

# PLDatabase

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## Introduction

PLDatabase provides a SQL database access library for Objective-C, focused on SQLite as an application database. The library supports both Mac OS X and iPhone development.

Plausible Database is provided free of charge under the BSD license, and may be freely integrated with any application.

## Building

To build your own release binary, build the 'Disk Image' target:

```
user@max:~/pldatabase-1.2> xcodebuild -configuration Release -target 'Disk Image'
```

This will output a new release disk image containing an embeddable Mac OS X framework and a static iPhone framework in `build/Release/Plausible Database-{version}.dmg`

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## Basic Usage

Refer to the [API Documentation](#) for details.

## Creating a connection

Open a connection to a database file:

## Creating a connection

```
PLiteDatabase *db = [[PLiteDatabase alloc] initWithPath: @"/path/to/database"];
if (![db openAndReturnError: &error])
    NSLog(@"Could not open database");
```

## Update Statements

Update statements can be executed directly via `-[PLiteDatabase executeUpdateAndReturnError:statement:...]`

```
if (![db executeUpdateAndReturnError: &error statement: @"CREATE TABLE example (id
INTEGER)"])
    NSLog(@"Table creation failed");
if (![db executeQueryAndReturnError: &error statement: @"INSERT INTO example (id)
VALUES (?)", [NSNumber numberWithInt: 42]])
    NSLog(@"Data insert failed");
```

## Query Statements

Queries can be executed using `-[PLiteDatabase executeQueryAndReturnError:statement:...]`. To iterate over the returned results, a instance conforming to the [PLResultSet](#) protocol will be returned.

```
id<PLResultSet> results = [db executeQueryAndReturnError: &error statement: @"SELECT
id FROM example WHERE id = ?", [NSNumber numberWithInt: 42]];
PLResultSetStatus rss;
while ((rss = [results nextAndReturnError: &error]) == PLResultSetStatusRow) {
    NSLog(@"Value of column id is %d", [results intForColumn: @"id"]);
}

if (rss != PLResultSetStatusDone)
    NSLog(@"Iterating results failed");

// Failure to close the result set will not leak memory, but may
// retain database resources until the instance is deallocated.
[results close];
```

## Prepared Statements

Pre-compilation of SQL statements and advanced parameter binding are supported by [PLPreparedStatement](#). A prepared statement can be constructed using `-[PLiteDatabase prepareStatement:error:]`.

```
id<PLPreparedStatement> stmt = [db prepareStatement: @"INSERT INTO example (name,
color) VALUES (?, ?)" error: &error];

// Bind the parameters
[stmt bindParameters: @"Widget", @"Blue"];

// Execute the INSERT
if ([stmt executeUpdateAndReturnError: &error] == NO)
    NSLog(@"INSERT failed");
```

## Name-based Parameter Binding

Name-based parameter binding is also supported:

```
// Prepare the statement
id<PLPreparedStatement> stmt = [db prepareStatement: @"INSERT INTO test (name, color)
VALUES (:name, :color)" error: &error];

// Bind the parameters using a dictionary
[stmt bindParameterDictionary: @{ @"name" : @"Widget", @"color" : @"Blue" }];

// Execute the INSERT
if ([stmt executeUpdateAndReturnError: &error] == NO)
    NSLog(@"INSERT failed");
```