

Swift in Depth

Approach, Prerequisites, and Resources



Allen Holub

<http://holub.com> | Allen Holub | @allenholub



New!
Improved!







2.x

Xcode 7

New!
Improved!

C#

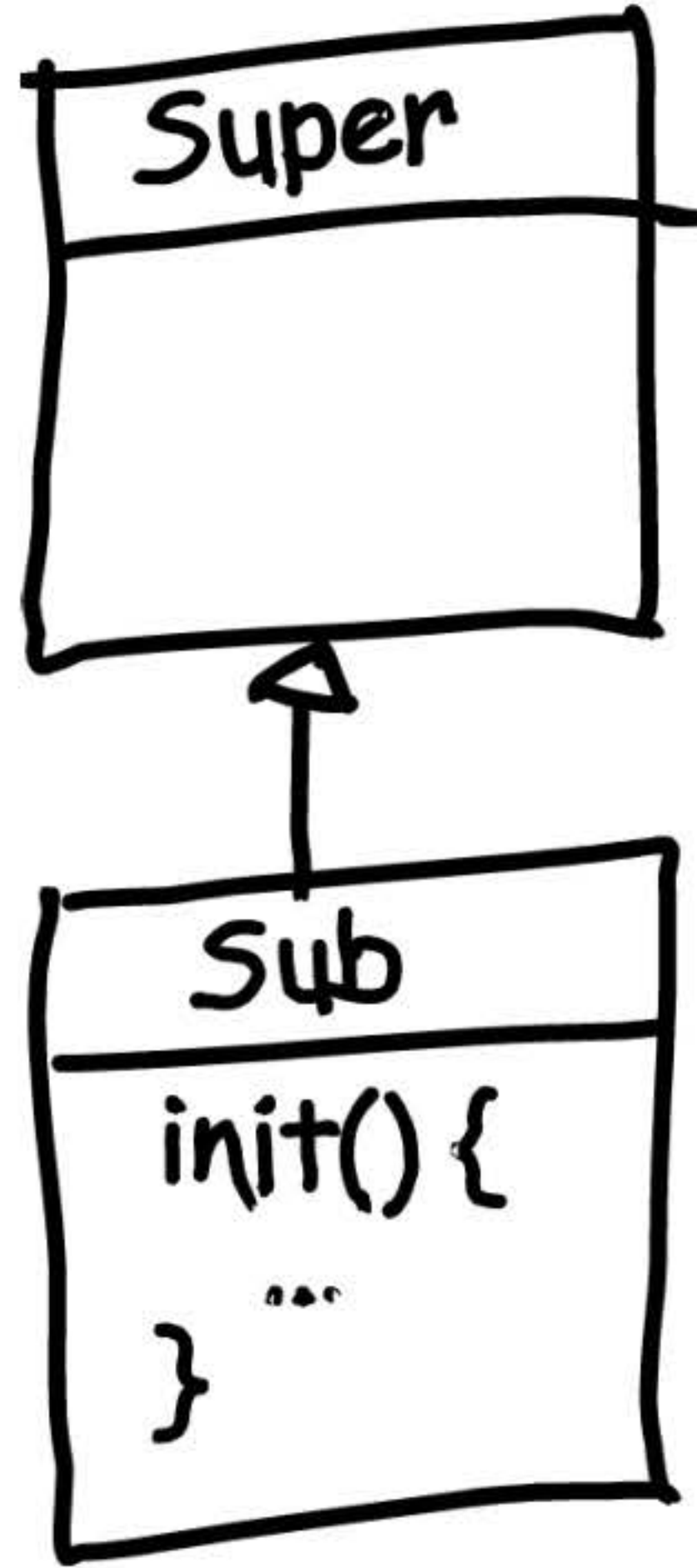
Java

C++

Objective-C

...





```
while( okay ) {  
    ...  
}
```



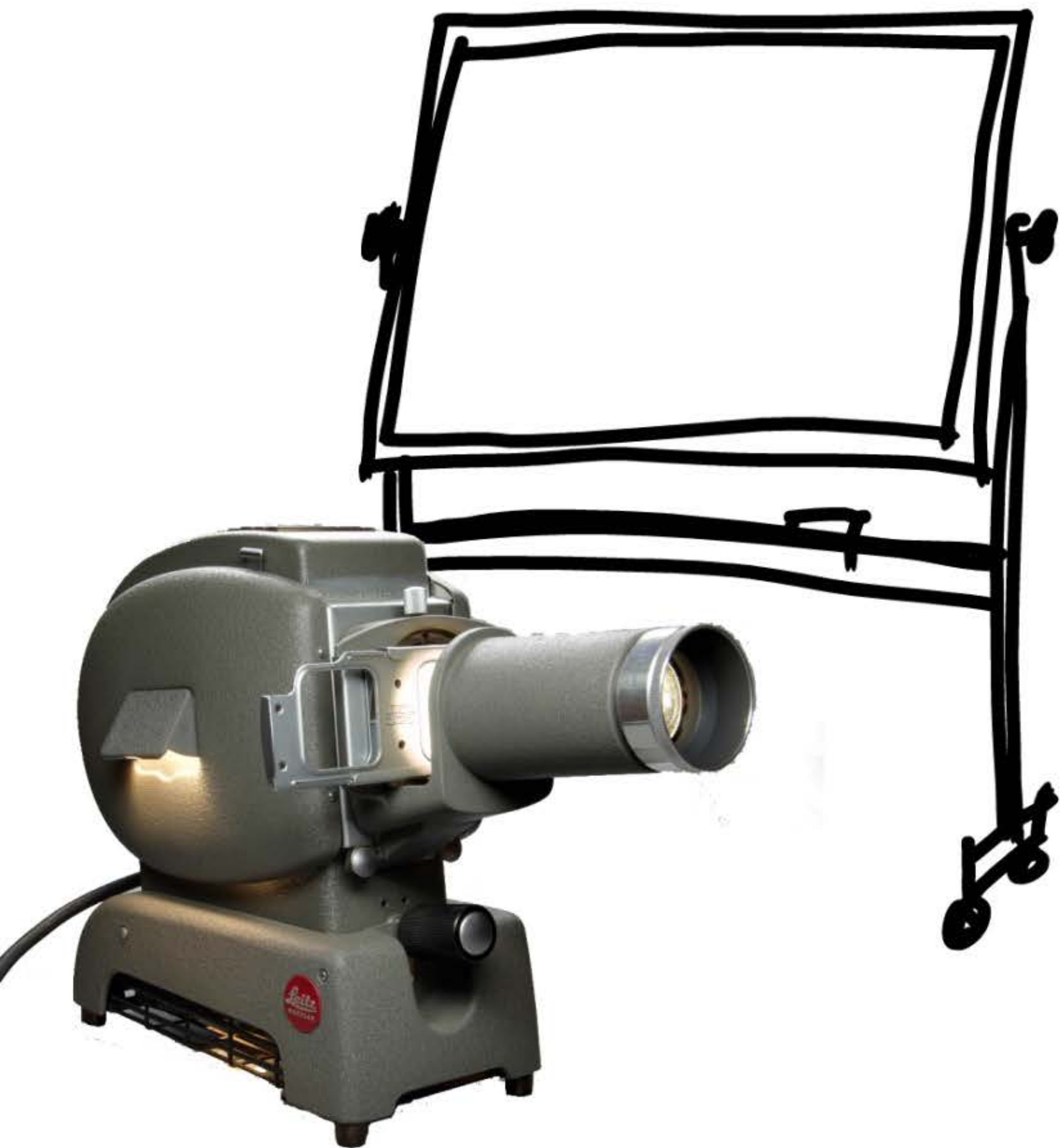
```
(x:Int) > Int {  
    return ++x  
}
```

while(okay) {
...

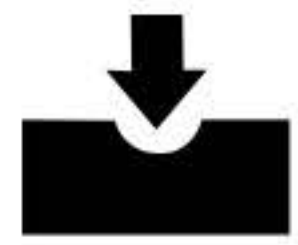
~~iOS
OSX~~

~~(x:Int) > Int {
return ++x }~~





 Exercise Files



Exercise Files

<http://holub.com/swift>




Exercise Files

<http://holub.com/swift>



SWIFT_{2.0}
Compact Reference

Allen Holub
allen@holub.com
<http://holub.com>
[@allenholub](https://twitter.com/allenholub)



Running Swift

(allen) ~ 1:513>

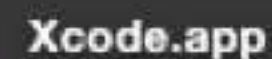
Read
Evaluate
Print
Loop



Xcode.app

$$\frac{(a)}{vi}$$

11,8



```
allen — bash — 80x29
bash

(allen) ~ 1:513>
vi example.swift

(allen) ~ 1:514>
swift example.swift
example.swift

(allen) ~ 1:515>
swift example.swift a b c
example.swift
a
b
c

(allen) ~ 1:516>
█
```



Xcode.app


```

allen — bash — 80x29
bash

(allen) ~ 1:513>
vi example.swift

(allen) ~ 1:514>
swift example.swift
example.swift

(allen) ~ 1:515>
swift example.swift a b c
example.swift
a
b
c

(allen) ~ 1:516>
chmod +x example.swift

(allen) ~ 1:517>
example.swift d e f
./example.swift
d
e
f

(allen) ~ 1:518>

```



Xcode.app




Welcome to Xcode


Version 6.1.1 (6A2008a)



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




section-1.swift
...2B-4F01-B8A4-E61A55529BD2.playground




SampleProject
~/Desktop/___




05-delete.playground
...n/Documents/Classes/Swift/Exercises/Tree




UndoableDictionary
...s/allen/Documents/Classes/Swift/Exercises



x
~/Dropbox/Users/allen/projects/work



README.md
~/Dropbox/Users/allen/bin/cpdf



CODEOFCONDUCT.md
~/Dropbox/usr/local

Open another project...



Xcode.app

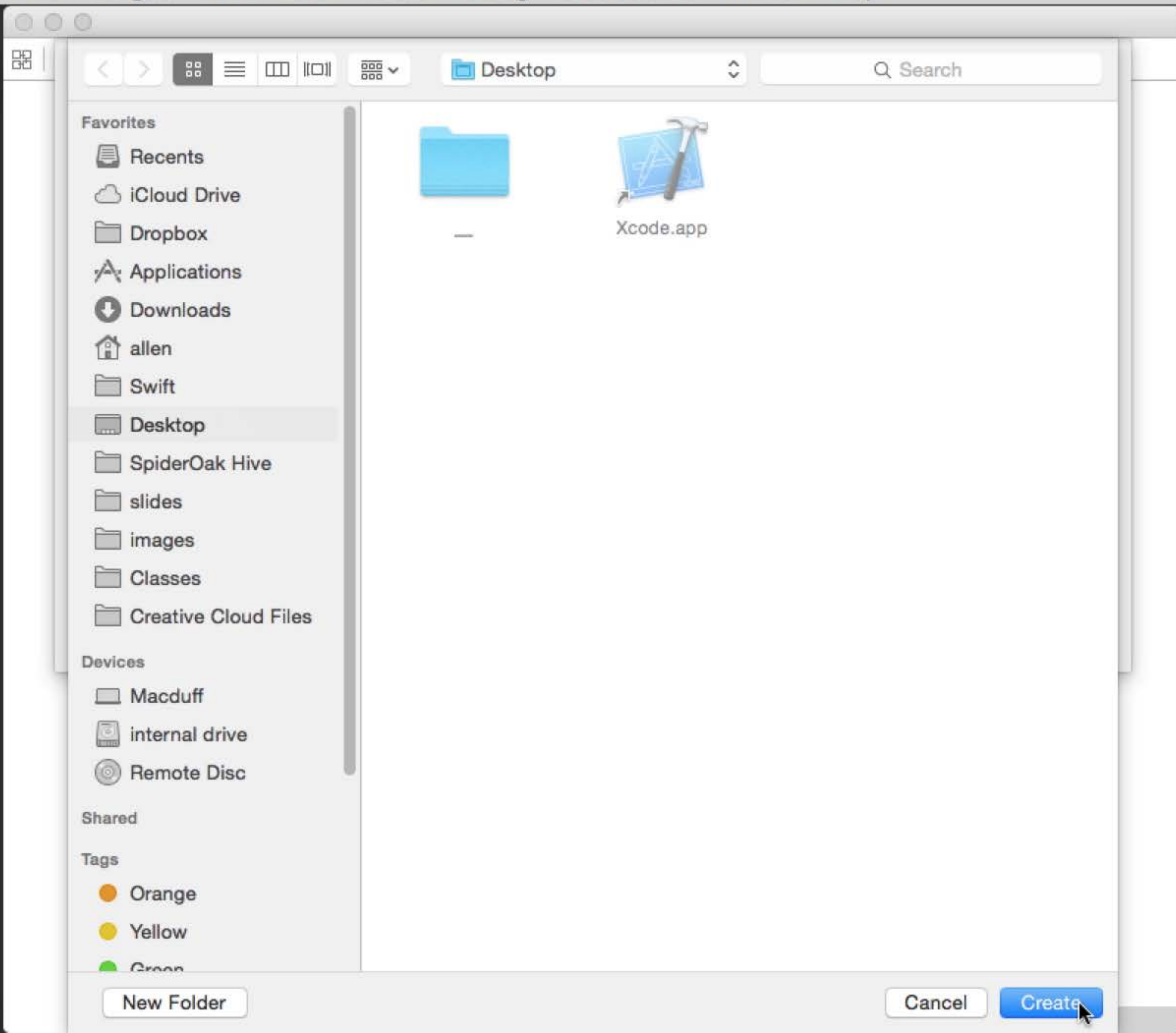
Choose options for your new file:

Name


Platform ☒ OS X ☐ iOS




Xcode.app



Xcode.app


foo.playground — Edited


foo.playground > No Selection

```

1 // Playground – noun: a place where people can play
2
3 import Cocoa
4
5 var str = "Hello, playground"
6 str
7 str + "!!!!!!"
8
9 str; st
10

```

"Hello, playground"
 "Hello, playground"
 "Hello, playground!!!!!!"



foo.playground



Xcode.app

Standard Editor ▶

Assistant Editor ▶

Version Editor ▶

Navigators ▶

Debug Area ▶

Utilities ▶

Show Toolbar

Show Tab Bar

Enter Full Screen ⌘⇧F

Show Assistant Editor

⌘⇧↩

Add Assistant Editor

Remove Assistant Editor

⌘⇧W

Reset Editor

⌘⇧Z



Assistant Editors on Right



Assistant Editors on Bottom



All Editors Stacked Horizontally



All Editors Stacked Vertically

foo.playground — Edited

can play

"Hello, playground"

"Hello, playground"

"Hello, playground!!!!!!"



foo.playground



Xcode.app

Standard Editor ▶

Assistant Editor ▶

Version Editor ▶

Navigators ▶

Debug Area ▶

Utilities ▶

Show Toolbar

Show Tab Bar

Enter Full Screen ⌘⇧F

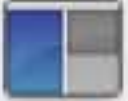
foo.playground — Edited

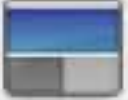
Show Assistant Editor ⌘⇧↩

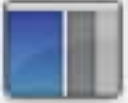
Add Assistant Editor

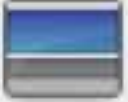
Remove Assistant Editor ⌘⇧⌘W

Reset Editor ⌘⇧⌘Z

 Assistant Editors on Right

☒  Assistant Editors on Bottom

 All Editors Stacked Horizontally

 All Editors Stacked Vertically






foo.playground



can play

"Hello, playground"
"Hello, playground"
"Hello, playground!!!!!!"



Xcode.app




foo.playground — Edited





|
<
>
|

foo.playground > No Selection

```

1 // Playground – noun: a place where people can play
2
3 import Cocoa
4
5 var str = "Hello, playground"
6 str
7 str + "!!!!!!"
8
9 str; st
10

```

"Hello, playground"
"Hello, playground"
"Hello, playground!!!!!!"


|
<
>
|

Timeline

foo.playground (Timeline)
+
x

x

Console Output

Playground execution failed: /var/folders/ky/
2vyt26_j4l977rx_08hktctc0000gn/T/lldb/2019/playground473.swift:9:6: error:
use of unresolved identifier 'st'
str; st
^

-- INSERT --

- 30 sec +



foo.playground



Xcode.app

foo.playground — Edited

foo.playground > No Selection

1
2
3
4
5
6
7
8
9
10

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

import Cocoa

var str = "Hello, playground"
str
str + "!!!!!!"

xxxx
```

```
"Hello, playground"
"Hello, playground"
"Hello, playground!!!!!!"
```

Timeline foo.playground (Timeline)

×

Console Output

Playground execution failed: /var/folders/ky/2vyt26_j4l977rx_08hktctc0000gn/T/lldb/2019/playground494.swift:9:1: error: use of unresolved identifier 'xxxx'
xxxx
^

– 30 sec +

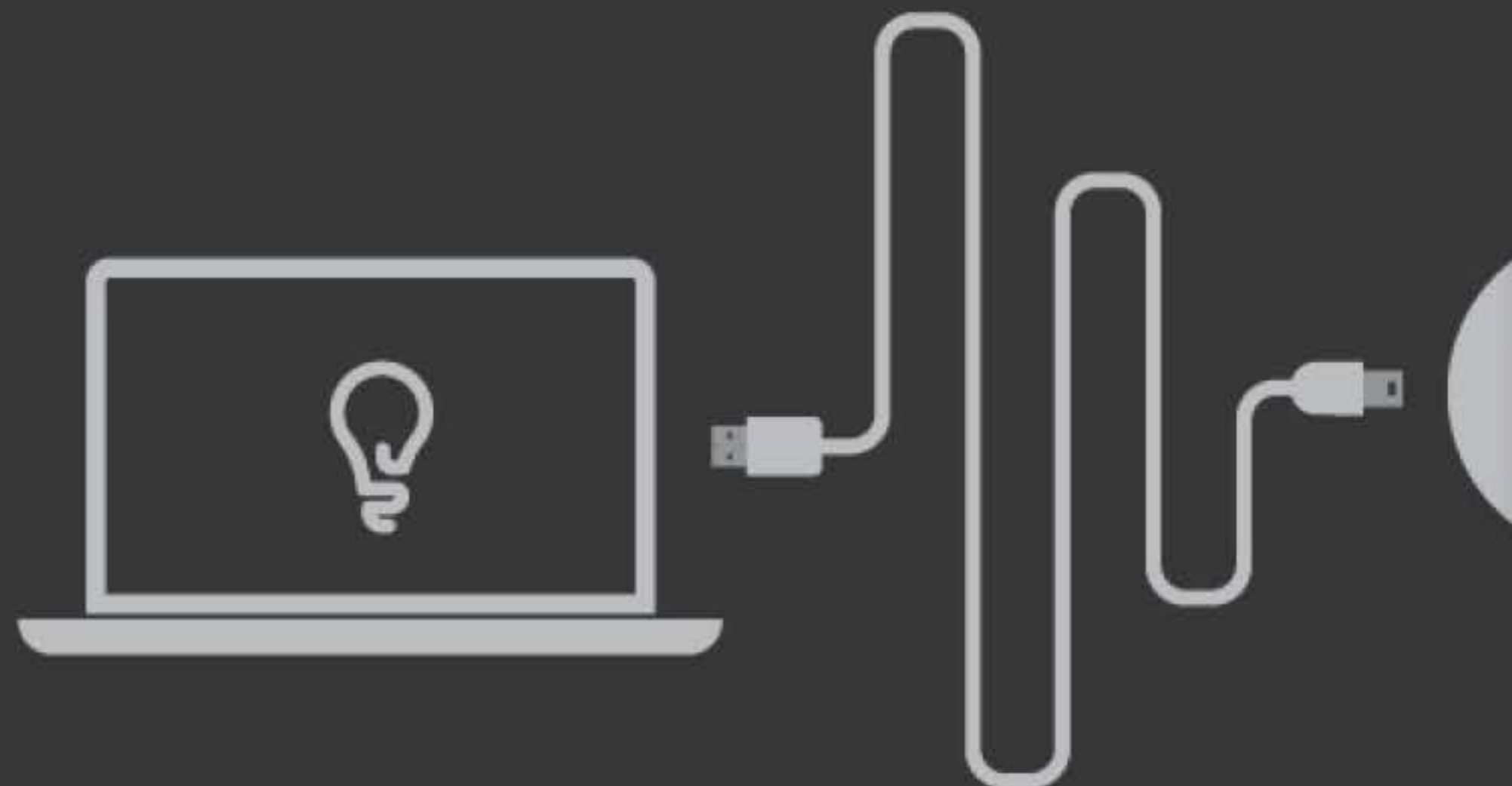
-- INSERT --



Xcode.app



foo.playground



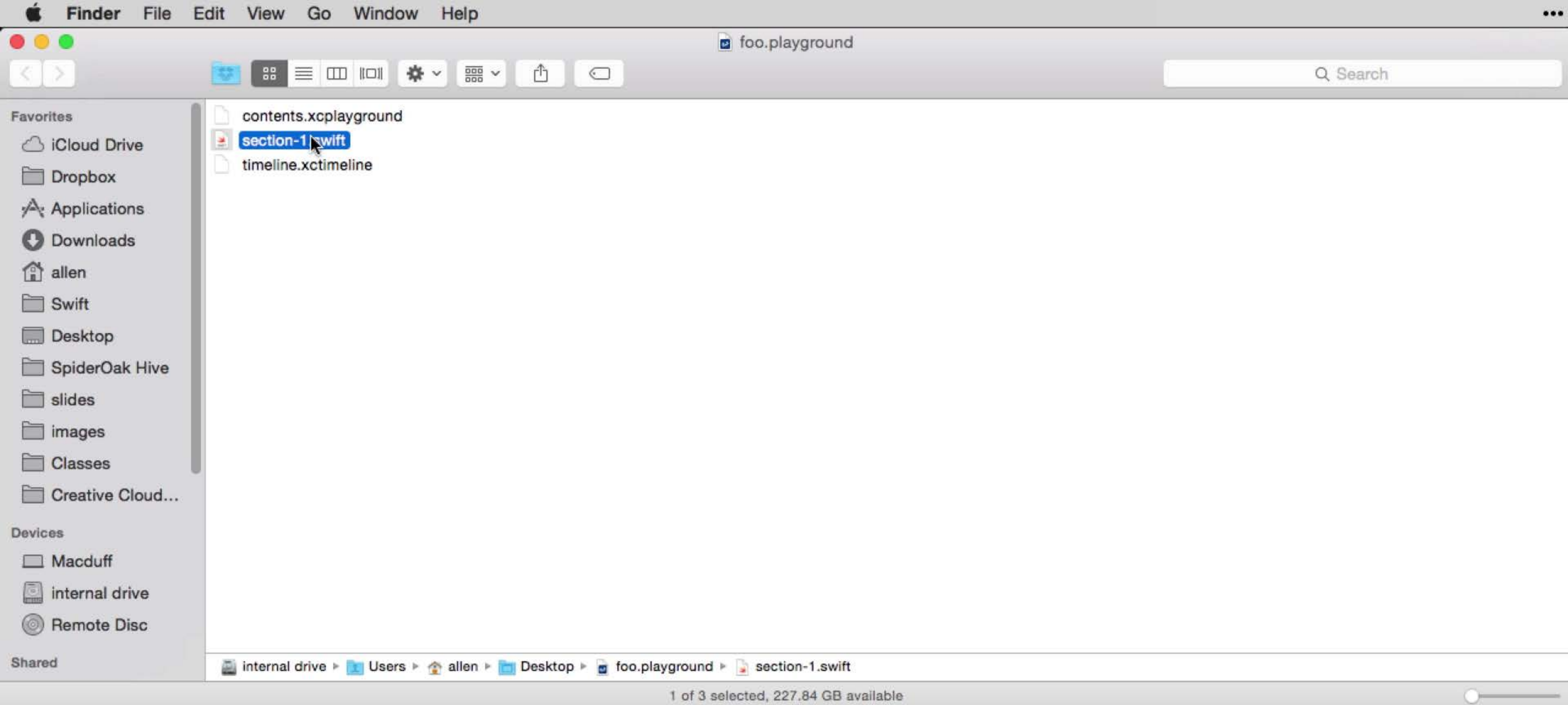
- Open
- Open With
- Show Package Contents**
- Move to Trash
- Get Info
- Compress "foo.playground"
- Burn "foo.playground" to Disc...
- Duplicate
- Make Alias
- Quick Look "foo.playground"
- Share
- Copy "foo.playground"
- Clean Up Selection
- Show View Options
- Tags...
- Services



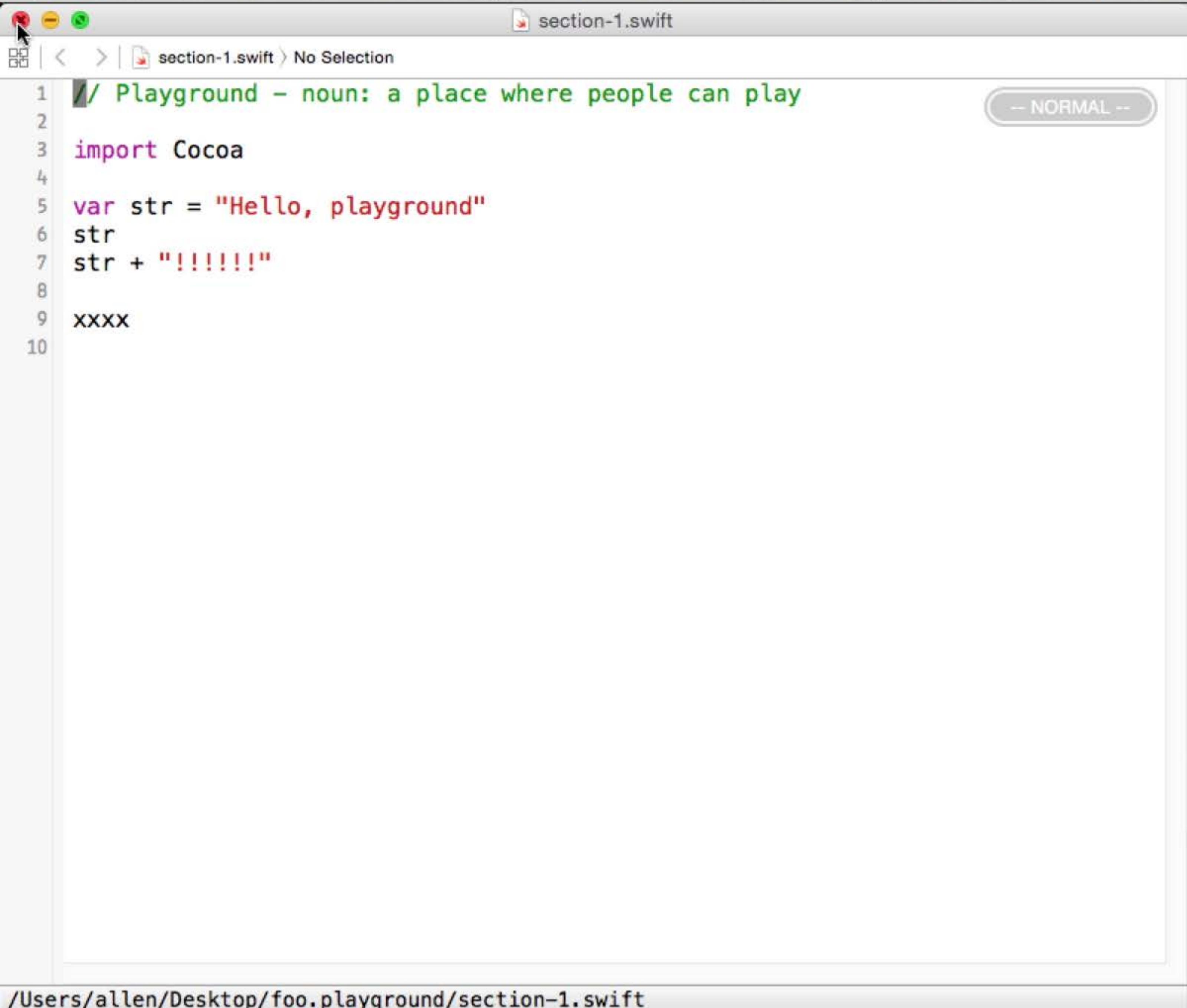
PLURALSIGHT.COM



Xcode.app



Xcode.app




section-1.swift

section-1.swift > No Selection

```
1 // Playground – noun: a place where people can play
2
3 import Cocoa
4
5 var str = "Hello, playground"
6 str
7 str + "!!!!!!"
8
9 xxxx
10
```


-- NORMAL --

/Users/allen/Desktop/foo.playground/section-1.swift




Welcome to Xcode


Version 6.1.1 (6A2008a)



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Create a new Xcode project
Start building a new iPhone, iPad or Mac application.




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Start working on something from an SCM repository.


☒ Show this window when Xcode launches




section-1.swift
~/Desktop/foo.playground




foo.playground
~/Desktop




section-1.swift
...2B-4F01-B8A4-E61A55529BD2.playground




SampleProject
~/Desktop/_




05-delete.playground
...n/Documents/Classes/Swift/Exercises/Tree




UndoableDictionary
...s/allen/Documents/Classes/Swift/Exercises



x
~/Dropbox/Users/allen/projects/work



README.md
~/Dropbox/Users/allen/bin/cpdf

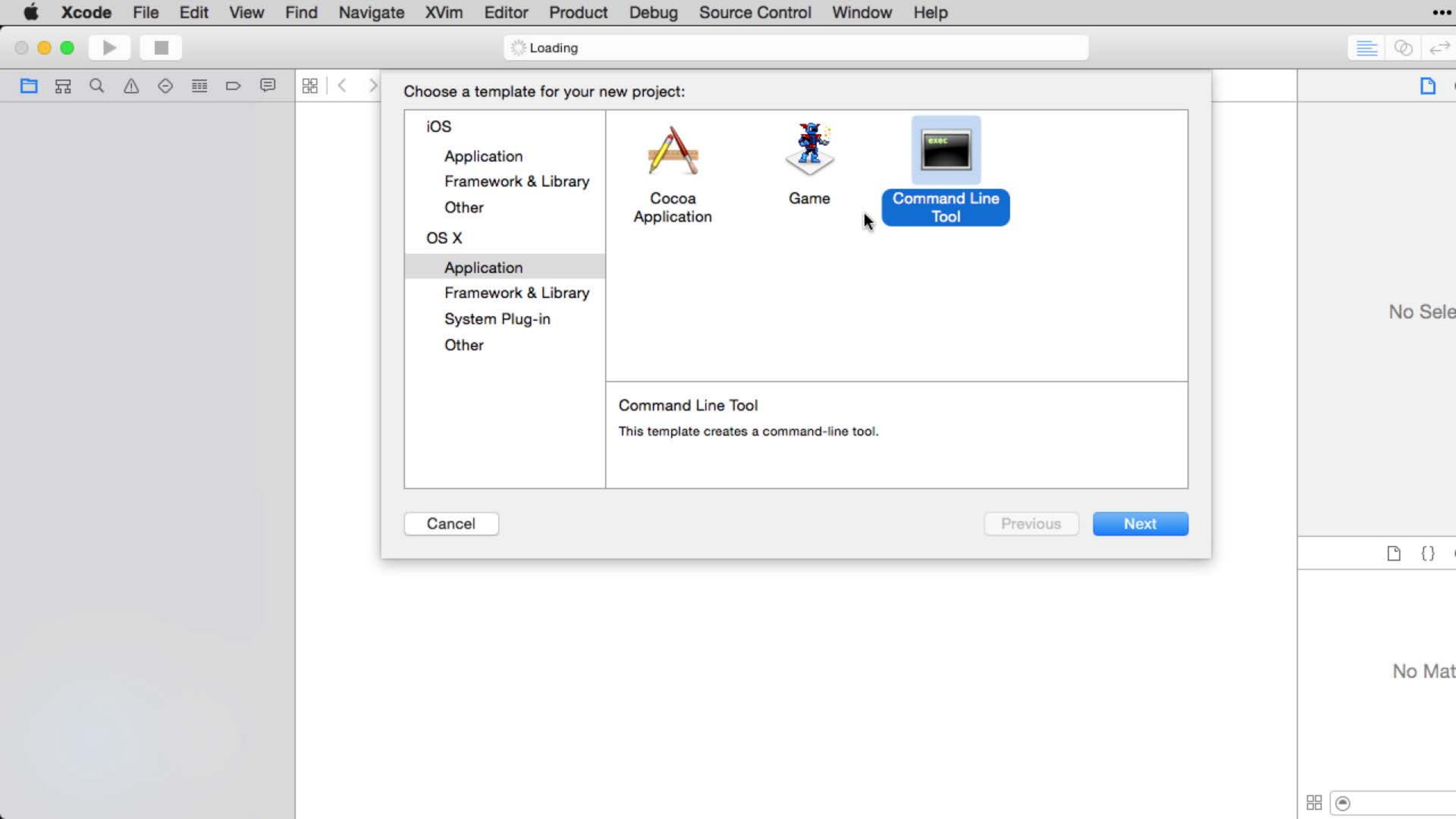


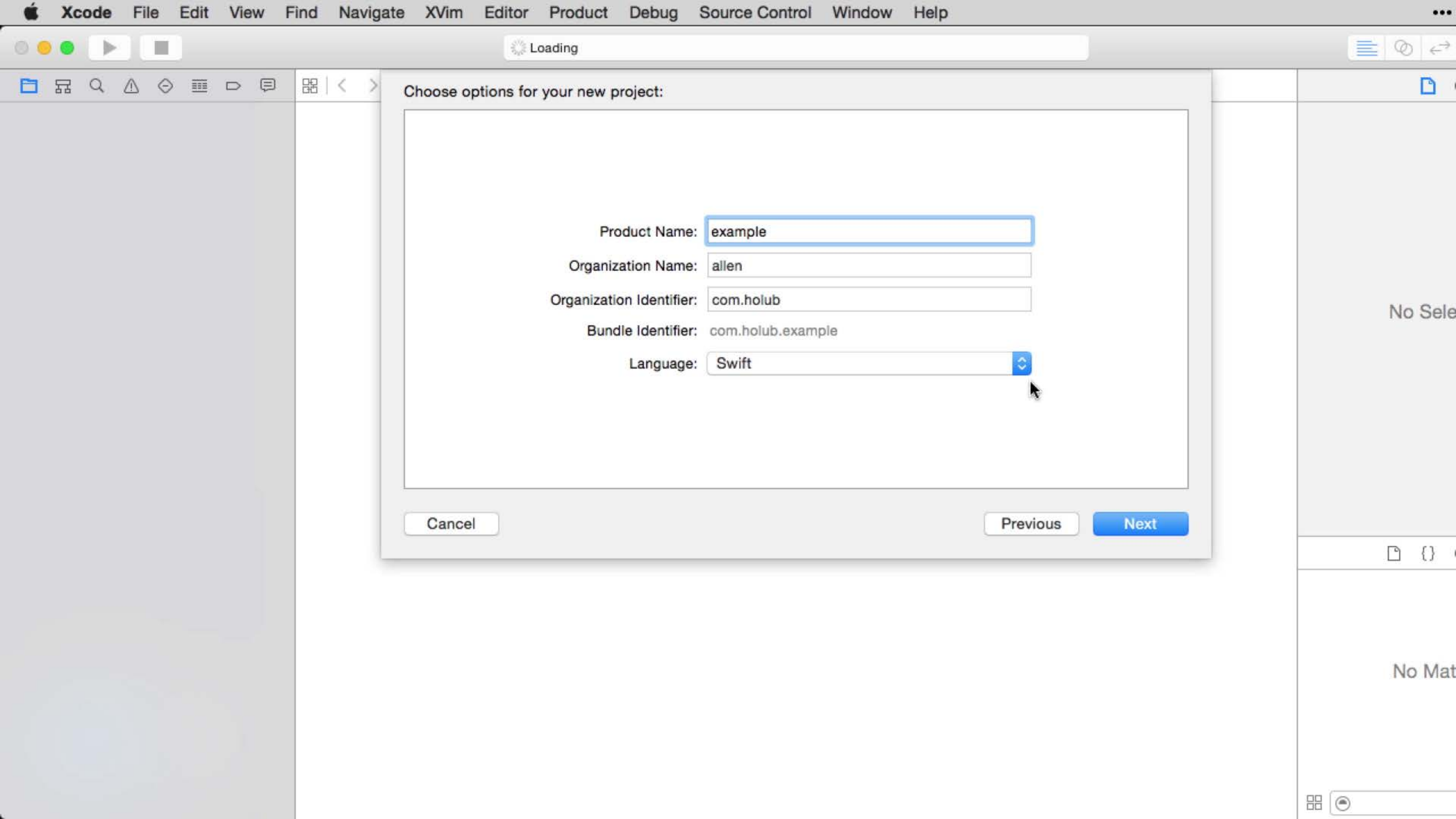
CODEOFCONDUCT.md
~/Dropbox/usr/local

Open another project...



Xcode.app





Choose options for your new project:

Product Name:

Organization Name:

Organization Identifier:

Bundle Identifier:

Language:

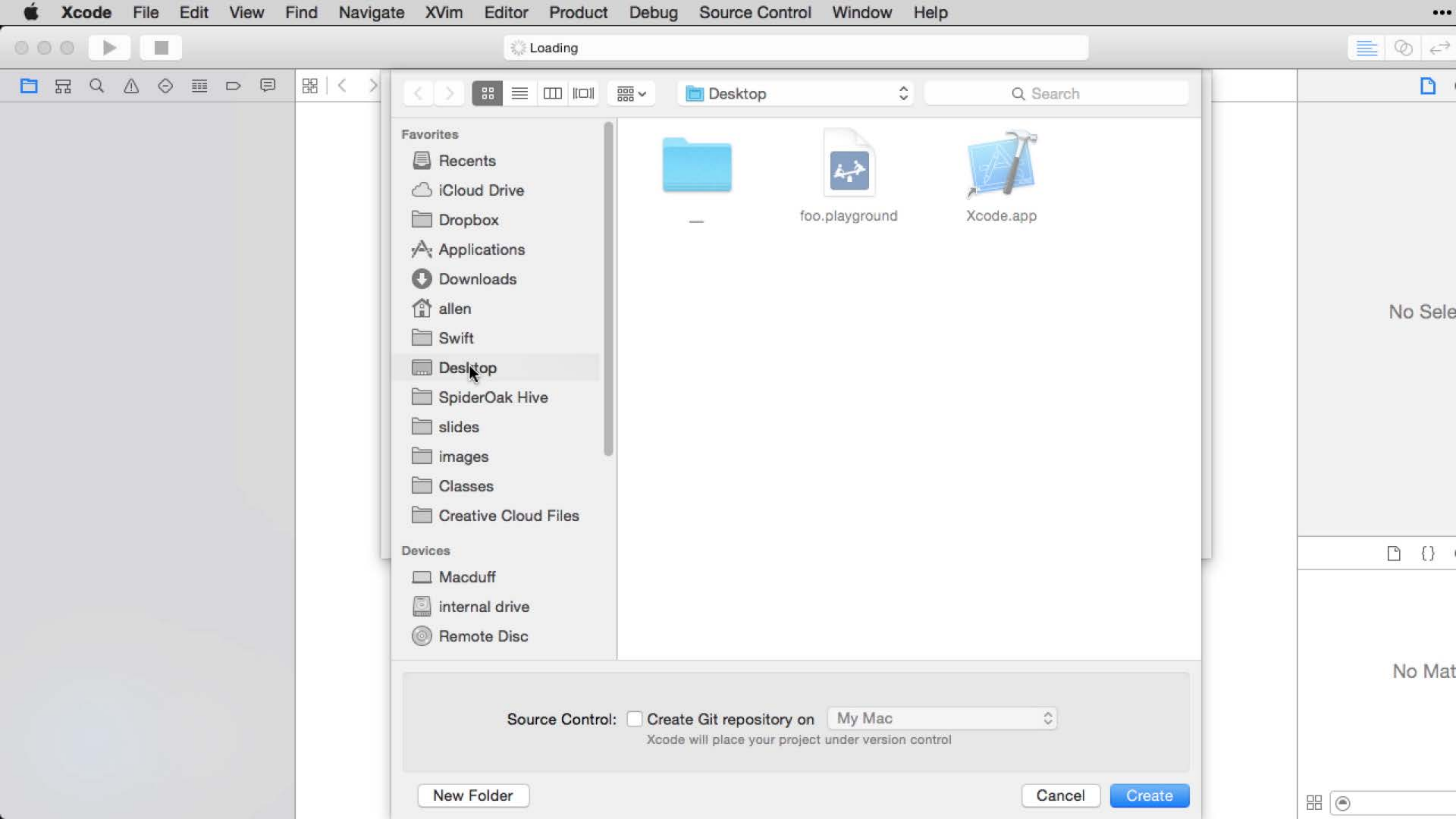
Cancel

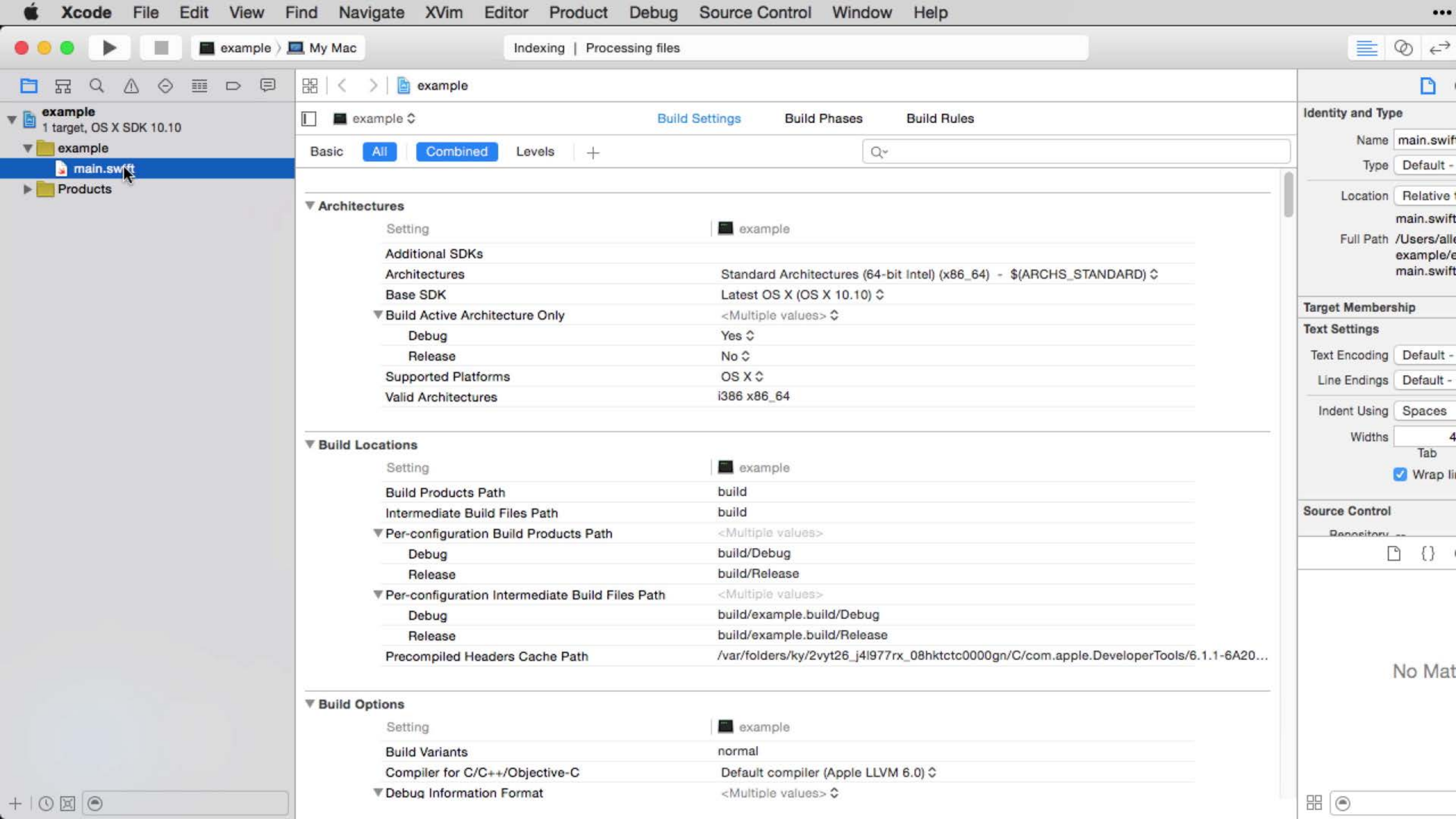
Previous

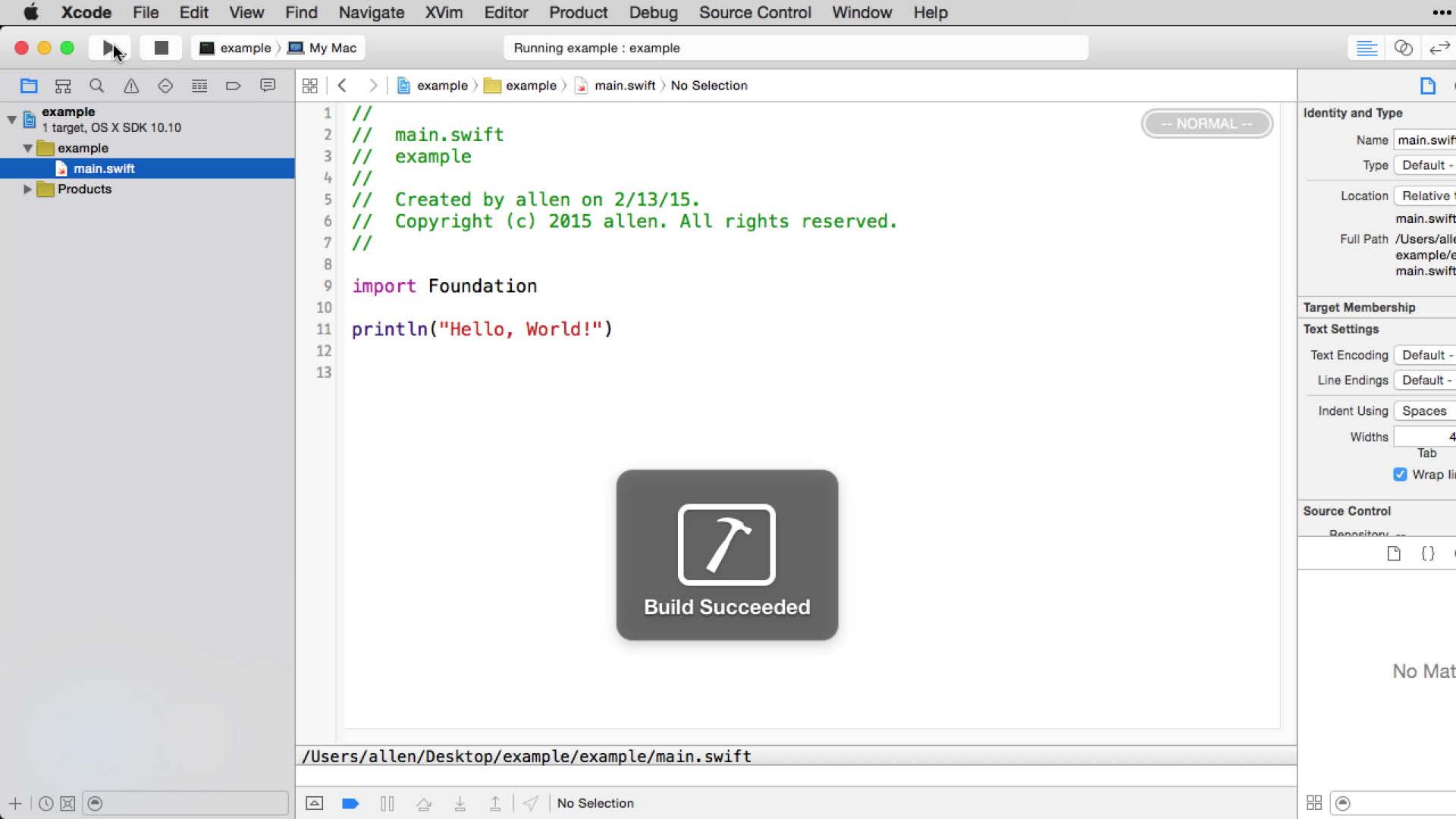
Next

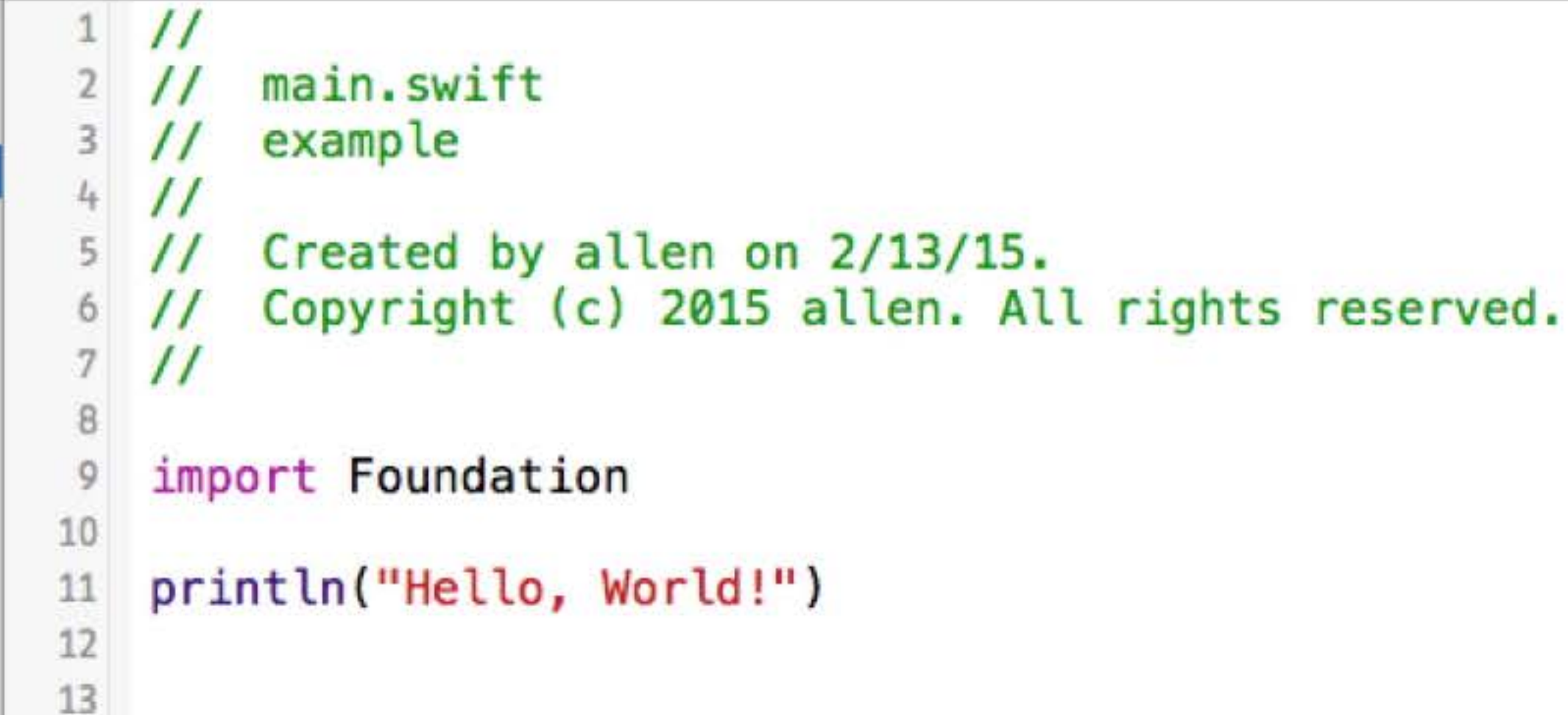
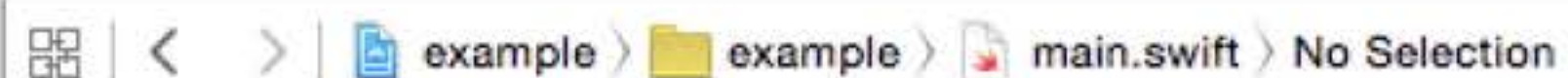
No Sele

No Mat









Name	main.swift
------	------------

Type	Default -
------	-----------

Location Relative

main.swift

Full Path /Users/alle
example/e
main.swift

Target Membership

Text Settings

Text Encoding Default -

Line Endings

Indent Using ☒ Spaces

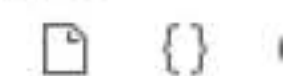
Widths	4
--------	---

Tab

☒ Wrap lines

Source Control

Doncitoru --




No Mat

```
Hello, World!  
Program ended with exit code: 0
```




example > Products > example > No Selection



exec

Location

No Matches

 No Selection

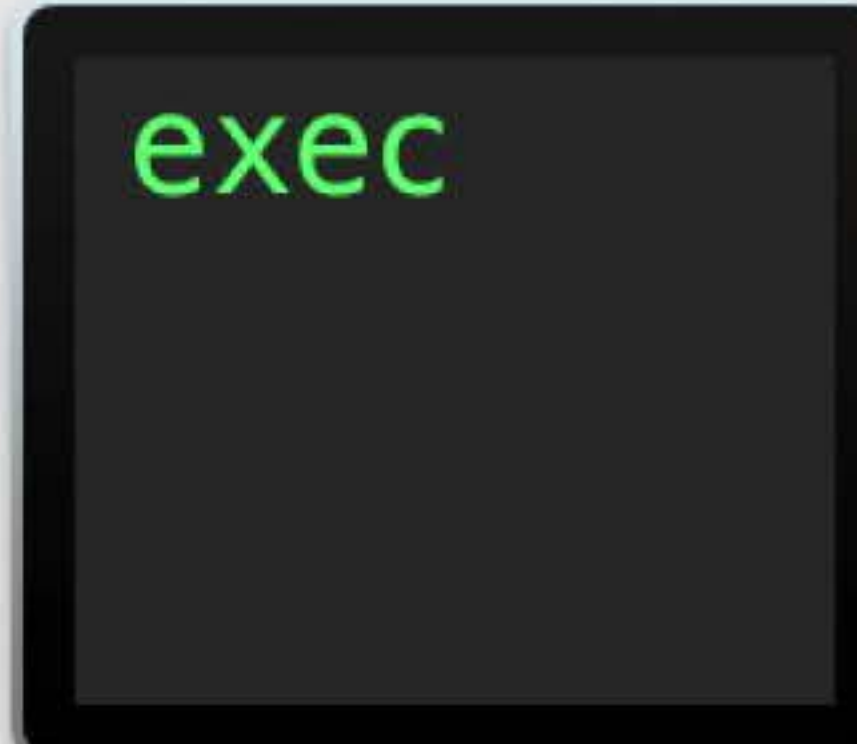
All Output ↕



Xcode.



example > Products > example > No Selection

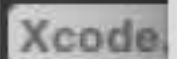


exec

Sourcecode Various
Ada Source

Curre


	Hello, World! Program ended with exit code: 0
--	---



Finished running example : example

example > Products > example > No Selection

example
1 target, OS X SDK 10.10
example
main.swift
Products
example



Identity and Type
Name example
Type Default - Unix Executable
Location Relative to Build Products
example
Full Path /Users/allen/Desktop/example/DerivedData/example/Build/Products/Debug/example
Localization Show
Target Membership Show
Source Control
Repository --
Type --
Current Branch --
Version --
Status No changes
Location

No Matches

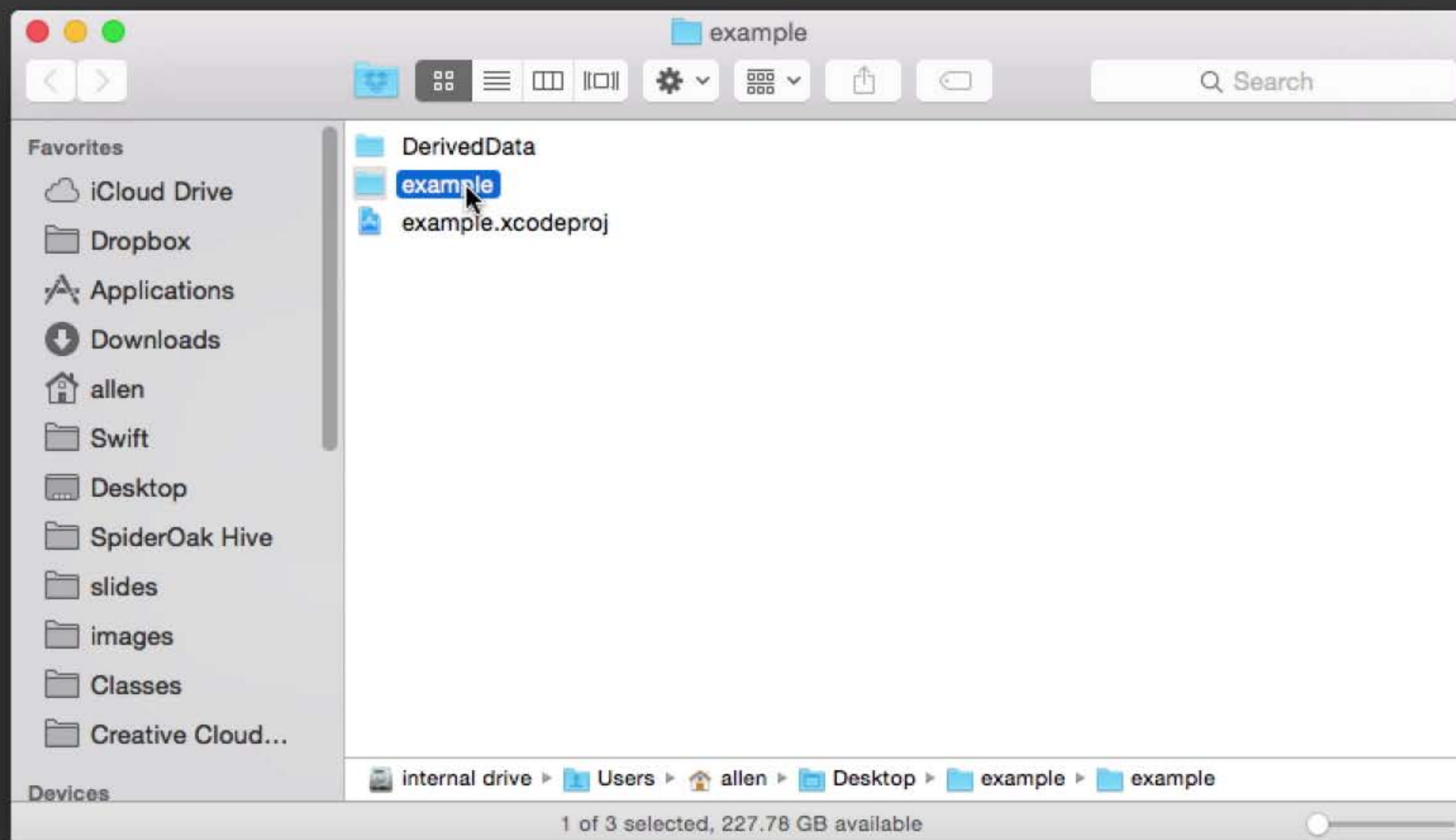
No Selection

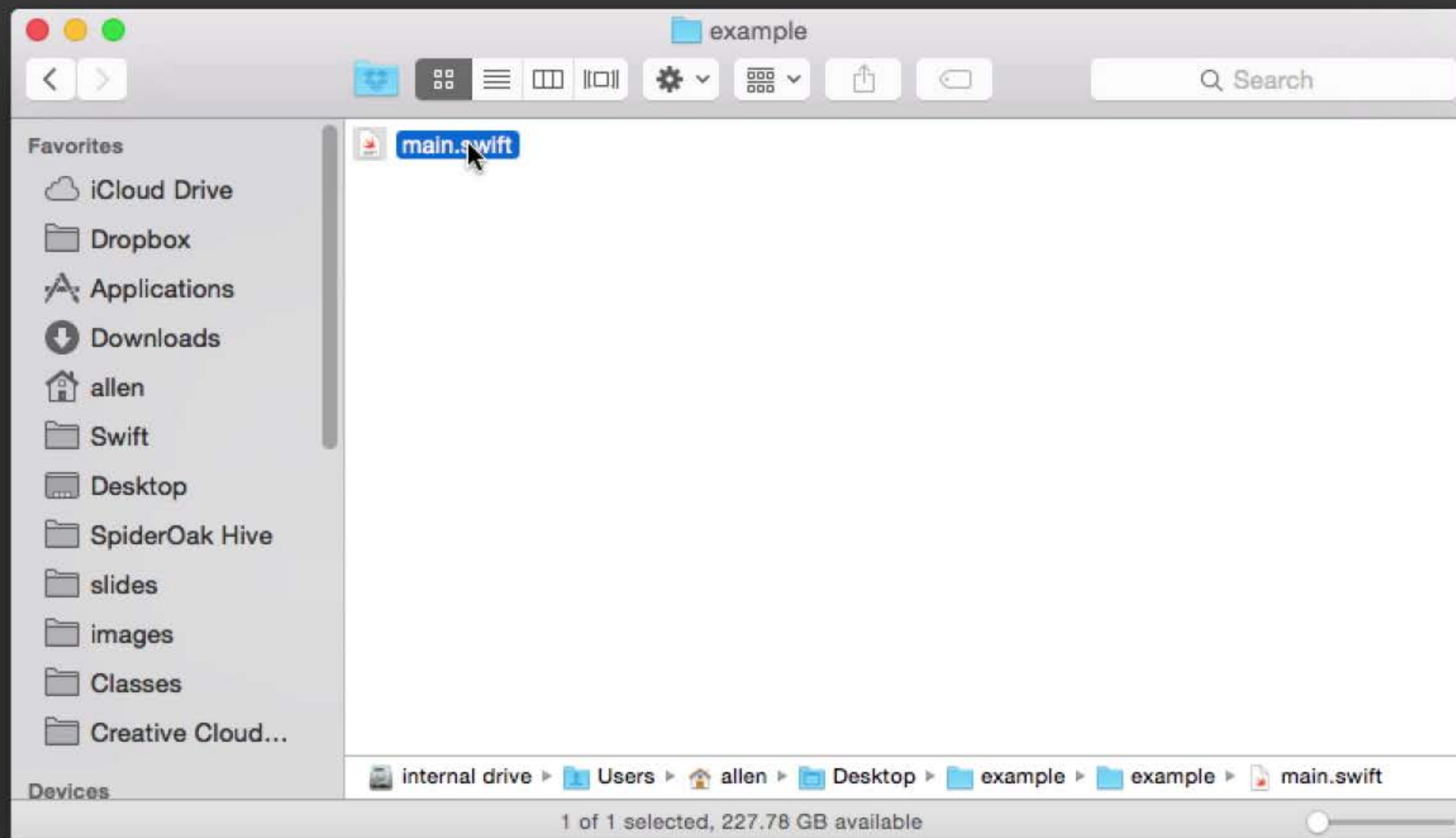
Hello, World!
Program ended with exit code: 0

Auto | All Output



Xcode






```
1 //  
2 // main.swift  
3 // example  
4 //  
5 // Created by allen on 2/13/15.  
6 // Copyright (c) 2015 allen. All rights reserved.  
7 //  
8  
9 import Foundation  
10  
11 println("Hello, World!")  
12  
13
```

-- NORMAL --

Search



foo.playground



example

le > example > main.swift

Swift app on command line (REPL)

Playground (REPL + UI)

Xcode (compiled)

command line (REPL)

REPL + UI)

iled)

