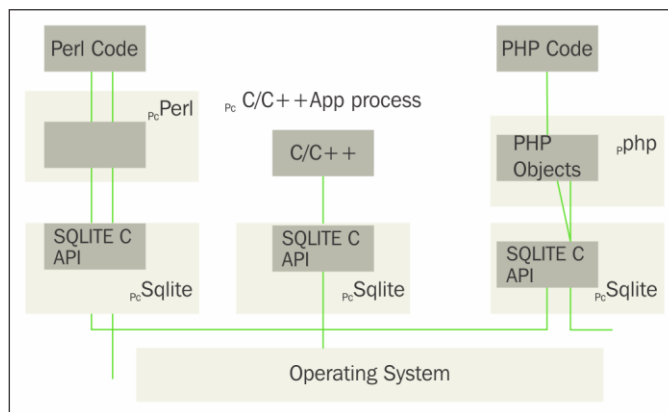
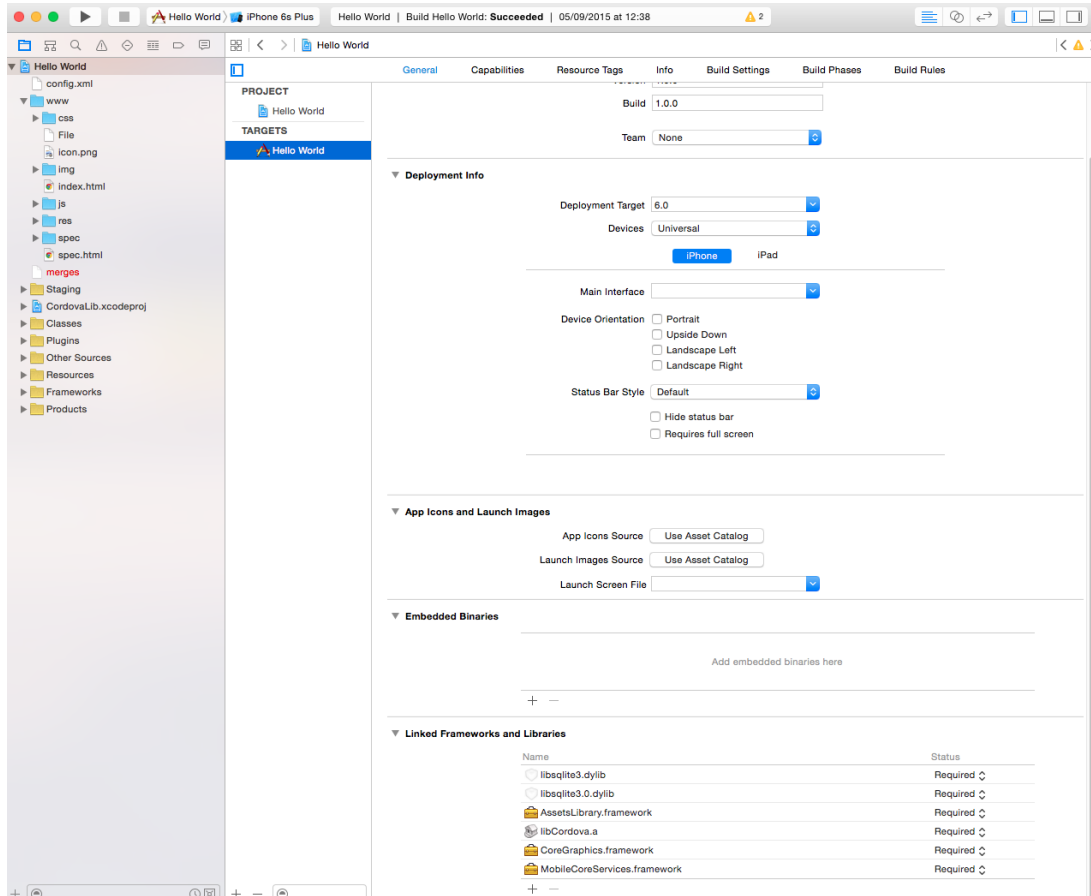
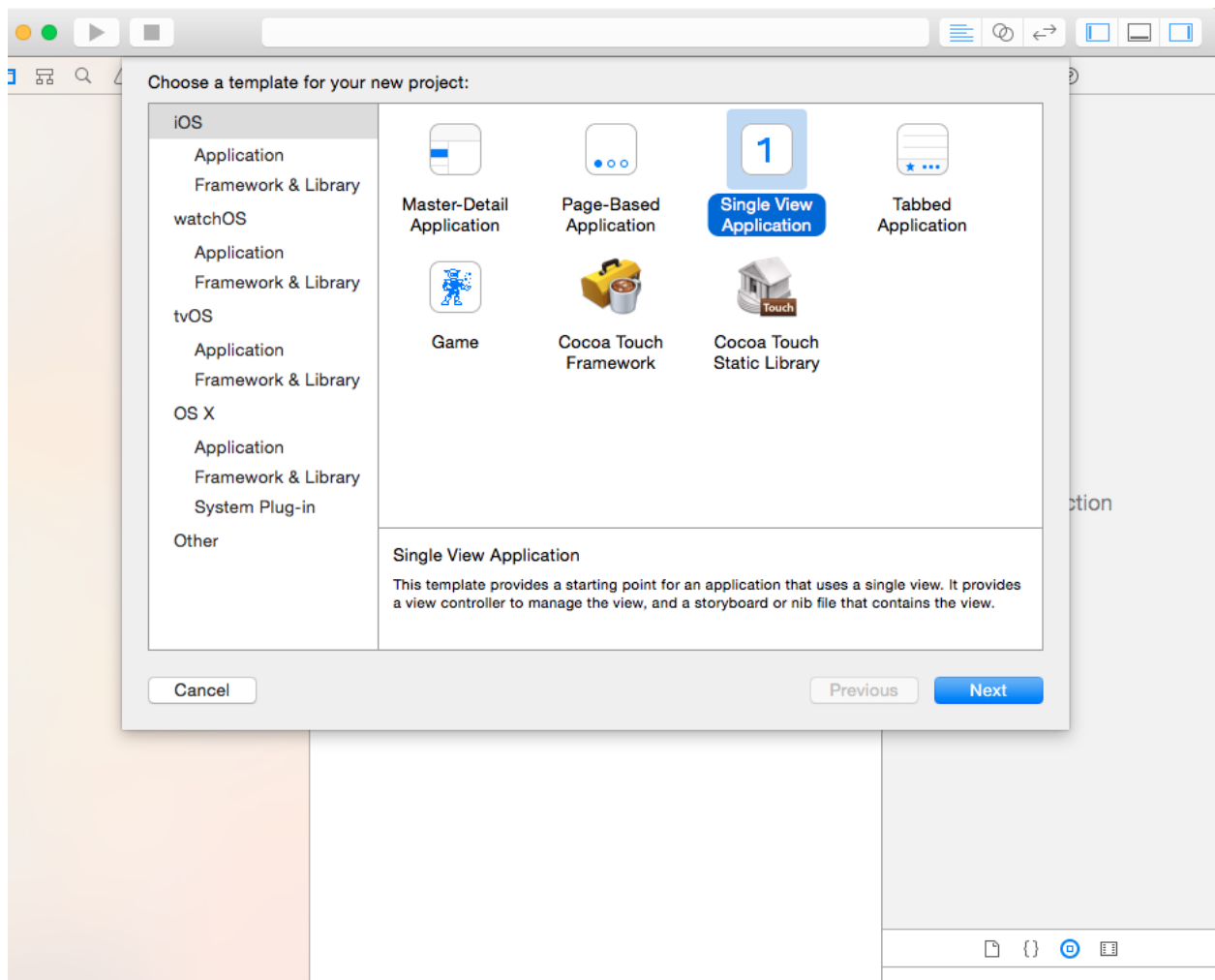
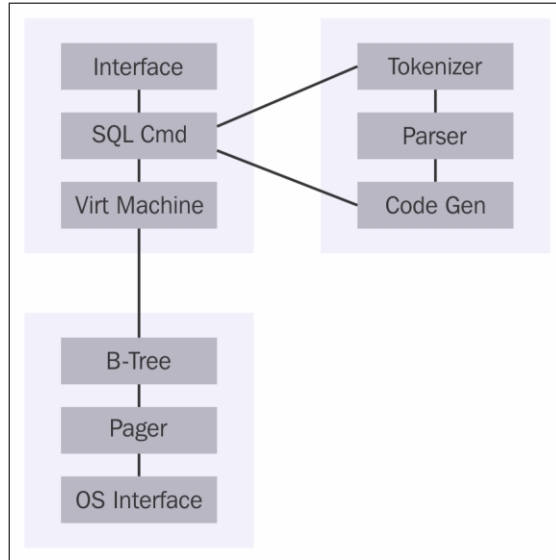
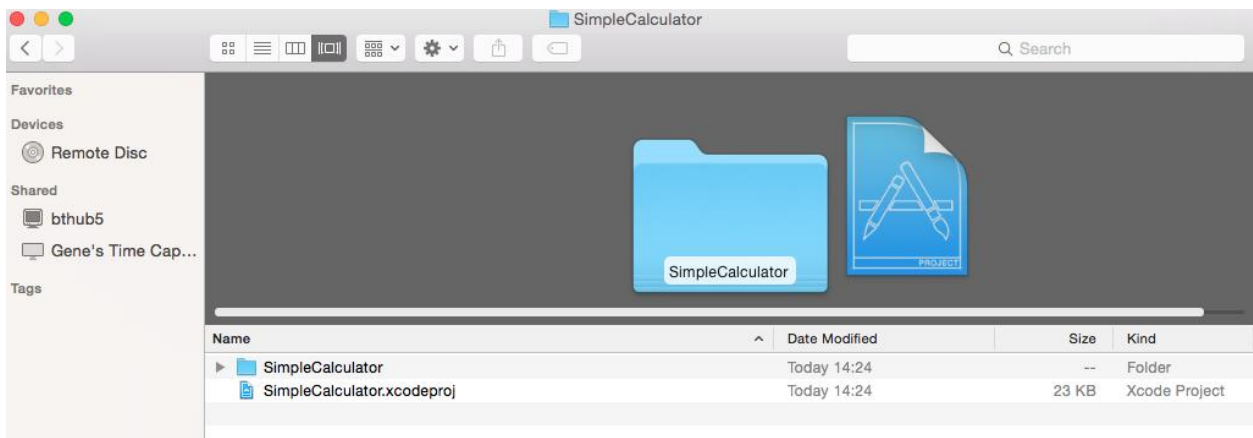
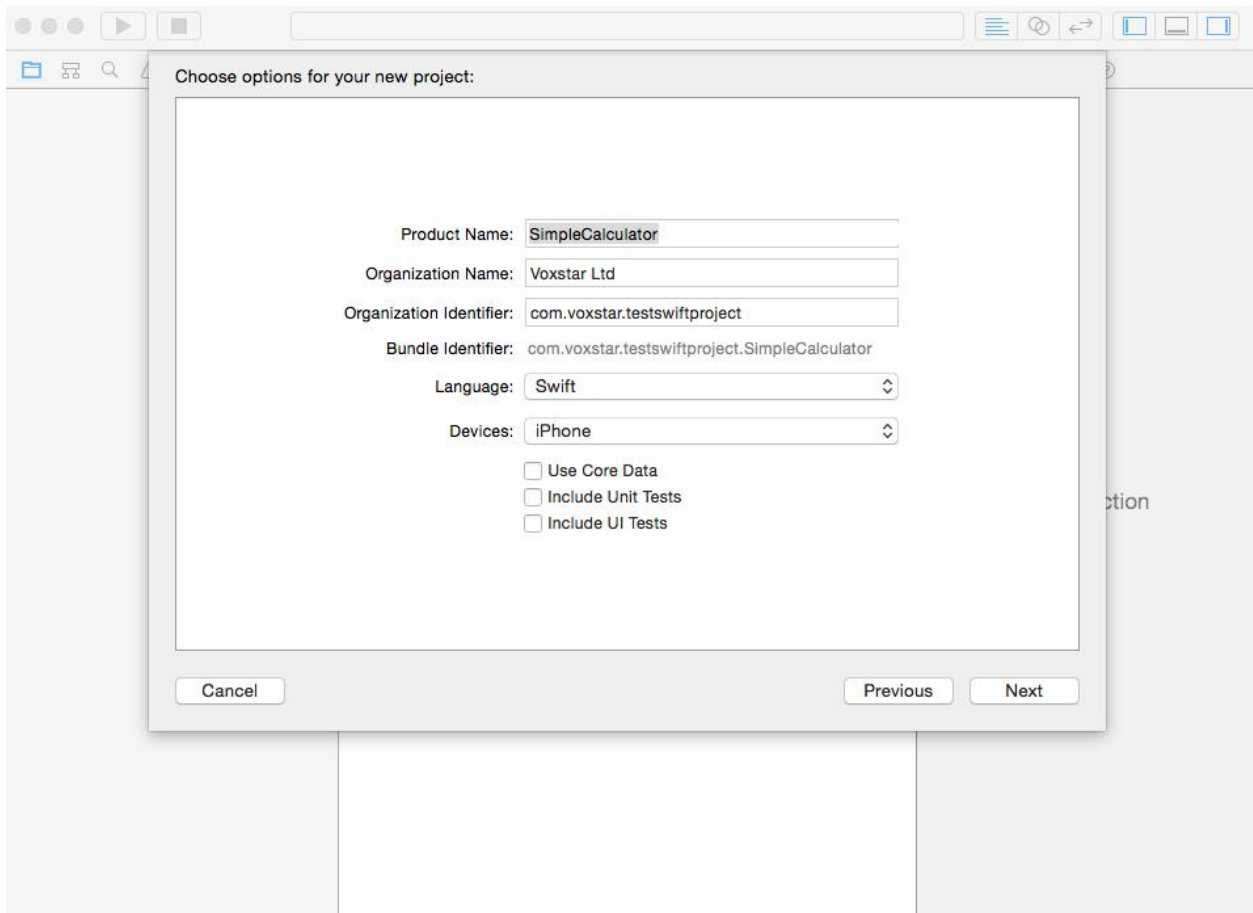
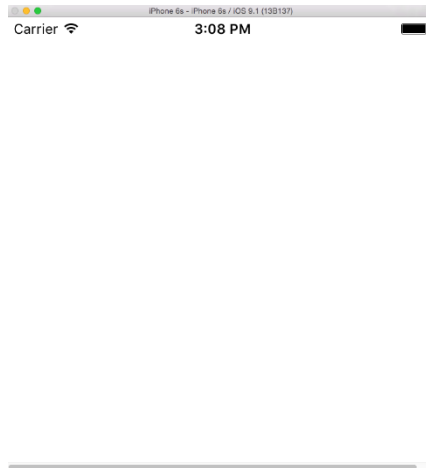
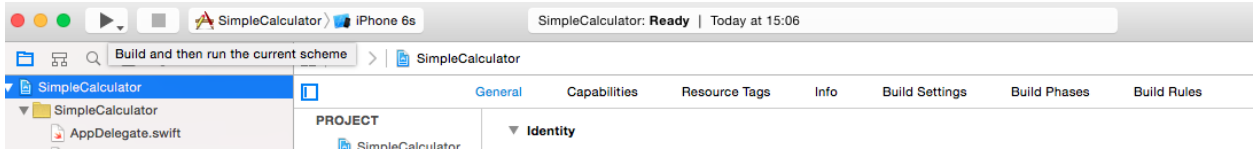
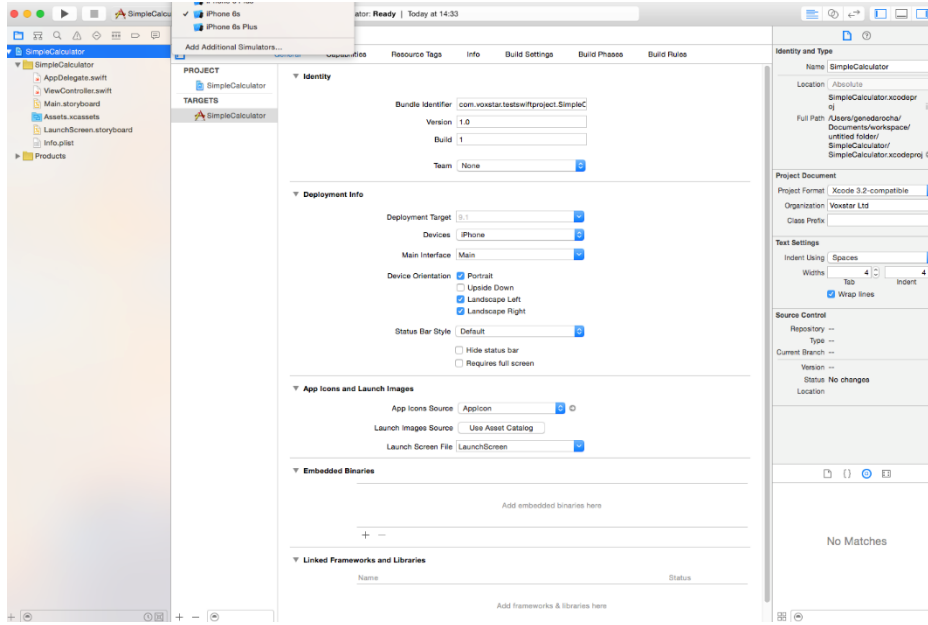


Chapter 1: Introduction to SQL and SQLite

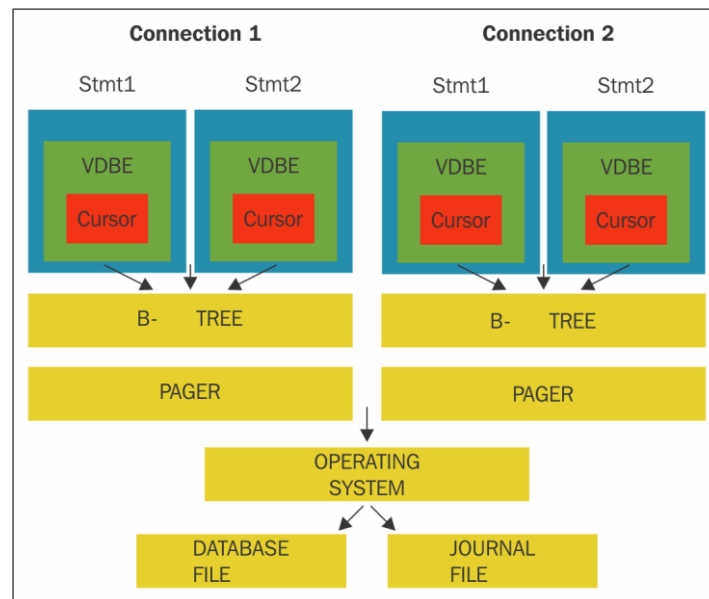








Chapter 2: Database Design Concepts



```
insert into details (id, name, address, country, postcode), values (?, ?, ?, ?, ?);
```

```
insert into property(id, name, description, location, value) (:id, :name, :desc, :location, :value);
```

Chapter 3: Administering the Database

```
genedarochasMBP:AEM6 genedarocha$ sqlite3
SQLite version 3.8.5 2014-08-15 22:37:57
Enter ".help" for usage hints.
Connected to a transient in-memory database.
Use ".open FILENAME" to reopen on a persistent database.
sqlite>
```

```
genedarochas-MacBook-Pro:AEM6 genedarocha$ sqlite3 -help
Usage: sqlite3 [OPTIONS] FILENAME [SQL]
FILENAME is the name of an SQLite database. A new database is created
if the file does not previously exist.
OPTIONS include:
  -bail                stop after hitting an error
  -batch              force batch I/O
  -column            set output mode to 'column'
  -cmd COMMAND       run "COMMAND" before reading stdin
  -csv               set output mode to 'csv'
  -echo              print commands before execution
  -init FILENAME     read/process named file
  -[no]header        turn headers on or off
  -help              show this message
  -html              set output mode to HTML
  -interactive        force interactive I/O
  -line              set output mode to 'line'
  -list              set output mode to 'list'
  -mmap N            default mmap size set to N
  -nullvalue TEXT    set text string for NULL values. Default ''
  -separator SEP     set output field separator. Default: '|'
  -stats             print memory stats before each finalize
  -version           show SQLite version
  -vfs NAME          use NAME as the default VFS
genedarochas-MacBook-Pro:AEM6 genedarocha$ █
```

```
Last login: Tue Jan 19 12:00:29 on ttys000
$ sqlite3
SQLite version 3.8.5 2014-08-15 22:37:57
Enter ".help" for usage hints.
Connected to a transient in-memory database.
Use ".open FILENAME" to reopen on a persistent database.
sqlite> create table temp (id integer primary key, name text,
address text);
sqlite>
```

```
$ sqlite3
SQLite version 3.8.5 2014-08-15 22:37:57
Enter ".help" for usage hints.
Connected to a transient in-memory database.
Use ".open FILENAME" to reopen on a persistent database.
sqlite> insert into temp(name,address) values('Jon Smith','10
Downing Street London' );
sqlite>
|
```

```
sqlite>
sqlite> .mode column
sqlite> .headers on
sqlite> select * from temp;
id          name          address
-----
1           Jon Smith
2           Bob Smith
sqlite> █
```

```
$ sqlite3
SQLite version 3.8.5 2014-08-15 22:37:57
Enter ".help" for usage hints.
Connected to a transient in-memory database.
Use ".open FILENAME" to reopen on a persistent database.
sqlite> created index temp_idx on temp (name);
```

```
sqlite>
sqlite>
sqlite> .output temp.sql
sqlite> .dump
sqlite> .output stdout
sqlite> █
```

```
sqlite>
sqlite>
sqlite>
sqlite>
sqlite>
sqlite> .tables %te%
temp
sqlite> █
```

```
sqlite>
sqlite> .indices temp
temp_idx
sqlite> █
```

```
sqlite>
sqlite>
sqlite> .schema temp
CREATE TABLE temp(id integer primary key, name text, address text);
CREATE INDEX temp_idx on temp(id);
sqlite> █
```

```
sqlite>
sqlite>
sqlite> .schema
CREATE TABLE temp(id integer primary key, name text, address text);
CREATE INDEX temp_idx on temp(id);
sqlite> █
```

```
$ sqlite3 testdatabase.db .dump > temp.sql █
```

```
sqlite>
sqlite> .output temp.sql
sqlite> .dump
sqlite> .output stdout
sqlite> .exit
```

```
| $ sqlite3 temp.db < temp.sql
```



```
sqlite> SELECT name FROM sqlite_master
...> WHERE type='table'
...> ORDER BY name;
temp
sqlite> █
```

Chapter 4: Essentials of SQL

```
sqlite> select * from salary
...> ;
1|Gene|32|London|10000.0
2|Sam|42|London|12000.0
3|Dan|22|New York|17000.0
4|Adam|28|New York|27000.0
sqlite>
sqlite> EXPLAIN SELECT * from Salary where Salary>=15000;
0|Init|0|15|0||00|
1|OpenRead|0|3|0|5|00|
2|Rewind|0|13|0||00|
3|Column|0|4|1||00|
4|RealAffinity|1|0|0||00|
5|Lt|2|12|1|(BINARY)|6d|
6|Rowid|0|3|0||00|
7|Column|0|1|4||00|
8|Column|0|2|5||00|
9|Column|0|3|6||00|
10|Copy|1|7|0||00|
11|ResultRow|3|5|0||00|
12|Next|0|3|0||01|
13|Close|0|0|0||00|
14|Halt|0|0|0||00|
15|Transaction|0|0|2|0|01|
16|TableLock|0|3|0|salary|00|
17|Integer|15000|2|0||00|
18|Goto|0|1|0||00|
sqlite> █
```

```
sqlite> EXPLAIN QUERY PLAN SELECT * FROM Salary where Salary >=20000;
0|0|0|SCAN TABLE Salary
```

```
sqlite>
sqlite>
sqlite> select type,name from sqlite_master;
table|salary
sqlite> █
```

```
sqlite>
sqlite> select max(id) from temp;
3
sqlite>
sqlite> select last_insert_rowid();
3
sqlite> █
```

Chapter 5: Exposing the C API

```
sqlite3 *thedb;  
int recordcounter = sqlite3_open("test.db", &thedb);
```

```
sqlite3_stmt *a_statement
```

```
NSString *insertSQL = [NSString stringWithFormat:@"INSERT INTO TEMP (name, address) VALUES (\\\"%@\\\", \\\"%@\\\")",  
name.text, address.text];
```

```
const char *insert_statement = [insertSQL UTF8String];
```

```
recordcounter = sqlite3_prepare_v2(thedb, insert_statement, -1, &a_statement, 0);
```

```
sqlite3_stmt *a_statement
```

```
recordcounter = sqlite3_prepare_v2(thedb, insert_statement, -1, &a_statement, 0);
```

```
if (sqlite3_step(a_statement) == SQLITE_DONE)  
{  
    return YES;  
}  
else  
{  
    NSLog(@"Failed");  
}
```

```
sqlite3_stmt      *a_statement
```

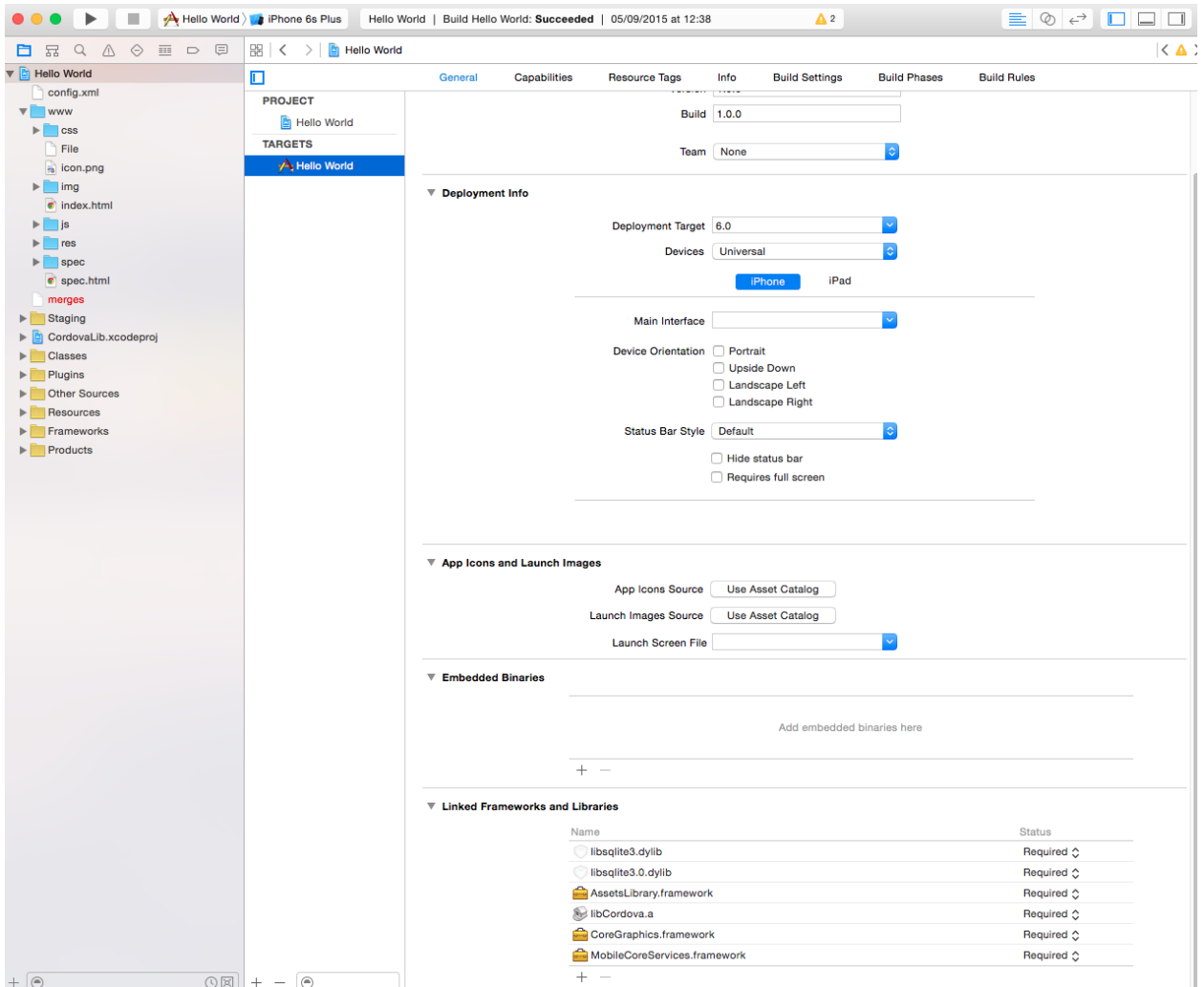
```
recordcounter = sqlite3_prepare_v2(thedb, insert_statement, -1, &a_statement, 0);
```

```
if (sqlite3_step(a_statement) == SQLITE_DONE)
{
    return YES;
}
else
{
    NSLog(@"Failed");
}
```

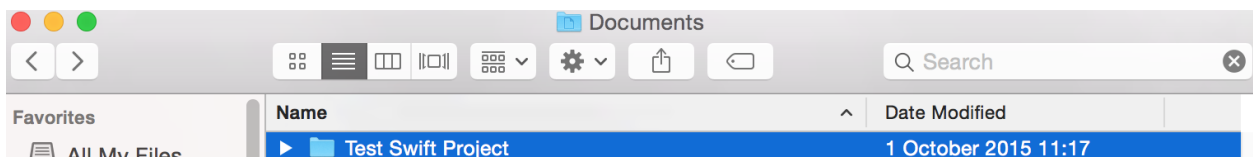
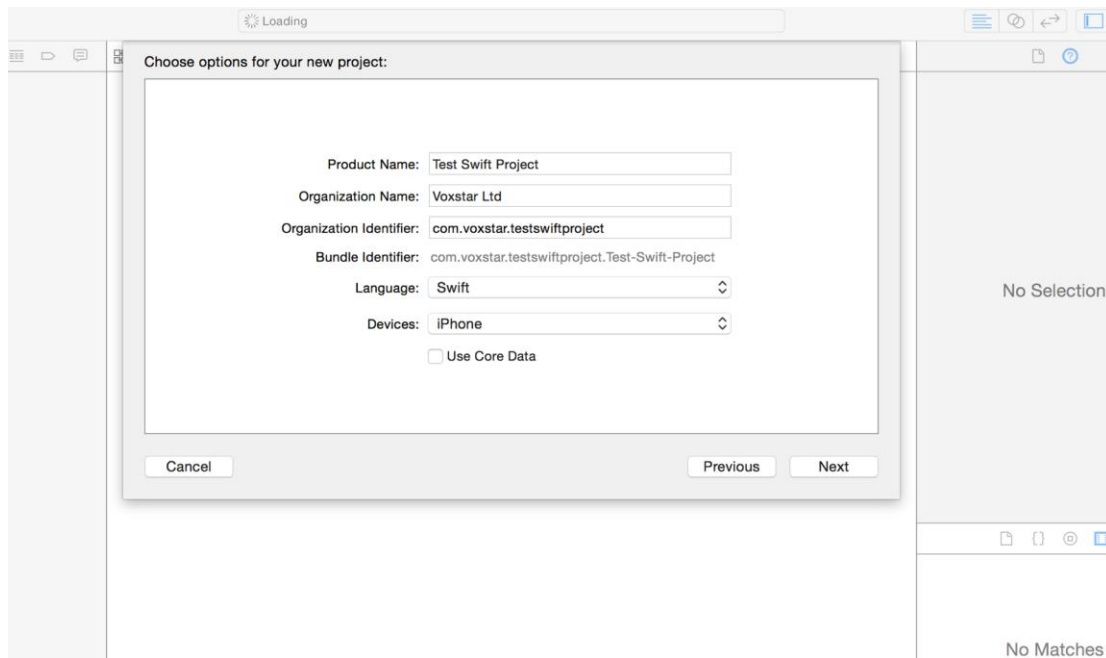
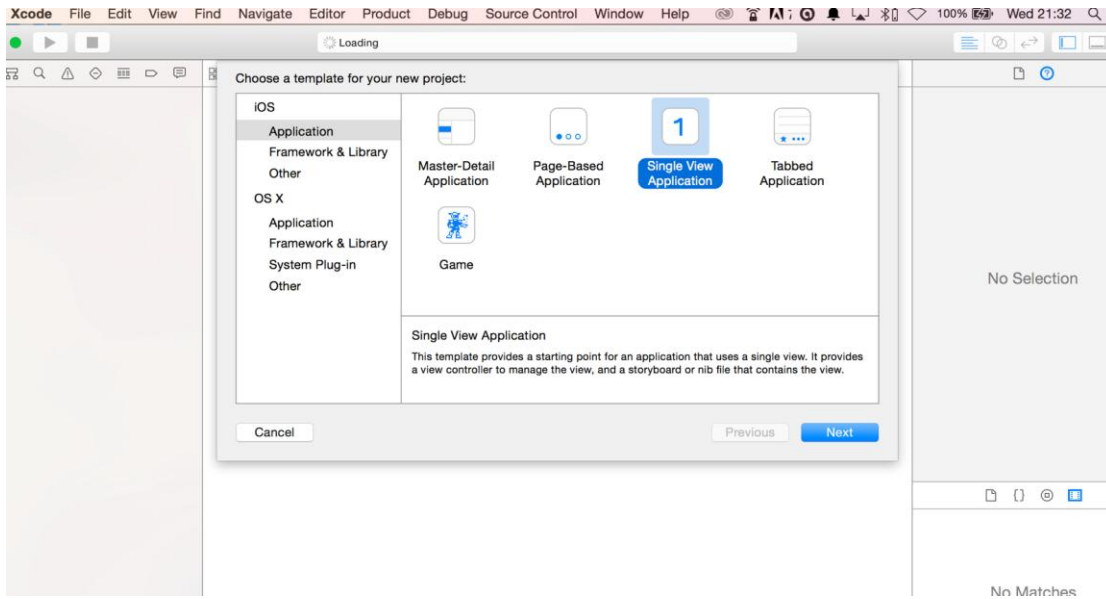
```
int a_step = sqlite3_step(a_statement);
```

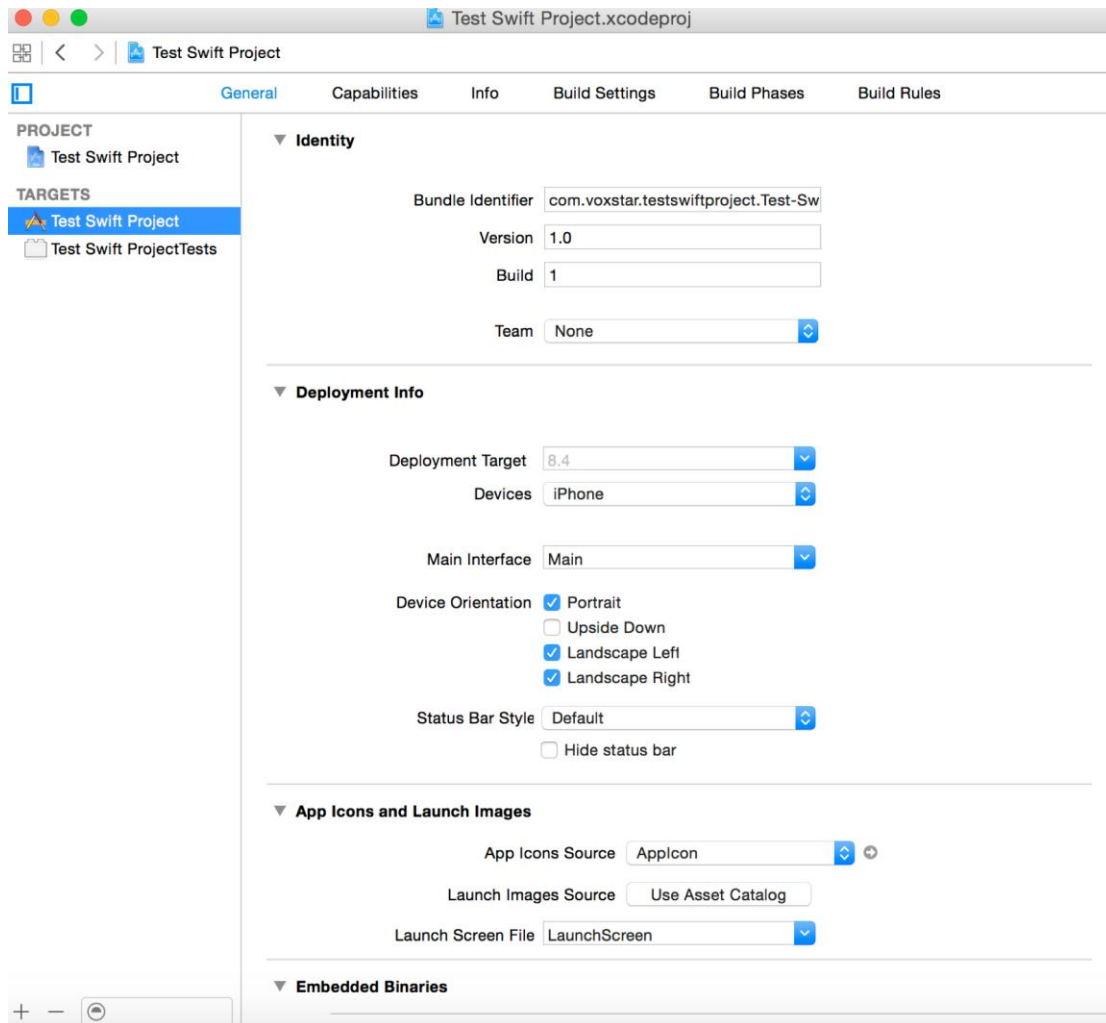
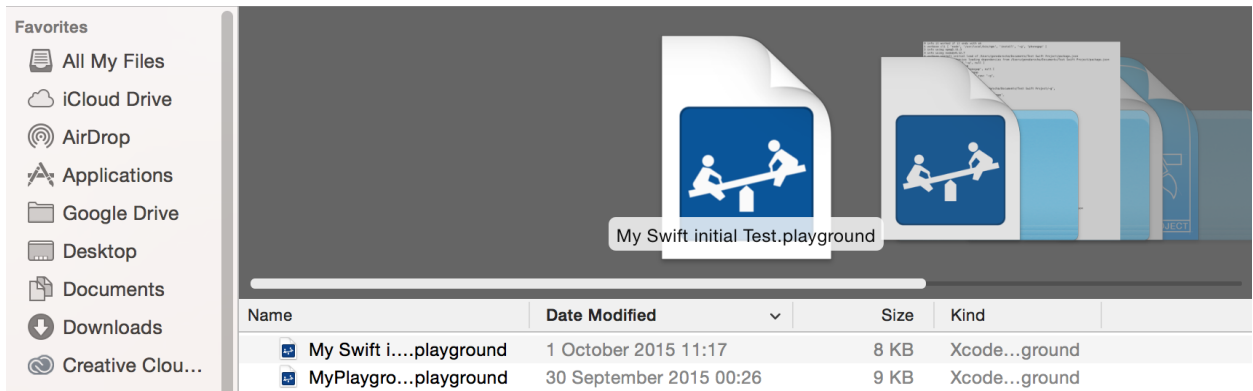
```
if (a_step == SQLITE3_ROW) {
    printf("%s: ",sqlite3_column_text(res,0));
    printf("%s: ",sqlite3_column_text(res,1)); }
}
```

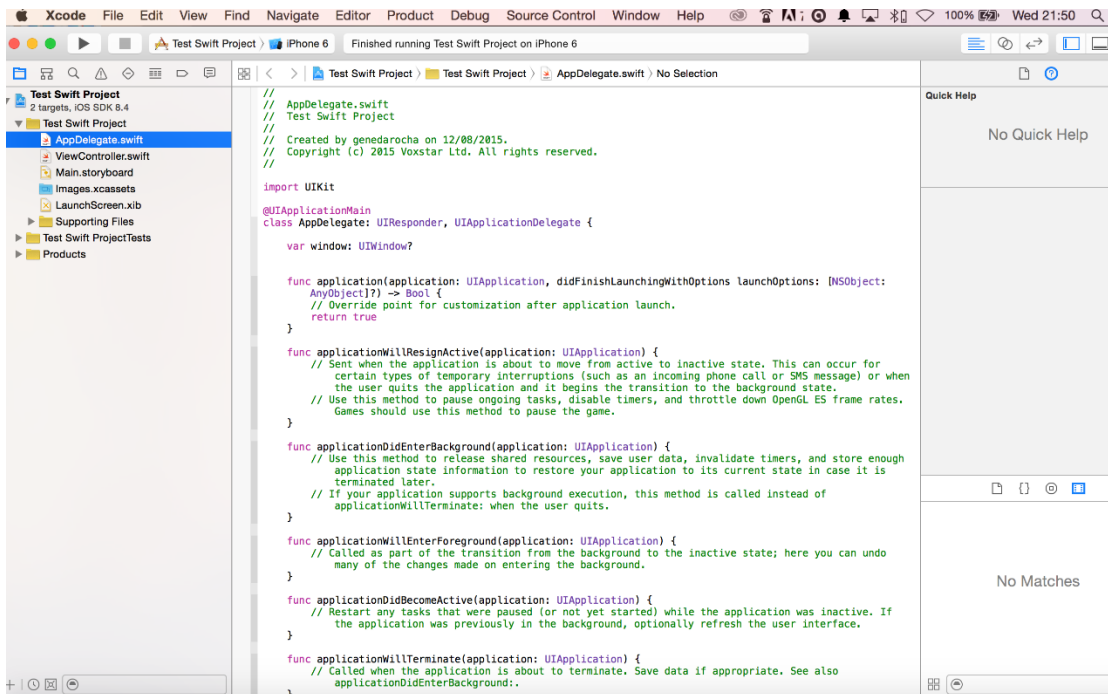
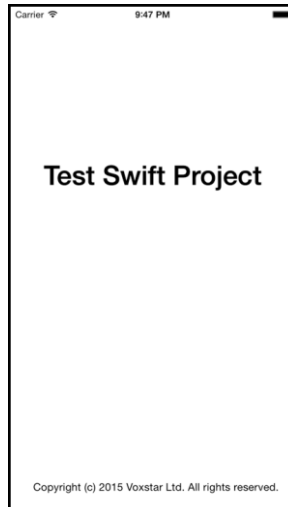
```
sqlite3_finalize(a_statement);
```

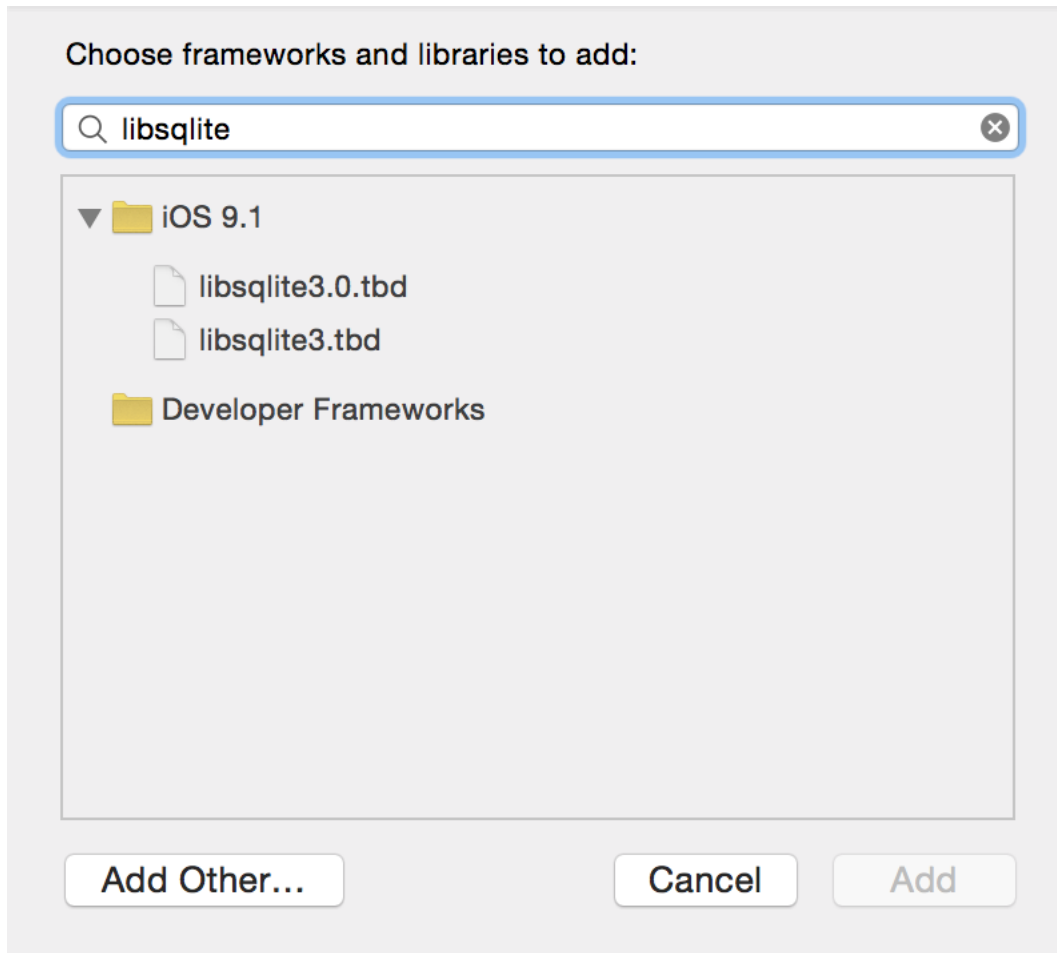
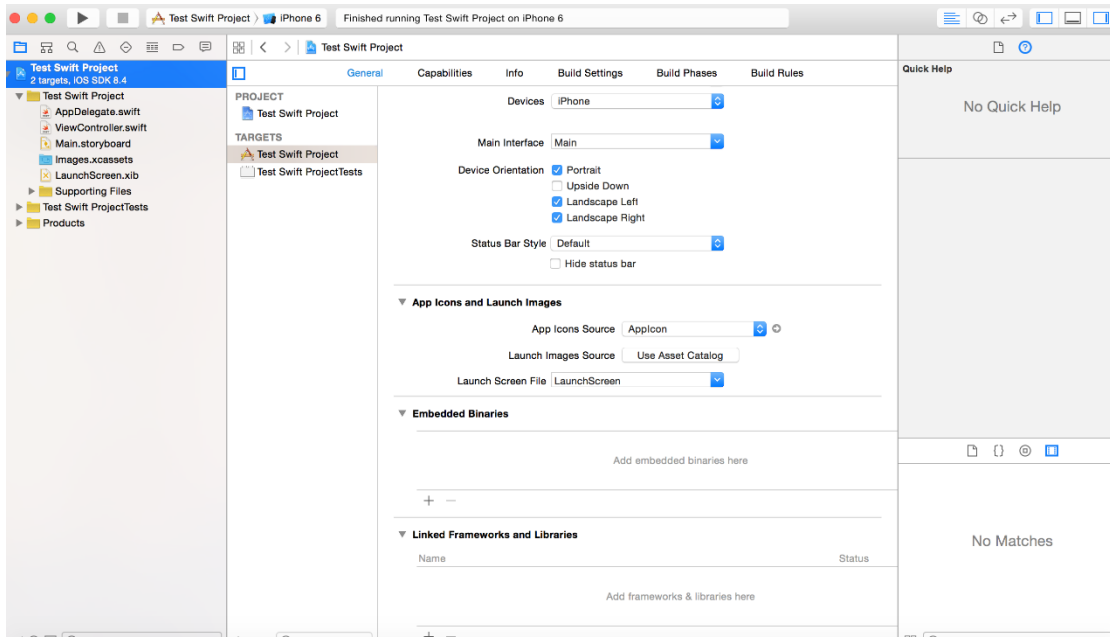


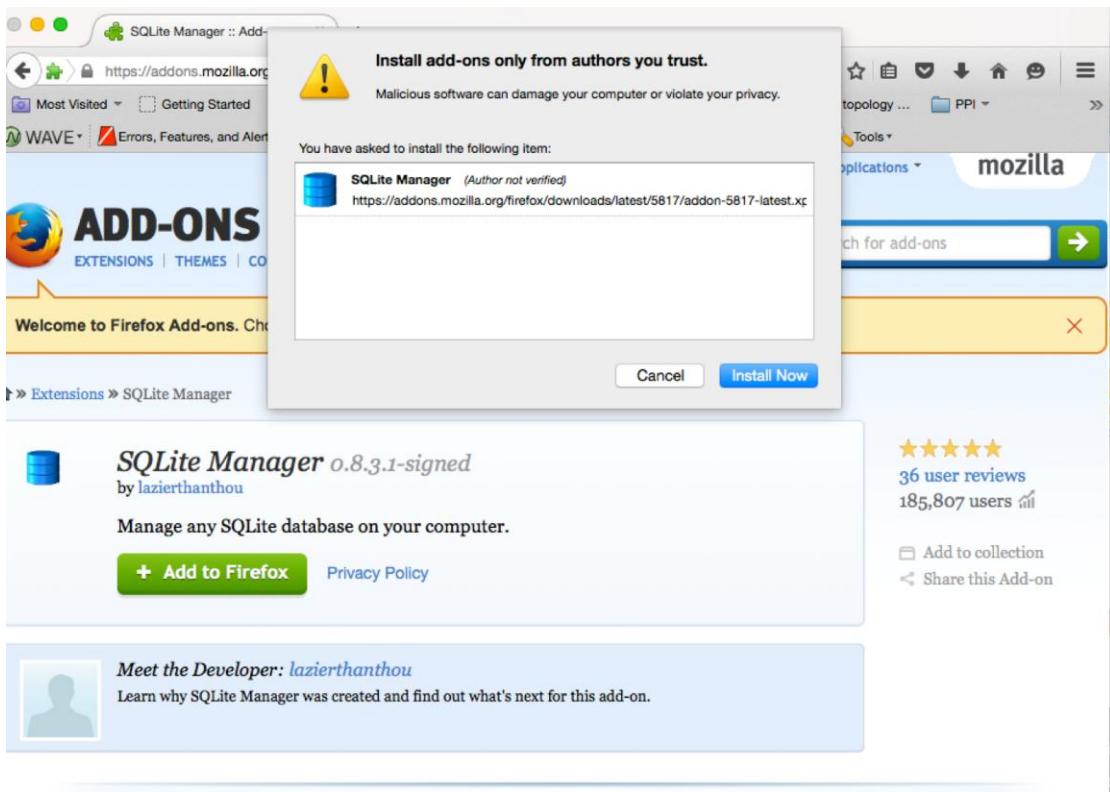
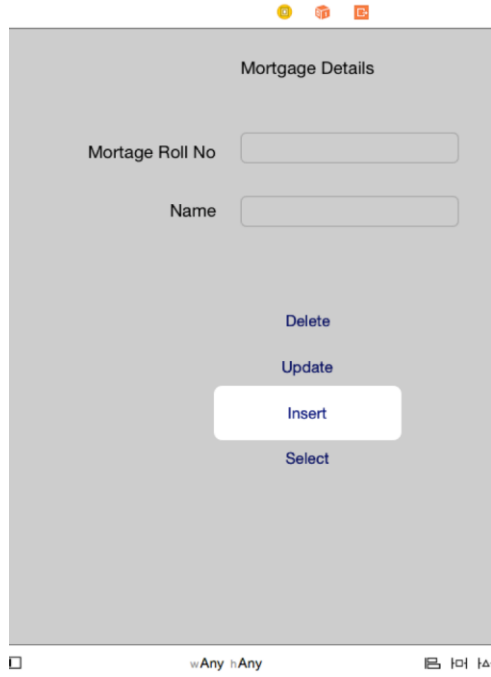
Chapter 6: Using Swift with iOS and SQLite











SQLite Manager - /Users/genedarocha/Documents/workspace/Mortgagedata.sqlite.sqlite

Directory (Select Profile Database) Go

Mortgag... Structure Browse & Search Execute SQL DB Settings

Master Tab...
 Tables (1)
 Mortgag...
 Views (0)
 Indexes (0)
 Triggers (0)

TABLE: sqlite_master

Export

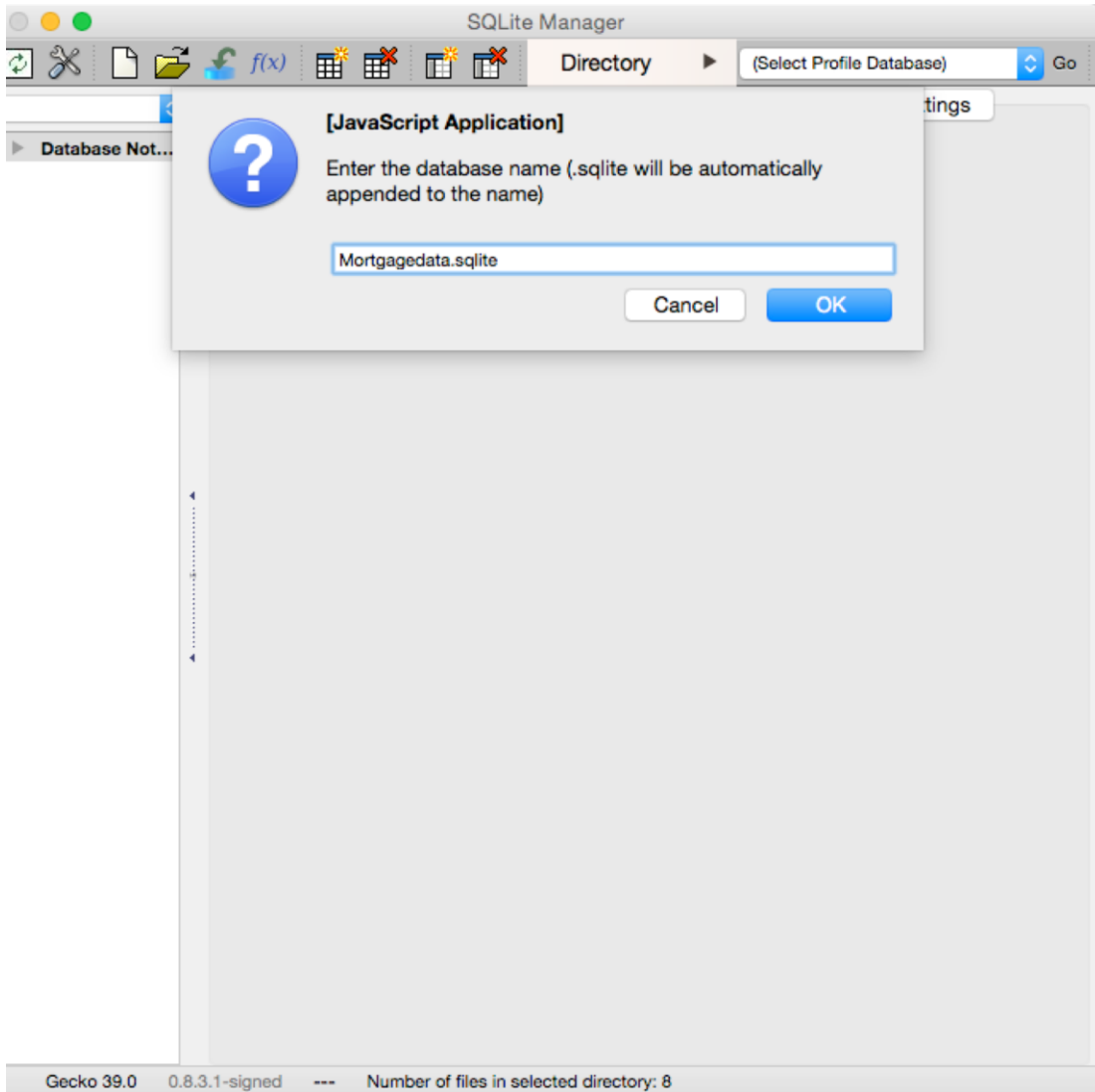
More Info

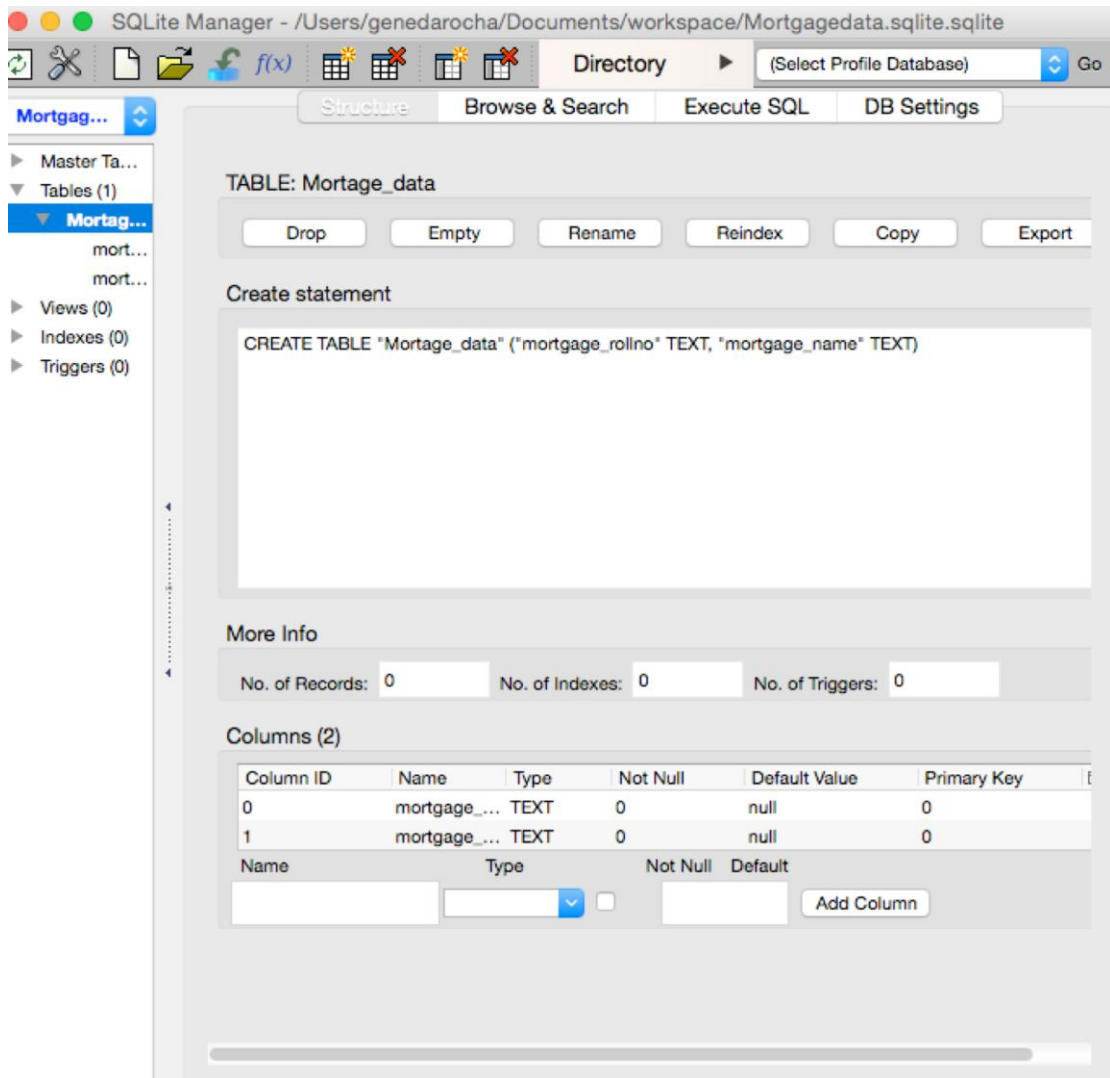
No. of Records: 1 No. of Indexes: 0 No. of Triggers: 0

Columns (5)

| Column ID | Name | Type | Not Null | Default Value | Primary Key |
|-----------|----------|---------|----------|---------------|-------------|
| 0 | type | text | 0 | null | 0 |
| 1 | name | text | 0 | null | 0 |
| 2 | tbl_name | text | 0 | null | 0 |
| 3 | rootpage | integer | 0 | null | 0 |
| 4 | sql | text | 0 | null | 0 |

SQLite 3.8.11.1 Gecko 43.0.1 0.8.3.1-signed Exclusive Number of files in selected directory: 8





SQLite Manager - /Users/genedarocha/Documents/Test Swift Project/Mortgagedata.sqlite

Directory (Select Profile Database) Go

Mortgag... Structure Browse & Search Execute SQL DB Settings

Master Ta...
 Tables (1)
 Mortga...
mor...
 mort...
 Views (0)
 Indexes (0)
 Triggers (0)

TABLE: Mortgage_data

Drop Empty Rename Reindex Copy Export

Create statement

```
CREATE TABLE "Mortgage_data" ("mortgage_rollno" TEXT check(typeof("mortgage_rollno") = 'text') ,
"mortgage_name" TEXT check(typeof("mortgage_name") = 'text'))
```

More Info

No. of Records: 0 No. of Indexes: 0 No. of Triggers: 0

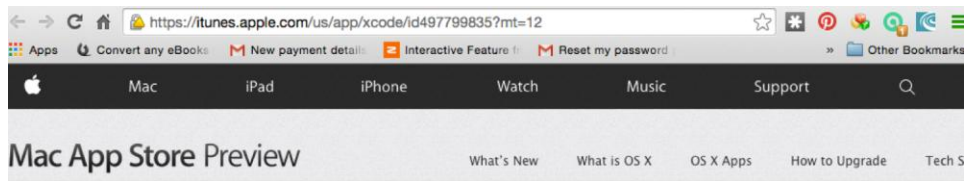
Columns (2)

| Column ID | Name | Type | Not Null | Default Value | Primary Key |
|-----------|--------------|------|----------|---------------|-------------|
| 0 | mortgage... | TEXT | 0 | null | 0 |
| 1 | mortgage_... | TEXT | 0 | null | 0 |

Name Type Not Null Default

SQLite 3.8.9 Gecko 39.0 0.8.3.1-signed Shared Number of files in selected directory: 8

Chapter 7: iOS Development with PhoneGap and HTML5



Xcode

By Apple

Essentials

Open the Mac App Store to buy and download apps.



[View in Mac App Store](#)

Free

Category: Developer Tools

Updated: Jun 30, 2015

Version: 6.4

Size: 2.61 GB

Language: English

Seller: Apple Inc.

© 1999-2014 Apple Inc.

Rated 4+

Compatibility: OS X 10.10 or later

Customer Ratings

Current Version:

★★★★ 164 Ratings

All Mac OS X

Description

Xcode provides everything developers need to create great applications for Mac, iPhone, and iPad. Xcode brings user interface design, coding, testing, and debugging all into a unified workflow. The Xcode IDE combined with the Cocoa and Cocoa Touch frameworks, and the Swift programming language make developing apps easier and more fun than

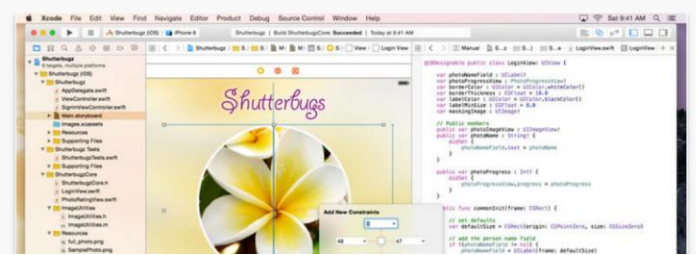
[Apple Web Site](#) [Xcode Support](#) [Application License Agreement](#) [...More](#)

What's New in Version 6.4

Xcode 6.4 adds support for iOS 8.4

Xcode 6.4 includes Swift 1.2 and SDKs for OS X 10.10 Yosemite and iOS 8.4

Screenshots



Downloads for Apple Developers

Hi, Gene Da Rocha

command line tools

CATEGORIES

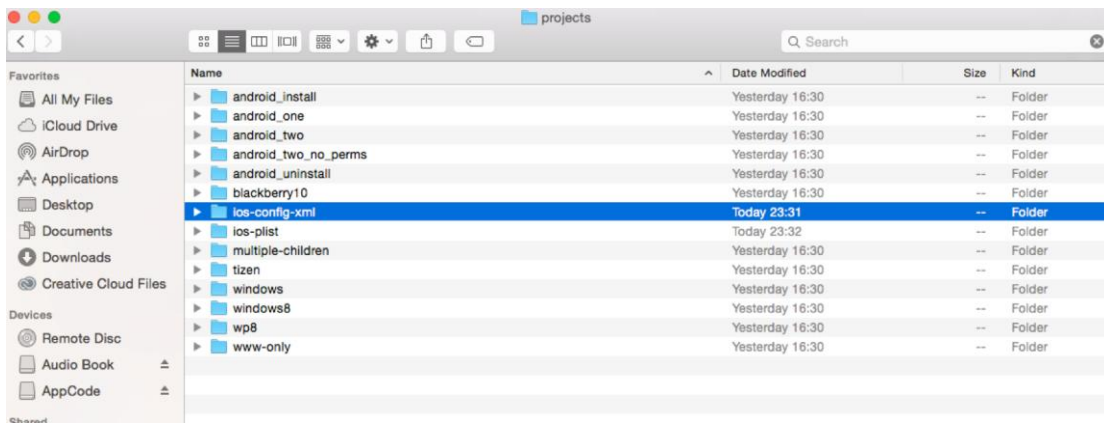
- iOS 25
- OS X 165
- Developer Tools 313
- OS X Server 50
- Applications 11
- Safari 2

| Description | Release Date |
|---|---|
| tools are also embedded within the Xcode IDE. | 154.3 MB |
| Important: Pre-release software, including information about pre-release software, is Apple Confidential Information and is subject to the terms of your Apple Developer Program License Agreement, and/or Registered Apple Developer Agreement, as applicable. Unauthorized distribution or disclosure of Apple Confidential Information is prohibited. | |
| + Command Line Tools OS X 10.11 for Xcode 7 beta 6 | Aug 24, 2015 |
| + Command Line Tools OS X 10.11 for Xcode 7 beta 5 | Aug 6, 2015 |
| + Command Line Tools OS X 10.10 for Xcode 7 beta 5 | Aug 6, 2015 |
| + Command Line Tools OS X 10.10 for Xcode 7 beta 4 | Jul 21, 2015 |
| + Command Line Tools OS X 10.11 for Xcode 7 beta 4 | Jul 21, 2015 |
| + Command Line Tools OS X 10.11 for Xcode 7 beta 3 | Jul 8, 2015 |
| + Command Line Tools OS X 10.10 for Xcode 7 beta 3 | Jul 8, 2015 |
| - Command Line Tools (OS X 10.10) for Xcode 6.4 | Jun 30, 2015 |
| This package enables UNIX-style development via Terminal by installing command line developer tools, as well as OS X SDK frameworks and headers. Many useful tools are included, such as the Apple LLVM compiler, linker, and Make. If you use Xcode, these tools are also embedded within the Xcode IDE. | Command Line Tools OS X 10.10 for Xcode 6.4.dmg 158.2 MB |
| + Command Line Tools (OS X 10.10) for Xcode 7 beta 2 | Jun 23, 2015 |
| + Command Line Tools (OS X 10.11) for Xcode 7 beta | Jun 8, 2015 |
| + Command Line Tools (OS X 10.10) for Xcode 7 beta | Jun 8, 2015 |

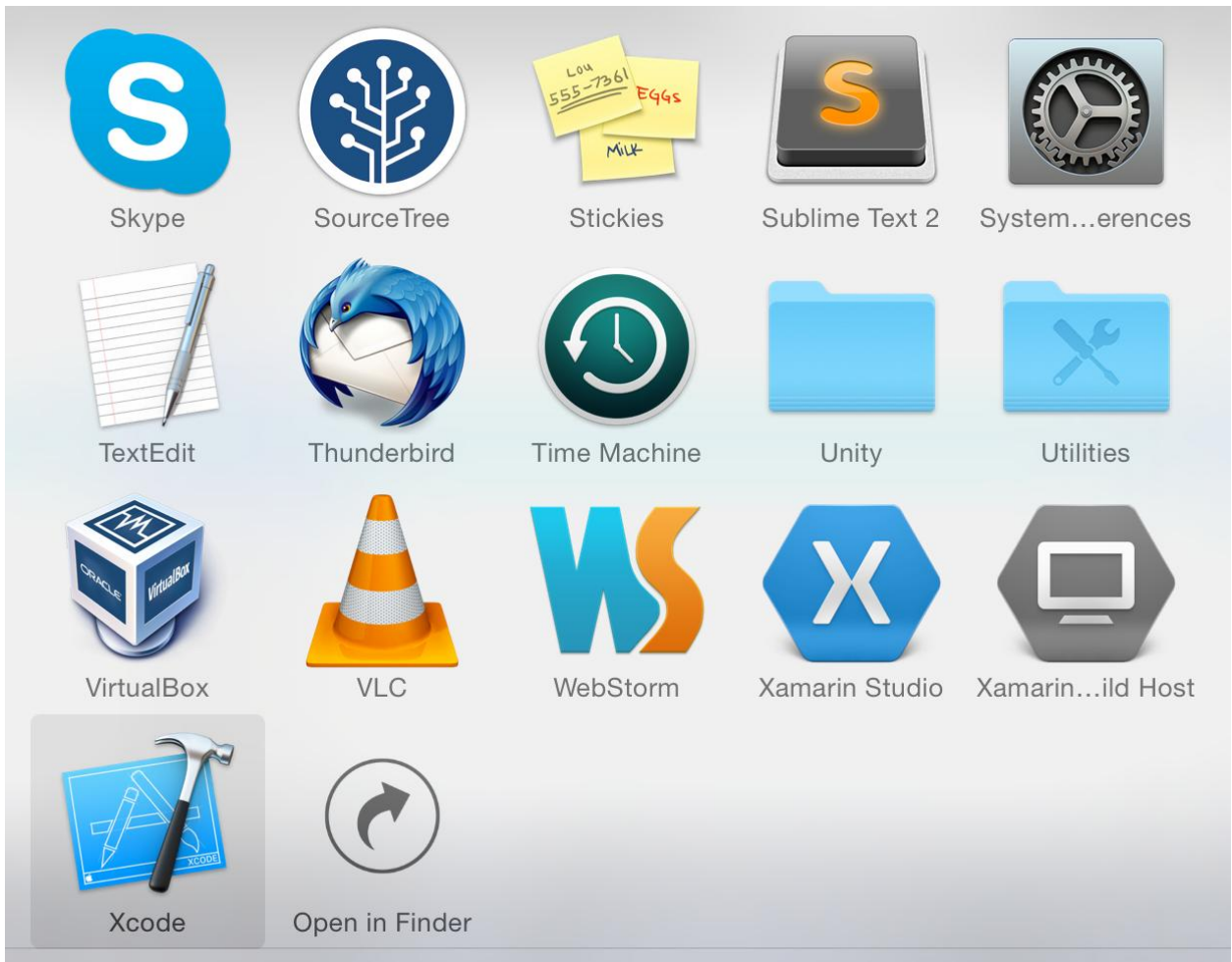
Index of /dist/cordova

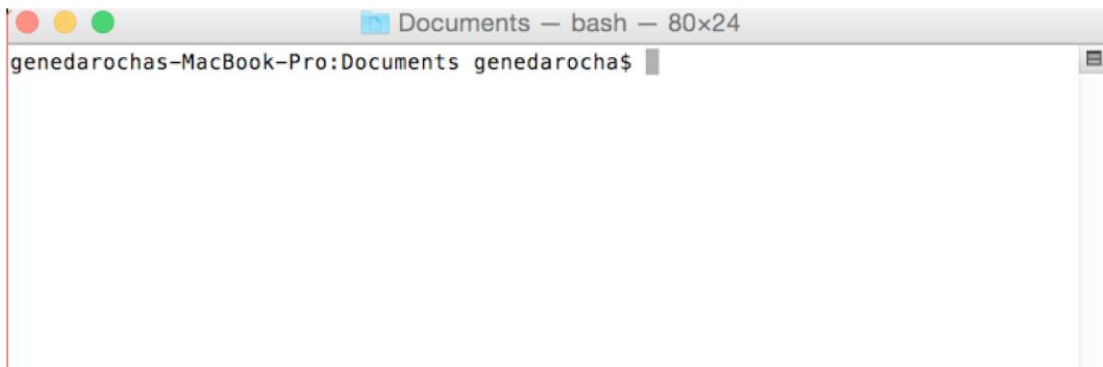
Interactive Feature from BeoPlay · PatternTap
<http://patterntap.com/pattern/interactive-feature-beoplay>

| Name | Last modified | Size | Description |
|----------------------------------|------------------|------|-------------|
| Parent Directory | | - | |
| platforms/ | 2015-08-28 01:22 | - | |
| plugins/ | 2015-08-21 00:53 | - | |
| templates/ | 2015-08-19 02:08 | - | |
| tools/ | 2015-08-27 01:05 | - | |
| KEYS | 2015-08-29 15:07 | 56K | |



```
genedarocha — bash — 80x24
Last login: Mon Feb 29 20:02:51 on console
genedarochasMBP:~ genedarocha$
```







APACHE CORDOVA

DEVICE IS READY

×



Welcome to Xcode

Version 7.1.1 (7B1005)



Get started with a playground

Explore new ideas quickly and easily.



Create a new Xcode project

Start building a new iPhone, iPad or Mac application.



Check out an existing project

Start working on something from an SCM repository.

Show this window when Xcode launches



Test Swift Application

~/Documents/workspace/untitled folder



Hello World

...ents/Test Swift Project/Hello/platforms/ios



SimpleCalculator

~/Documents/workspace/untitled folder



MyPlayground.playground

~/Documents/Test Swift Project



My Swift initial Test.playground

~/Documents/Test Swift Project



MyPlayground1.playground

~/Documents

Open another project...

Choose a template for your new project:

| | | | | |
|---------------------|------------------------------|-----------------------|----------------------------|------------------------------|
| iOS | | | | |
| Application | Navigation-based Application | OpenGL ES Application | PhoneGap-based Application | Split View-based Application |
| Framework & Library | | | | |
| Other | | | | |
| Mac OS X | | | | |
| Application | Tab Bar Application | Utility Application | View-based Application | Window-based Application |
| Framework & Library | | | | |
| Application Plug-in | | | | |
| System Plug-in | | | | |
| Other | | | | |

PhoneGap-based Application

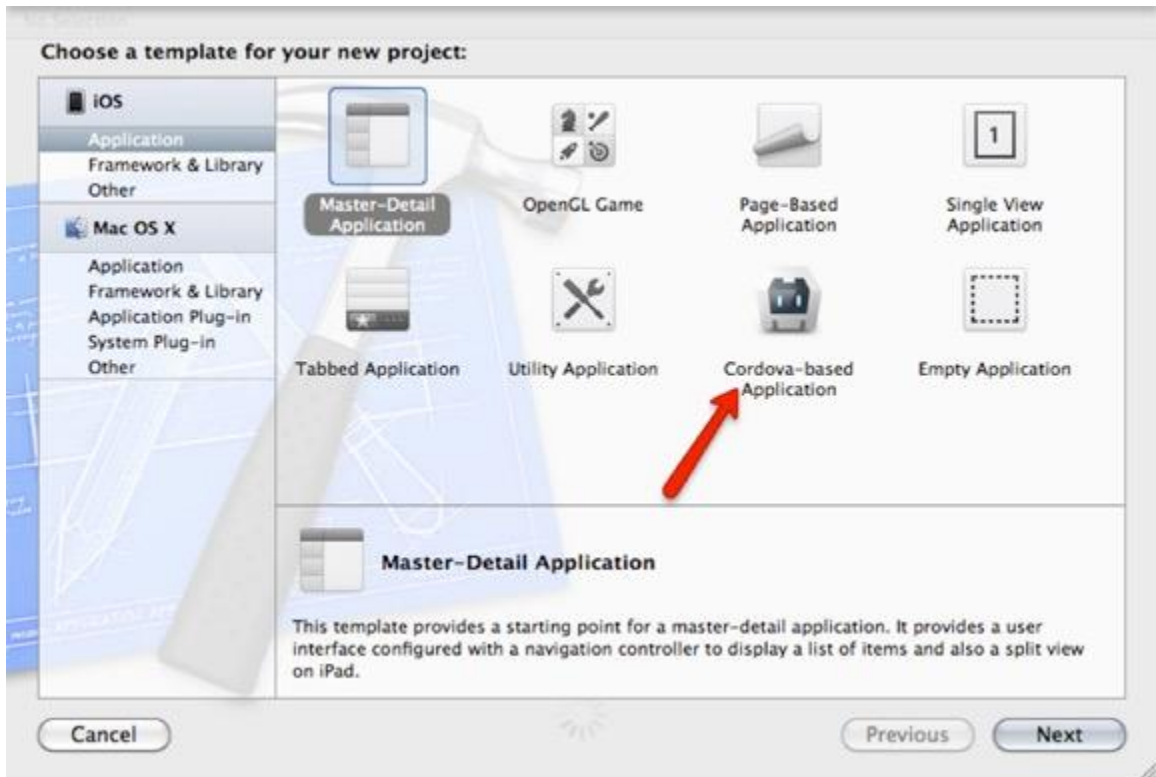
PhoneGap

This template provides a starting point for a PhoneGap based application. On first run, it will create the www folder. You must drag and drop in the www folder into your project (as a folder reference). Then just modify the www folder contents with your HTML, CSS and Javascript.

Cancel

Previous

Next



Choose options for your new project:

Product Name: Hello

Organization Name: Voxstar Ltd

Organization Identifier: com.voxstar.testswiftproject

Bundle Identifier: com.voxstar.testswiftproject.Hello

Language: Swift

Devices: iPhone

- Use Core Data
- Include Unit Tests
- Include UI Tests

Cancel

Previous

Next

Installer is trying to install new software. Type your password to allow this.

Username: genedarocha

Password: ●●●●●●●●

Cancel Install Software

Change Install Location...

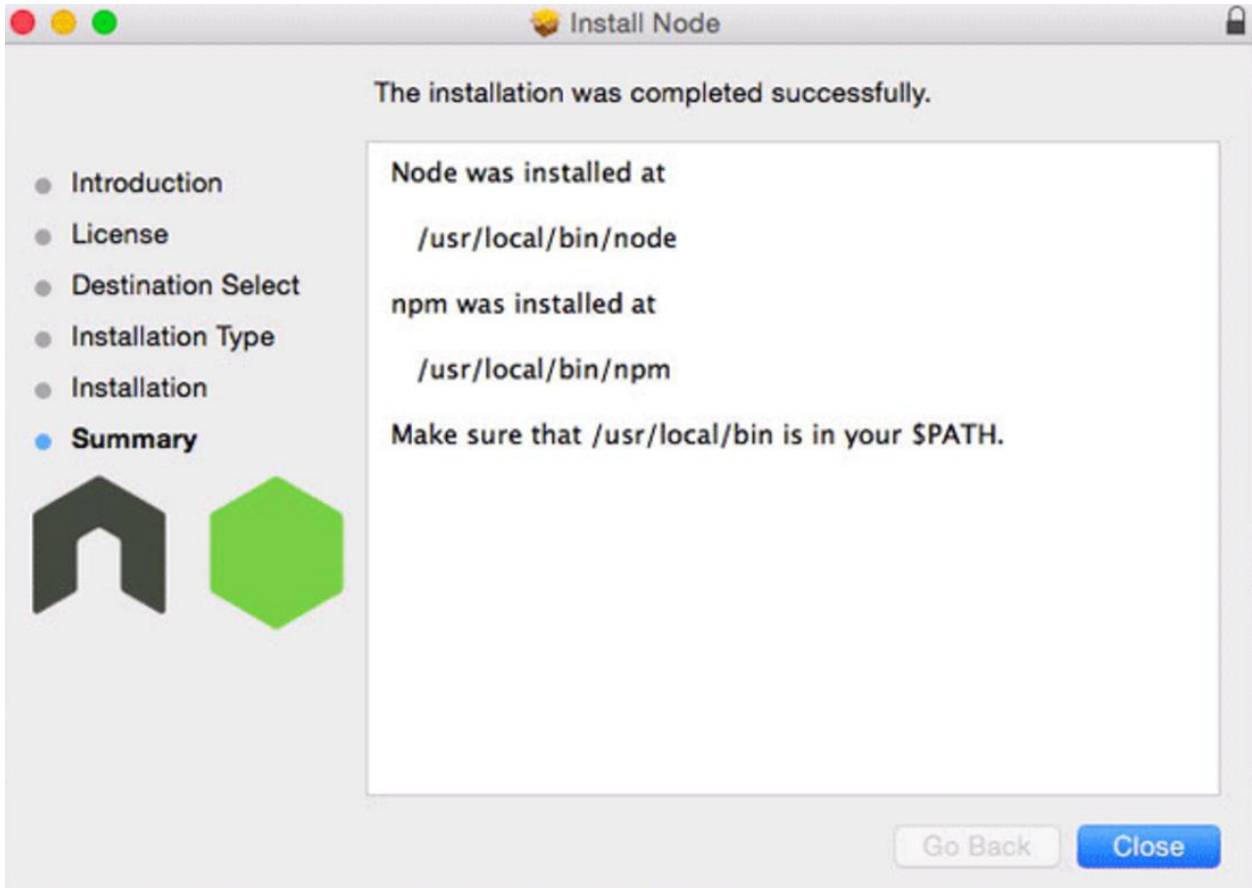
Customize Go Back Install

Quit Quit All

● Introduc
● License
● Destinat
● **Installat**
● Installati
● Summar

●

●



```

genedarochas-MacBook-Pro:tmp genedarochas$ sudo npm install -g phonegap

+ ws@0.4.31 install /usr/local/lib/node_modules/phonegap/node_modules/connect-ph
phonegap/node_modules/socket.io/node_modules/engine.io/node_modules/ws
+ (node-gyp rebuild 2> builderror.log) || (exit 0)

CXX(target) Release/obj.target/bufferutil/src/bufferutil.o
WARN engine xmlbuilder@2.2.1: wanted: {"node":">=0.8.x || <=0.10.x"} (current: {
"node":">=0.12.7", "npm":">=2.11.3"})

+ ws@0.4.31 install /usr/local/lib/node_modules/phonegap/node_modules/connect-ph
phonegap/node_modules/socket.io/node_modules/socket.io-client/node_modules/engine.
io-client/node_modules/ws
+ (node-gyp rebuild 2> builderror.log) || (exit 0)

CXX(target) Release/obj.target/bufferutil/src/bufferutil.o
/usr/local/bin/phonegap -> /usr/local/lib/node_modules/phonegap/bin/phonegap.js
phonegap@5.2.2 /usr/local/lib/node_modules/phonegap
├── pluralize@0.0.4
├── colors@0.6.0-1
├── semver@1.1.0
├── minimist@0.1.0
├── qrcode-terminal@0.9.4
├── shelljs@0.1.4
├── phonegap-build@0.9.2 (colors@0.6.2, qrcode-terminal@0.8.0, optimist@0.3.7, s
helljs@0.0.9, phonegap-build-api@0.3.3)
├── prompt@0.2.11 (revalidator@0.1.8, pkginfo@0.3.0, read@1.0.7, util@0.2.1, wi
nston@0.6.2)
├── cordova@5.2.0 (underscore@1.7.0, q@1.0.1, nopt@3.0.1, cordova-lib@5.2.0)
├── connect-phonegap@0.17.0 (home-dir@0.1.2, connect-inject@0.3.2, ip@0.3.1, req
uest-progress@0.3.1, walkdir@0.0.8, adm-zip@0.4.7, shelljs@0.2.6, http-proxy@1.8
.1, node-static@0.7.0, gaze@0.4.3, tar@0.1.19, localtunnel@1.3.0, useragent@2.0
.3, archiver@0.14.3, request@2.33.0, connect@2.12.0, socket.io@1.0.4)
genedarochas-MacBook-Pro:tmp genedarochas$
genedarochas-MacBook-Pro:tmp genedarochas$ █

```

```

genedarochasMBP:~ genedarochas$ pwd
/Users/genedarochas
genedarochasMBP:~ genedarochas$ cd Documents
genedarochasMBP:Documents genedarochas$ cd Test(
-bash: syntax error near unexpected token `('
genedarochasMBP:Documents genedarochas$ cd Test*
genedarochasMBP:Test Swift Project genedarochas$ pwd
/Users/genedarochas/Documents/Test Swift Project
genedarochasMBP:Test Swift Project genedarochas$
genedarochasMBP:Test Swift Project genedarochas$ phonegap create HelloWorld
Creating a new cordova project.

genedarochasMBP:Test Swift Project genedarochas$ █

```

```

/Users/genedarocha/Documents/Test Swift Project
genedarochasMBP:Test Swift Project genedarocha$ ls -l
total 152
drwxr-xr-x  8 genedarocha  staff    272  3 Sep 17:54 Hello
drwxr-xr-x  7 genedarocha  staff    238  1 Mar 23:28 HelloWorld
-rw-r--r--@ 1 genedarocha  staff  65536 16 Aug  2015 Mortgagedata.sqlite
drwxr-xr-x  7 genedarocha  staff    238  1 Oct 11:17 My Swift initial Test.p
round
drwxr-xr-x  7 genedarocha  staff    238 30 Sep 00:26 MyPlayground.playground
drwxr-xr-x  5 genedarocha  staff    170 21 Aug  2015 New Swift Test
drwxr-xr-x  7 genedarocha  staff    238 12 Aug  2015 Test Swift Project
drwxr-xr-x  5 genedarocha  staff    170 12 Aug  2015 Test Swift Project.xcode
j
drwxr-xr-x  4 genedarocha  staff    136 12 Aug  2015 Test Swift ProjectTests
-rw-r--r--  1 root         staff   9186  1 Sep  2015 npm-debug.log
genedarochasMBP:Test Swift Project genedarocha$ cd HelloWorld
genedarochasMBP:HelloWorld genedarocha$ ls
config.xml      hooks           platforms       plugins          www
genedarochasMBP:HelloWorld genedarocha$ phonegap run ios
[phonegap] executing 'cordova platform add --save ios'...
[phonegap] completed 'cordova platform add --save ios'
[phonegap] executing 'cordova run ios'...
█

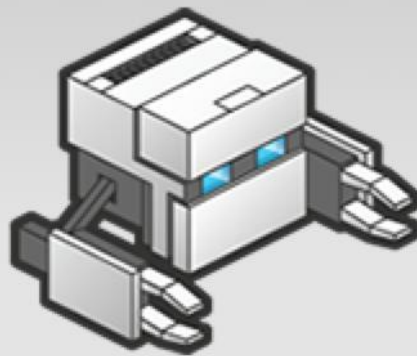
```

```

genedarochasMBP:HelloWorld genedarocha$ ls
config.xml      hooks           platforms       plugins          www
genedarochasMBP:HelloWorld genedarocha$ phonegap run ios
[phonegap] executing 'cordova platform add --save ios'...
[phonegap] completed 'cordova platform add --save ios'
[phonegap] executing 'cordova run ios'...
[phonegap] completed 'cordova run ios'
genedarochasMBP:HelloWorld genedarocha$ █

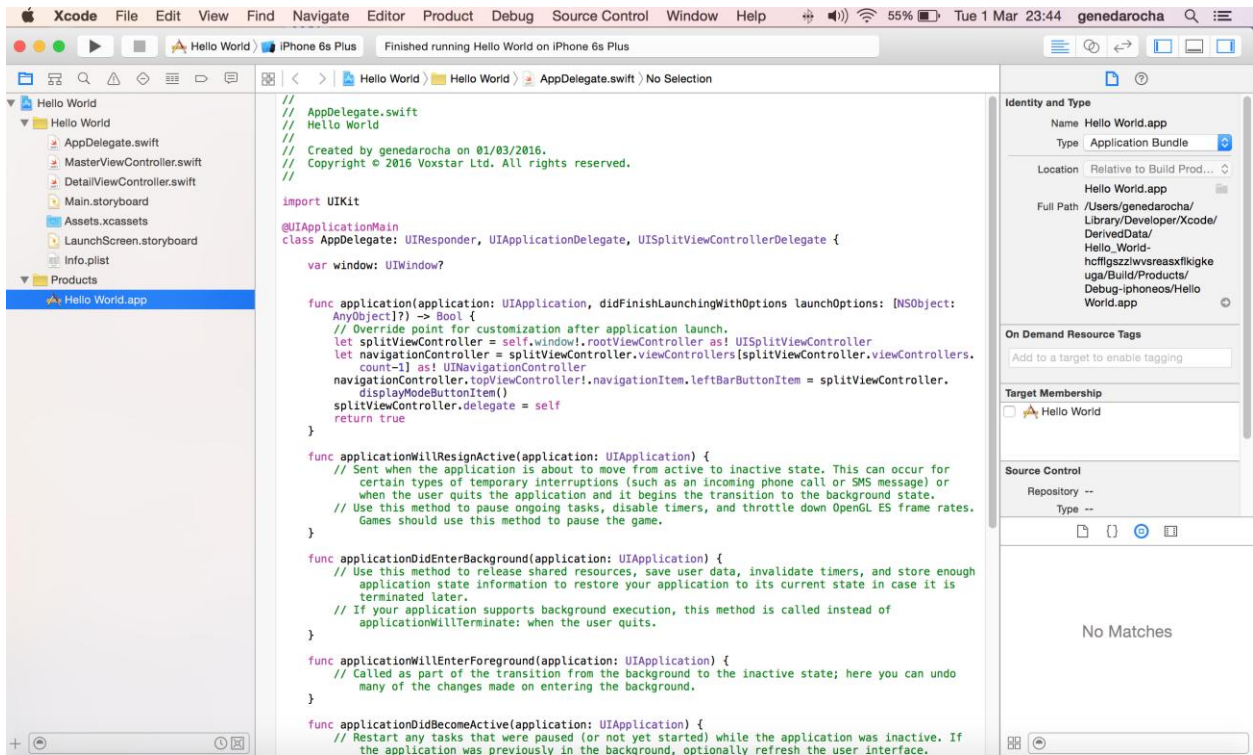
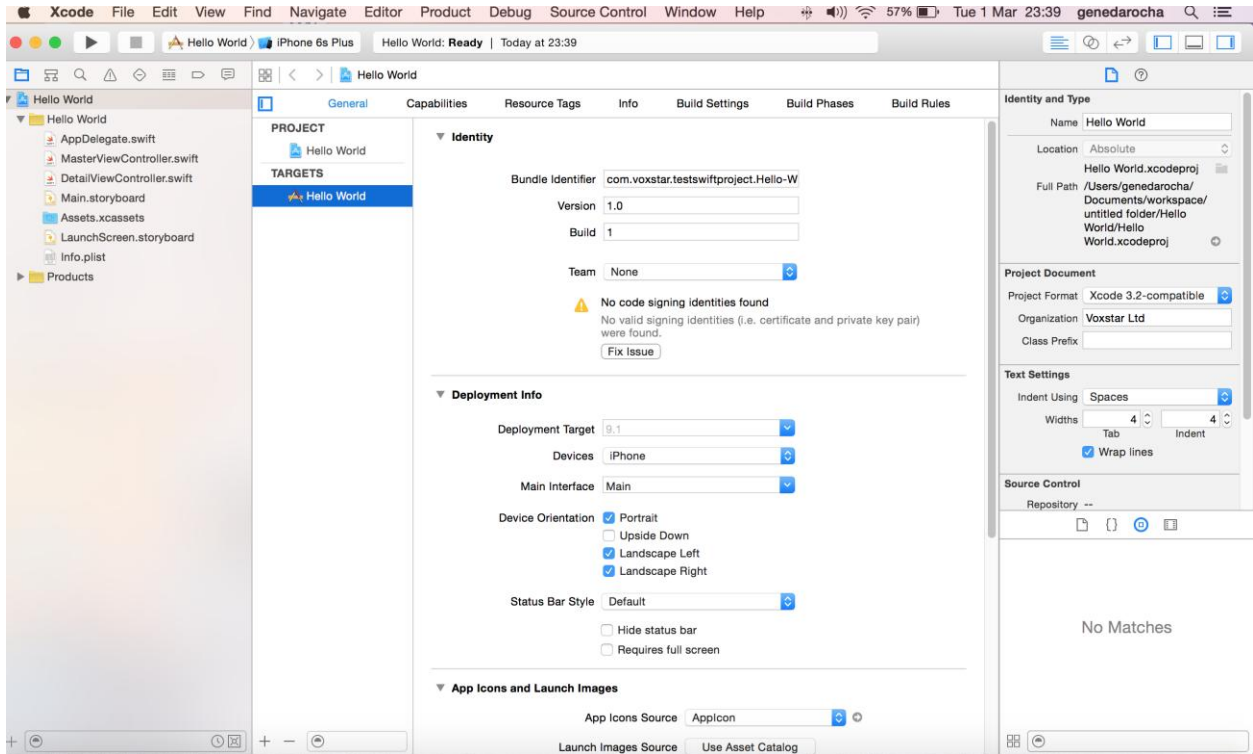
```





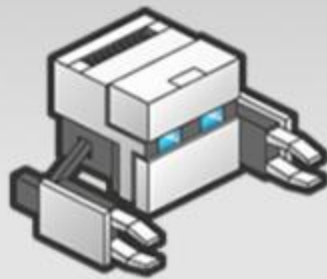
PHONEGAP

DEVICE IS READY



```
-bash: jpwd: command not found
genedarochasMBP:HelloWorld genedarocha$ pwd
/Users/genedarocha/Documents/Test Swift Project/HelloWorld
genedarochasMBP:HelloWorld genedarocha$
genedarochasMBP:HelloWorld genedarocha$
genedarochasMBP:HelloWorld genedarocha$ pwd
/Users/genedarocha/Documents/Test Swift Project/HelloWorld
genedarochasMBP:HelloWorld genedarocha$ █
```

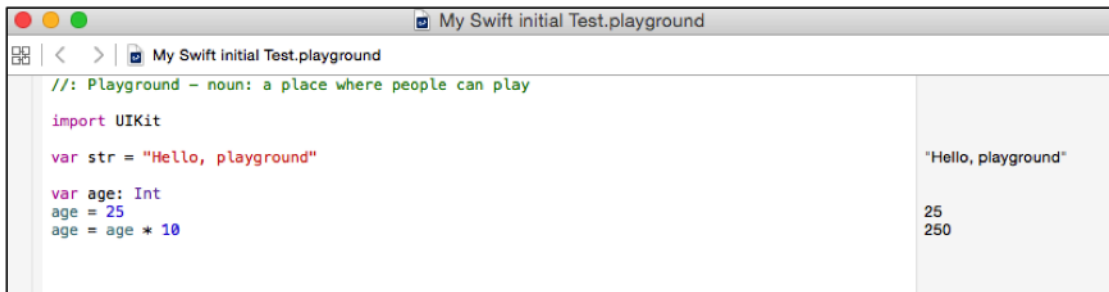
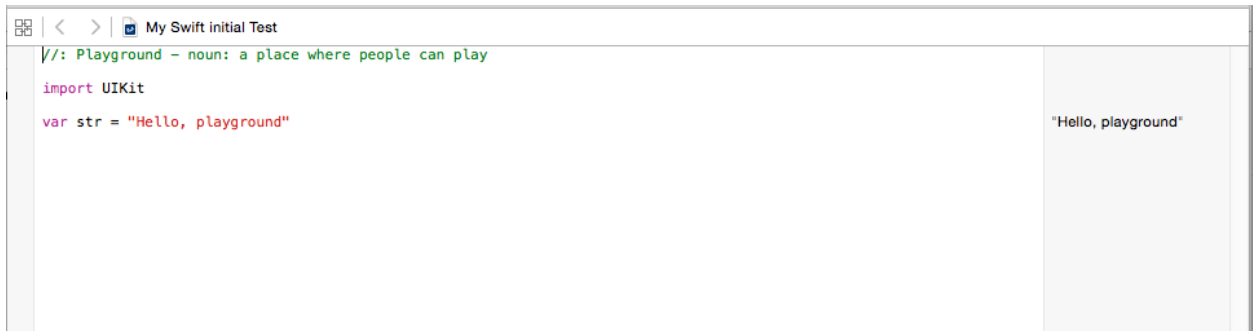
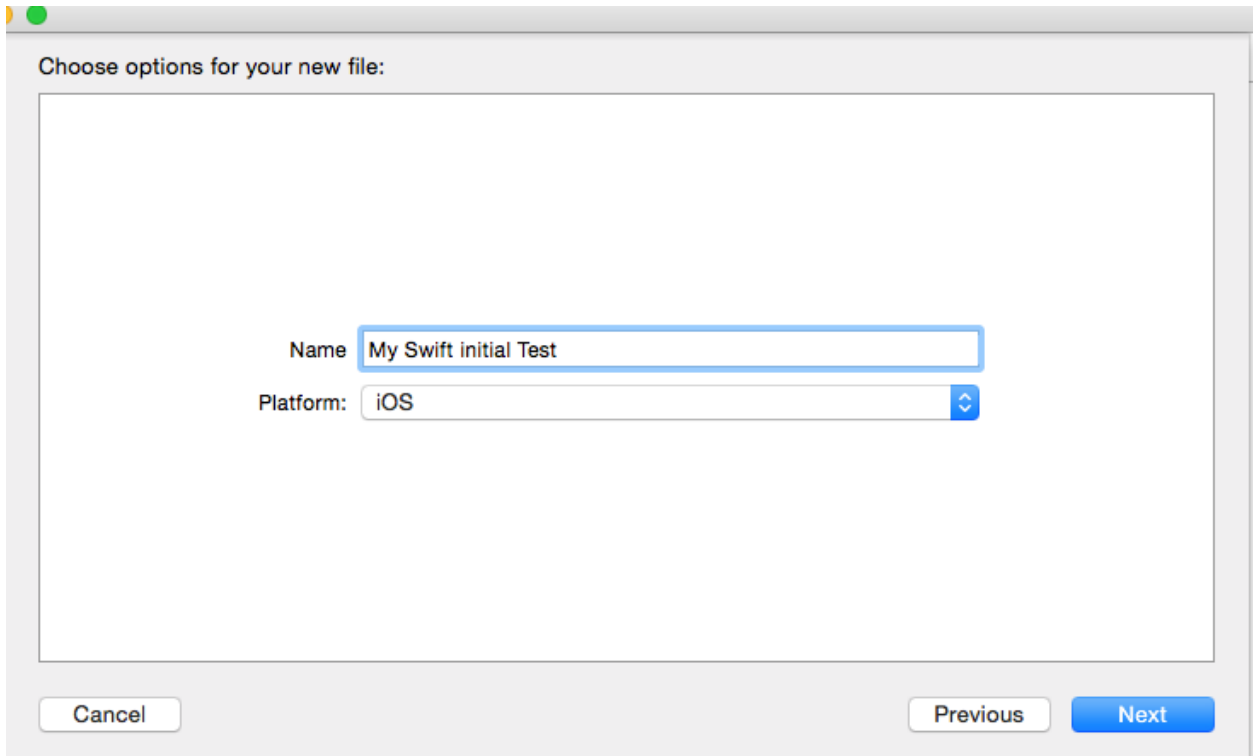




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Chapter 8: More Features and Advances in SQLite



```
My Swift initial Test.playground

//: Playground - noun: a place where people can play

import UIKit

var a = 1.3
var b = 2.4
var c = a + b

c > 3
c >= 3
c > 4
c < 4
```

```
1.3
2.4
3.7

true
true
false
true
```

```
My Swift initial Test

//: Playground - noun: a place where people can play

import UIKit

var name = "Gene Da Rocha"
"My name is \(name)"
|
```

```
"Gene Da Rocha"
"My name is Gene Da R..."
```

```
Ready | Today at 14:13

My Swift initial Test

//: Playground - noun: a place where people can play

import UIKit

var name = "Gene Da Rocha"
var age = 45
var latitude = 36.56

>Your name is \(name), your age is \(age), and your latitude is \(latitude)"
```

```
"Gene Da Rocha"
45
36.56

>Your name is Gene Da Rocha, your age is 45, and your latitude is 36.56"
```

```
My Swift initial Test.playground

//: Playground - noun: a place where people can play

import UIKit

var oddNumbers = [3, 6, 9, 12]
var songs = ["The Passenger", "Stand by Me", "Thriller"]
```

```
[3, 6, 9, 12]
["The Passenger", "Stand by Me", "Thriller"]
```

My Swift initial Test.playground

```
//: Playground - noun: a place where people can play

import UIKit

for i in 1...10 {
    print("\(i) x 10 is \(i * 10)")
}
```

(10 times)

My Swift initial Test.playground

```
//: Playground - noun: a place where people can play

import UIKit
var str = "She is gone"

for _ in 1 ... 5 {
    str += " gone"
}

print(str)
```

"She is gone"

(5 times)

"She is gone gone gone gone gone gone"