xauth xAuth
- void * pAuthArg
- int(* xProgress)(void *)
- void * pProgressArg
- unsigned nProgressOps
- int nVTrans
- · Hash aModule
- VtabCtx * pVtabCtx
- VTable ** aVTrans
- VTable * pDisconnect
- · Hash aFunc
- · Hash aCollSeq
- · BusyHandler busyHandler
- · Db aDbStatic [2]
- Savepoint * pSavepoint
- int busyTimeout
- int nSavepoint
- · int nStatement
- i64 nDeferredCons
- i64 nDeferredImmCons
- int * pnBytesFreed

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

3.112 sqlite3 api routines Struct Reference

Public Attributes

*))

```
    void *(* aggregate_context )( sqlite3_context *, int nBytes)

    int(* aggregate count )( sqlite3 context *)

int(* bind_blob )(sqlite3_stmt *, int, const void *, int n, void(*)(void *))

    int(* bind_double )(sqlite3 stmt *, int, double)

    int(* bind int)(sqlite3 stmt *, int, int)

    int(* bind_int64)(sqlite3 stmt *, int, sqlite int64)

int(* bind_null )(sqlite3_stmt *, int)

    int(* bind_parameter_count )(sqlite3_stmt *)

    int(* bind_parameter_index )(sqlite3_stmt *, const char *zName)

    const char *(* bind_parameter_name)(sqlite3 stmt *, int)

    int(* bind_text )(sqlite3_stmt *, int, const char *, int n, void(*)(void *))

    int(* bind_text16 )(sqlite3 stmt *, int, const void *, int, void(*)(void *))

int(* bind_value )(sqlite3_stmt *, int, const sqlite3_value *)
int(* busy_handler )( sqlite3 *, int(*)(void *, int), void *)

    int(* busy timeout )( sqlite3 *, int ms)

int(* changes )( sqlite3 *)

    int(* close )( sqlite3 *)

    int(* collation_needed )( sqlite3 *, void *, void(*)(void *, sqlite3 *, int eTextRep, const char *))

    int(* collation_needed16 )( sqlite3 *, void *, void(*)(void *, sqlite3 *, int eTextRep, const void *))

    const void *(* column_blob )(sqlite3 stmt *, int iCol)

    int(* column bytes )(sqlite3 stmt *, int iCol)

    int(* column_bytes16 )(sqlite3 stmt *, int iCol)

int(* column_count )(sqlite3_stmt *pStmt)

    const char *(* column_database_name)(sqlite3 stmt *, int)

    const void *(* column database name16 )(sqlite3 stmt *, int)

    const char *(* column_decltype )(sqlite3 stmt *, int i)

    const void *(* column decltype16 )(sqlite3 stmt *, int)

• double(* column_double )(sqlite3_stmt *, int iCol)
• int(* column_int )(sqlite3_stmt *, int iCol)

    salite int64(* column int64)(salite3 stmt *, int iCol)

    const char *(* column_name )(sqlite3_stmt *, int)

    const void *(* column_name16 )(sqlite3_stmt *, int)

    const char *(* column_origin_name )(sqlite3_stmt *, int)

    const void *(* column_origin_name16 )(sqlite3 stmt *, int)

    const char *(* column_table_name )(sqlite3_stmt *, int)

    const void *(* column_table_name16 )(sqlite3 stmt *, int)

    const unsigned char *(* column_text )(sqlite3_stmt *, int iCol)

    const void *(* column_text16 )(sqlite3_stmt *, int iCol)

int(* column_type )(sqlite3_stmt *, int iCol)

    sqlite3_value *(* column_value )(sqlite3_stmt *, int iCol)

    void *(* commit_hook )( sqlite3 *, int(*)(void *), void *)

    int(* complete )(const char *sql)

    int(* complete16 )(const void *sql)

• int(* create collation )( sqlite3 *, const char *, int, void *, int(*)(void *, int, const void *, int, const void *))
• int(* create_collation16 )( sqlite3 *, const void *, int, void *, int,*)(void *, int, const void *, int, c
```

int(* create_function)(sqlite3 *, const char *, int, int, void *, void(*xFunc)(sqlite3_context *, int, sqlite3_value **), void(*xStep)(sqlite3_context *, int, sqlite3_value **), void(*xFinal)(sqlite3_context

```
• int(* create_function16 )( sqlite3 *, const void *, int, int, void *, void(*xFunc)( sqlite3_context *, int,
  sqlite3_value **), void(*xStep)( sqlite3_context *, int, sqlite3_value **), void(*xFinal)( sqlite3_context
  *))

    int(* create_module )( sqlite3 *, const char *, const sqlite3_module *, void *)

    int(* data count )(sqlite3 stmt *pStmt)

    sqlite3 *(* db handle )(sqlite3 stmt *)

    int(* declare_vtab )( sqlite3 *, const char *)

    int(* enable shared cache )(int)

    int(* errcode )( sqlite3 *db)

const char *(* errmsg )( sqlite3 *)

    const void *(* errmsg16 )( sqlite3 *)

    int(* exec )( sqlite3 *, const char *, sqlite3_callback, void *, char **)

    int(* expired )(sqlite3 stmt *)

int(* finalize )(sqlite3_stmt *pStmt)
void(* free )(void *)

    void(* free_table )(char **result)

int(* get_autocommit )( sqlite3 *)

    void *(* get auxdata )( sqlite3 context *, int)

int(* get_table )( sqlite3 *, const char *, char ***, int *, int *, char **)

    int(* global recover )(void)

void(* interruptx )( sqlite3 *)
• sqlite int64(* last_insert_rowid )( sqlite3 *)

    const char *(* libversion )(void)

int(* libversion_number )(void)

    void *(* malloc )(int)

    char *(* mprintf )(const char *,...)

int(* open )(const char *, sqlite3 **)
int(* open16 )(const void *, sqlite3 **)
• int(* prepare )( sqlite3 *, const char *, int, sqlite3 stmt **, const char **)

    int(* prepare16 )( sqlite3 *, const void *, int, sqlite3 stmt **, const void **)

    void *(* profile )( sqlite3 *, void(*)(void *, const char *, sqlite_uint64), void *)

    void(* progress_handler )( sqlite3 *, int, int(*)(void *), void *)

    void *(* realloc )(void *, int)

int(* reset )(sqlite3 stmt *pStmt)

    void(* result blob )( sqlite3 context *, const void *, int, void(*)(void *))

    void(* result_double )( sqlite3_context *, double)

    void(* result_error )( sqlite3_context *, const char *, int)

    void(* result_error16 )( sqlite3_context *, const void *, int)

    void(* result_int )( sqlite3_context *, int)

    void(* result int64 )( sqlite3 context *, sqlite int64)

    void(* result null )( sqlite3 context *)

    void(* result_text )( sqlite3_context *, const char *, int, void(*)(void *))

    void(* result_text16 )( sqlite3_context *, const void *, int, void(*)(void *))

    void(* result_text16be )( sqlite3_context *, const void *, int, void(*)(void *))

    void(* result_text16le )( sqlite3_context *, const void *, int, void(*)(void *))

    void(* result_value )( sqlite3_context *, sqlite3_value *)

    void *(* rollback_hook )( sqlite3 *, void(*)(void *), void *)

• int(* set_authorizer )( sqlite3 *, int(*)(void *, int, const char *, const char *, const char *, const char *),
  void *)

    void(* set_auxdata )( sqlite3_context *, int, void *, void(*)(void *))

char *(* xsnprintf )(int, char *, const char *,...)
int(* step )(sqlite3 stmt *)
• int(* table column metadata )( sqlite3 *, const char *, const char *, const char *, char const **, char
  const **, int *, int *, int *)
```

void(* thread_cleanup)(void)

```
    int(* total changes )( sqlite3 *)

    void *(* trace )( sqlite3 *, void(*xTrace)(void *, const char *), void *)

int(* transfer_bindings )(sqlite3_stmt *, sqlite3_stmt *)
• void *(* update_hook )( sqlite3 *, void(*)(void *, int, char const *, char const *, sqlite_int64), void *)

    void *(* user data )( sqlite3 context *)

    const void *(* value blob )( sqlite3 value *)

    int(* value bytes )( sqlite3 value *)

    int(* value bytes16 )( sqlite3 value *)

    double(* value double)( sqlite3 value *)

int(* value_int )( sqlite3_value *)

    sqlite int64(* value int64)( sqlite3_value *)

    int(* value numeric type )( sqlite3 value *)

    const unsigned char *(* value_text )( sqlite3_value *)

    const void *(* value text16 )( sqlite3 value *)

    const void *(* value_text16be )( sqlite3_value *)

    const void *(* value text16le )( sqlite3 value *)

    int(* value type )( sqlite3 value *)

    char *(* vmprintf )(const char *, va list)

    int(* overload_function )( sqlite3 *, const char *zFuncName, int nArg)

• int(* prepare_v2 )( sqlite3 *, const char *, int, sqlite3_stmt **, const char **)

    int(* prepare16_v2 )( sqlite3 *, const void *, int, sqlite3 stmt **, const void **)

    int(* clear_bindings )(sqlite3 stmt *)

• int(* create module v2 )( sqlite3 *, const char *, const sqlite3 module *, void *, void(*xDestroy)(void

    int(* bind zeroblob )(sqlite3 stmt *, int, int)

int(* blob_bytes )(sqlite3_blob *)

    int(* blob close )(sqlite3 blob *)

• int(* blob open )( sqlite3 *, const char *, const char *, sqlite3 int64, int, sqlite3 blob **)

    int(* blob read )(sqlite3 blob *, void *, int, int)

    int(* blob_write)(sqlite3 blob *, const void *, int, int)

• int(* create_collation_v2 )( sqlite3 *, const char *, int, void *, int(*)(void *, int, const void *, int, 
   *), void(*)(void *))
int(* file_control )( sqlite3 *, const char *, int, void *)

    sqlite3 int64(* memory_highwater )(int)

• sqlite3 int64(* memory_used )(void)

    sqlite3 mutex *(* mutex alloc )(int)

void(* mutex_enter )( sqlite3_mutex *)

    void(* mutex free )( sqlite3 mutex *)

void(* mutex_leave )( sqlite3_mutex *)
int(* mutex try )( sqlite3 mutex *)
int(* open_v2)(const char *, sqlite3 **, int, const char *)
int(* release_memory )(int)

    void(* result_error_nomem )( sqlite3_context *)

    void(* result_error_toobig )( sqlite3_context *)

int(* sleep )(int)

    void(* soft heap limit )(int)

    sqlite3_vfs *(* vfs_find )(const char *)

• int(* vfs_register )( sqlite3_vfs *, int)
int(* vfs_unregister )( sqlite3_vfs *)
int(* xthreadsafe )(void)

    void(* result_zeroblob )( sqlite3_context *, int)

    void(* result error code )( sqlite3 context *, int)

    int(* test_control )(int,...)

    void(* randomness )(int, void *)
```

sqlite3 *(* context_db_handle)(sqlite3_context *)

```
• int(* extended_result_codes )( sqlite3 *, int)
int(* limit )( sqlite3 *, int, int)
sqlite3_stmt *(* next_stmt )( sqlite3 *, sqlite3_stmt *)

    const char *(* sql )(sqlite3 stmt *)

    int(* status )(int, int *, int *, int)

    int(* backup_finish )( sqlite3_backup *)

    sqlite3 backup *(* backup init )( sqlite3 *, const char *, sqlite3 *, const char *)

    int(* backup_pagecount )( sqlite3_backup *)

    int(* backup_remaining )( sqlite3_backup *)

    int(* backup_step )( sqlite3_backup *, int)

    const char *(* compileoption_get )(int)

    int(* compileoption used )(const char *)

• int(* create_function_v2 )( sqlite3 *, const char *, int, int, void *, void(*xFunc)( sqlite3_context *, int,
 sqlite3_value **), void(*xStep)( sqlite3_context *, int, sqlite3_value **), void(*xFinal)( sqlite3_context
  *), void(*xDestroy)(void *))
int(* db_config )( sqlite3 *, int,...)

    sqlite3 mutex *(* db mutex )( sqlite3 *)

int(* db_status )( sqlite3 *, int, int *, int *, int)
int(* extended_errcode )( sqlite3 *)

    void(* log )(int, const char *,...)

sqlite3_int64(* soft_heap_limit64)(sqlite3_int64)

    const char *(* sourceid )(void)

    int(* stmt_status )(sqlite3 stmt *, int, int)

    int(* strnicmp )(const char *, const char *, int)

int(* unlock_notify)( sqlite3 *, void(*)(void **, int), void *)

    int(* wal_autocheckpoint )( sqlite3 *, int)

int(* wal_checkpoint )( sqlite3 *, const char *)

    void *(* wal_hook )( sqlite3 *, int(*)(void *, sqlite3 *, const char *, int), void *)

    int(* blob reopen )(sqlite3 blob *, sqlite3 int64)

int(* vtab_config )( sqlite3 *, int op,...)

    int(* vtab on conflict )( sqlite3 *)

    int(* close_v2 )( sqlite3 *)

    const char *(* db_filename )( sqlite3 *, const char *)

    int(* db_readonly )( sqlite3 *, const char *)

    int(* db_release_memory )( sqlite3 *)

    const char *(* errstr )(int)

int(* stmt_busy )(sqlite3_stmt *)

    int(* stmt readonly )(sqlite3 stmt *)

int(* stricmp )(const char *, const char *)

    int(* uri boolean )(const char *, const char *, int)

    sqlite3_int64(* uri_int64)(const char *, const char *, sqlite3_int64)

    const char *(* uri_parameter )(const char *, const char *)

    char *(* xvsnprintf )(int, char *, const char *, va list)

int(* wal_checkpoint_v2 )( sqlite3 *, const char *, int, int *, int *)

    int(* auto_extension )(void(*)(void))

• int(* bind blob64 )(sqlite3 stmt *, int, const void *, sqlite3 uint64, void(*)(void *))

    int(* bind text64)(sqlite3 stmt *, int, const char *, sqlite3 uint64, void(*)(void *), unsigned char)

    int(* cancel_auto_extension )(void(*)(void))

    int(* load_extension )( sqlite3 *, const char *, const char *, char **)

void *(* malloc64 )(sqlite3_uint64)
sqlite3_uint64(* msize )(void *)

    void *(* realloc64 )(void *, sqlite3 uint64)

    void(* reset auto extension )(void)

    void(* result_blob64 )( sqlite3_context *, const void *, sqlite3_uint64, void(*)(void *))

    void(* result_text64 )( sqlite3_context *, const char *, sqlite3_uint64, void(*)(void *), unsigned char)
```

```
    int(* strglob )(const char *, const char *)

    sqlite3_value *(* value_dup )(const sqlite3_value *)

void(* value_free )( sqlite3_value *)

    int(* result zeroblob64 )( sqlite3 context *, sqlite3 uint64)

    int(* bind_zeroblob64 )(sqlite3 stmt *, int, sqlite3 uint64)

    unsigned int(* value subtype )( sqlite3 value *)

    void(* result_subtype )( sqlite3_context *, unsigned int)

    int(* status64 )(int, sqlite3 int64 *, sqlite3 int64 *, int)

• int(* strlike)(const char *, const char *, unsigned int)

    int(* db cacheflush )( sqlite3 *)

int(* system_errno )( sqlite3 *)
• int(* trace_v2)( sqlite3 *, unsigned, int(*)(unsigned, void *, void *, void *), void *)

    char *(* expanded_sql )(sqlite3 stmt *)

    void(* set last insert rowid)( sqlite3 *, sqlite3 int64)

• int(* prepare_v3 )( sqlite3 *, const char *, int, unsigned int, sqlite3_stmt **, const char **)

    int(* prepare16_v3 )( sqlite3 *, const void *, int, unsigned int, sqlite3_stmt **, const void **)

    int(* bind_pointer)(sqlite3_stmt *, int, void *, const char *, void(*)(void *))

    void(* result pointer)( sqlite3 context *, void *, const char *, void(*)(void *))

    void *(* value pointer )( sqlite3_value *, const char *)

int(* vtab_nochange )( sqlite3_context *)

    int(* value nochange)( sqlite3 value *)

    const char *(* vtab_collation )( sqlite3_index_info *, int)

    int(* keyword count )(void)

    int(* keyword name )(int, const char **, int *)

    int(* keyword_check )(const char *, int)

sqlite3_str *(* str_new )( sqlite3 *)
char *(* str finish )( sqlite3 str *)

    void(* str appendf)( sqlite3 str *, const char *zFormat,...)

    void(* str_vappendf)( sqlite3_str *, const char *zFormat, va_list)

    void(* str_append )( sqlite3_str *, const char *zln, int N)

    void(* str_appendall )( sqlite3_str *, const char *zln)

    void(* str appendchar)( sqlite3 str *, int N, char C)

    void(* str_reset )( sqlite3_str *)

    int(* str_errcode )( sqlite3_str *)

    int(* str length )( sqlite3 str *)

char *(* str_value )( sqlite3_str *)
• int(* create window function )( sqlite3 *, const char *, int, int, void *, void(*xStep)( sqlite3 context *,
  int, sqlite3 value **), void(*xFinal)( sqlite3 context *), void(*xValue)( sqlite3 context *), void(*xInv)(
  sqlite3_context *, int, sqlite3_value **), void(*xDestroy)(void *))

    const char *(* normalized_sql )(sqlite3_stmt *)

    int(* stmt_isexplain )(sqlite3 stmt *)

int(* value_frombind )( sqlite3_value *)

    int(* drop modules )( sqlite3 *, const char **)

    sqlite3 int64(* hard_heap_limit64)(sqlite3 int64)

    const char *(* uri_key )(const char *, int)

    const char *(* filename database )(const char *)

    const char *(* filename_journal )(const char *)

    const char *(* filename_wal )(const char *)
```

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

3.113 sqlite3 backup Struct Reference

Public Attributes

- sqlite3 * pDestDb
- Btree * pDest
- u32 iDestSchema
- int bDestLocked
- · Pgno iNext
- sqlite3 * pSrcDb
- Btree * pSrc
- int rc
- · Pgno nRemaining
- Pgno nPagecount
- · int isAttached
- sqlite3_backup * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.114 sqlite3_context Struct Reference

Public Attributes

- Mem * pOut
- FuncDef * pFunc
- Mem * pMem
- Vdbe * pVdbe
- int iOp
- int isError
- u8 skipFlag
- u8 argc
- sqlite3_value * argv [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.115 sqlite3_file Struct Reference

Public Attributes

• const struct sqlite3 io methods * pMethods

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.116 sqlite3 index info::sqlite3 index constraint Struct Reference

Public Attributes

- · int iColumn
- · unsigned char op
- · unsigned char usable
- · int iTermOffset

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.117 sqlite3_index_info::sqlite3_index_constraint_usage Struct Reference

Public Attributes

- · int argvIndex
- · unsigned char omit

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.118 sqlite3_index_info Struct Reference

Classes

- struct sqlite3_index_constraint
- struct sqlite3_index_constraint_usage
- struct sqlite3_index_orderby

Public Attributes

- · int nConstraint
- struct sqlite3 index info::sqlite3 index constraint * aConstraint
- int nOrderBy
- struct sqlite3 index info::sqlite3 index orderby * aOrderBy
- struct sqlite3 index info::sqlite3 index constraint usage * aConstraintUsage
- int idxNum
- · char * idxStr
- int needToFreeldxStr
- · int orderByConsumed
- double estimatedCost
- · sqlite3 int64 estimatedRows
- int idxFlags
- sqlite3_uint64 colUsed

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.h$

3.119 sqlite3 index info::sqlite3 index orderby Struct Reference

Public Attributes

- int iColumn
- · unsigned char desc

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

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c
- · CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.120 sqlite3_io_methods Struct Reference

Public Attributes

- · int iVersion
- int(* xClose)(sqlite3_file *)
- int(* xRead)(sqlite3_file *, void *, int iAmt, sqlite3_int64 iOfst)
- int(* xWrite)(sqlite3_file *, const void *, int iAmt, sqlite3_int64 iOfst)
- int(* xTruncate)(sqlite3_file *, sqlite3_int64 size)
- int(* xSync)(sqlite3_file *, int flags)
- int(* xFileSize)(sqlite3_file *, sqlite3_int64 *pSize)
- int(* xLock)(sqlite3_file *, int)
- int(* xUnlock)(sqlite3_file *, int)
- int(* xCheckReservedLock)(sqlite3_file *, int *pResOut)
- int(* xFileControl)(sqlite3_file *, int op, void *pArg)
- int(* xSectorSize)(sqlite3_file *)
- int(* xDeviceCharacteristics)(sqlite3_file *)
- int(* xShmMap)(sqlite3_file *, int iPg, int pgsz, int, void volatile **)
- int(* xShmLock)(sqlite3_file *, int offset, int n, int flags)
- void(* xShmBarrier)(sqlite3_file *)
- int(* xShmUnmap)(sqlite3_file *, int deleteFlag)
- int(* xFetch)(sqlite3_file *, sqlite3_int64 iOfst, int iAmt, void **pp)
- int(* xUnfetch)(sqlite3_file *, sqlite3_int64 iOfst, void *p)

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.h$

3.121 sqlite3 mem methods Struct Reference

Public Attributes

- void *(* xMalloc)(int)
- void(* xFree)(void *)
- void *(* xRealloc)(void *, int)
- int(* xSize)(void *)
- int(* xRoundup)(int)
- int(* xInit)(void *)
- void(* xShutdown)(void *)
- void * pAppData

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

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.122 sqlite3 module Struct Reference

Public Attributes

- · int iVersion
- int(* xCreate)(sqlite3 *, void *pAux, int argc, const char *const *argv, sqlite3 vtab **ppVTab, char **)
- int(* xConnect)(sqlite3 *, void *pAux, int argc, const char *const *argv, sqlite3_vtab **ppVTab, char **)
- int(* xBestIndex)(sqlite3_vtab *pVTab, sqlite3_index_info *)
- int(* xDisconnect)(sqlite3_vtab *pVTab)
- int(* xDestroy)(sqlite3_vtab *pVTab)
- int(* xOpen)(sqlite3_vtab *pVTab, sqlite3_vtab_cursor **ppCursor)
- int(* xClose)(sqlite3_vtab_cursor *)
- int(* xFilter)(sqlite3_vtab_cursor *, int idxNum, const char *idxStr, int argc, sqlite3_value **argv)
- int(* xNext)(sqlite3 vtab cursor *)
- int(* xEof)(sqlite3_vtab_cursor *)
- int(* xColumn)(sqlite3 vtab cursor *, sqlite3 context *, int)
- int(* xRowid)(sqlite3_vtab_cursor *, sqlite3_int64 *pRowid)
- int(* xUpdate)(sqlite3_vtab *, int, sqlite3_value **, sqlite3_int64 *)
- int(* xBegin)(sqlite3_vtab *pVTab)
- int(* xSync)(sqlite3 vtab *pVTab)
- int(* xCommit)(sqlite3_vtab *pVTab)
- int(* xRollback)(sqlite3 vtab *pVTab)
- int(* xFindFunction)(sqlite3_vtab *pVtab, int nArg, const char *zName, void(**pxFunc)(sqlite3_context *, int, sqlite3_value **), void **ppArg)
- int(* xRename)(sqlite3_vtab *pVtab, const char *zNew)
- int(* xSavepoint)(sqlite3_vtab *pVTab, int)
- int(* xRelease)(sqlite3_vtab *pVTab, int)
- int(* xRollbackTo)(sqlite3_vtab *pVTab, int)
- int(* xShadowName)(const char *)

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.123 sqlite3 mutex Struct Reference

Public Attributes

pthread_mutex_t mutex

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

CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.124 sqlite3 mutex methods Struct Reference

Public Attributes

- int(* xMutexInit)(void)
- int(* xMutexEnd)(void)
- sqlite3_mutex *(* xMutexAlloc)(int)
- void(* xMutexFree)(sqlite3_mutex *)
- void(* xMutexEnter)(sqlite3_mutex *)
- int(* xMutexTry)(sqlite3_mutex *)
- void(* xMutexLeave)(sqlite3_mutex *)
- int(* xMutexHeld)(sqlite3_mutex *)
- int(* xMutexNotheld)(sqlite3_mutex *)

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS 205 Software Engineering/Group Project/project/museum/museum/project/sglite3.h

3.125 sqlite3_pcache_methods Struct Reference

Public Attributes

- void * pArg
- int(* xInit)(void *)
- void(* xShutdown)(void *)
- sqlite3_pcache *(* **xCreate**)(int szPage, int bPurgeable)
- void(* xCachesize) (sqlite3 pcache *, int nCachesize)
- int(* xPagecount)(sqlite3_pcache *)
- void *(* xFetch)(sqlite3_pcache *, unsigned key, int createFlag)
- void(* xUnpin)(sqlite3_pcache *, void *, int discard)
- void(* xRekey)(sqlite3_pcache *, void *, unsigned oldKey, unsigned newKey)
- void(* xTruncate)(sqlite3_pcache *, unsigned iLimit)
- void(* xDestroy)(sqlite3_pcache *)

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.126 sqlite3 pcache methods2 Struct Reference

Public Attributes

- · int iVersion
- void * pArg
- int(* xInit)(void *)
- void(* xShutdown)(void *)
- sqlite3 pcache *(* xCreate)(int szPage, int szExtra, int bPurgeable)
- void(* xCachesize)(sqlite3_pcache *, int nCachesize)
- int(* xPagecount)(sqlite3_pcache *)
- sqlite3_pcache_page *(* xFetch)(sqlite3_pcache *, unsigned key, int createFlag)
- void(* xUnpin)(sqlite3 pcache *, sqlite3 pcache page *, int discard)
- void(* xRekey)(sqlite3_pcache *, sqlite3_pcache_page *, unsigned oldKey, unsigned newKey)
- void(* xTruncate)(sqlite3 pcache *, unsigned iLimit)
- void(* xDestroy)(sqlite3 pcache *)
- void(* xShrink)(sqlite3_pcache *)

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

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.127 sqlite3 pcache page Struct Reference

Public Attributes

- void * pBuf
- void * pExtra

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.128 sqlite3_rtree_geometry Struct Reference

Public Attributes

- void * pContext
- · int nParam
- sqlite3_rtree_dbl * aParam
- void * pUser
- void(* xDelUser)(void *)

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.129 sqlite3 rtree query info Struct Reference

Public Attributes

- void * pContext
- int nParam
- sqlite3_rtree_dbl * aParam
- void * pUser
- void(* xDelUser)(void *)
- · sqlite3 rtree dbl * aCoord
- unsigned int * anQueue
- int nCoord
- · int iLevel
- · int mxLevel
- · sqlite3 int64 iRowid
- sqlite3_rtree_dbl rParentScore
- · int eParentWithin
- · int eWithin
- sqlite3_rtree_dbl rScore
- sqlite3_value ** apSqlParam

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

- CS 205 Software Engineering/Group Project/project/museum/museum/project/sglite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.130 sqlite3_snapshot Struct Reference

Public Attributes

• unsigned char hidden [48]

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.131 sqlite3 str Struct Reference

Public Attributes

- sqlite3 * db
- char * zText
- u32 nAlloc
- u32 mxAlloc
- u32 nChar
- u8 accError
- u8 printfFlags

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

3.132 sqlite3 value Struct Reference

Classes

· union MemValue

Public Attributes

- · union sqlite3 value::MemValue u
- u16 flags
- u8 enc
- u8 eSubtype
- int **n**
- char * **z**
- char * zMalloc
- · int szMalloc
- u32 uTemp
- · sqlite3 * db
- void(* xDel)(void *)

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.133 sqlite3_vfs Struct Reference

Public Attributes

- · int iVersion
- int szOsFile
- int mxPathname
- sqlite3_vfs * pNext
- const char * zName
- void * pAppData
- int(* xOpen)(sqlite3_vfs *, const char *zName, sqlite3_file *, int flags, int *pOutFlags)
- int(* xDelete)(sqlite3_vfs *, const char *zName, int syncDir)
- int(* xAccess)(sqlite3_vfs *, const char *zName, int flags, int *pResOut)
- int(* xFullPathname)(sqlite3 vfs *, const char *zName, int nOut, char *zOut)
- void *(* xDIOpen)(sqlite3_vfs *, const char *zFilename)
- void(* xDIError)(sqlite3_vfs *, int nByte, char *zErrMsg)
- void(*(* xDISym)(sqlite3_vfs *, void *, const char *zSymbol))(void)
- void(* xDIClose)(sqlite3_vfs *, void *)
- int(* xRandomness)(sqlite3_vfs *, int nByte, char *zOut)
- int(* xSleep)(sqlite3_vfs *, int microseconds)
- int(* xCurrentTime)(sqlite3_vfs *, double *)
- int(* xGetLastError)(sqlite3_vfs *, int, char *)
- int(* xCurrentTimeInt64)(sqlite3_vfs *, sqlite3_int64 *)
- int(* xSetSystemCall)(sqlite3_vfs *, const char *zName, sqlite3_syscall_ptr)
- sqlite3_syscall_ptr(* xGetSystemCall)(sqlite3_vfs *, const char *zName)
- const char *(* xNextSystemCall)(sqlite3_vfs *, const char *zName)

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.134 sqlite3 vtab Struct Reference

Public Attributes

- const sqlite3_module * pModule
- int nRef
- · char * zErrMsg

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.135 sqlite3_vtab_cursor Struct Reference

Public Attributes

sqlite3_vtab * pVtab

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.h

3.136 Sqlite3Config Struct Reference

Public Attributes

- int bMemstat
- u8 bCoreMutex
- u8 bFullMutex
- u8 bOpenUri
- u8 bUseCis
- u8 bSmallMalloc
- u8 bExtraSchemaChecks
- int mxStrlen
- int neverCorrupt
- int szLookaside
- int nLookaside
- int nStmtSpill
- · sqlite3_mem_methods m
- sqlite3_mutex_methods mutex
- sqlite3_pcache_methods2 pcache2
- void * pHeap
- · int nHeap
- · int mnReq
- int mxReq
- sqlite3_int64 szMmap

- sqlite3_int64 mxMmap
- void * pPage
- int szPage
- · int nPage
- · int mxParserStack
- · int sharedCacheEnabled
- u32 szPma
- · int islnit
- int inProgress
- int isMutexInit
- · int isMallocInit
- · int isPCacheInit
- int nRefInitMutex
- sqlite3_mutex * plnitMutex
- void(* xLog)(void *, int, const char *)
- void * pLogArg
- int(* xTestCallback)(int)
- int bLocaltimeFault
- · int iOnceResetThreshold
- u32 szSorterRef
- · unsigned int iPrngSeed

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.137 sqlite3::sqlite3InitInfo Struct Reference

Public Attributes

- int newTnum
- u8 **iDb**
- u8 busy
- · unsigned orphanTrigger: 1
- unsigned imposterTable: 1
- unsigned reopenMemdb: 1
- char ** azInit

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.138 SQLiteThread Struct Reference

Public Attributes

- · pthread t tid
- int done
- void * pOut
- void *(* xTask)(void *)
- void * pln

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

3.139 SrcCount Struct Reference

Public Attributes

- SrcList * pSrc
- int nThis
- int nOther

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.140 SrcList Struct Reference

Classes

• struct SrcList_item

Public Attributes

- int nSrc
- u32 nAlloc
- struct SrcList::SrcList_item a [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.141 SrcList::SrcList_item Struct Reference

Public Attributes

- Schema * pSchema
- char * zDatabase
- · char * zName
- char * zAlias
- Table * pTab
- Select * pSelect
- · int addrFillSub
- · int regReturn
- · int regResult

•

```
struct {
   u8 jointype
   unsigned notIndexed:1
   unsigned isIndexedBy:1
   unsigned isTabFunc:1
   unsigned isCorrelated:1
   unsigned viaCoroutine:1
   unsigned isRecursive:1
   unsigned fromDDL:1
 } fg
· int iCursor
• Expr * pOn
· IdList * pUsing
  Bitmask colUsed
 union {
    char * zIndexedBy
    ExprList * pFuncArg
 } u1

    Index * pIBIndex
```

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.142 Stat4Accum Struct Reference

Public Attributes

- tRowcnt nRow
- · tRowcnt nPSample
- int nCol
- int nKeyCol
- int mxSample
- Stat4Sample current
- u32 iPrn
- Stat4Sample * aBest
- int iMin
- int nSample
- int nMaxEqZero
- · int iGet
- · Stat4Sample * a
- sqlite3 * db

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

3.143 Stat4Sample Struct Reference

Public Attributes

- tRowcnt * anEq
- tRowcnt * anDLt

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.144 SubProgram Struct Reference

Public Attributes

- VdbeOp * aOp
- int nOp
- · int nMem
- int nCsr
- u8 * aOnce
- void * token
- SubProgram * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.145 SubstContext Struct Reference

Public Attributes

- Parse * pParse
- · int iTable
- int iNewTable
- · int isLeftJoin
- ExprList * pEList

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

3.146 SumCtx Struct Reference

Public Attributes

- · double rSum
- i64 **iSum**
- i64 cnt
- u8 overflow
- u8 approx

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.147 Table Struct Reference

Public Attributes

- · char * zName
- Column * aCol
- Index * pIndex
- Select * pSelect
- FKey * pFKey
- char * zColAff
- ExprList * pCheck
- int tnum
- u32 nTabRef
- u32 tabFlags
- i16 iPKey
- i16 nCol
- i16 nNVCol
- LogEst nRowLogEst
- LogEst szTabRow
- u8 keyConf
- int addColOffset
- int nModuleArg
- char ** azModuleArg
- VTable * pVTable
- Trigger * pTrigger
- Schema * pSchema
- Table * pNextZombie

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

3.148 TableLock Struct Reference

Public Attributes

- int iDb
- int iTab
- u8 isWriteLock
- const char * zLockName

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.149 TabResult Struct Reference

Public Attributes

- char ** azResult
- char * zErrMsg
- u32 nAlloc
- u32 **nRow**
- u32 nColumn
- u32 nData
- int rc

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.150 Token Struct Reference

Public Attributes

- const char * z
- · unsigned int n

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

3.151 TrigEvent Struct Reference

Public Attributes

- int a
- · IdList * b

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.152 Trigger Struct Reference

Public Attributes

- · char * zName
- char * table
- u8 op
- u8 tr_tm
- Expr * pWhen
- IdList * pColumns
- Schema * pSchema
- Schema * pTabSchema
- TriggerStep * step_list
- Trigger * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.153 TriggerPrg Struct Reference

Public Attributes

- Trigger * pTrigger
- TriggerPrg * pNext
- SubProgram * pProgram
- int orconf
- u32 aColmask [2]

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

3.154 TriggerStep Struct Reference

Public Attributes

- u8 op
- u8 orconf
- Trigger * pTrig
- Select * pSelect
- char * zTarget
- Expr * pWhere
- ExprList * pExprList
- IdList * pldList
- Upsert * pUpsert
- · char * zSpan
- TriggerStep * pNext
- TriggerStep * pLast

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.155 unixFile Struct Reference

Public Attributes

- sqlite3_io_methods const * pMethod
- sqlite3_vfs * pVfs
- unixInodeInfo * plnode
- int h
- unsigned char eFileLock
- · unsigned short int ctrlFlags
- int lastErrno
- void * lockingContext
- UnixUnusedFd * pPreallocatedUnused
- const char * zPath
- $\bullet \quad unixShm*pShm$
- int szChunk
- · int sectorSize
- · int deviceCharacteristics

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

3.156 unixFileId Struct Reference

Public Attributes

- dev t dev
- u64 ino

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.157 unixInodeInfo Struct Reference

Public Attributes

- · struct unixFileId fileId
- sqlite3_mutex * pLockMutex
- int nShared
- int nLock
- · unsigned char eFileLock
- unsigned char bProcessLock
- UnixUnusedFd * pUnused
- · int nRef
- unixShmNode * pShmNode
- unixInodeInfo * pNext
- unixInodeInfo * pPrev

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.158 unixShm Struct Reference

Public Attributes

- unixShmNode * pShmNode
- unixShm * pNext
- u8 hasMutex
- u8 id
- u16 sharedMask
- u16 exclMask

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

3.159 unixShmNode Struct Reference

Public Attributes

- unixInodeInfo * plnode
- sqlite3_mutex * pShmMutex
- char * zFilename
- int hShm
- int szRegion
- u16 nRegion
- u8 isReadonly
- u8 isUnlocked
- char ** apRegion
- int nRef
- unixShm * pFirst

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.160 UnixUnusedFd Struct Reference

Public Attributes

- int fd
- int flags
- UnixUnusedFd * pNext

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.161 UnpackedRecord Struct Reference

Public Attributes

- · KeyInfo * pKeyInfo
- Mem * aMem
- u16 nField
- i8 default rc
- u8 errCode
- i8 **r1**
- i8 **r2**
- u8 eqSeen

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

3.162 Upsert Struct Reference

Public Attributes

- ExprList * pUpsertTarget
- Expr * pUpsertTargetWhere
- ExprList * pUpsertSet
- Expr * pUpsertWhere
- Index * pUpsertIdx
- SrcList * pUpsertSrc
- int regData
- · int iDataCur
- · int ildxCur

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.163 ValueNewStat4Ctx Struct Reference

Public Attributes

- Parse * pParse
- Index * pldx
- UnpackedRecord ** ppRec
- int iVal

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.164 Vdbe Struct Reference

Public Attributes

- sqlite3 * db
- Vdbe * pPrev
- Vdbe * pNext
- Parse * pParse
- ynVar nVar
- u32 magic
- int nMem
- int nCursor
- u32 cacheCtr
- · int pc
- int rc
- int nChange
- · int iStatement

- i64 iCurrentTime
- i64 nFkConstraint
- i64 nStmtDefCons
- i64 nStmtDeflmmCons
- Mem * aMem
- Mem ** apArg
- VdbeCursor ** apCsr
- Mem * aVar
- Op * aOp
- int nOp
- int nOpAlloc
- Mem * aColName
- Mem * pResultSet
- · char * zErrMsg
- VList * pVList
- i64 startTime
- u16 nResColumn
- u8 errorAction
- u8 minWriteFileFormat
- u8 prepFlags
- bft expired:2
- bft explain:2
- bft doingRerun:1
- bft changeCntOn:1
- bft runOnlyOnce:1
- bft usesStmtJournal:1
- bft readOnly:1
- bft blsReader:1
- yDbMask btreeMask
- yDbMask lockMask
- u32 aCounter [7]
- char * zSql
- void * pFree
- VdbeFrame * pFrame
- VdbeFrame * pDelFrame
- int nFrame
- u32 expmask
- SubProgram * pProgram
- AuxData * pAuxData

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

3.165 VdbeCursor Struct Reference

Public Attributes

- u8 eCurType
- i8 **iDb**
- u8 nullRow
- u8 deferredMoveto
- u8 isTable
- Bool isEphemeral:1
- Bool useRandomRowid:1
- Bool isOrdered:1
- · Bool seekHit:1
- Btree * pBtx
- i64 seqCount
- int * aAltMap
- u32 cacheStatus
- · int seekResult
- VdbeCursor * pAltCursor

```
union {
    BtCursor * pCursor
    sqlite3_vtab_cursor * pVCur
    VdbeSorter * pSorter
} uc
```

- KeyInfo * pKeyInfo
- u32 iHdrOffset
- Pgno pgnoRoot
- i16 nField
- u16 nHdrParsed
- i64 movetoTarget
- u32 * aOffset
- const u8 * aRow
- u32 payloadSize
- u32 szRow
- u32 aType [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.166 VdbeFrame Struct Reference

Public Attributes

- Vdbe * v
- VdbeFrame * pParent
- Op * aOp
- i64 * anExec
- Mem * aMem

- VdbeCursor ** apCsr
- u8 * **aOnce**
- void * token
- i64 lastRowid
- AuxData * pAuxData
- int nCursor
- int pc
- int nOp
- int nMem
- · int nChildMem
- int nChildCsr
- · int nChange
- · int nDbChange

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.167 VdbeOp Struct Reference

Classes

• union p4union

Public Attributes

- u8 opcode
- · signed char p4type
- u16 **p5**
- int **p1**
- int **p2**
- int p3
- union VdbeOp::p4union p4

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.168 VdbeOpList Struct Reference

Public Attributes

- u8 opcode
- signed char p1
- · signed char p2
- signed char p3

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

3.169 VdbeSorter Struct Reference

Public Attributes

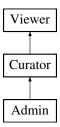
- · int mnPmaSize
- · int mxPmaSize
- · int mxKeysize
- int pgsz
- PmaReader * pReader
- MergeEngine * pMerger
- sqlite3 * db
- KeyInfo * pKeyInfo
- UnpackedRecord * pUnpacked
- SorterList list
- · int iMemory
- · int nMemory
- u8 bUsePMA
- u8 bUseThreads
- u8 iPrev
- u8 nTask
- u8 typeMask
- SortSubtask aTask [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.170 Viewer Class Reference

Inheritance diagram for Viewer:



Public Member Functions

· Viewer ()

Viewer::Viewer (p. 100) Default Constructor.

• Viewer (int _userID, string _un, string _pw, string _priv, string _desc, string _selfPic)

Viewer::Viewer (p. 100) Constructor that initializes class instance variables with parameters.

- · int getUserID ()
- void setUserID (int)
- string getUn ()
- · void setUn (string)

- string getPw ()
- void setPw (string)
- string getPrivelege ()
- void setPrivelege (string)
- string **getDescription** ()
- void setDescription (string)
- string getSelfPic ()
- void setSelfPic (string)
- string getUniquePW ()
- void setUniquePW (string)

Protected Attributes

- · string pw
- · string un
- string privelege
- int userID
- · string description
- string selfPic
- · string uniquePW

3.170.1 Constructor & Destructor Documentation

3.170.1.1 Viewer()

```
Viewer::Viewer (
    int _userID,
    string _un,
    string _pw,
    string _priv,
    string _desc,
    string _selfPic )
```

Viewer::Viewer (p. 100) Constructor that initializes class instance variables with parameters.

Parameters

_userID	The Viewer (p. 100)'s ID
_un	The Viewer (p. 100)'s Username
_pw	The Viewer (p. 100)'s Password
_priv	The Viewer (p. 100)'s Privelege level
_desc	The Viewer (p. 100)'s self description
_selfPic	The Viewer (p. 100)'s Profile picture

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

- CS_205_Software_Engineering/Group Project/project/museum/museum/project/viewer.h
- CS_205_Software_Engineering/Group Project/project/museum/museum/project/viewer.cpp

3.171 VtabCtx Struct Reference

Public Attributes

- VTable * pVTable
- Table * pTab
- VtabCtx * pPrior
- · int bDeclared

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.172 VTable Struct Reference

Public Attributes

- sqlite3 * db
- Module * pMod
- sqlite3_vtab * pVtab
- int nRef
- u8 bConstraint
- u8 eVtabRisk
- int iSavepoint
- VTable * pNext

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.173 vxworksFileId Struct Reference

Public Attributes

- struct vxworksFileId * pNext
- · int nRef
- · int nName
- char * zCanonicalName

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

3.174 Wal Struct Reference 103

3.174 Wal Struct Reference

Public Attributes

- sqlite3_vfs * pVfs
- sqlite3_file * pDbFd
- sqlite3 file * pWalFd
- u32 iCallback
- i64 mxWalSize
- int nWiData
- int szFirstBlock
- volatile u32 ** apWiData
- u32 szPage
- i16 readLock
- u8 syncFlags
- u8 exclusiveMode
- u8 writeLock
- u8 ckptLock
- u8 readOnly
- u8 truncateOnCommit
- u8 syncHeader
- u8 padToSectorBoundary
- u8 bShmUnreliable
- · WallndexHdr hdr
- u32 minFrame
- u32 iReCksum
- const char * zWalName
- u32 nCkpt

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.175 WalCkptInfo Struct Reference

Public Attributes

- u32 nBackfill
- u32 aReadMark [WAL_NREADER]
- u8 aLock [SQLITE_SHM_NLOCK]
- u32 nBackfillAttempted
- u32 notUsed0

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

3.176 WalHashLoc Struct Reference

Public Attributes

- volatile ht_slot * aHash
- volatile u32 * aPgno
- u32 i**Zero**

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.177 WallndexHdr Struct Reference

Public Attributes

- u32 iVersion
- u32 unused
- u32 iChange
- u8 islnit
- u8 bigEndCksum
- u16 szPage
- u32 mxFrame
- u32 nPage
- u32 aFrameCksum [2]
- u32 aSalt [2]
- u32 aCksum [2]

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.178 Wallterator Struct Reference

Classes

struct WalSegment

Public Attributes

- · int iPrior
- int nSegment
- struct Wallterator::WalSegment aSegment [1]

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

3.179 Walker Struct Reference

Public Attributes

```
    Parse * pParse

    int(* xExprCallback )( Walker *, Expr *)

    int(* xSelectCallback )( Walker *, Select *)

    void(* xSelectCallback2 )( Walker *, Select *)

· int walkerDepth
• u16 eCode
 union {
    NameContext * pNC
   int n
   int iCur
    SrcList * pSrcList
   struct SrcCount * pSrcCount
   struct CCurHint * pCCurHint
   int * aiCol
   struct IdxCover * pldxCover
   struct IdxExprTrans * pldxTrans
    ExprList * pGroupBy
    Select * pSelect
   struct WindowRewrite * pRewrite
   struct WhereConst * pConst
   struct RenameCtx * pRename
   struct Table * pTab
 } u
```

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.180 Wallterator::WalSegment Struct Reference

Public Attributes

- int iNext
- ht_slot * alndex
- u32 * aPgno
- int nEntry
- int iZero

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

3.181 WalWriter Struct Reference

Public Attributes

- Wal * pWal
- sqlite3_file * pFd
- sqlite3_int64 iSyncPoint
- int syncFlags
- int szPage

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.182 WhereAndInfo Struct Reference

Public Attributes

WhereClause wc

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.183 WhereClause Struct Reference

Public Attributes

- WhereInfo * pWInfo
- WhereClause * pOuter
- u8 **op**
- u8 hasOr
- int nTerm
- int nSlot
- · WhereTerm * a
- WhereTerm aStatic [8]

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

3.184 WhereConst Struct Reference

Public Attributes

- · Parse * pParse
- int nConst
- · int nChng
- Expr ** apExpr

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

• CS 205 Software Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.185 Where Expr Mod Struct Reference

Public Attributes

- WhereExprMod * pNext
- Expr * pExpr
- · Expr orig

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

 $\bullet \ \ CS_205_Software_Engineering/Group\ Project/project/museum/museum/project/sqlite3.c$

3.186 WhereInfo Struct Reference

Public Attributes

- Parse * pParse
- SrcList * pTabList
- ExprList * pOrderBy
- ExprList * pResultSet
- Expr * pWhere
- int aiCurOnePass [2]
- int iContinue
- int iBreak
- int savedNQueryLoop
- u16 wctrlFlags
- LogEst iLimit
- u8 nLevel
- i8 nOBSat
- u8 eOnePass
- u8 eDistinct
- unsigned bDeferredSeek:1
- unsigned untestedTerms:1
- unsigned bOrderedInnerLoop:1
- unsigned sorted:1

- LogEst nRowOut
- int iTop
- WhereLoop * pLoops
- WhereExprMod * pExprMods
- Bitmask revMask
- · WhereClause sWC
- WhereMaskSet sMaskSet
- · WhereLevel a [1]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.187 WhereLevel Struct Reference

Public Attributes

```
• int iLeftJoin
```

- · int iTabCur
- int ildxCur
- int addrBrk
- int addrNxt
- int addrSkip
- · int addrCont
- int addrFirst
- · int addrBody
- int regBignull
- int addrBignull
- u32 iLikeRepCntr
- int addrLikeRep
- u8 iFrom
- u8 **op**
- u8 **p3**
- u8 **p5**
- int **p1**
- int p2
 - union {
 struct {
 int nln
 struct InLoop {
 int iCur
 int addrInTop
 int iBase
 int nPrefix
 u8 eEndLoopOp
 } alnLoop

Index * pCovidx

- struct WhereLoop * pWLoop
- · Bitmask notReady

} in

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

3.188 WhereLoop Struct Reference

Public Attributes

```
· Bitmask prereq
· Bitmask maskSelf

    u8 iTab

    u8 iSortldx

    LogEst rSetup

    LogEst rRun

· LogEst nOut
 union {
    struct {
      u16 nEq
      u16 nBtm
      u16 nTop
      u16 nDistinctCol
      Index * pIndex
   } btree
    struct {
      int idxNum
      u8 needFree
      i8 isOrdered
      u16 omitMask
      char * idxStr
   } vtab
 } u

    u32 wsFlags

• u16 nLTerm

    u16 nSkip

    u16 nLSlot

    WhereTerm ** aLTerm

  WhereLoop * pNextLoop

    WhereTerm * aLTermSpace [3]
```

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.189 WhereLoopBuilder Struct Reference

Public Attributes

```
    WhereInfo * pWInfo
    WhereClause * pWC
    ExprList * pOrderBy
    WhereLoop * pNew
    WhereOrSet * pOrSet
    unsigned int bldFlags
```

· unsigned int iPlanLimit

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

3.190 WhereMaskSet Struct Reference

Public Attributes

- · int bVarSelect
- int **n**
- int ix [BMS]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.191 WhereOrCost Struct Reference

Public Attributes

- · Bitmask prereq
- · LogEst rRun
- LogEst nOut

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.192 WhereOrInfo Struct Reference

Public Attributes

- · WhereClause wc
- Bitmask indexable

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.193 WhereOrSet Struct Reference

Public Attributes

- u16 n
- WhereOrCost a [N_OR_COST]

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

3.194 WherePath Struct Reference

Public Attributes

- · Bitmask maskLoop
- Bitmask revLoop
- LogEst nRow
- LogEst rCost
- LogEst rUnsorted
- i8 isOrdered
- WhereLoop ** aLoop

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.195 WhereScan Struct Reference

Public Attributes

- WhereClause * pOrigWC
- WhereClause * pWC
- const char * zCollName
- Expr * pldxExpr
- char idxaff
- unsigned char **nEquiv**
- unsigned char iEquiv
- u32 opMask
- $\bullet \quad \text{int } \boldsymbol{k}$
- int aiCur [11]
- i16 aiColumn [11]

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.196 WhereTerm Struct Reference

Public Attributes

- Expr * pExpr
- WhereClause * pWC
- LogEst truthProb
- u16 wtFlags
- u16 eOperator
- u8 nChild
- u8 eMatchOp
- · int iParent

```
    int leftCursor
    int iField
    union {
        int leftColumn
        WhereOrInfo * pOrInfo
        WhereAndInfo * pAndInfo
    } u
```

- Bitmask prereqRight
- Bitmask prereqAll

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.197 Window Struct Reference

Public Attributes

- char * zName
- char * zBase
- ExprList * pPartition
- ExprList * pOrderBy
- u8 eFrmType
- u8 eStart
- u8 eEnd
- u8 blmplicitFrame
- u8 eExclude
- Expr * pStart
- Expr * pEnd
- Window ** ppThis
- Window * pNextWin
- Expr * pFilter
- FuncDef * pFunc
- · int iEphCsr
- · int regAccum
- int regResult
- int csrApp
- int regApp
- · int regPart
- Expr * pOwner
- int nBufferCol
- · int iArgCol
- int regOne
- int regStartRowid
- int regEndRowid
- u8 bExprArgs

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

3.198 WindowCodeArg Struct Reference

Public Attributes

- Parse * pParse
- Window * pMWin
- Vdbe * pVdbe
- · int addrGosub
- · int regGosub
- int regArg
- int eDelete
- · WindowCsrAndReg start
- · WindowCsrAndReg current
- · WindowCsrAndReg end

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.199 WindowCsrAndReg Struct Reference

Public Attributes

- int csr
- int reg

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.200 WindowRewrite Struct Reference

Public Attributes

- Window * pWin
- SrcList * pSrc
- ExprList * pSub
- Table * pTab
- Select * pSubSelect

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

3.201 With Struct Reference

Classes

• struct Cte

Public Attributes

```
• int nCte
```

With * pOuter

• struct With::Cte a [1]

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

CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.202 YYMINORTYPE Union Reference

Public Attributes

```
• int yyinit
```

- sqlite3ParserTOKENTYPE yy0
- SrcList * yy47
- u8 **yy58**
- struct FrameBound yy77
- With * yy131
- int yy192
- Expr * yy202struct {

int value int mask } yy207

- struct TrigEvent yy230
- ExprList * yy242
- Window * yy303
- Upsert * yy318
- const char * yy436
- TriggerStep * yy447
- · Select * yy539
- IdList * yy600

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

3.203 yyParser Struct Reference

Public Attributes

- yyStackEntry * yytos
- sqlite3ParserARG_SDECL sqlite3ParserCTX_SDECL yyStackEntry yystack [YYSTACKDEPTH]
- yyStackEntry * yystackEnd

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

• CS_205_Software_Engineering/Group Project/project/museum/museum/project/sqlite3.c

3.204 yyStackEntry Struct Reference

Public Attributes

- YYACTIONTYPE stateno
- · YYCODETYPE major
- YYMINORTYPE minor

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

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