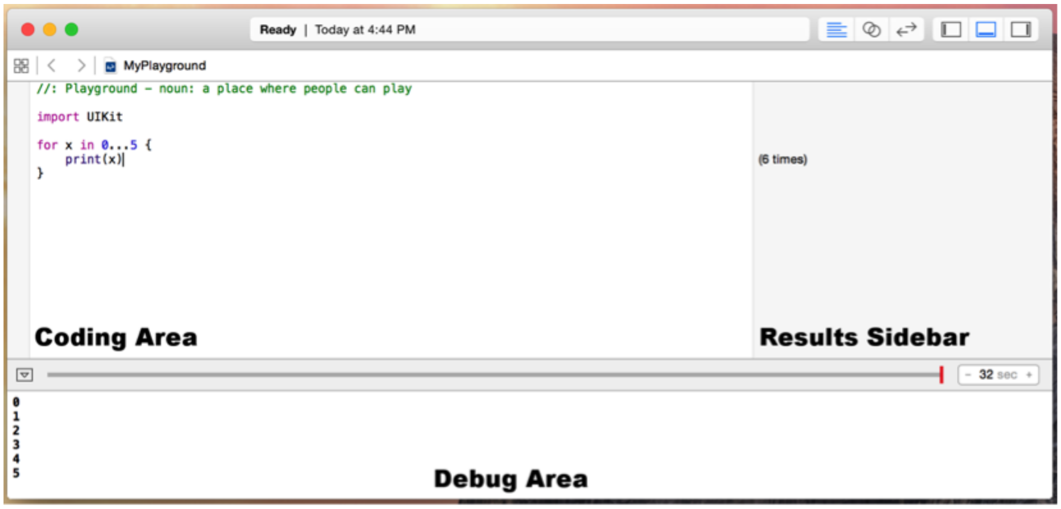
Chapter 1: Taking the First Steps with Swift

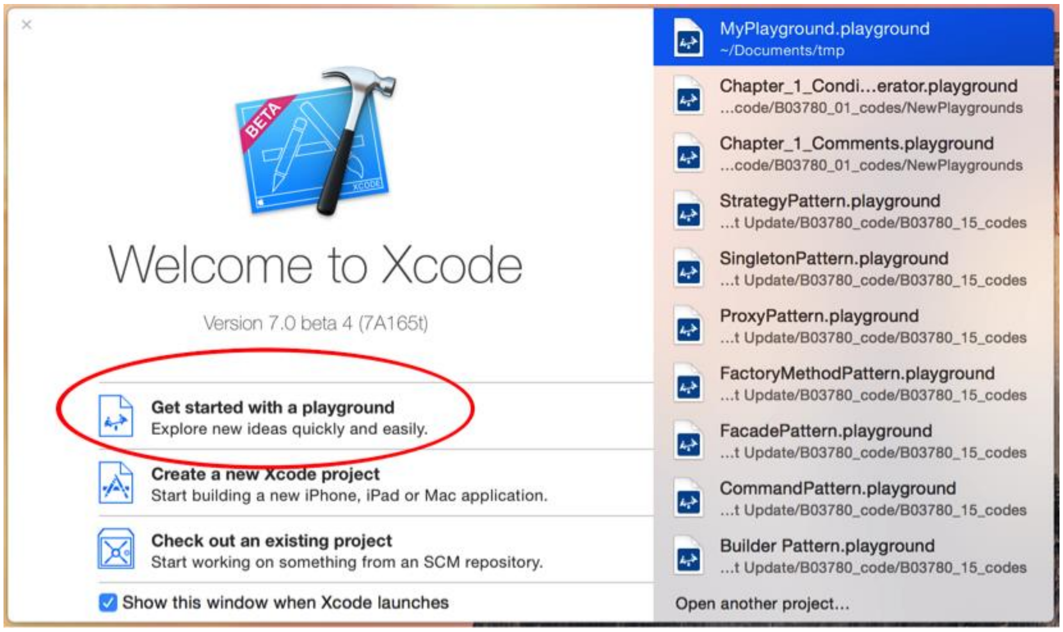


```
//: Playground - noun: a place where people can play

import UIKit

for x in 0...5 {
    print(x)
}
```

```
0
1
2
3
4
5
```



Welcome to Xcode

Version 7.0 beta 4 (7A165t)

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

MyPlayground.playground
~/Documents/tmp

Chapter_1_Condi…erator.playground
…code/B03780_01_codes/NewPlaygrounds

Chapter_1_Comments.playground
…code/B03780_01_codes/NewPlaygrounds

StrategyPattern.playground
…t Update/B03780_code/B03780_15_codes

SingletonPattern.playground
…t Update/B03780_code/B03780_15_codes

ProxyPattern.playground
…t Update/B03780_code/B03780_15_codes

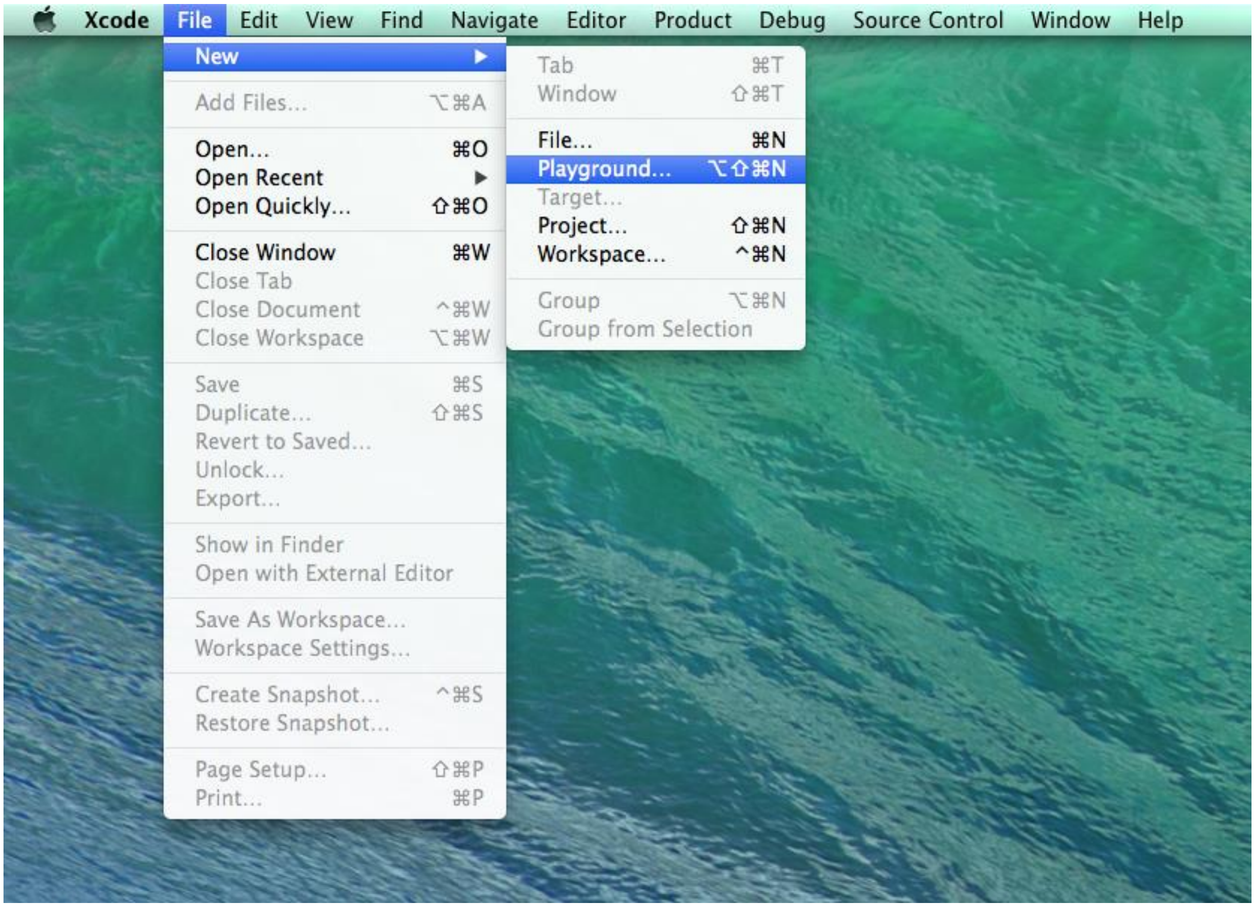
FactoryMethodPattern.playground
…t Update/B03780_code/B03780_15_codes

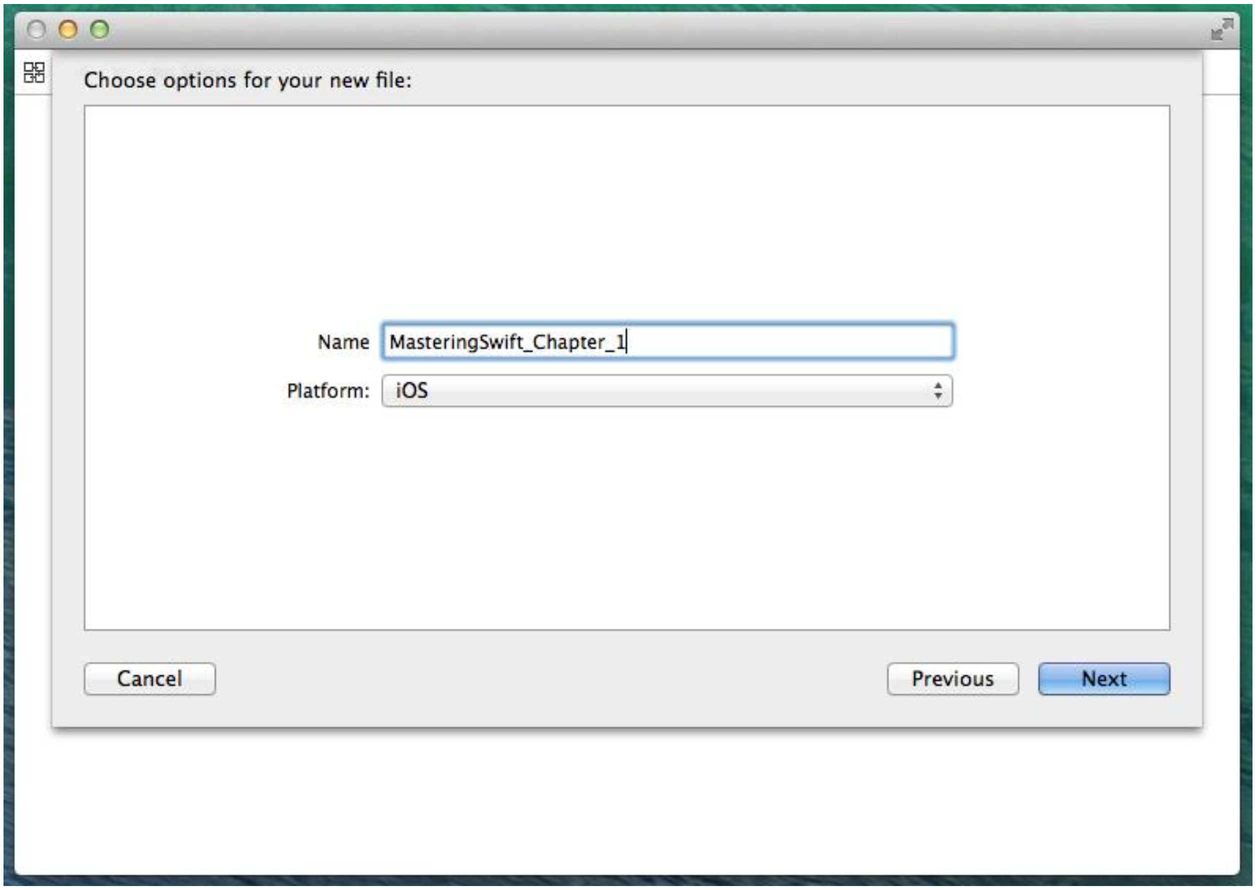
FacadePattern.playground
…t Update/B03780_code/B03780_15_codes

CommandPattern.playground
…t Update/B03780_code/B03780_15_codes

Builder Pattern.playground
…t Update/B03780_code/B03780_15_codes

Open another project…

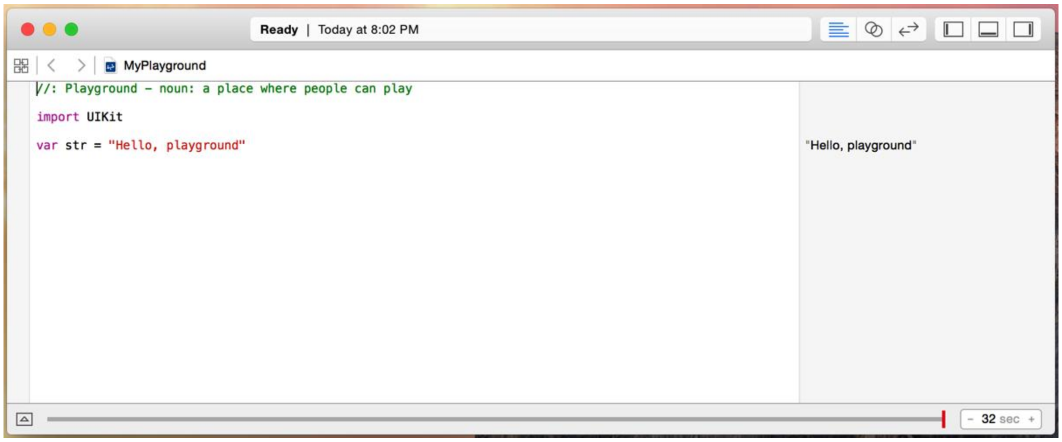

Xcode
File
Edit
View
Find
Navigate
Editor
Product
Debug
Source Control
Window
Help
New
Add Files… ⌥⌘A
Open… ⌘O
Open Recent
Open Quickly… ⇧⌘O
Close Window ⌘W
Close Tab
Close Document ^⌘W
Close Workspace ⌥⌘W
Save ⌘S
Duplicate… ⇧⌘S
Revert to Saved…
Unlock…
Export…
Show in Finder
Open with External Editor
Save As Workspace…
Workspace Settings…
Create Snapshot… ^⌘S
Restore Snapshot…
Page Setup… ⇧⌘P
Print… ⌘P
Tab ⌘T
Window ⇧⌘T
File… ⌘N
Playground… ⌥⇧⌘N
Target…
Project… ⇧⌘N
Workspace… ^⌘N
Group ⌥⌘N
Group from Selection



Choose options for your new file:

Name MasteringSwift_Chapter_1

Platform: iOS

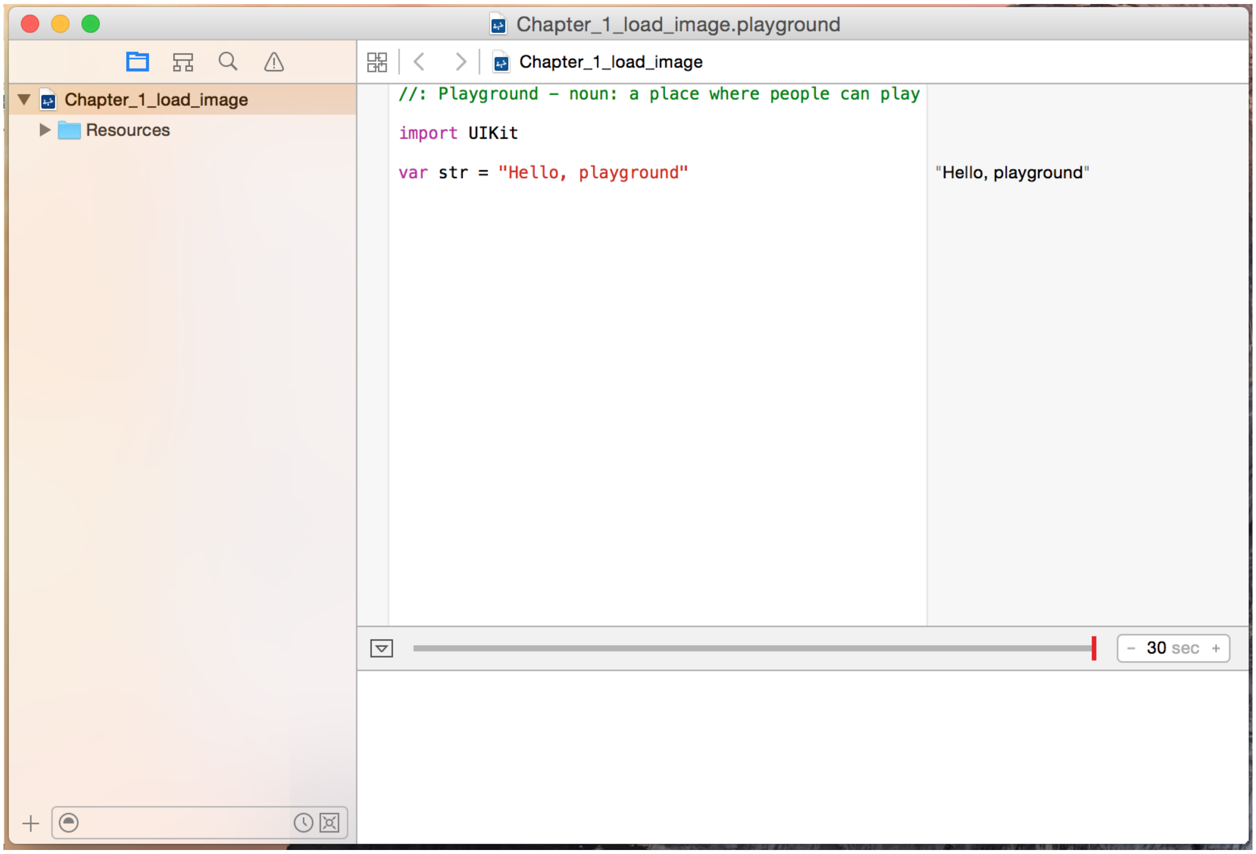


```
//: Playground - noun: a place where people can play

import UIKit

var str = "Hello, playground"
```

```
"Hello, playground"
```



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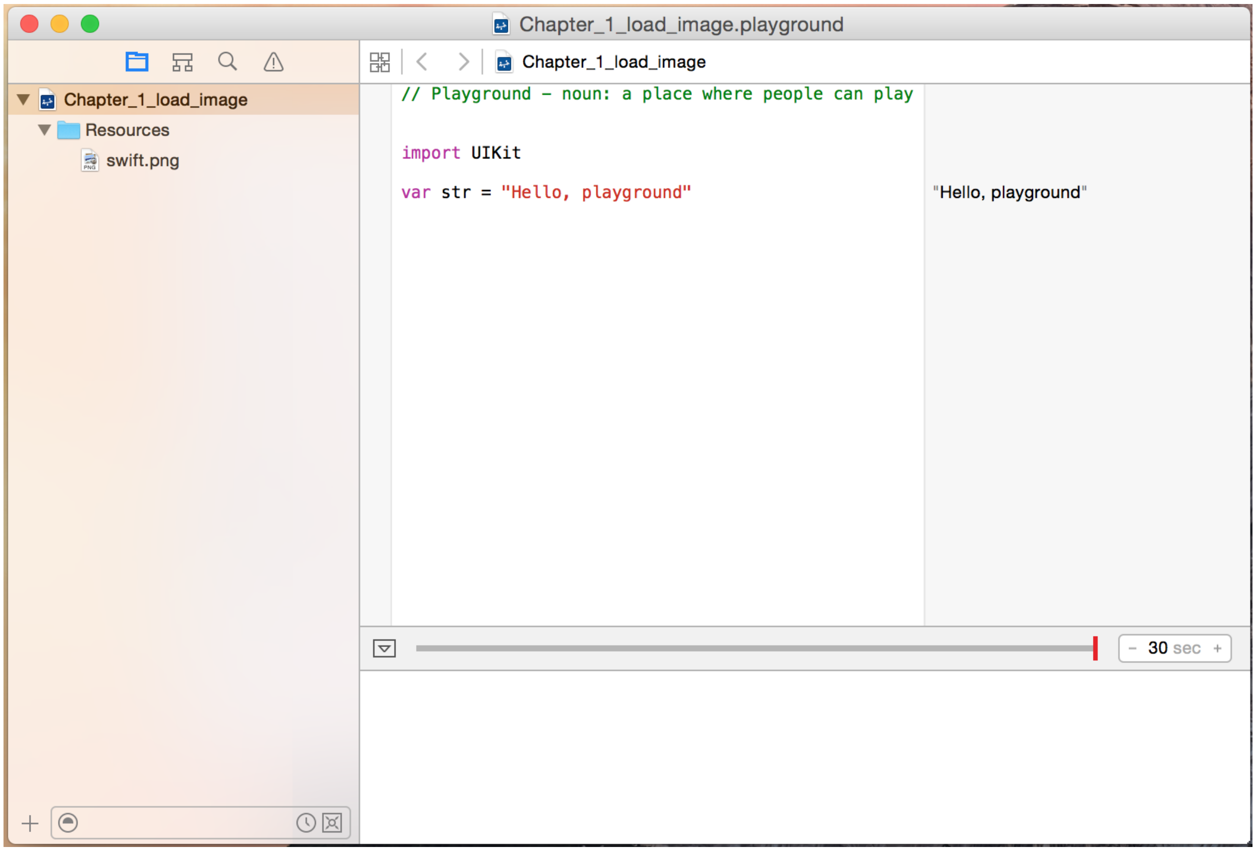
import UIKit

var str = "Hello, playground"
```

```
"Hello, playground"
```

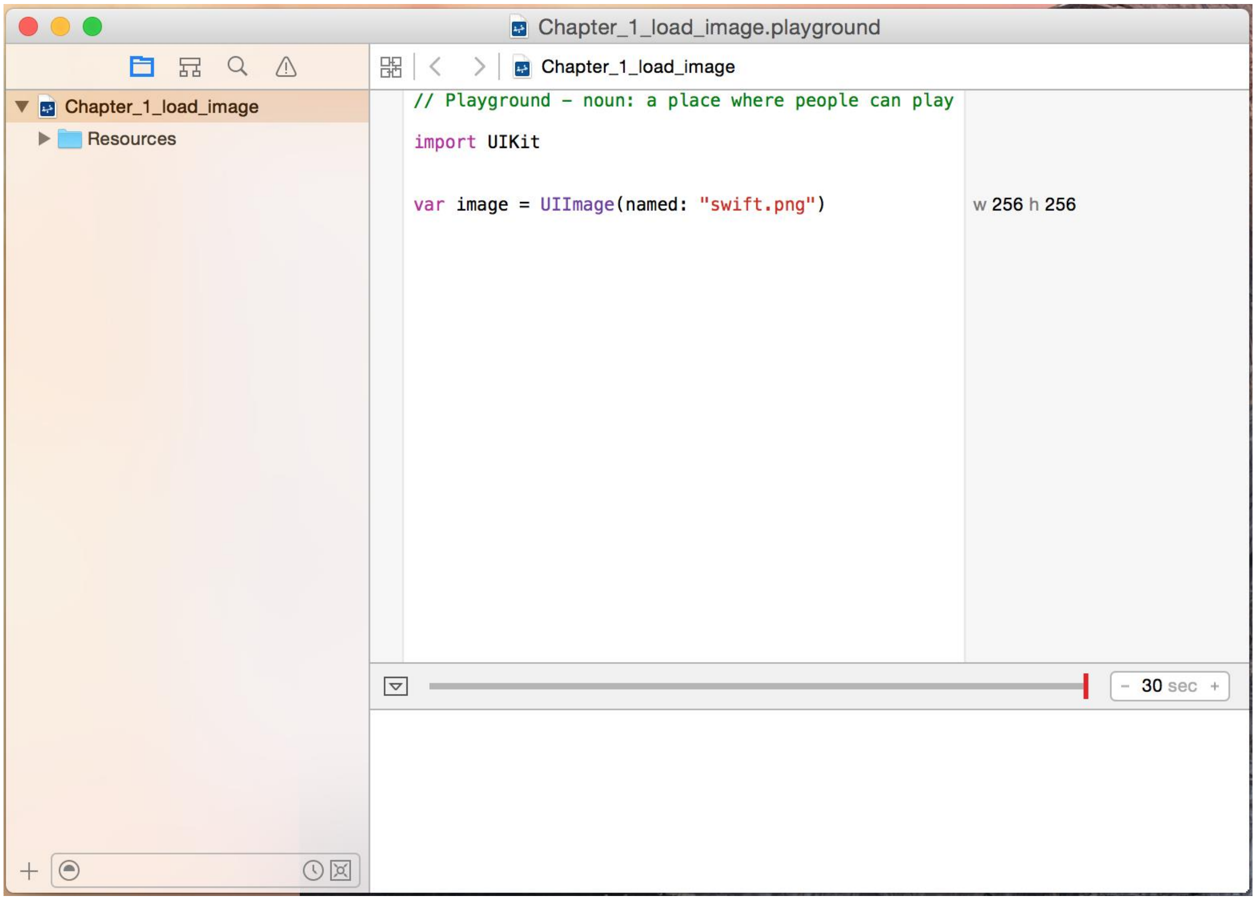


```
// Playground - noun: a place where people can play

import UIKit

var str = "Hello, playground"
```

```
"Hello, playground"
```

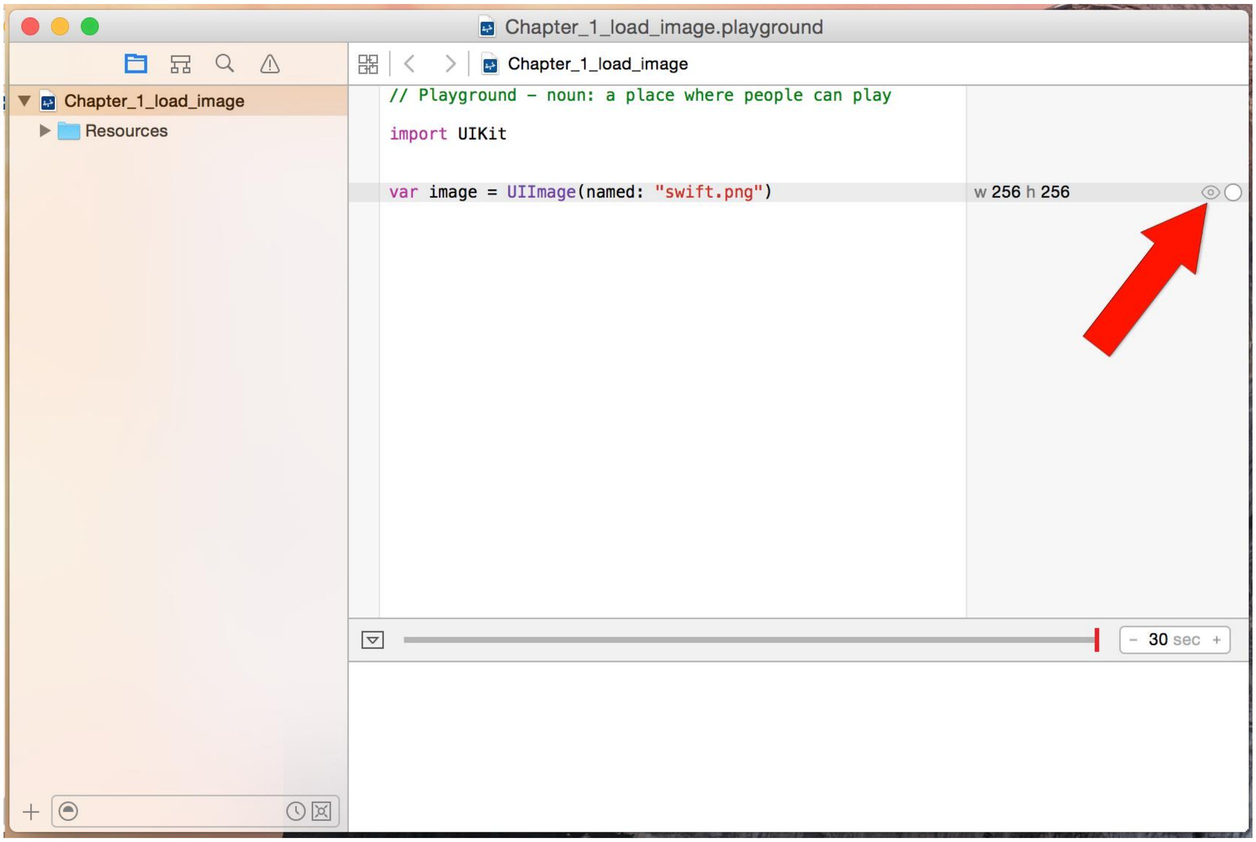


```
// Playground - noun: a place where people can play

import UIKit


var image = UIImage(named: "swift.png")
```

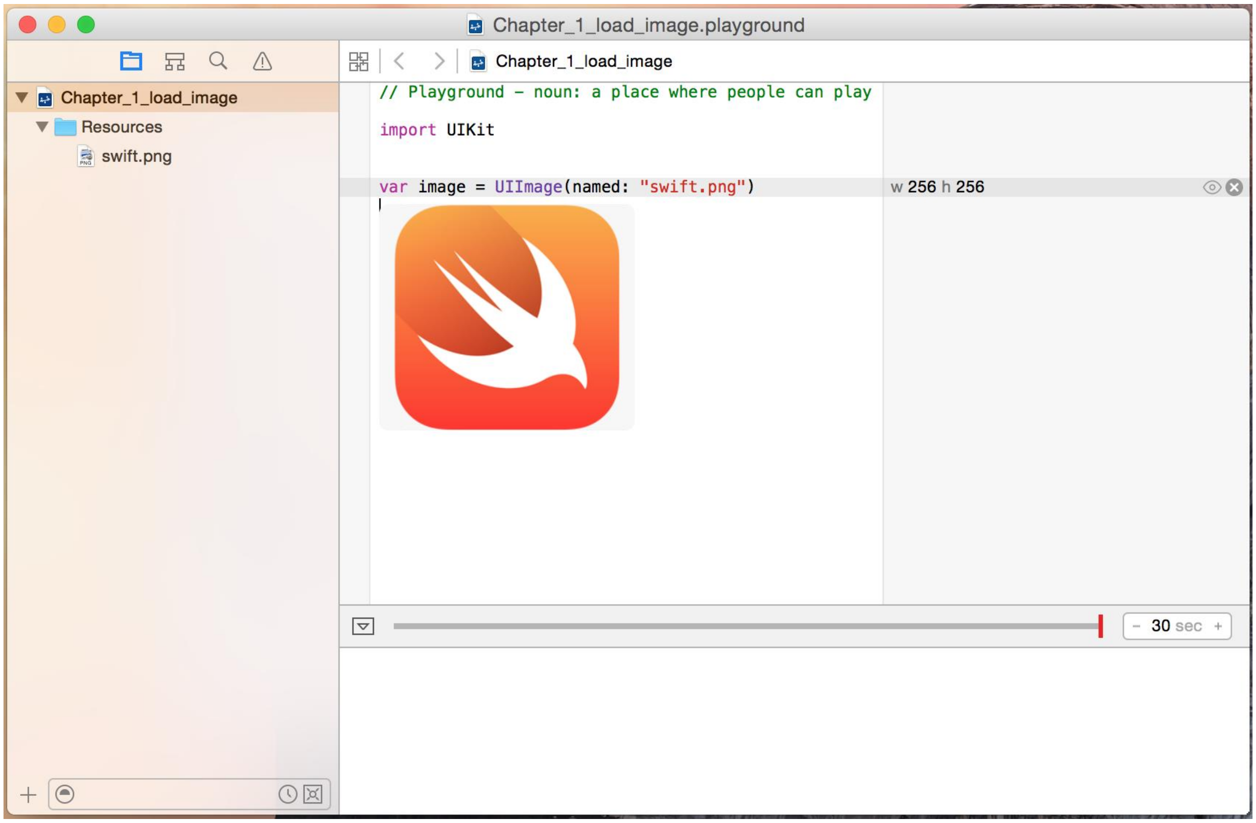
```
w 256 h 256
```



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

import UIKit

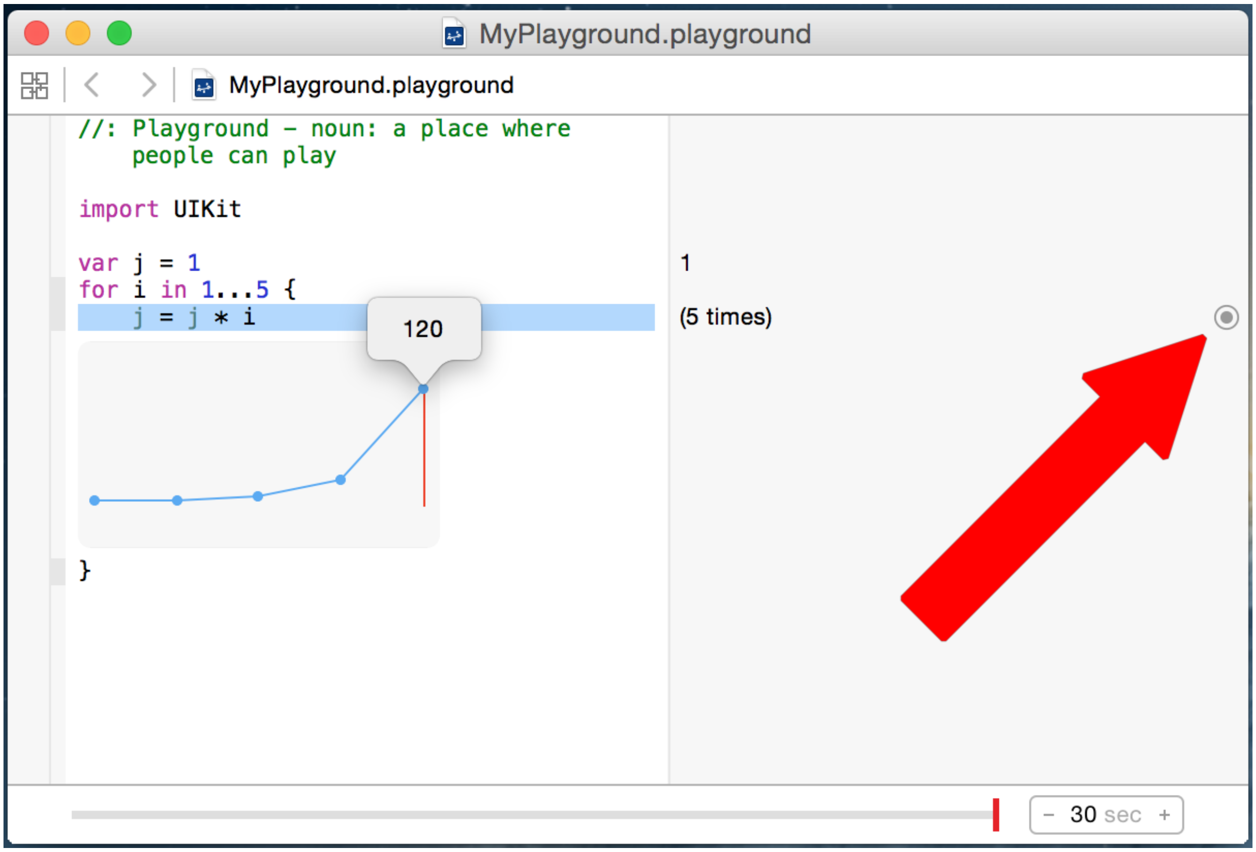
var image = UIImage(named: "swift.png")
```



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

import UIKit

var image = UIImage(named: "swift.png")
```

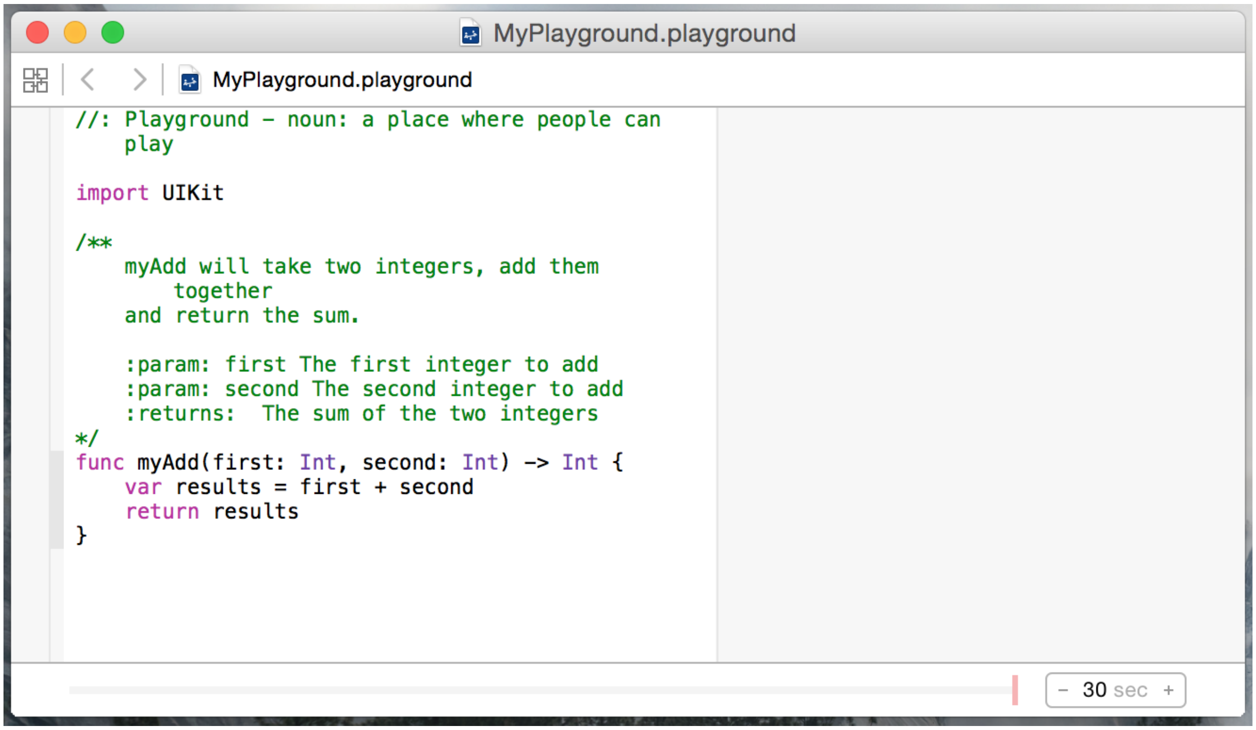


```
//: Playground - noun: a place where
    people can play

import UIKit

var j = 1
for i in 1...5 {
    j = j * i
}
```

```
1
(5 times)
```

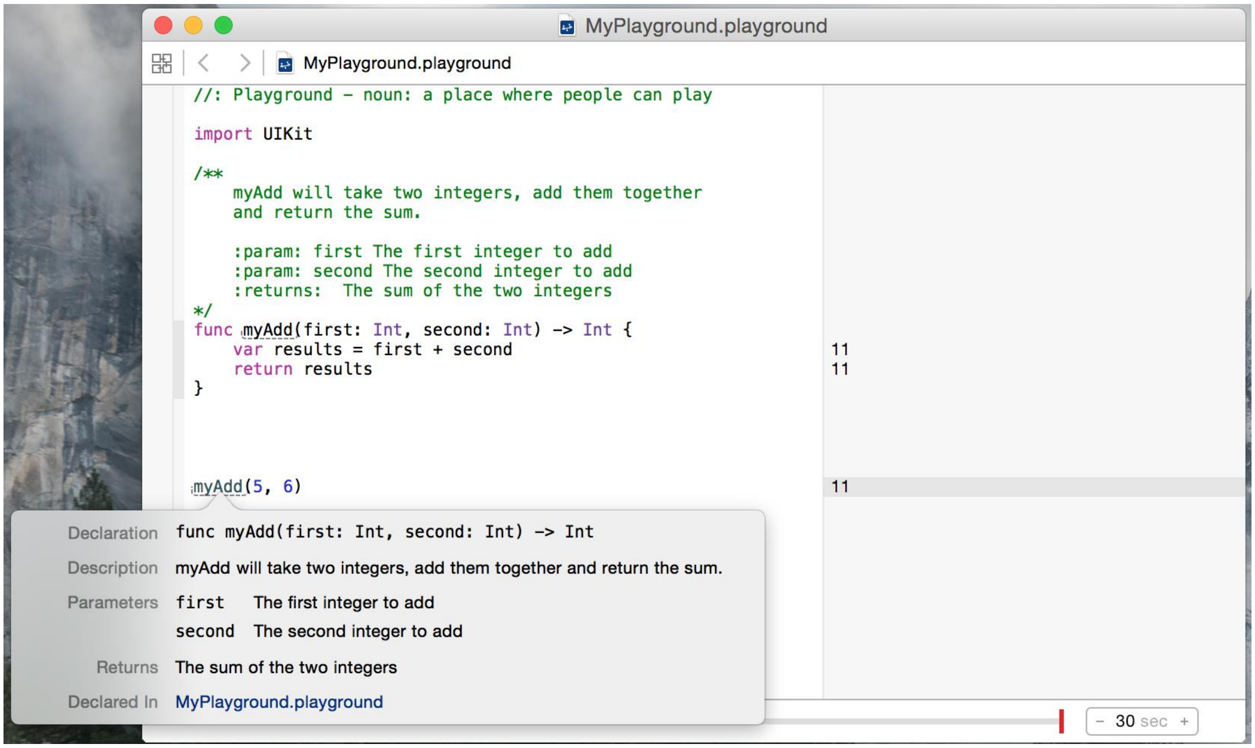


```
//: Playground - noun: a place where people can
    play

import UIKit

/**
    myAdd will take two integers, add them
        together
    and return the sum.

    :param: first The first integer to add
    :param: second The second integer to add
    :returns:  The sum of the two integers
*/
func myAdd(first: Int, second: Int) -> Int {
    var results = first + second
    return results
}
```



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

import UIKit

/**
    myAdd will take two integers, add them together
    and return the sum.

    :param: first The first integer to add
    :param: second The second integer to add
    :returns:  The sum of the two integers
*/
func myAdd(first: Int, second: Int) -> Int {
    var results = first + second
    return results
}



myAdd(5, 6)
```

```
11
11

11
```

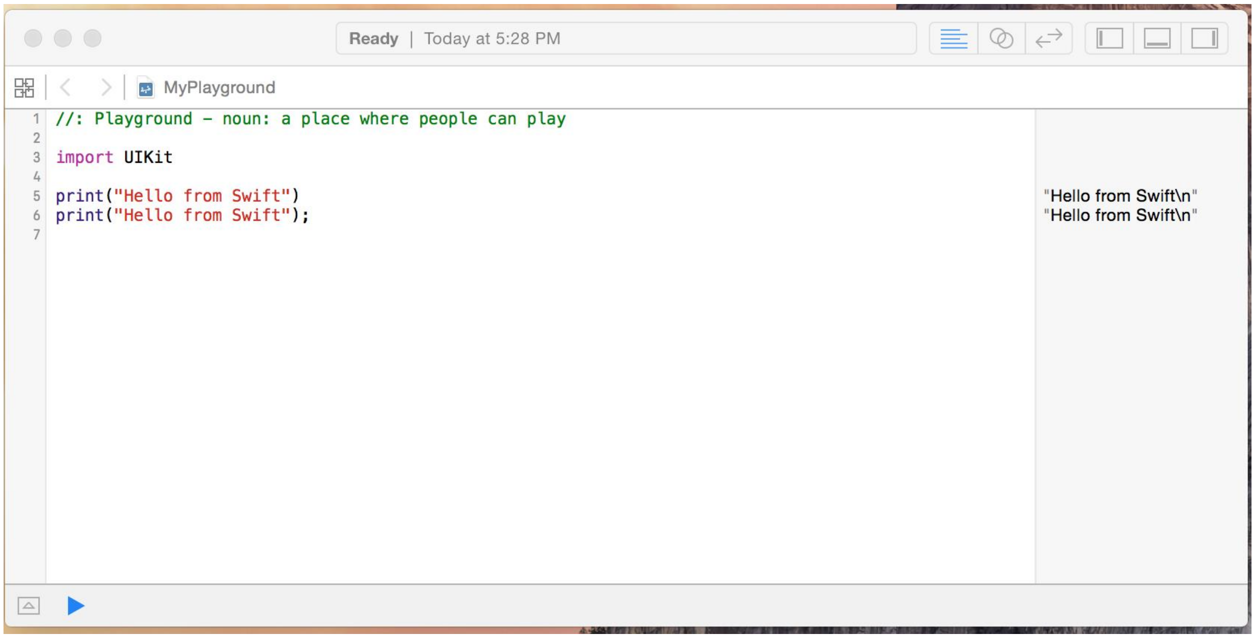
Declaration func myAdd(first: Int, second: Int) -> Int

Description myAdd will take two integers, add them together and return the sum.

Parameters first The first integer to add
second The second integer to add

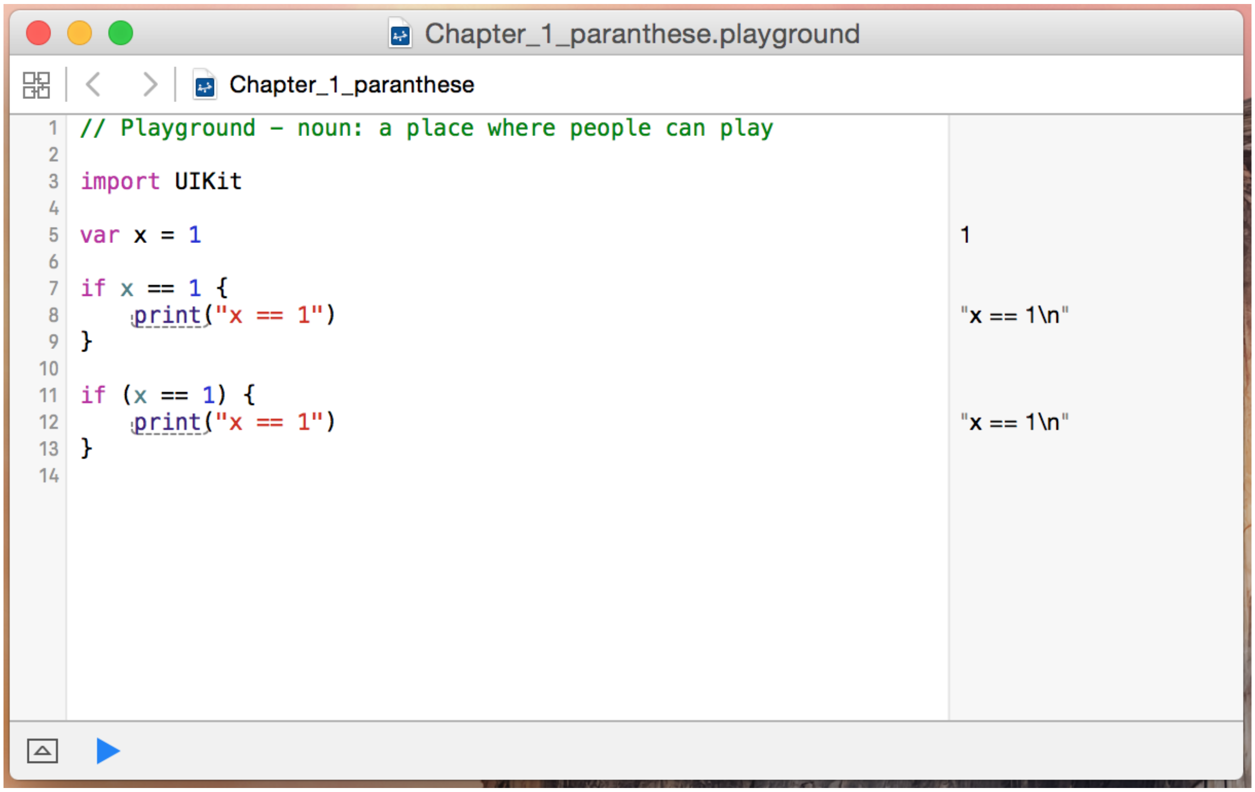
Returns The sum of the two integers

Declared In MyPlayground.playground



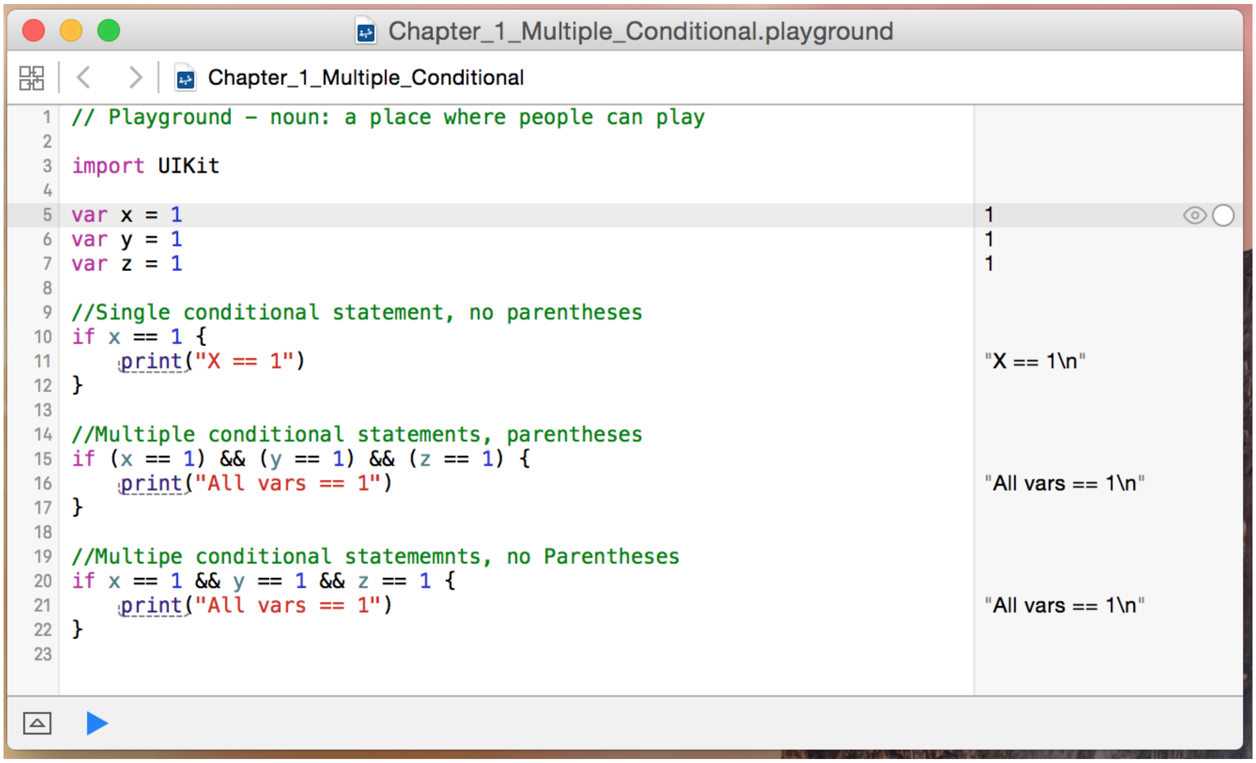
```swift
//: Playground - noun: a place where people can play

import UIKit

print("Hello from Swift")
print("Hello from Swift");
```

```
"Hello from Swift\n"
"Hello from Swift\n"
```



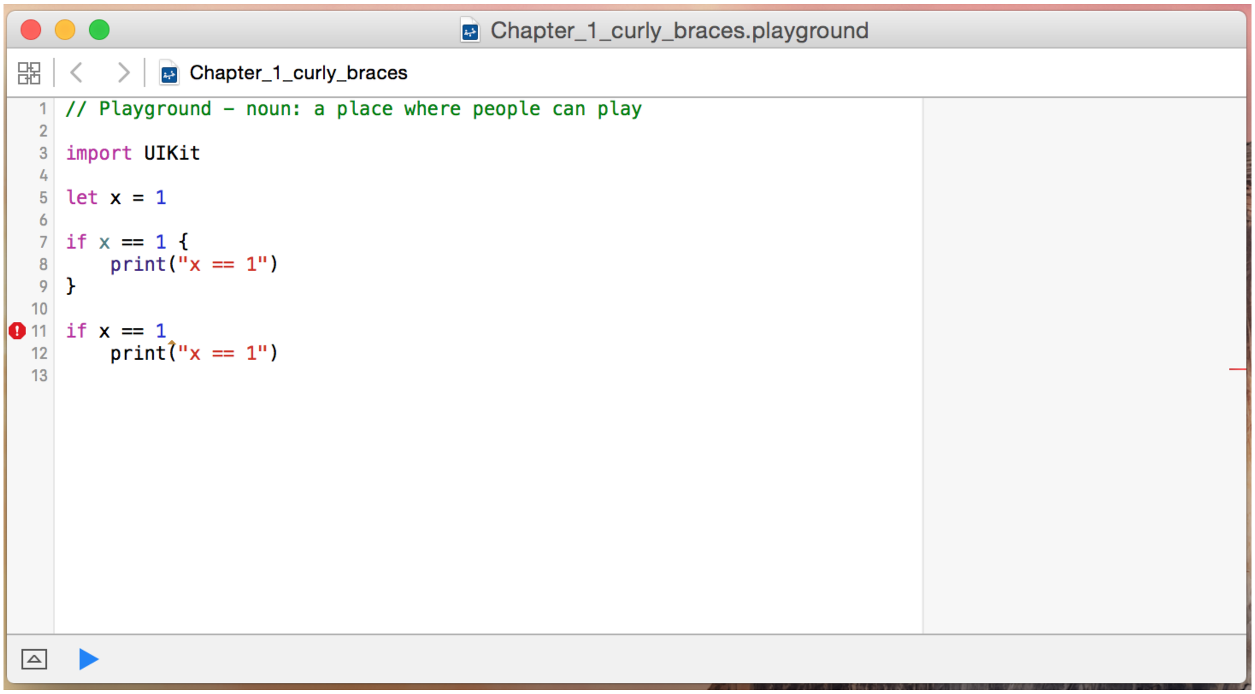
```swift
// Playground - noun: a place where people can play

import UIKit

var x = 1

if x == 1 {
    print("x == 1")
}

if (x == 1) {
    print("x == 1")
}
```

```
1
"x == 1\n"
"x == 1\n"
```

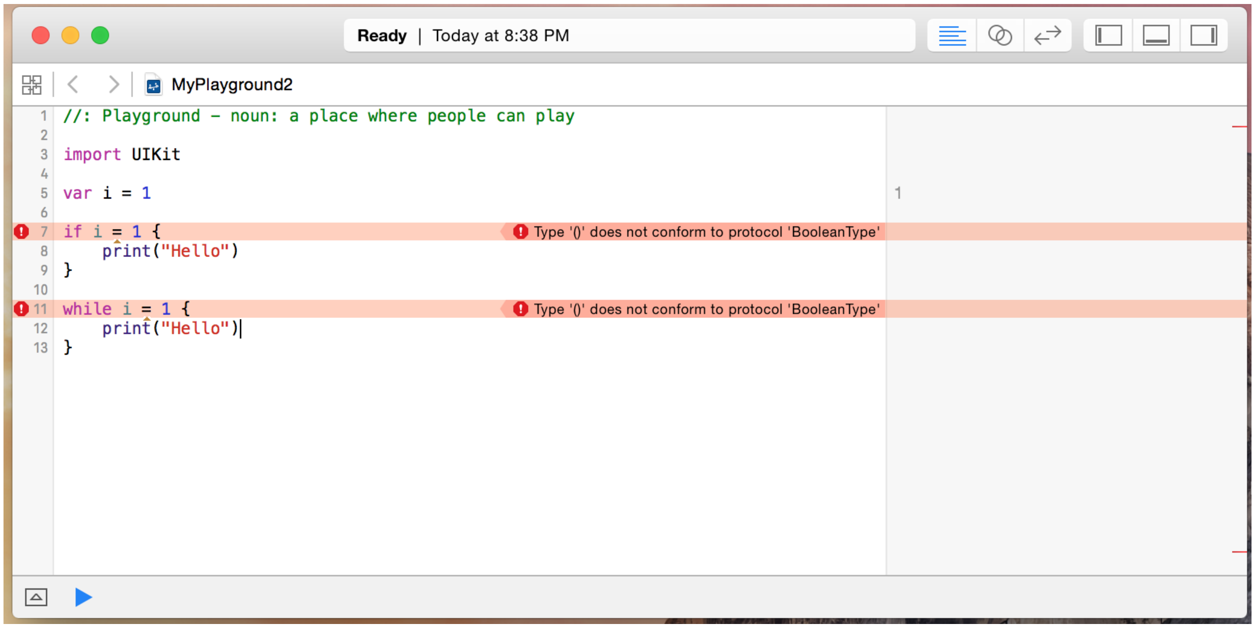

Chapter_1_Multiple_Conditional.playground
Chapter_1_Multiple_Conditional

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

import UIKit

var x = 1
var y = 1
var z = 1

//Single conditional statement, no parentheses
if x == 1 {
    print("X == 1")
}

//Multiple conditional statements, parentheses
if (x == 1) && (y == 1) && (z == 1) {
    print("All vars == 1")
}

//Multipe conditional statememnts, no Parentheses
if x == 1 && y == 1 && z == 1 {
    print("All vars == 1")
}
```

```
1
1
1
"X == 1\n"
"All vars == 1\n"
"All vars == 1\n"
```



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

import UIKit

let x = 1

if x == 1 {
    print("x == 1")
}

if x == 1
    print("x == 1")

```

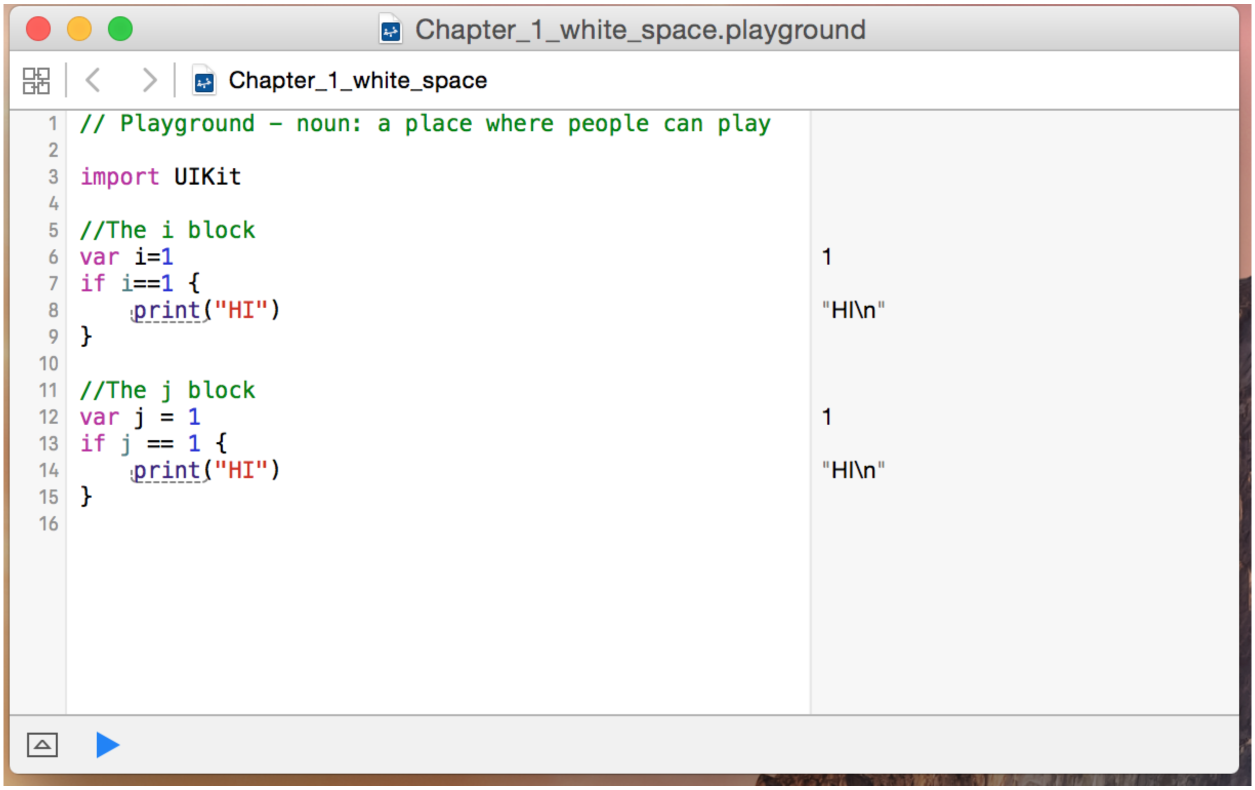


```
//: Playground - noun: a place where people can play

import UIKit

var i = 1

if i = 1 {
    print("Hello")
}

while i = 1 {
    print("Hello")
}
```

```
1
```

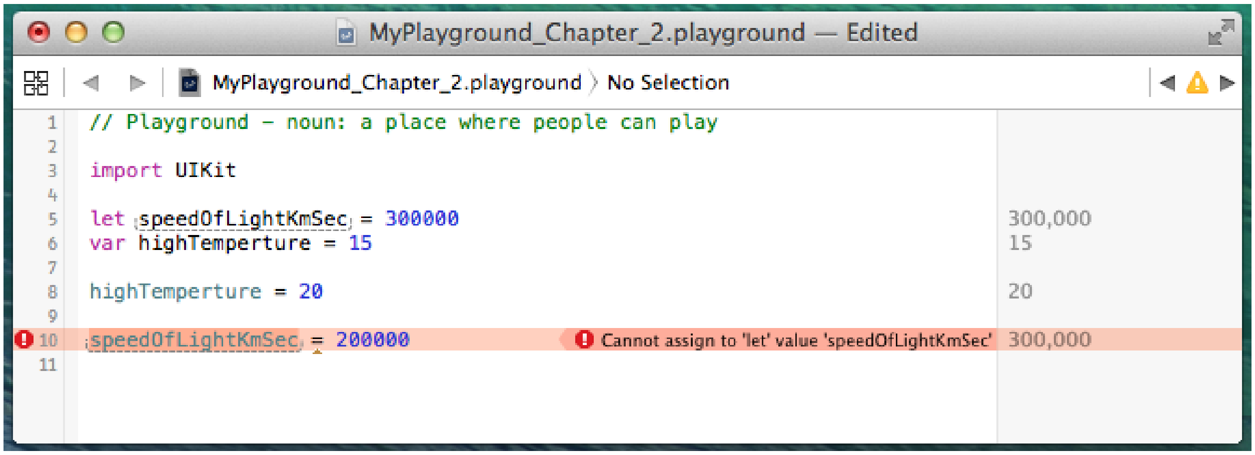
Type '()' does not conform to protocol 'BooleanType'

Type '()' does not conform to protocol 'BooleanType'

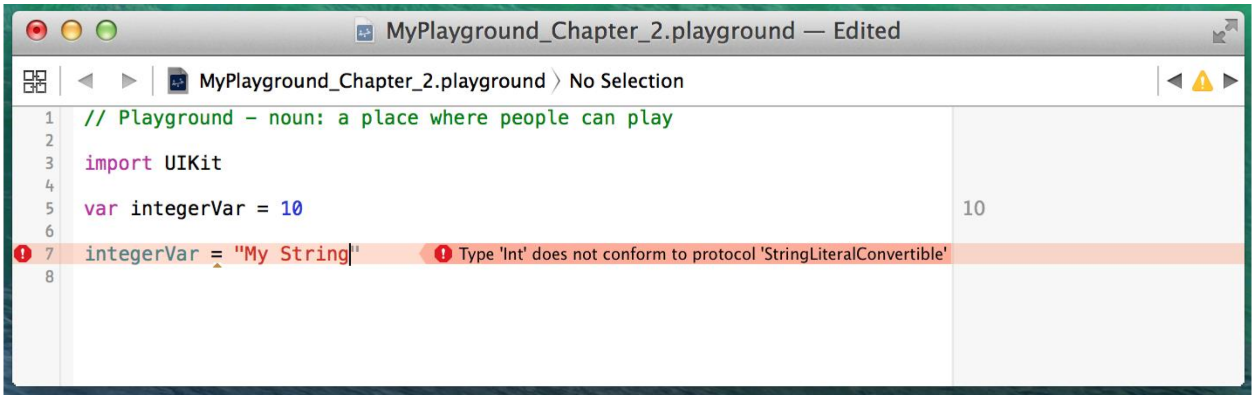


```
// Playground - noun: a place where people can play

import UIKit

//The i block
var i=1                                             1
if i==1 {
    print("HI")                                     "HI\n"
}

//The j block
var j = 1                                           1
if j == 1 {
    print("HI")                                     "HI\n"
}

```

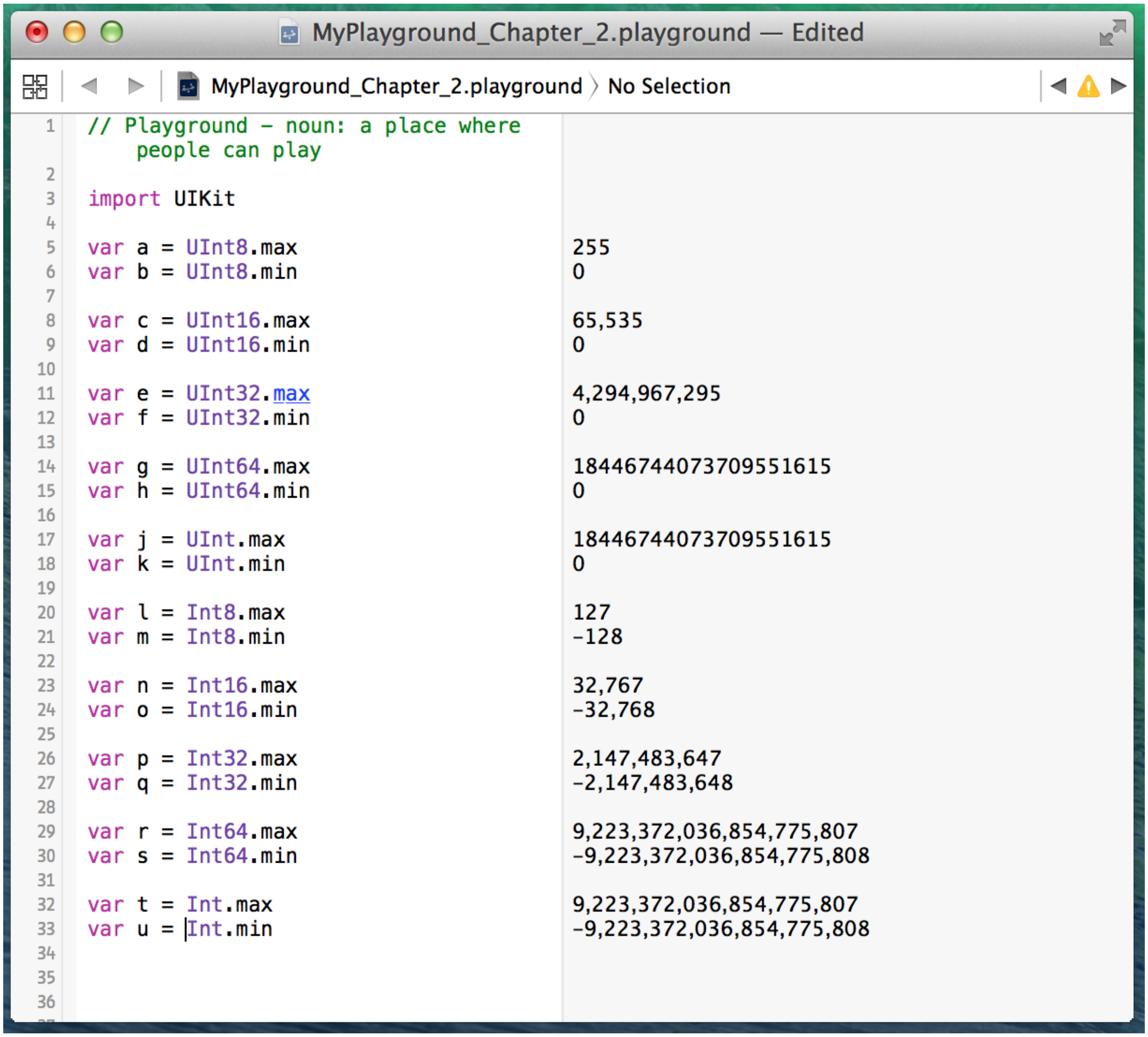
Chapter 2: Learning Variables, Constants, Strings, and Operators


MyPlayground_Chapter_2.playground — Edited
MyPlayground_Chapter_2.playground 〉 No Selection

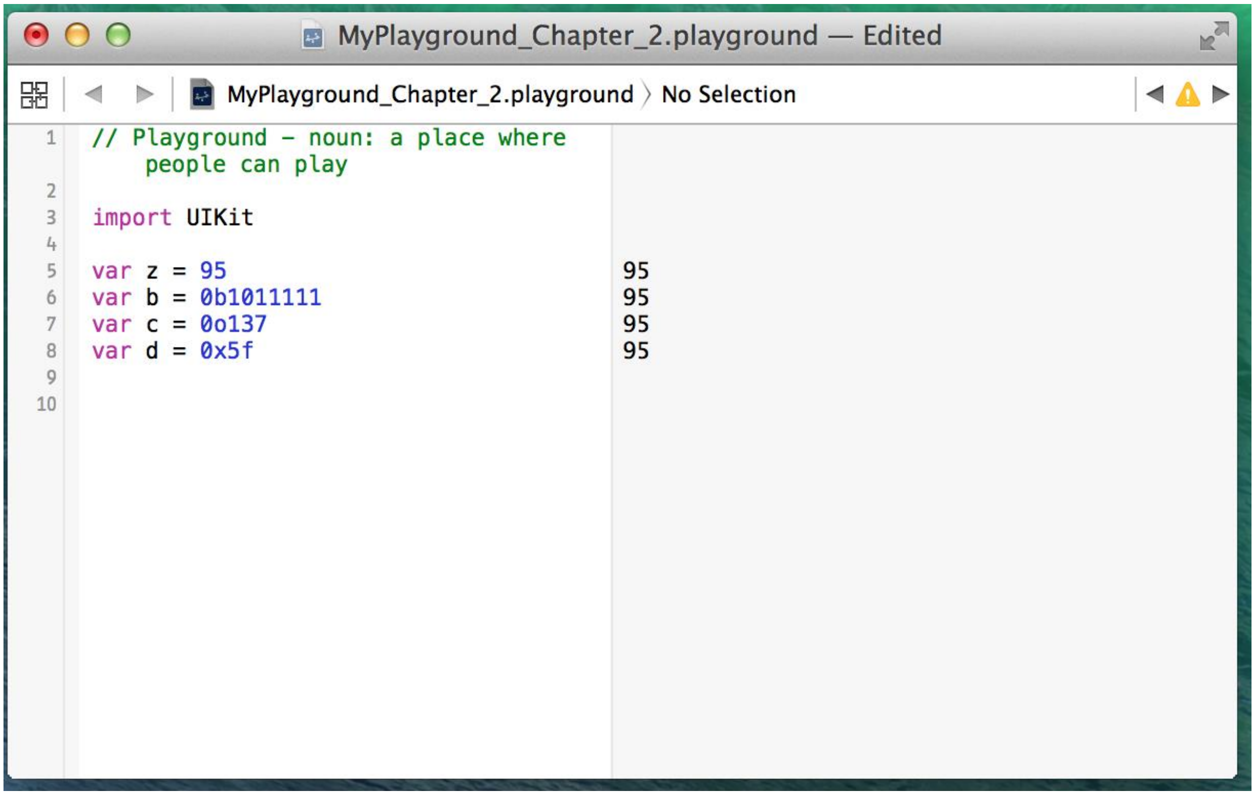
```
// Playground - noun: a place where people can play

import UIKit

let speedOfLightKmSec = 300000                                  300,000
var highTemperture = 15                                         15

highTemperture = 20                                             20

speedOfLightKmSec = 200000      Cannot assign to 'let' value 'speedOfLightKmSec'    300,000

```


MyPlayground_Chapter_2.playground — Edited
MyPlayground_Chapter_2.playground 〉 No Selection

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

import UIKit

var integerVar = 10                                                      10

integerVar = "My String"      Type 'Int' does not conform to protocol 'StringLiteralConvertible'
```

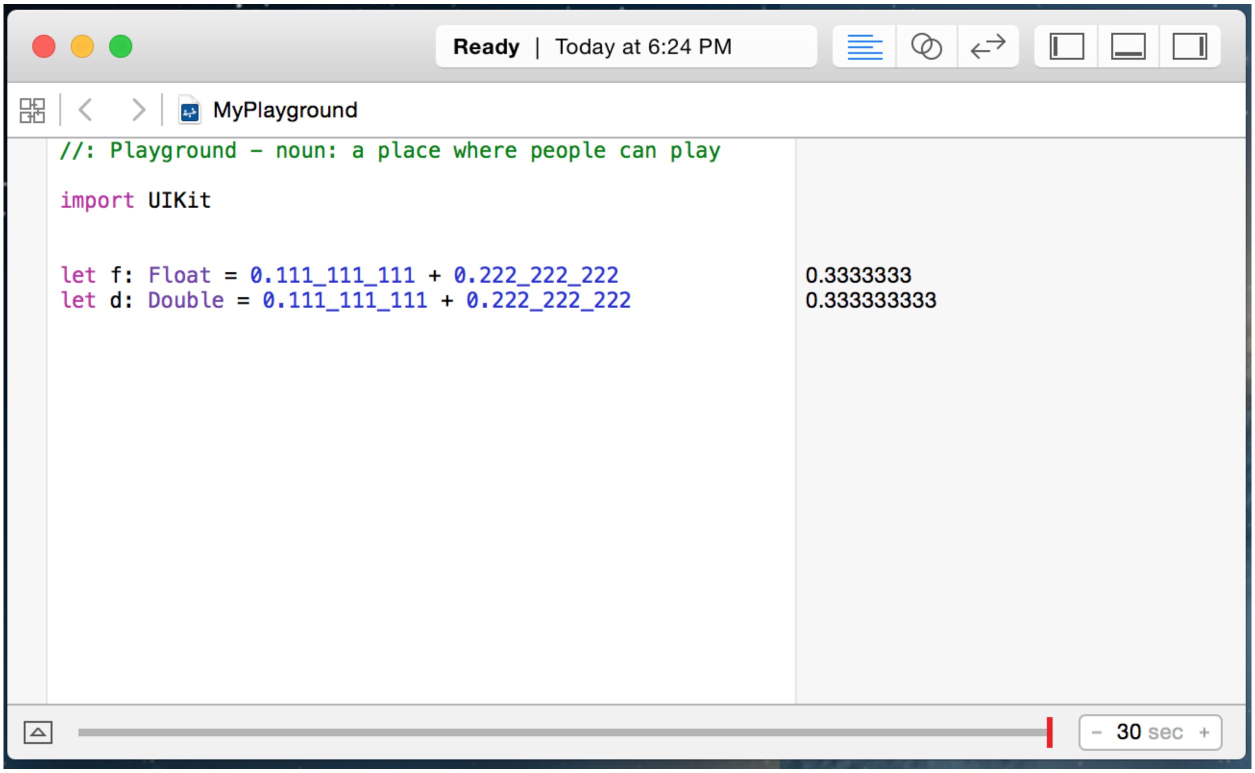

MyPlayground_Chapter_2.playground — Edited
MyPlayground_Chapter_2.playground 〉 No Selection

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

import UIKit

var a = UInt8.max                255
var b = UInt8.min                0

var c = UInt16.max               65,535
var d = UInt16.min               0

var e = UInt32.max               4,294,967,295
var f = UInt32.min               0

var g = UInt64.max               18446744073709551615
var h = UInt64.min               0

var j = UInt.max                 18446744073709551615
var k = UInt.min                 0

var l = Int8.max                 127
var m = Int8.min                 -128

var n = Int16.max                32,767
var o = Int16.min                -32,768

var p = Int32.max                2,147,483,647
var q = Int32.min                -2,147,483,648

var r = Int64.max                9,223,372,036,854,775,807
var s = Int64.min                -9,223,372,036,854,775,808

var t = Int.max                  9,223,372,036,854,775,807
var u = Int.min                  -9,223,372,036,854,775,808
```


MyPlayground_Chapter_2.playground — Edited
MyPlayground_Chapter_2.playground
No Selection

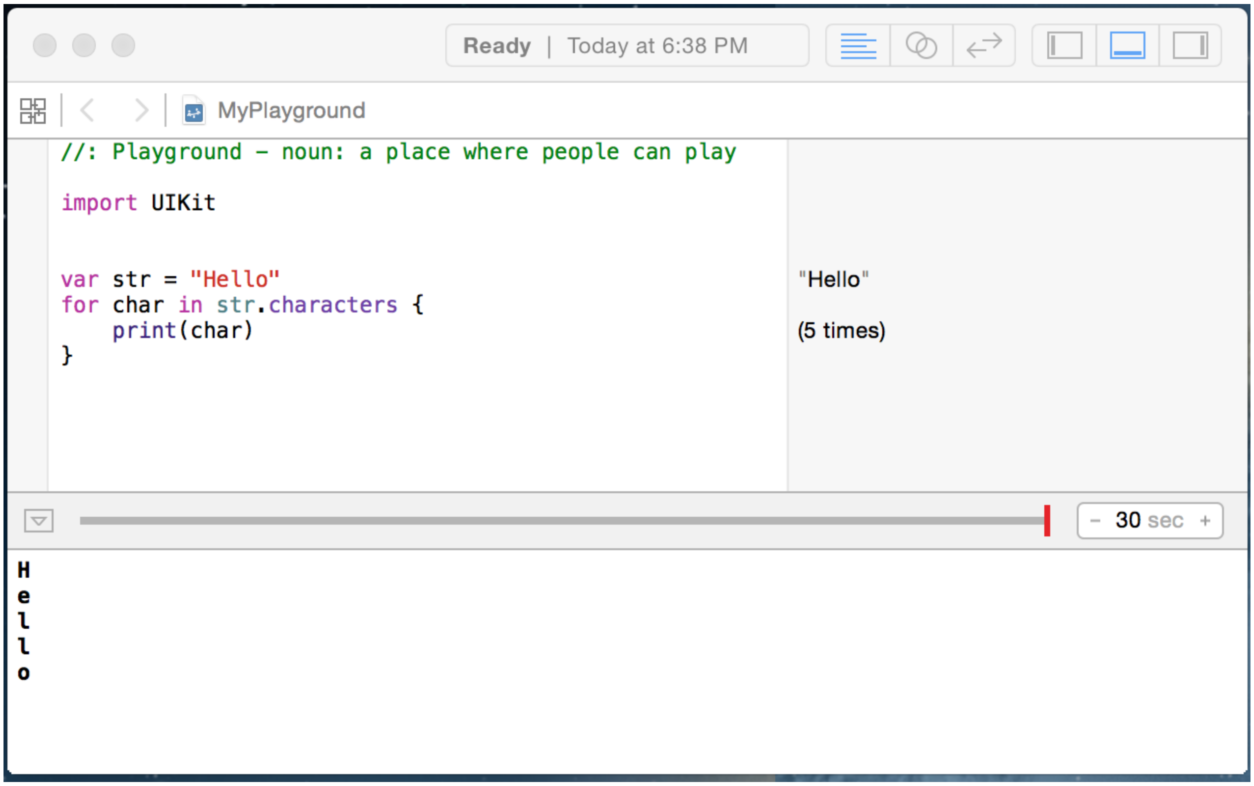
```
// Playground - noun: a place where people can play

import UIKit

var z = 95
var b = 0b1011111
var c = 0o137
var d = 0x5f
```

```
95
95
95
95
```



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

import UIKit


let f: Float = 0.111_111_111 + 0.222_222_222
let d: Double = 0.111_111_111 + 0.222_222_222
```

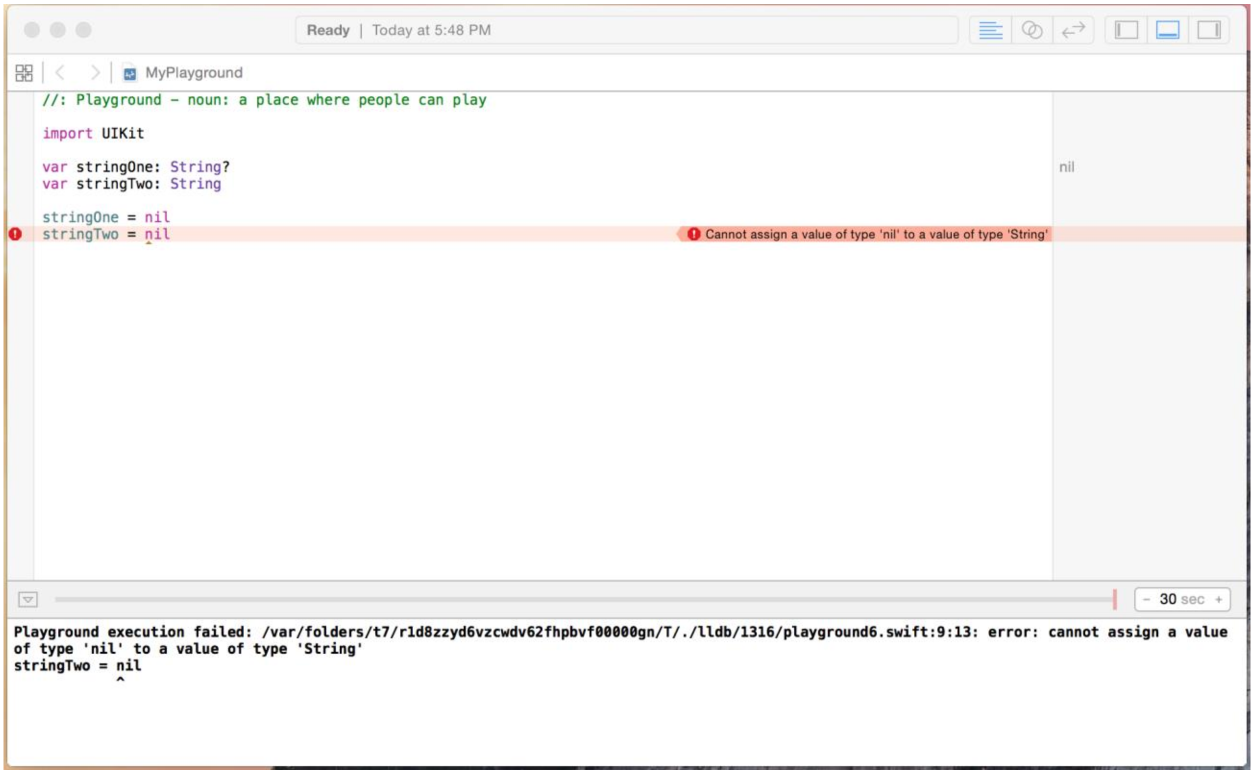
```
0.3333333
0.333333333
```



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

import UIKit


var str = "Hello"
for char in str.characters {
    print(char)
}
```

```
"Hello"

(5 times)
```

```
H
e
l
l
o
```

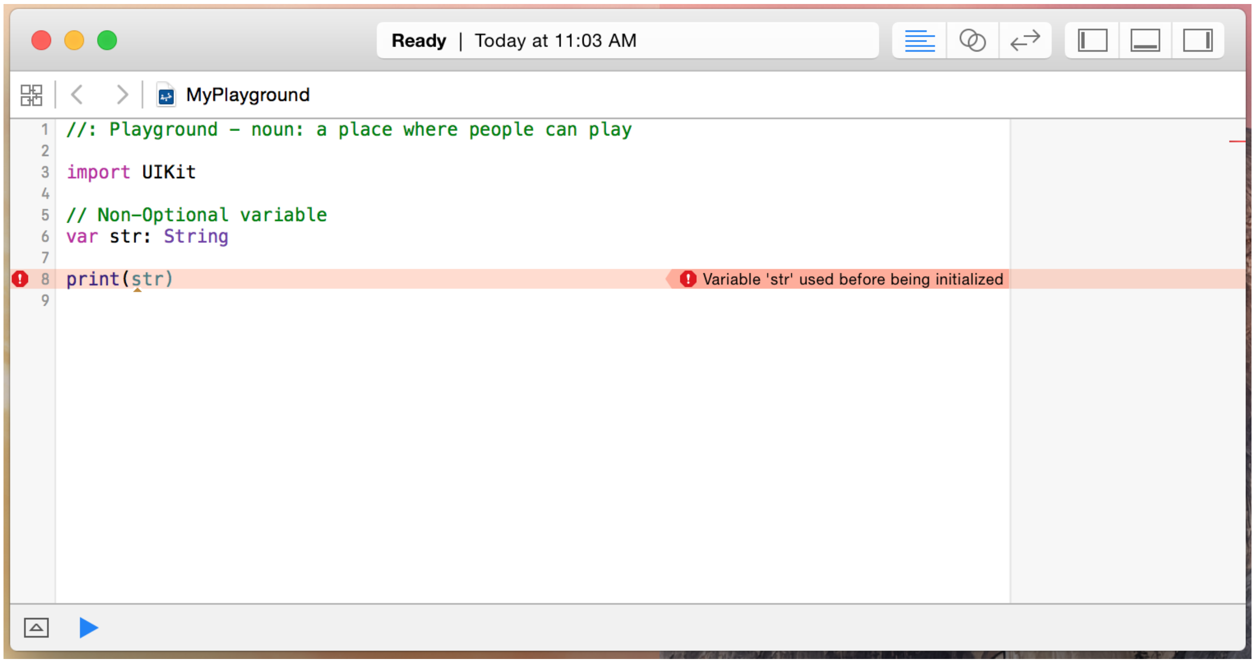


```
//: Playground - noun: a place where people can play

import UIKit

var stringOne: String?
var stringTwo: String

stringOne = nil
stringTwo = nil
```

```
nil
```

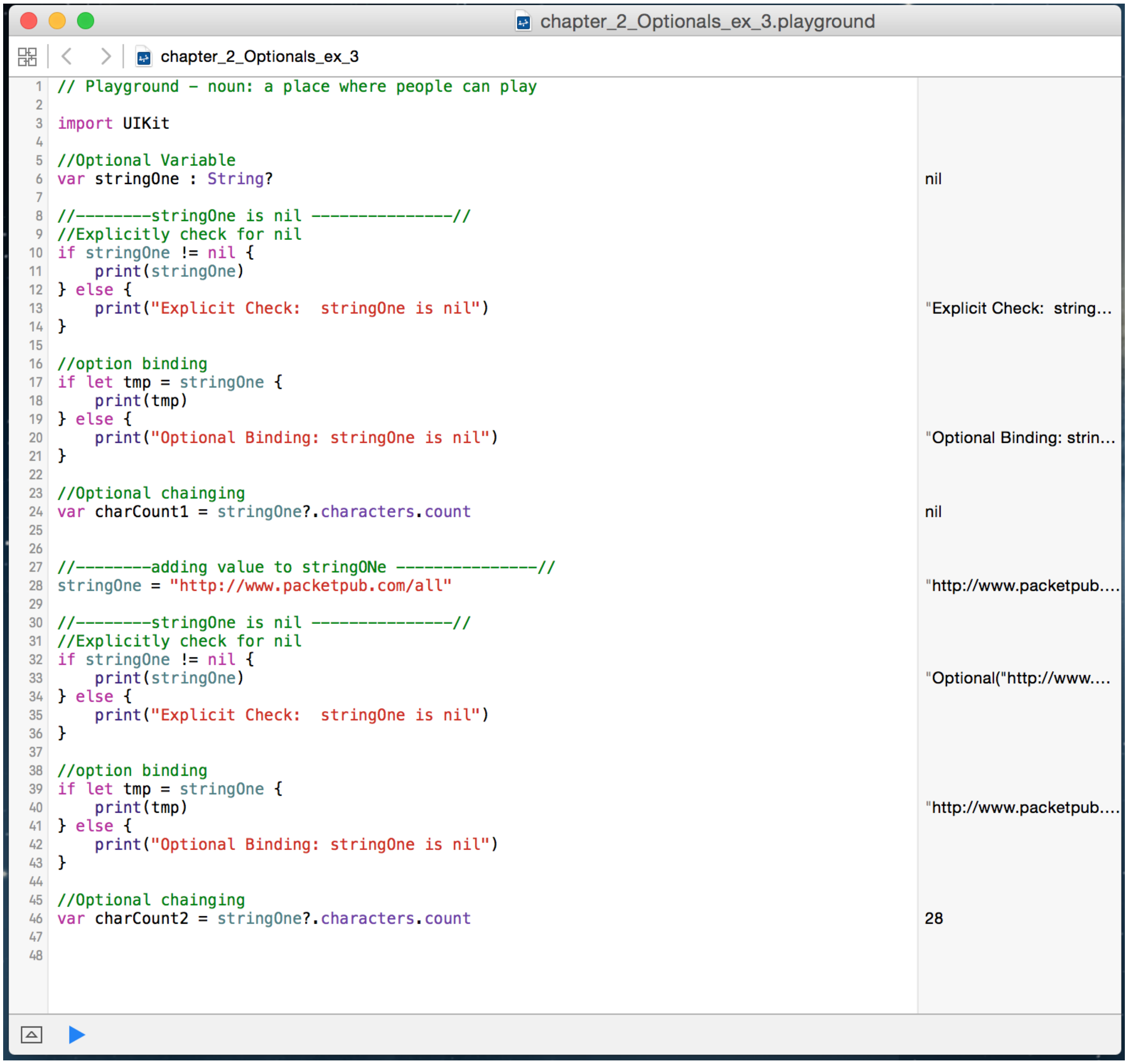
Cannot assign a value of type 'nil' to a value of type 'String'

```
Playground execution failed: /var/folders/t7/r1d8zzyd6vzcwdv62fhpbvf00000gn/T/./lldb/1316/playground6.swift:9:13: error: cannot assign a value
of type 'nil' to a value of type 'String'
stringTwo = nil
            ^
```



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

import UIKit

// Non-Optional variable
var str: String

print(str)
```

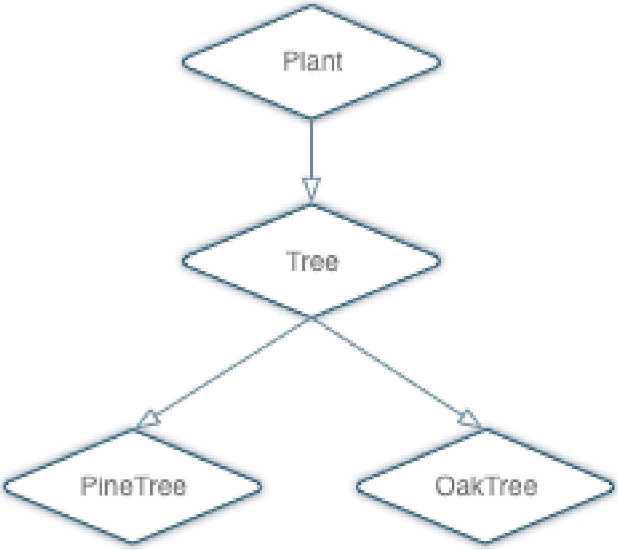
Variable 'str' used before being initialized



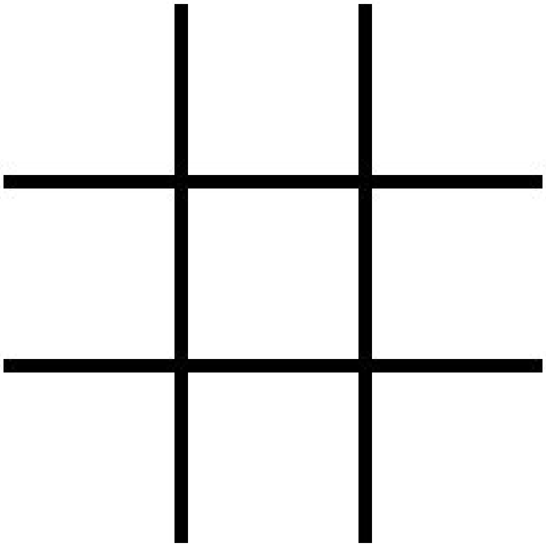
```swift
// Playground - noun: a place where people can play

import UIKit

//Optional Variable
var stringOne : String?

//--------stringOne is nil ---------------//
//Explicitly check for nil
if stringOne != nil {
    print(stringOne)
} else {
    print("Explicit Check:  stringOne is nil")
}

//option binding
if let tmp = stringOne {
    print(tmp)
} else {
    print("Optional Binding: stringOne is nil")
}

//Optional chainging
var charCount1 = stringOne?.characters.count


//--------adding value to stringONe ---------------//
stringOne = "http://www.packetpub.com/all"

//--------stringOne is nil ---------------//
//Explicitly check for nil
if stringOne != nil {
    print(stringOne)
} else {
    print("Explicit Check:  stringOne is nil")
}

//option binding
if let tmp = stringOne {
    print(tmp)
} else {
    print("Optional Binding: stringOne is nil")
}

//Optional chainging
var charCount2 = stringOne?.characters.count
```

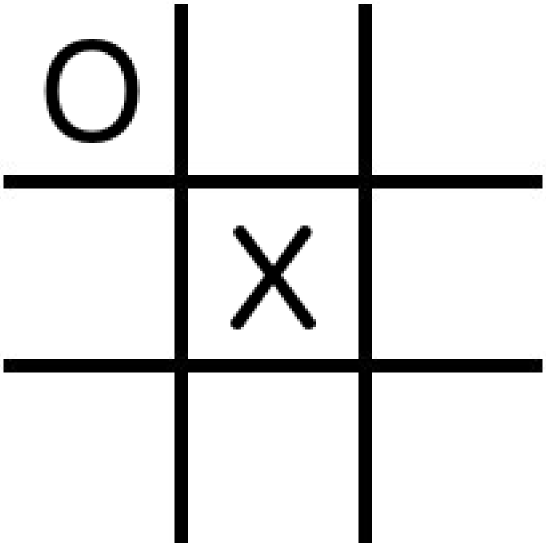
```
nil
"Explicit Check:  string...
"Optional Binding: strin...
nil
"http://www.packetpub....
"Optional("http://www....
"http://www.packetpub....
28
```

Chapter 5: Classes and Structures

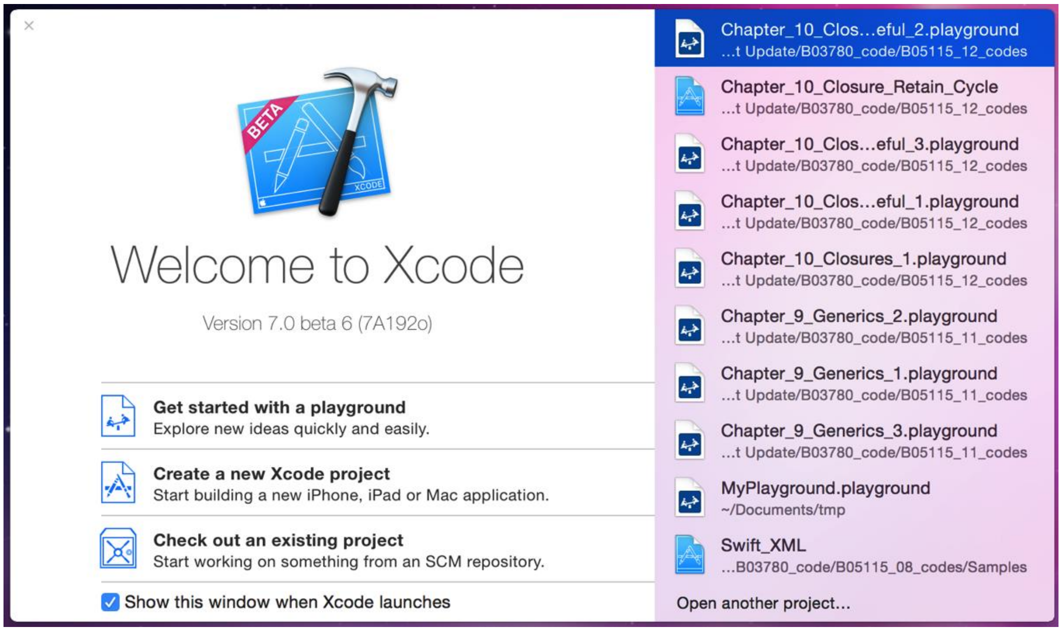


Chapter 9: Custom Subscripting




O
X

Chapter 13: Using Mix and Match



Welcome to Xcode

Version 7.0 beta 6 (7A192o)

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

Chapter_10_Clos…eful_2.playground
…t Update/B03780_code/B05115_12_codes

Chapter_10_Closure_Retain_Cycle
…t Update/B03780_code/B05115_12_codes

Chapter_10_Clos…eful_3.playground
…t Update/B03780_code/B05115_12_codes

Chapter_10_Clos…eful_1.playground
…t Update/B03780_code/B05115_12_codes

Chapter_10_Closures_1.playground
…t Update/B03780_code/B05115_12_codes

Chapter_9_Generics_2.playground
…t Update/B03780_code/B05115_11_codes

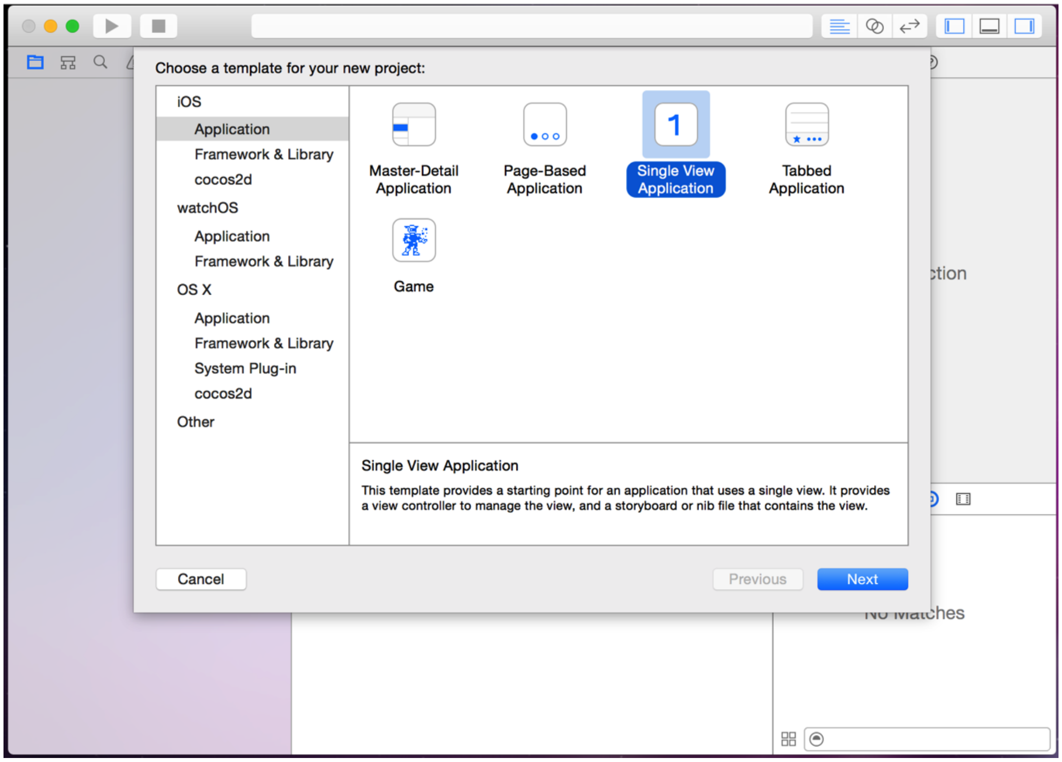
Chapter_9_Generics_1.playground
…t Update/B03780_code/B05115_11_codes

Chapter_9_Generics_3.playground
…t Update/B03780_code/B05115_11_codes

MyPlayground.playground
~/Documents/tmp

Swift_XML
…B03780_code/B05115_08_codes/Samples

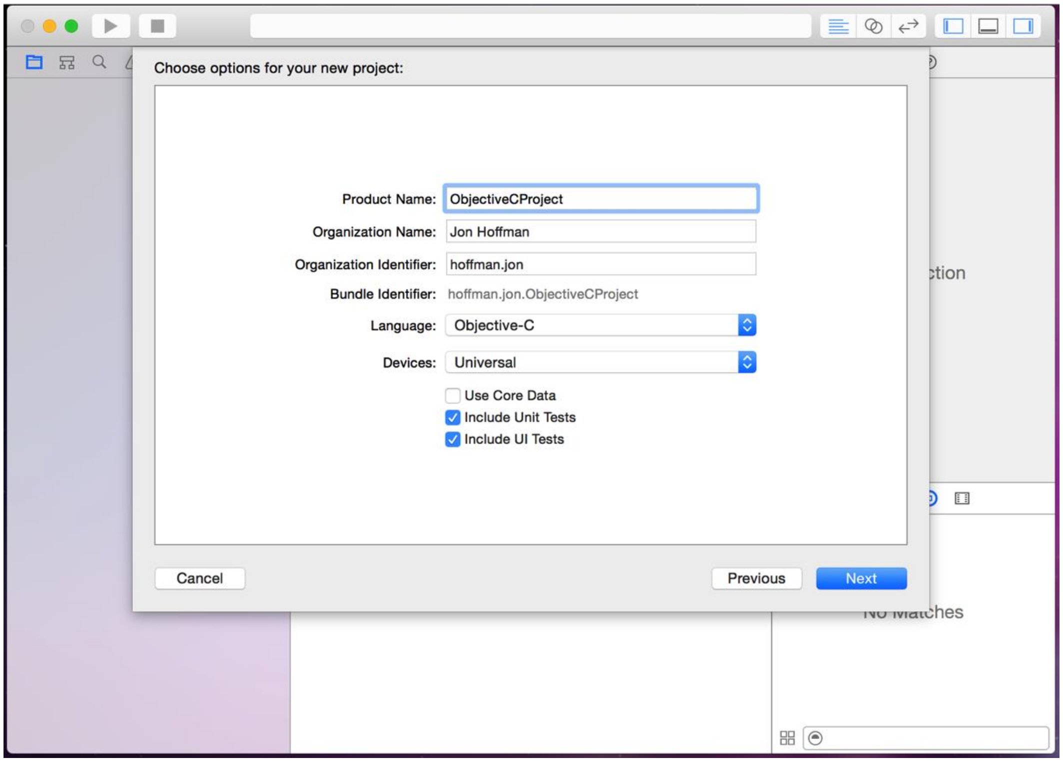
Open another project…



Choose a template for your new project:

Single View Application

This template provides a starting point for an application that uses a single view. It provides a view controller to manage the view, and a storyboard or nib file that contains the view.



Choose options for your new project:

Product Name: ObjectiveCProject

Organization Name: Jon Hoffman

Organization Identifier: hoffman.jon

Bundle Identifier: hoffman.jon.ObjectiveCProject

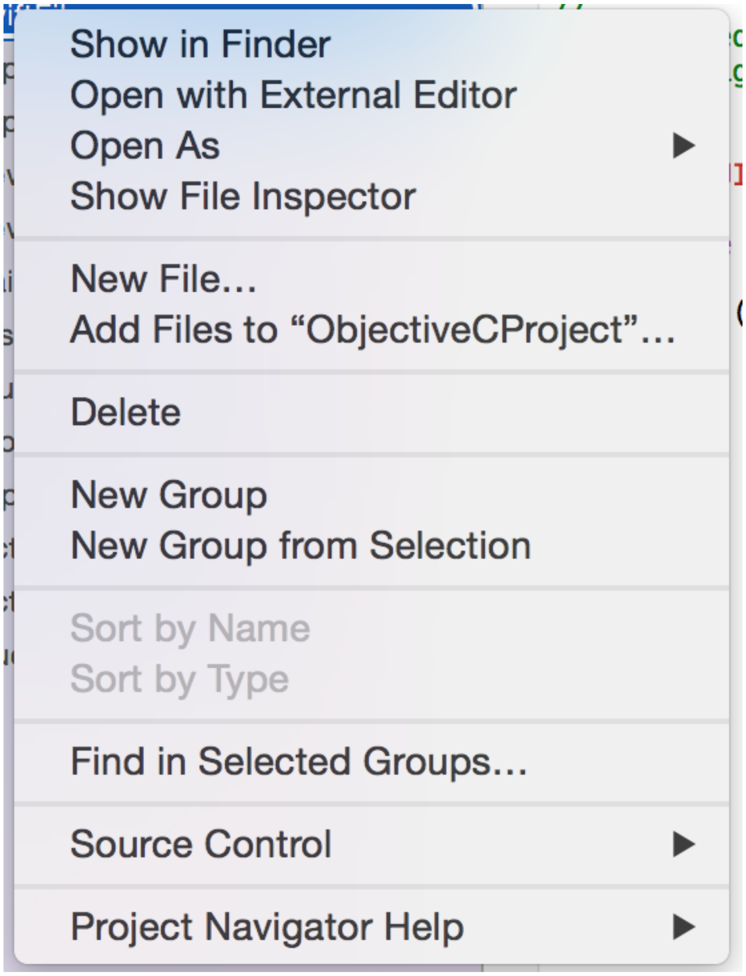
Language: Objective-C

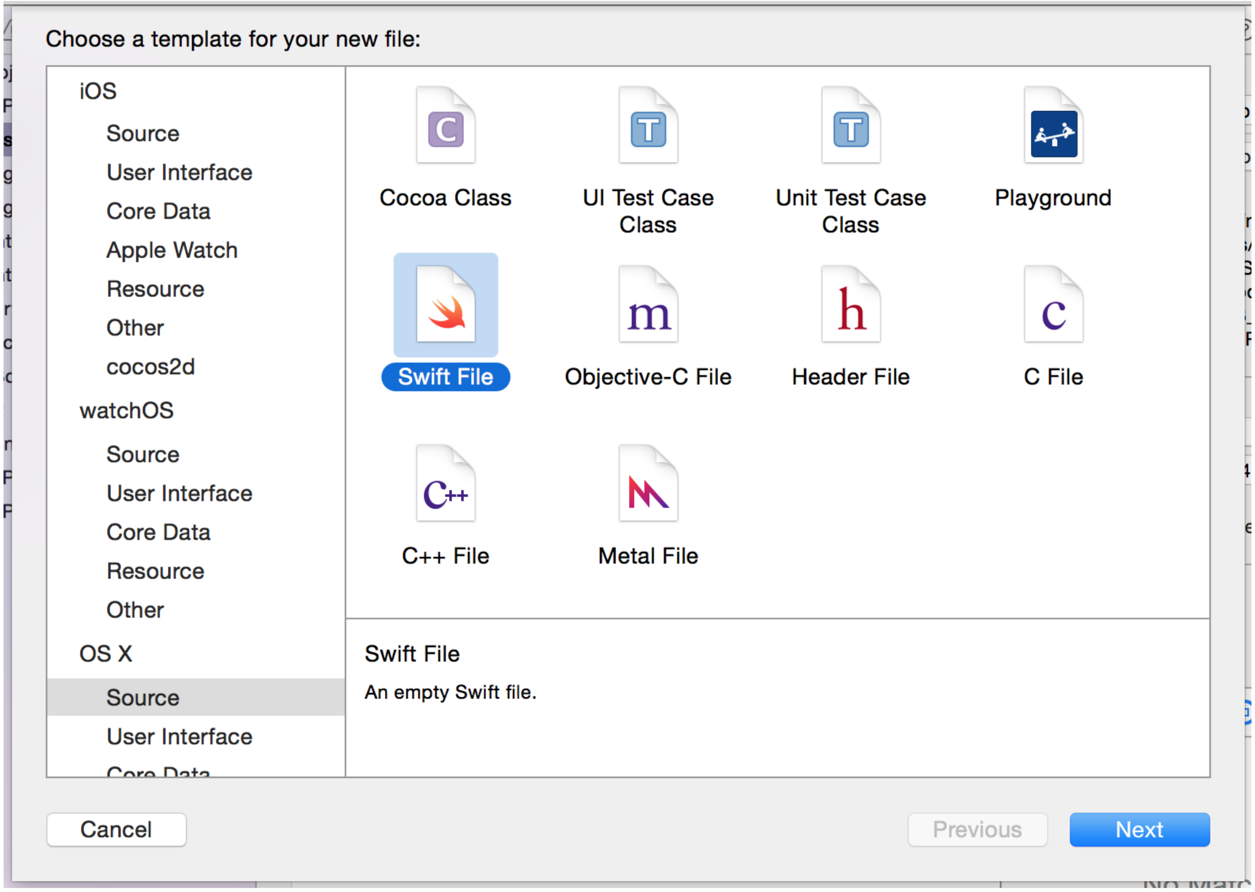
Devices: Universal

☐ Use Core Data

☑ Include Unit Tests

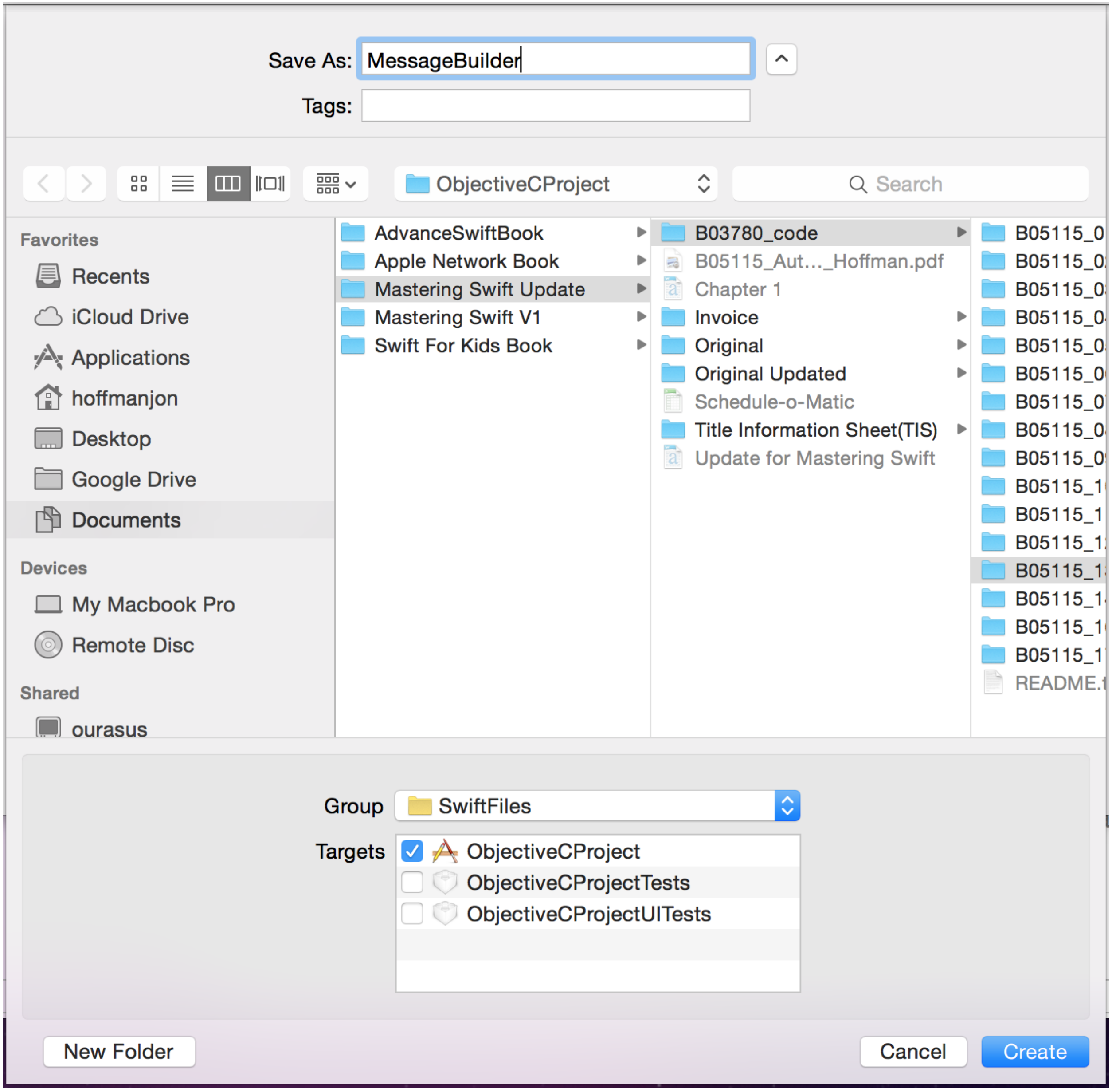
☑ Include UI Tests


Show in Finder
Open with External Editor
Open As
Show File Inspector
New File…
Add Files to “ObjectiveCProject”…
Delete
New Group
New Group from Selection
Sort by Name
Sort by Type
Find in Selected Groups…
Source Control
Project Navigator Help


Choose a template for your new file:

Swift File

An empty Swift file.

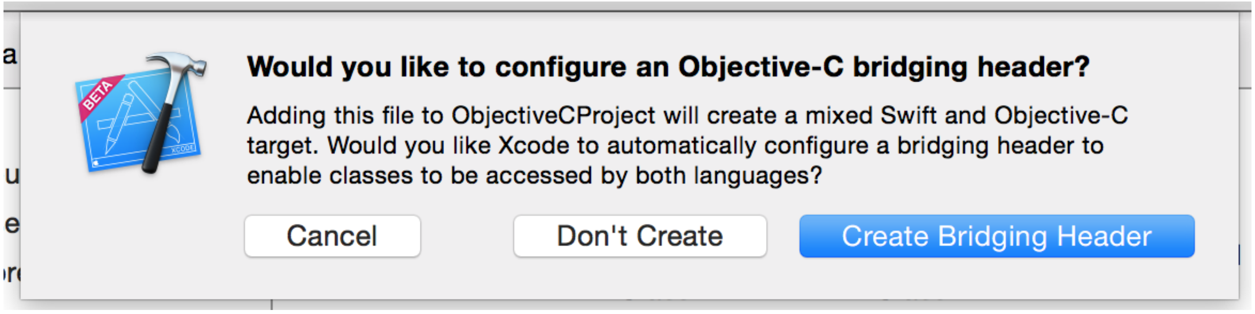


Save As: MessageBuilder

Tags:

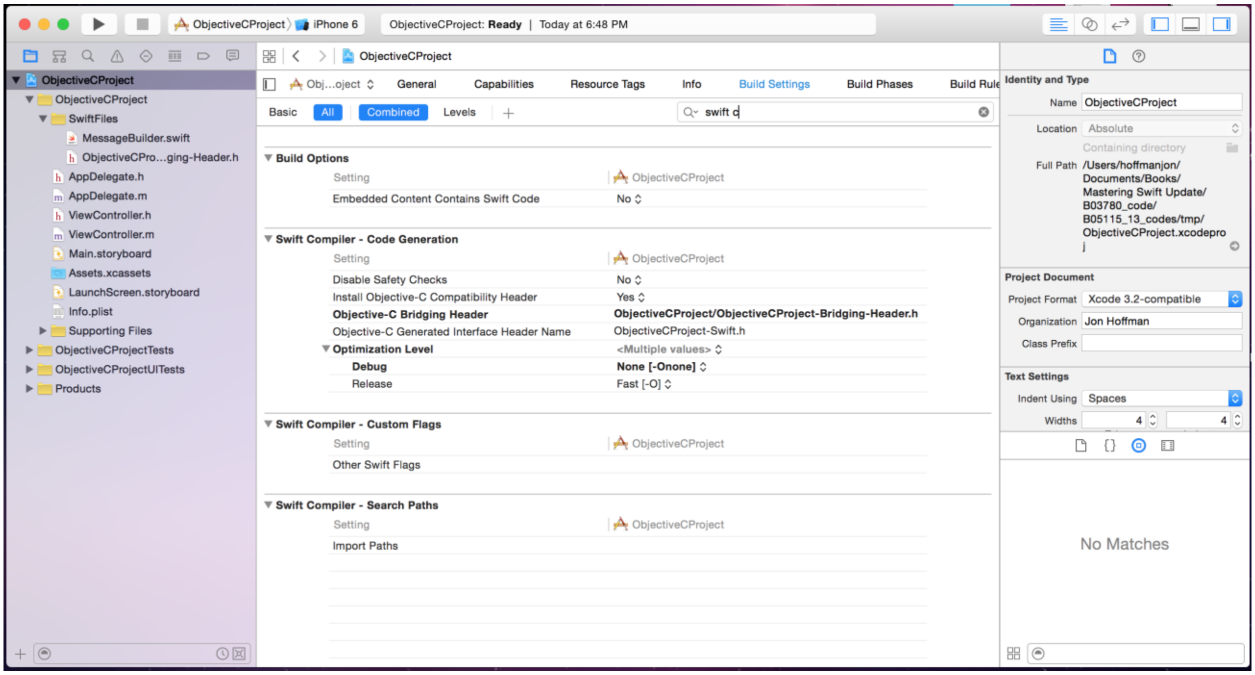
Group: SwiftFiles

Targets:
- ☑ ObjectiveCProject
- ☐ ObjectiveCProjectTests
- ☐ ObjectiveCProjectUITests



Would you like to configure an Objective-C bridging header?

Adding this file to ObjectiveCProject will create a mixed Swift and Objective-C target. Would you like Xcode to automatically configure a bridging header to enable classes to be accessed by both languages?



swift c

Build Options

Setting	ObjectiveCProject
Embedded Content Contains Swift Code	No

Swift Compiler - Code Generation

Setting	ObjectiveCProject
Disable Safety Checks	No
Install Objective-C Compatibility Header	Yes
Objective-C Bridging Header	**ObjectiveCProject/ObjectiveCProject-Bridging-Header.h**
Objective-C Generated Interface Header Name	ObjectiveCProject-Swift.h
Optimization Level	<Multiple values>
Debug	**None [-Onone]**
Release	Fast [-O]

Swift Compiler - Custom Flags

Setting	ObjectiveCProject
Other Swift Flags	

Swift Compiler - Search Paths

Setting	ObjectiveCProject
Import Paths	

Identity and Type

Name: ObjectiveCProject

Location: Absolute

Containing directory

Full Path: /Users/hoffmanjon/Documents/Books/Mastering Swift Update/B03780_code/B05115_13_codes/tmp/ObjectiveCProject.xcodeproj

Project Document

Project Format: Xcode 3.2-compatible

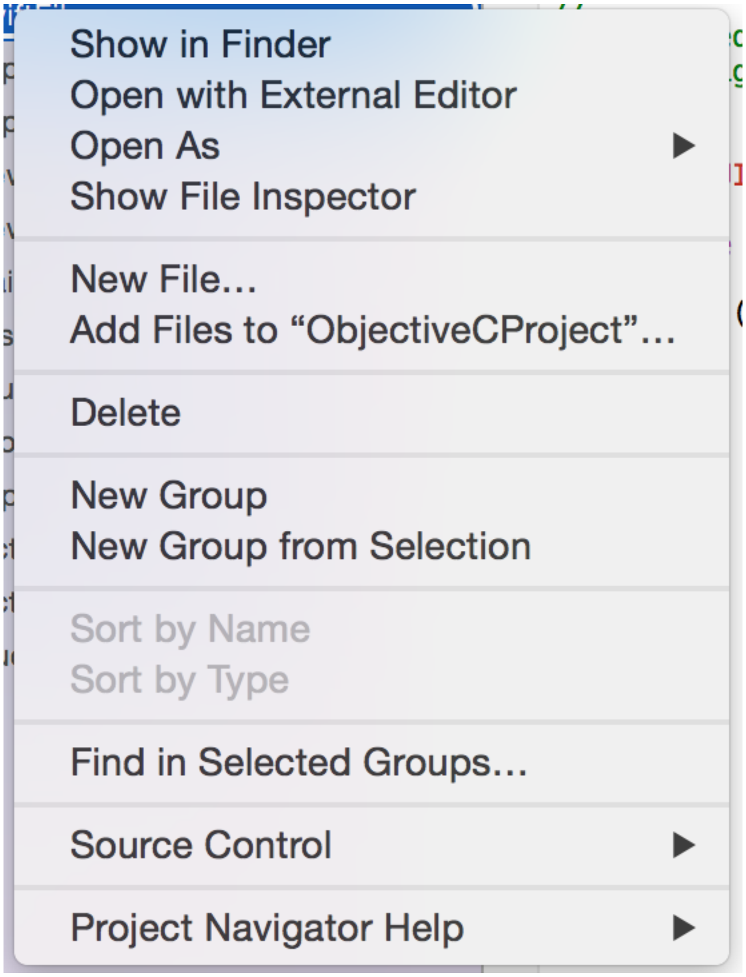
Organization: Jon Hoffman

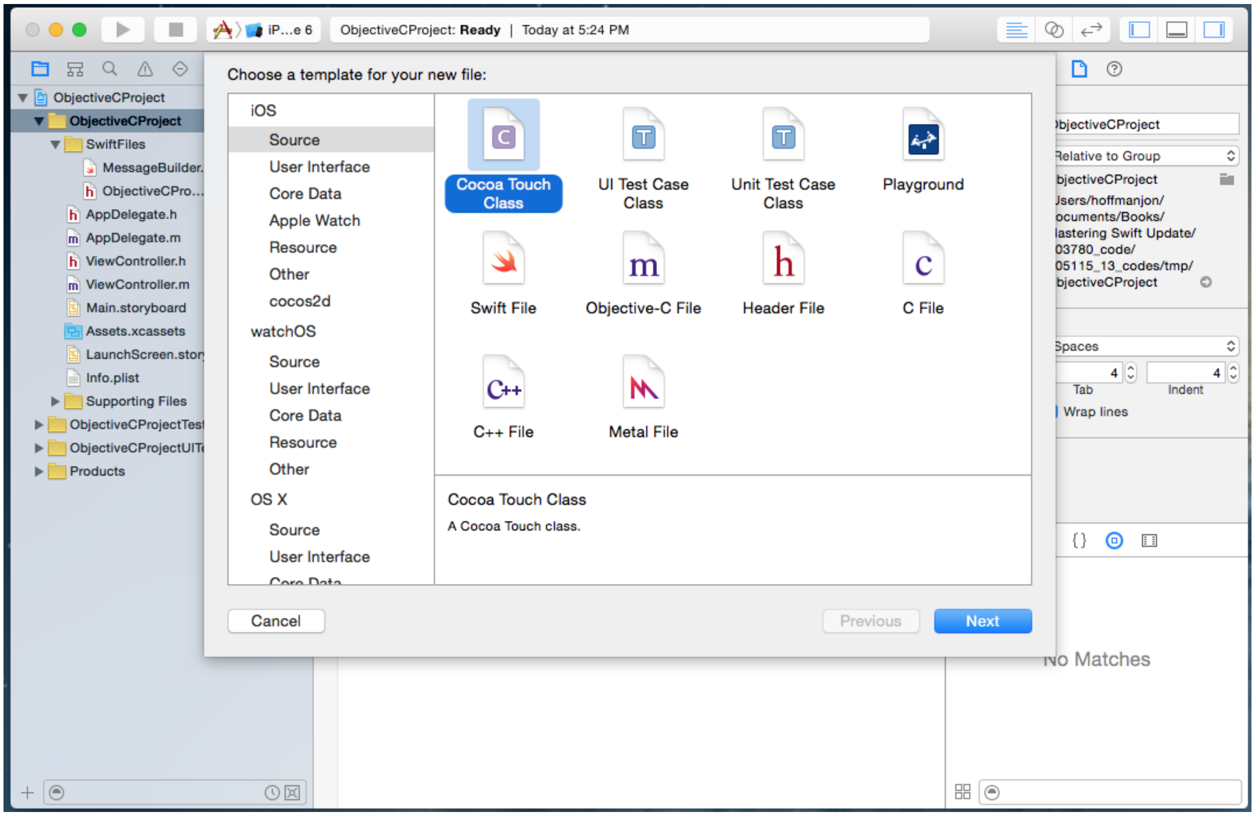
Class Prefix:

Text Settings

Indent Using: Spaces

Widths: 4 4

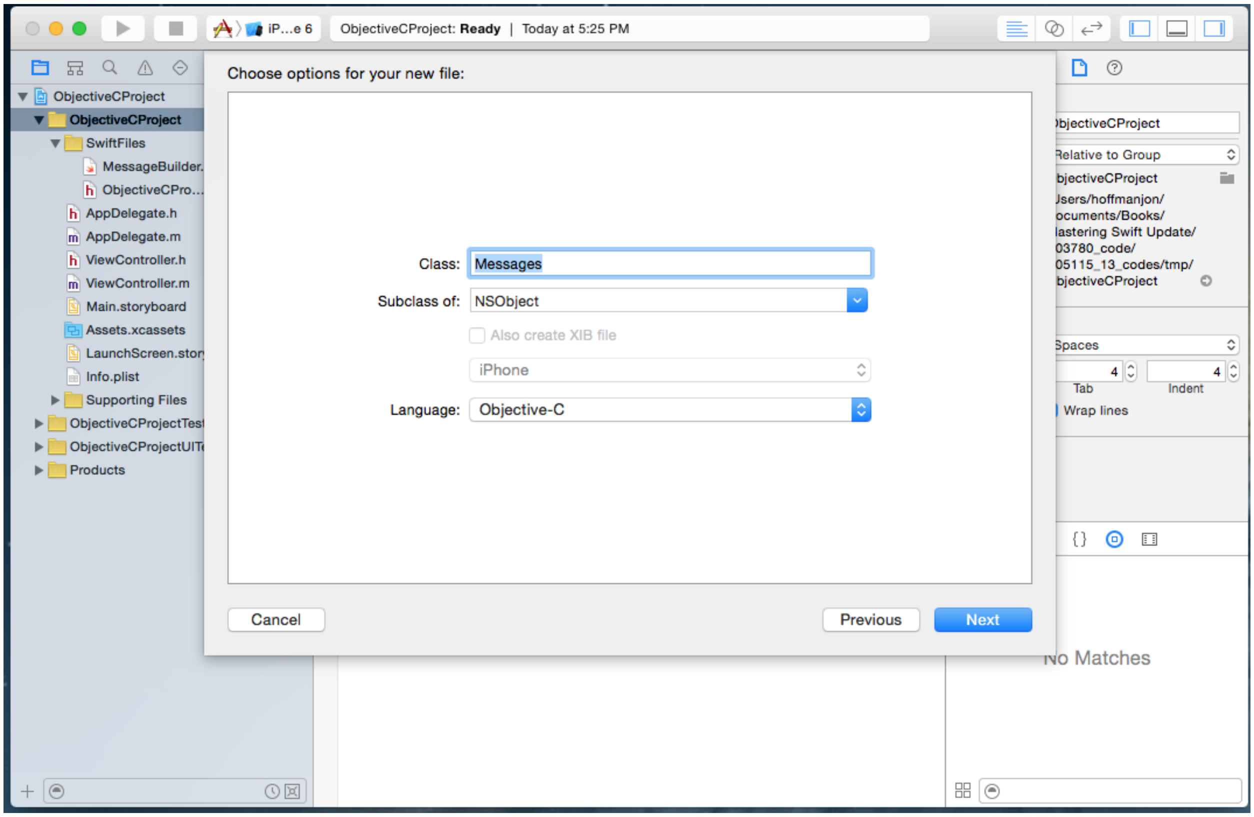




Choose a template for your new file:

Cocoa Touch Class

A Cocoa Touch class.



Choose options for your new file:

Class: Messages

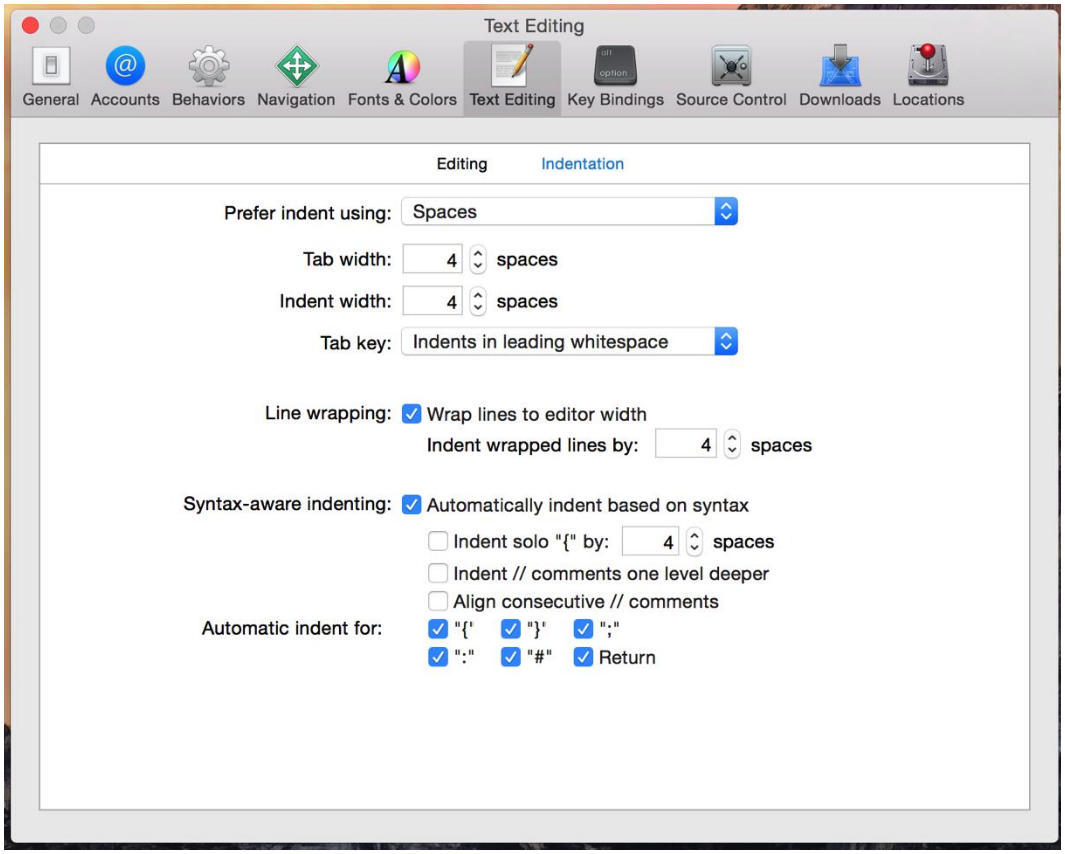
Subclass of: NSObject

□ Also create XIB file

iPhone

Language: Objective-C

Chapter 15: Swift Formatting and Style Guide



Prefer indent using: Spaces

Tab width: 4 spaces

Indent width: 4 spaces

Tab key: Indents in leading whitespace

Line wrapping: ☑ Wrap lines to editor width

Indent wrapped lines by: 4 spaces

Syntax-aware indenting: ☑ Automatically indent based on syntax

□ Indent solo "{" by: 4 spaces

□ Indent // comments one level deeper

□ Align consecutive // comments

Automatic indent for: ☑ "{' ☑ "}' ☑ ";"

☑ ":" ☑ "#" ☑ Return