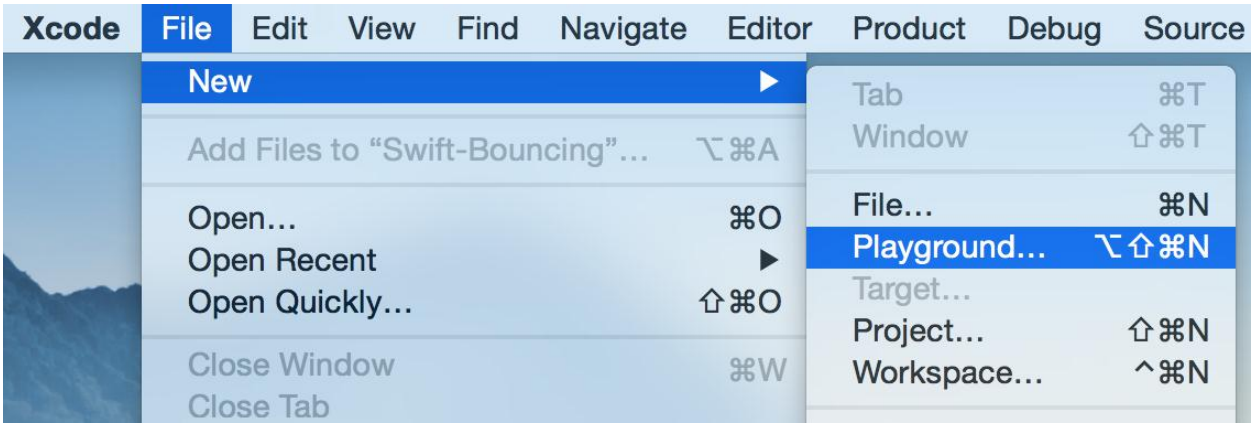
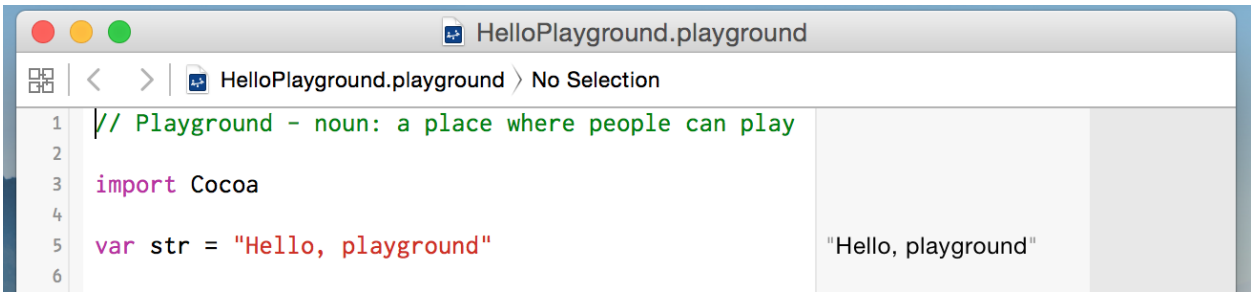
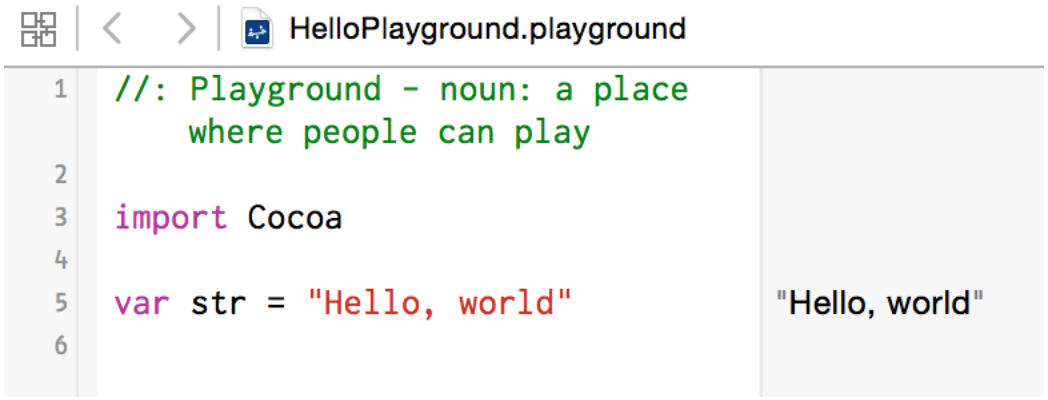
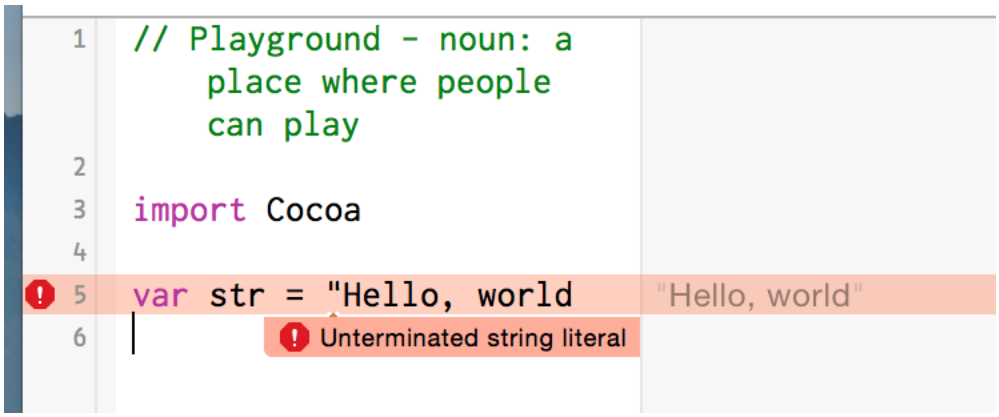
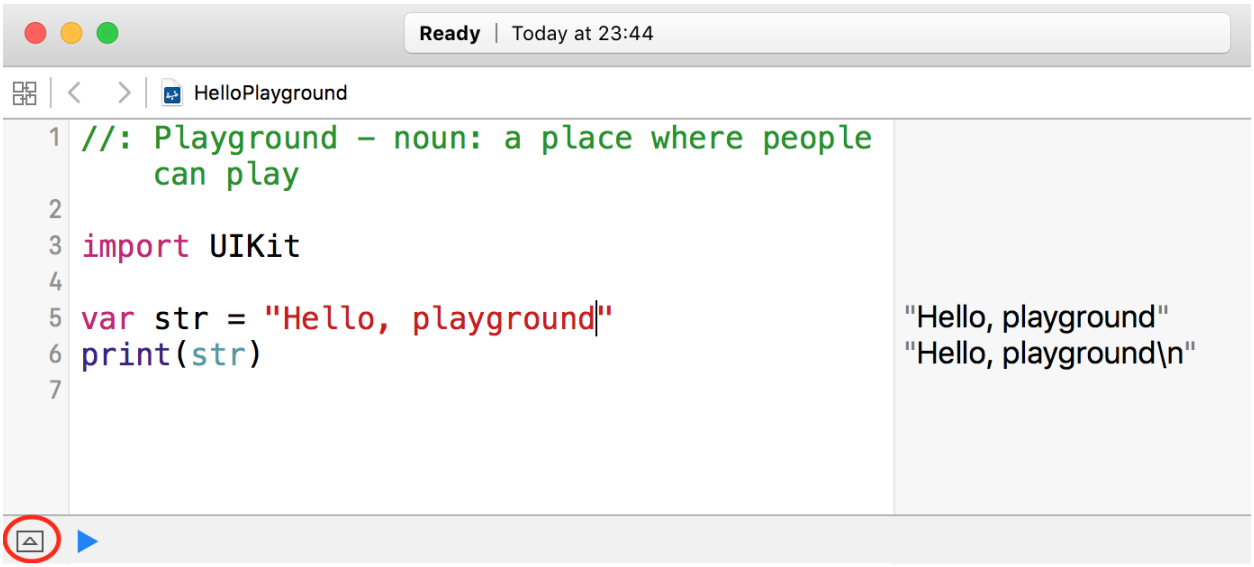
Chapter 1 :Welcome to the World of Swift

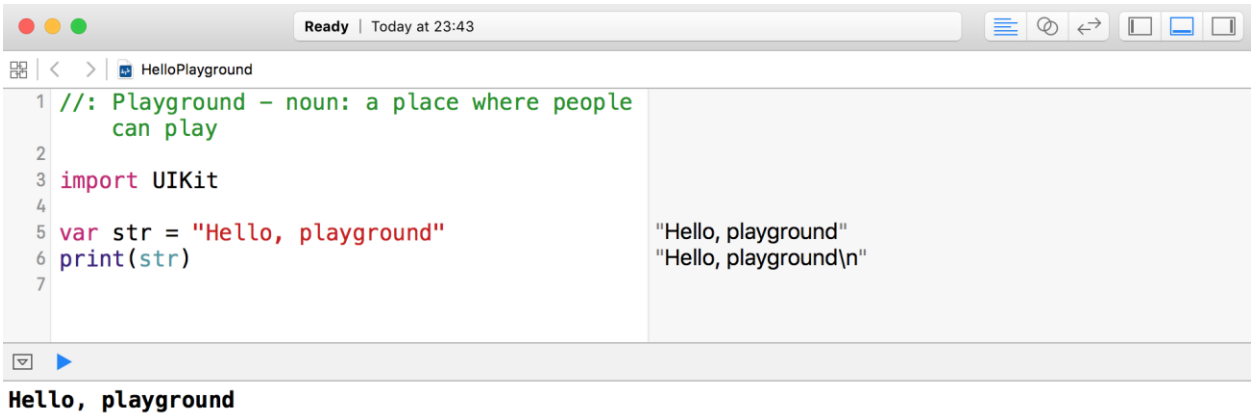








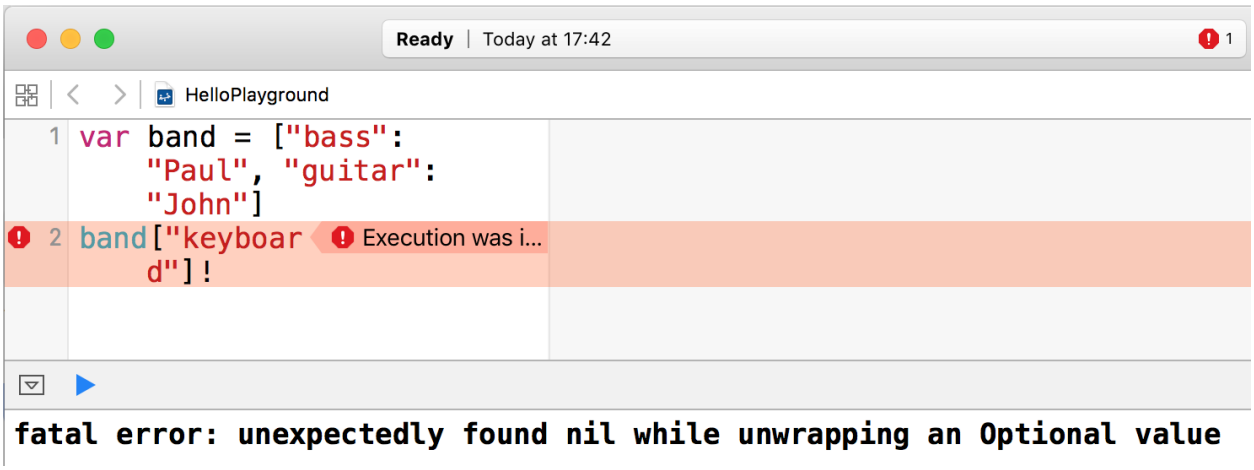


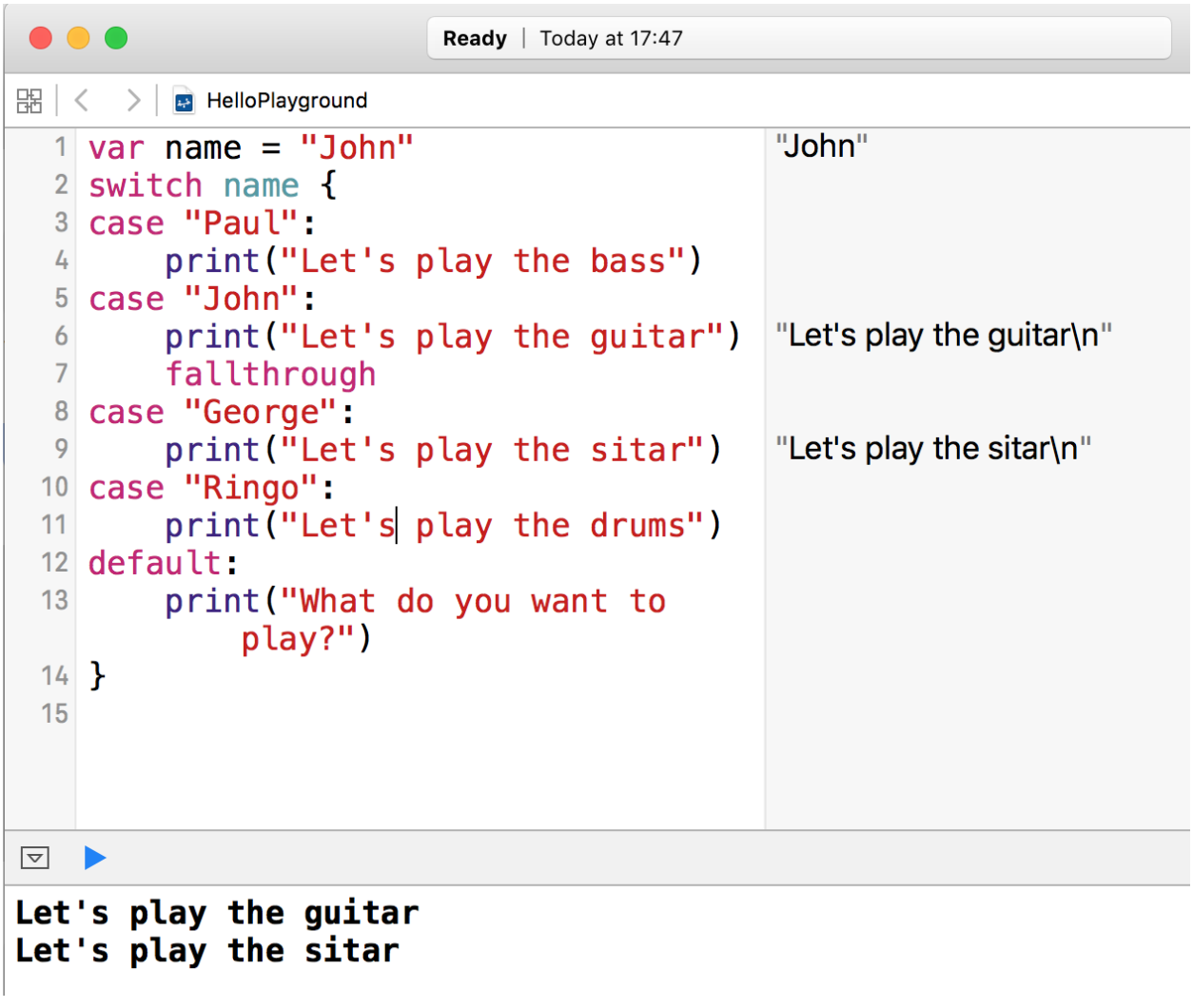


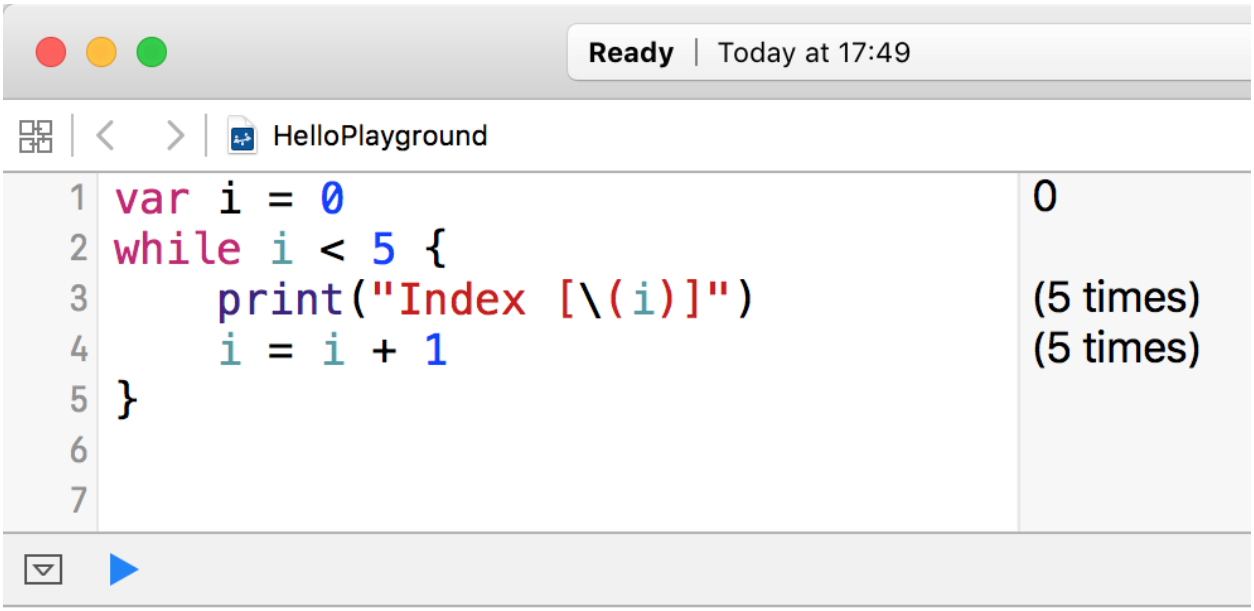

```
Hello, playground
```

```
Playground execution failed: /var/folders/hn/bypbckdd1nnd73xzkjhxlsfc0000gn/T/./lldb/20088/
playground7.swift:3:6: error: cannot assign to value: 'name' is a 'let' constant
name = "John"
~~~~ ^
/var/folders/hn/bypbckdd1nnd73xzkjhxlsfc0000gn/T/./lldb/20088/playground7.swift:1:1: note:
change 'let' to 'var' to make it mutable
let name: String = "Paul"
^~~
var
/var/folders/hn/bypbckdd1nnd73xzkjhxlsfc0000gn/T/./lldb/20088/playground7.swift:4:5: error:
cannot assign to value: 'age' is a 'let' constant
age = 29
~~~ ^
/var/folders/hn/bypbckdd1nnd73xzkjhxlsfc0000gn/T/./lldb/20088/playground7.swift:2:1: note:
change 'let' to 'var' to make it mutable
let age: Int = 27
^~~
var
```

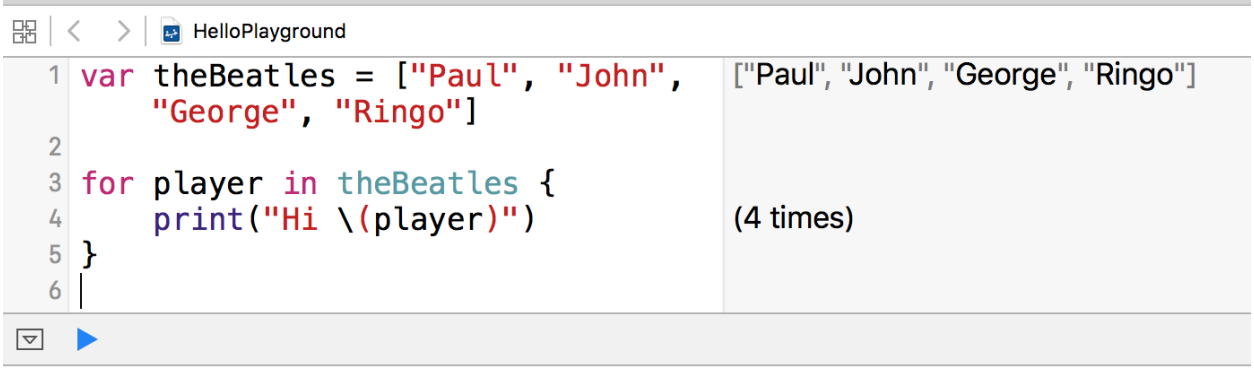
```
Playground execution failed: /var/folders/hn/bypbckdd1nnd73xzkjhxlsfc0000gn/T/./lldb/20088/
playground15.swift:3:8: error: cannot assign value of type 'Int' to type 'String'
name = 29
       ^~
```


Ready | Today at 17:42
1
HelloPlayground
1 var band = ["bass":
"Paul", "guitar":
"John"]
2 band["keyboar
Execution was i...
d"]!
fatal error: unexpectedly found nil while unwrapping an Optional value

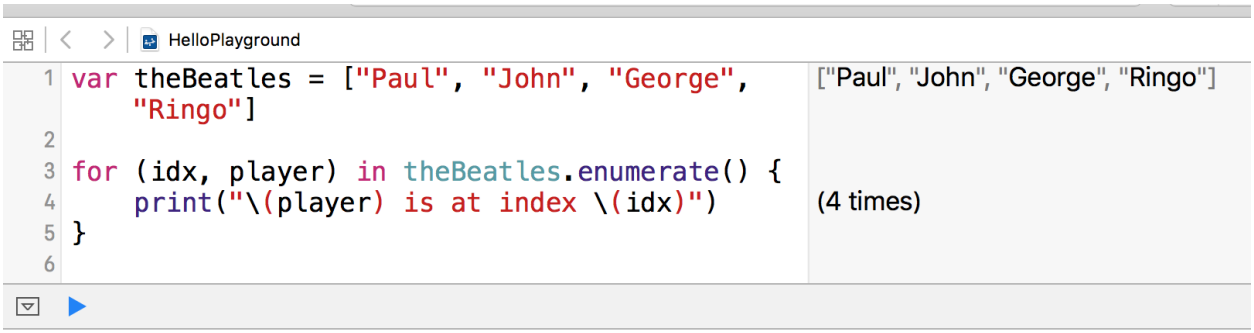

Ready | Today at 17:47
HelloPlayground
1 var name = "John"
2 switch name {
3 case "Paul":
4 print("Let's play the bass")
5 case "John":
6 print("Let's play the guitar")
7 fallthrough
8 case "George":
9 print("Let's play the sitar")
10 case "Ringo":
11 print("Let's play the drums")
12 default:
13 print("What do you want to
play?")
14 }
15
"John"
"Let's play the guitar\n"
"Let's play the sitar\n"
Let's play the guitar
Let's play the sitar




```
Index [0]
Index [1]
Index [2]
Index [3]
Index [4]
```

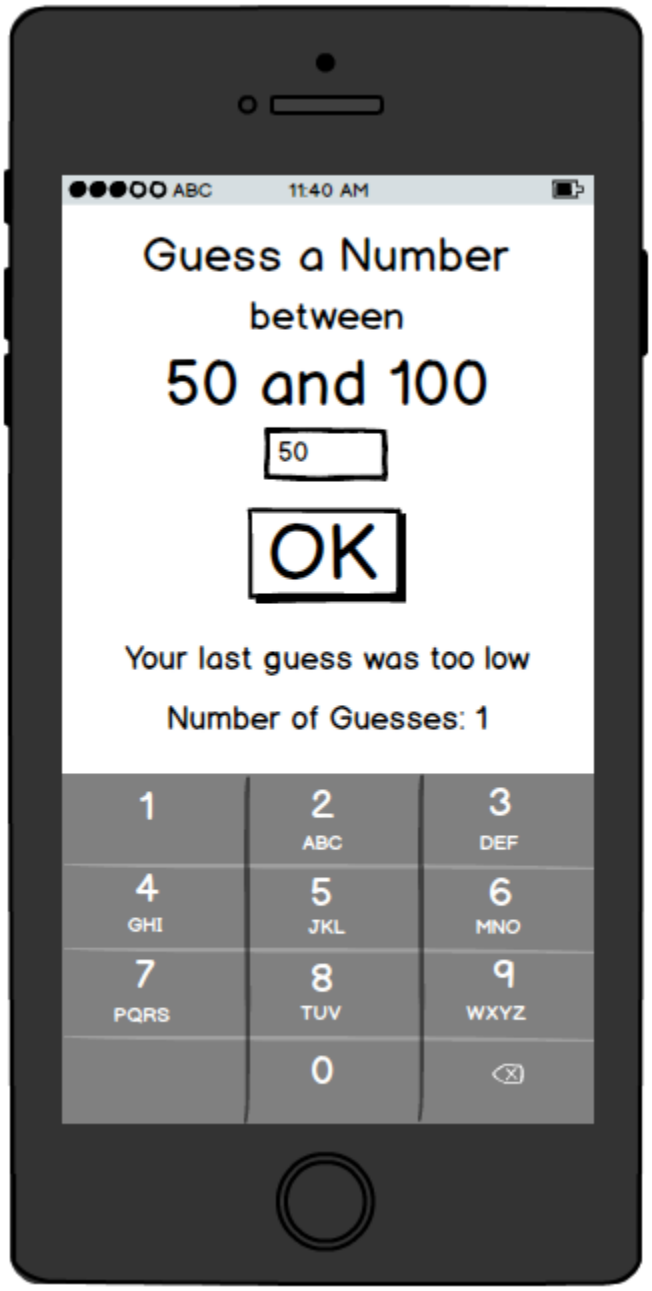



```
Hi Paul
Hi John
Hi George
Hi Ringo
```




```
Paul is at index 0
John is at index 1
George is at index 2
Ringo is at index 3
```

Chapter 2: Building a Guess the Number App


ABC
11:40 AM
Guess a Number
between
50 and 100
50
OK
Your last guess was too low
Number of Guesses: 1
1
2 ABC
3 DEF
4 GHI
5 JKL
6 MNO
7 PQRS
8 TUV
9 WXYZ
0

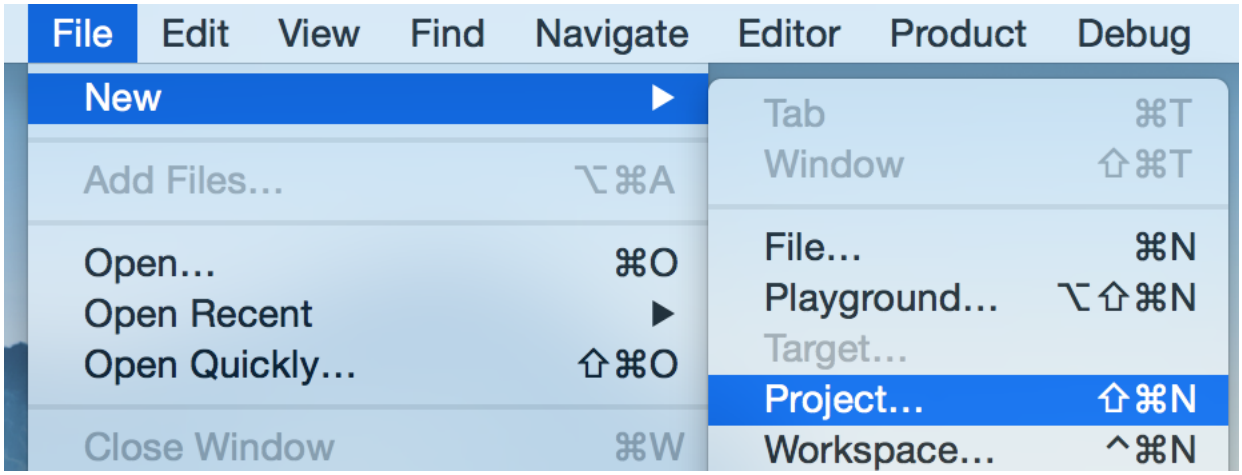
Welcome to Xcode

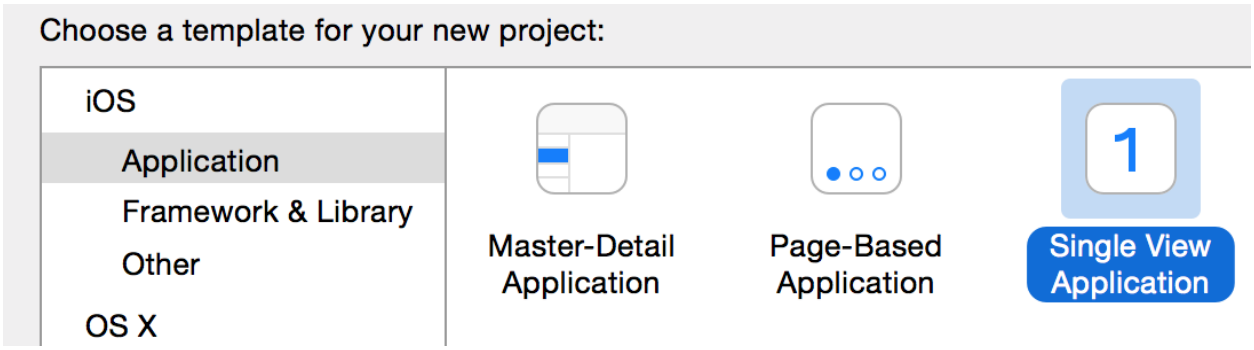
Version 7.3 beta (7D111g)

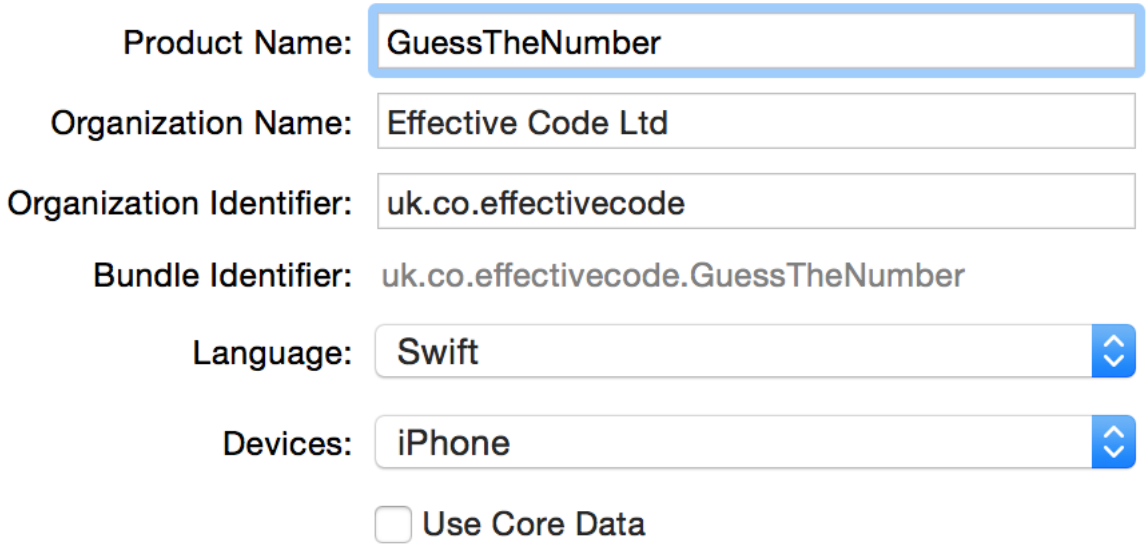
Get started with a playground
Explore new ideas quickly and easily.

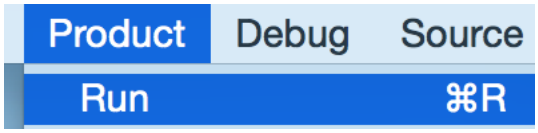
Create a new Xcode project
Start building a new iPhone, iPad or Mac application.

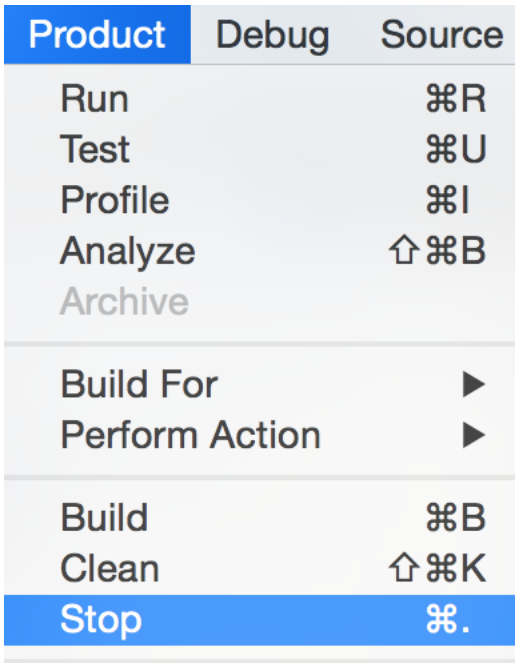
Check out an existing project
Start working on something from an SCM repository.

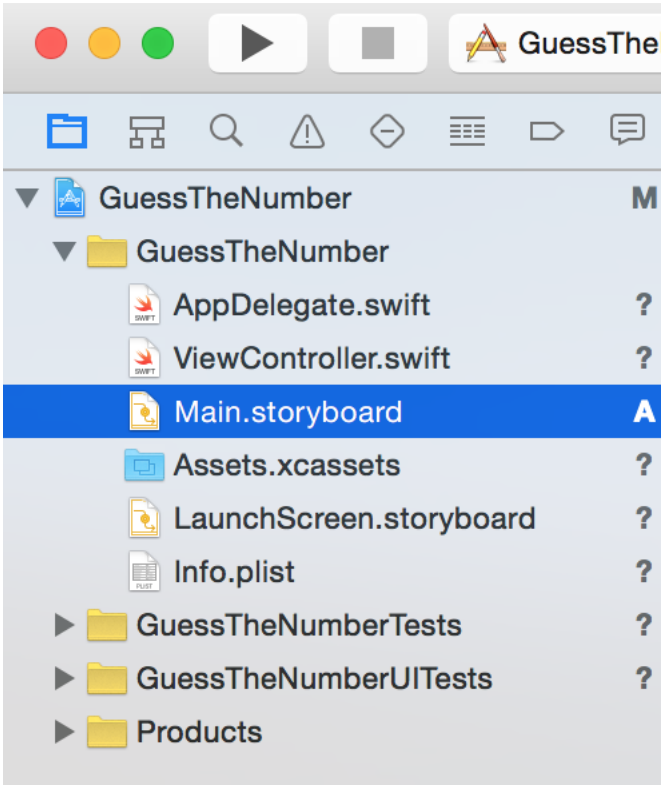


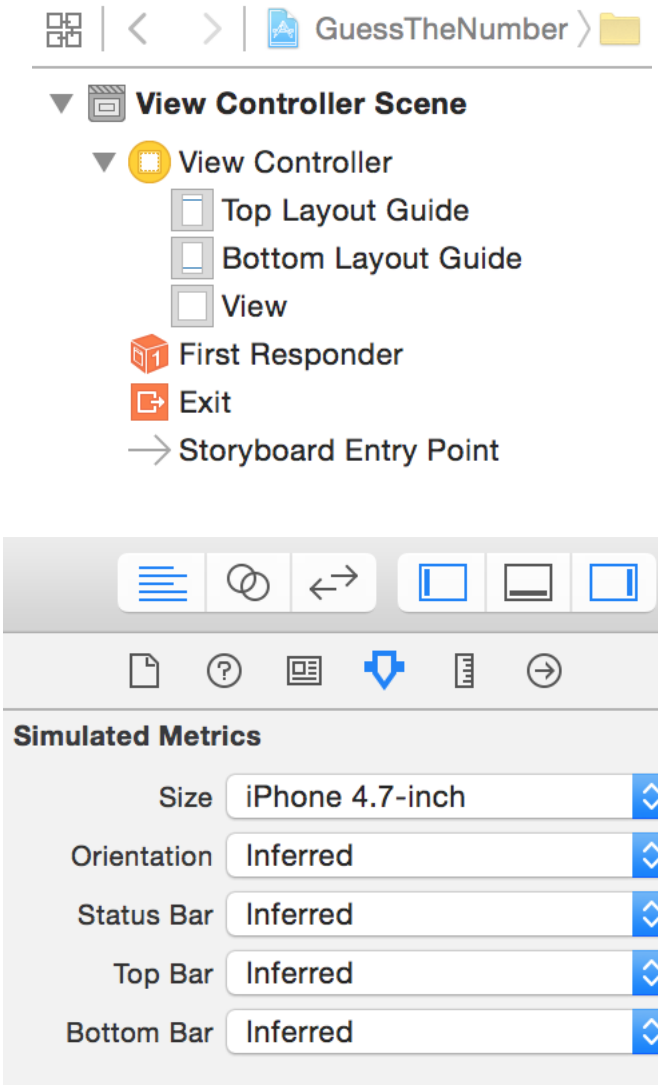

Choose a template for your new project:
iOS
Application
Framework & Library
Other
OS X
Master-Detail Application
Page-Based Application
1
Single View Application

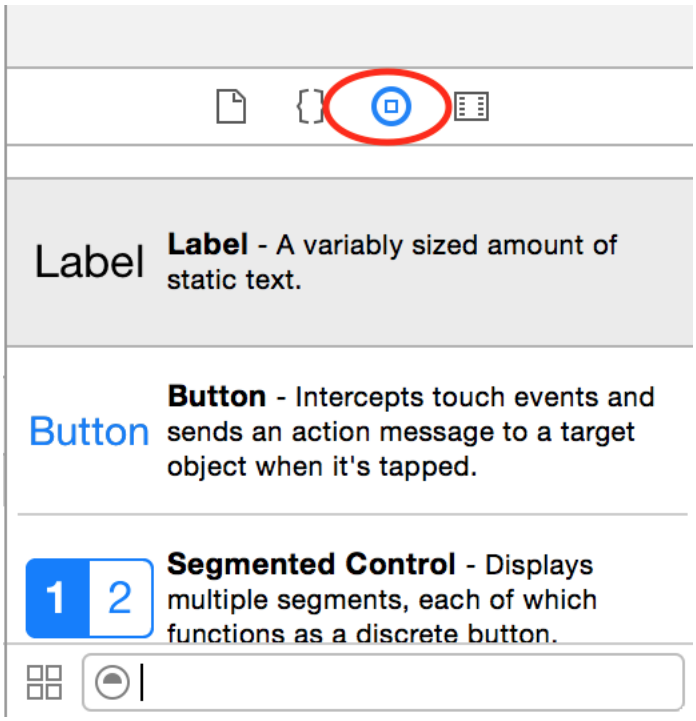

Product Name:
GuessTheNumber
Organization Name:
Effective Code Ltd
Organization Identifier:
uk.co.effectivecode
Bundle Identifier:
uk.co.effectivecode.GuessTheNumber
Language:
Swift
Devices:
iPhone
Use Core Data

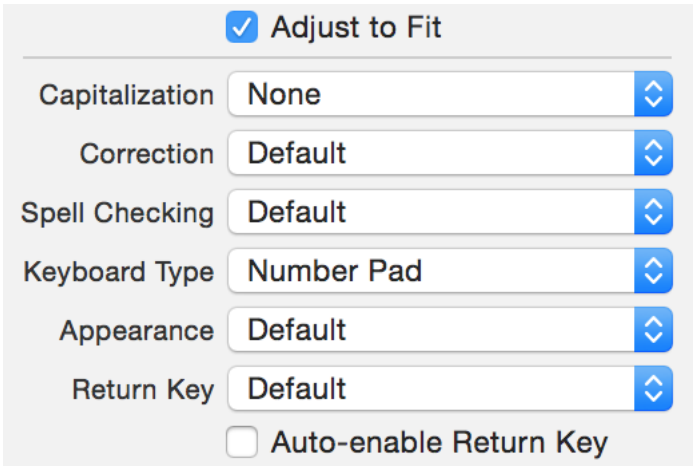

Product
Debug
Source
Run
⌘R

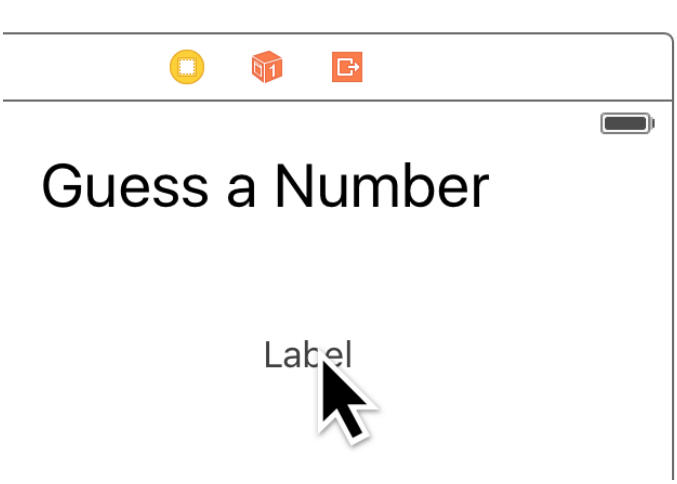

Product
Debug
Source
Run ⌘R
Test ⌘U
Profile ⌘I
Analyze ⇧⌘B
Archive
Build For
Perform Action
Build ⌘B
Clean ⇧⌘K
Stop ⌘.

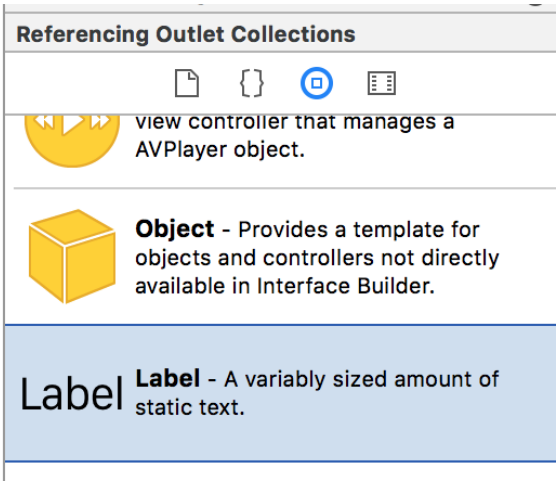

GuessThe
GuessTheNumber M
GuessTheNumber
AppDelegate.swift ?
ViewController.swift ?
Main.storyboard A
Assets.xcassets ?
LaunchScreen.storyboard ?
Info.plist ?
GuessTheNumberTests ?
GuessTheNumberUITests ?
Products

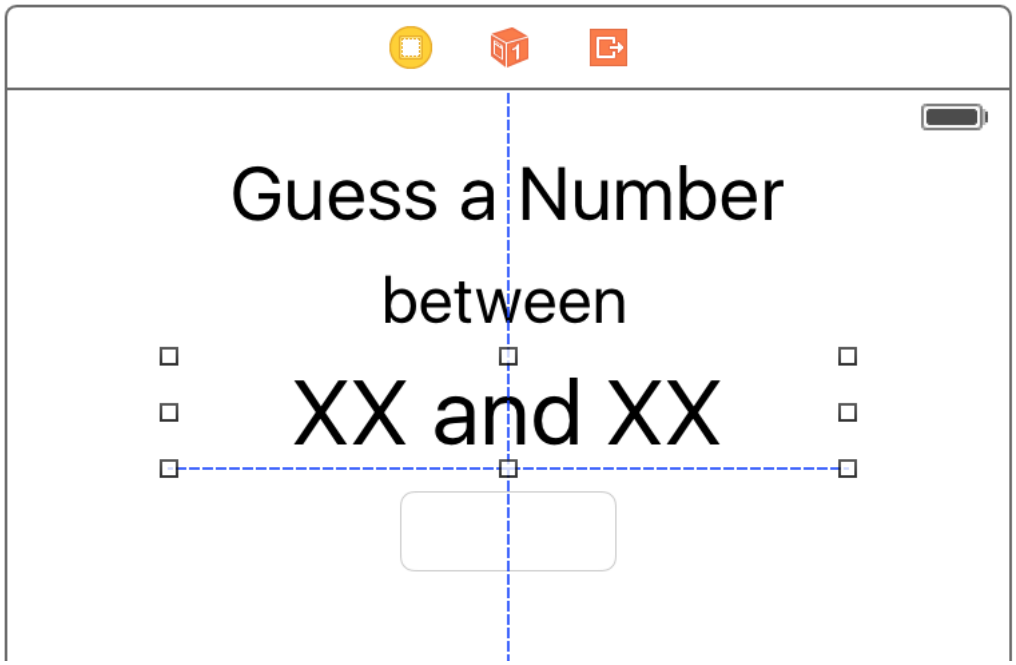

GuessTheNumber
View Controller Scene
View Controller
Top Layout Guide
Bottom Layout Guide
View
First Responder
Exit
Storyboard Entry Point
Simulated Metrics
Size
iPhone 4.7-inch
Orientation
Inferred
Status Bar
Inferred
Top Bar
Inferred
Bottom Bar
Inferred

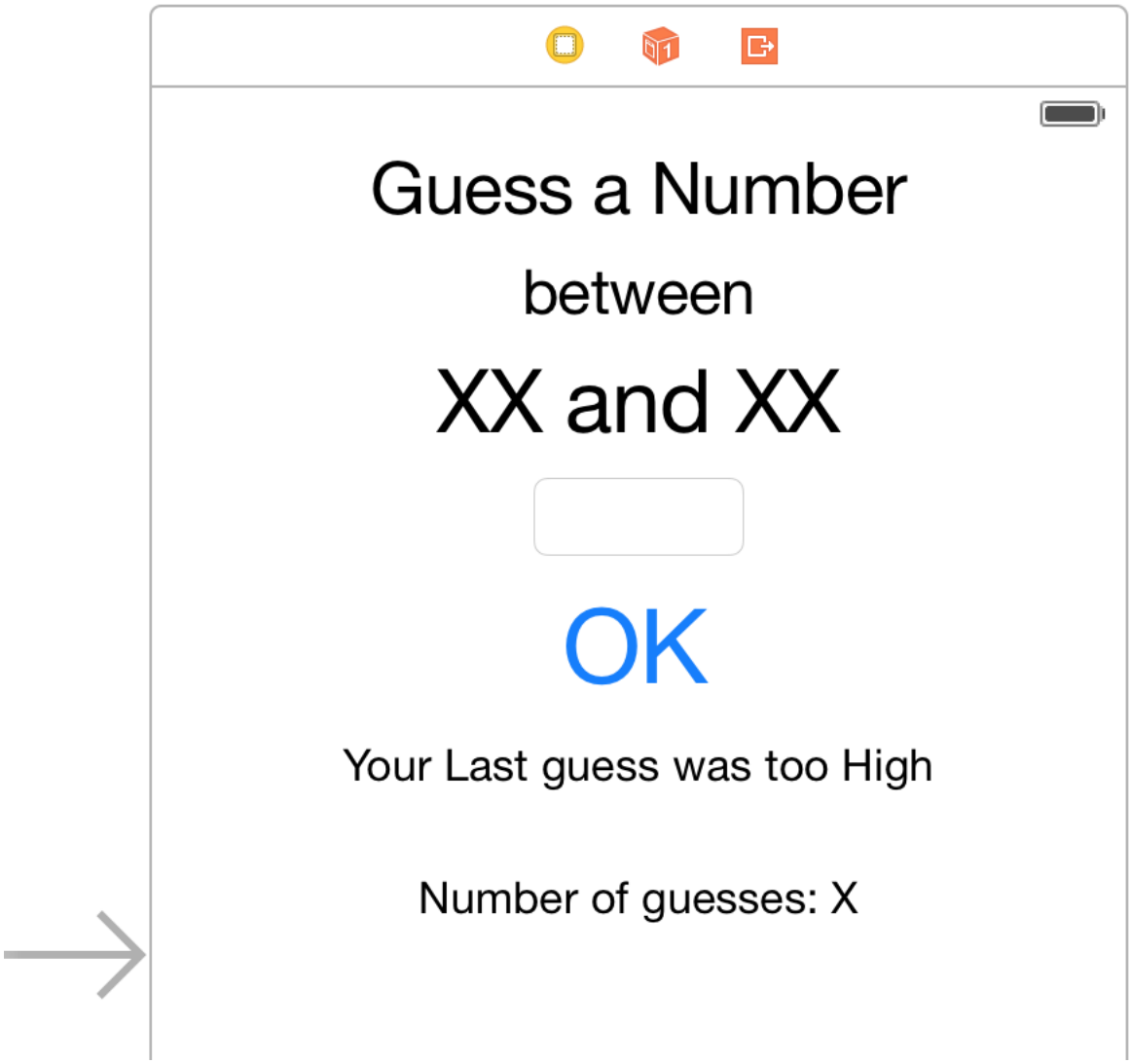

Label
Label - A variably sized amount of static text.
Button
Button - Intercepts touch events and sends an action message to a target object when it's tapped.
1
2
Segmented Control - Displays multiple segments, each of which functions as a discrete button.

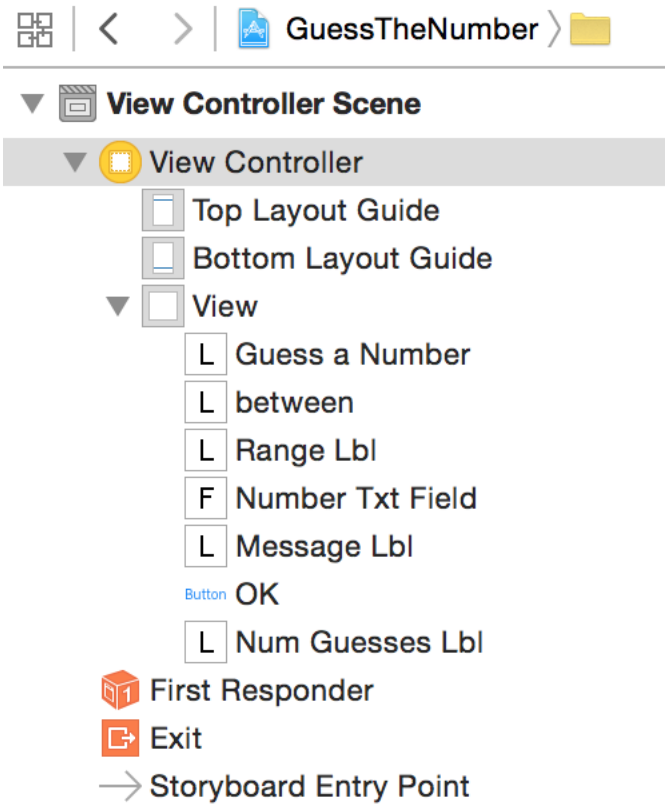

Adjust to Fit
Capitalization
None
Correction
Default
Spell Checking
Default
Keyboard Type
Number Pad
Appearance
Default
Return Key
Default
Auto-enable Return Key

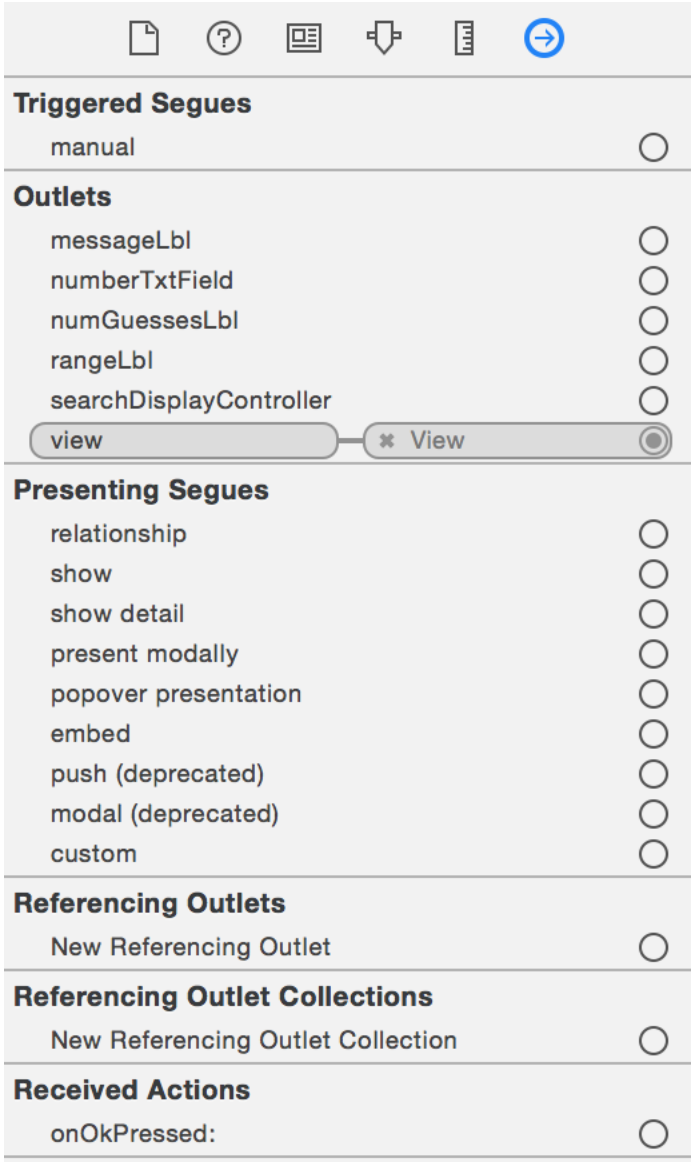

Guess a Number
Label

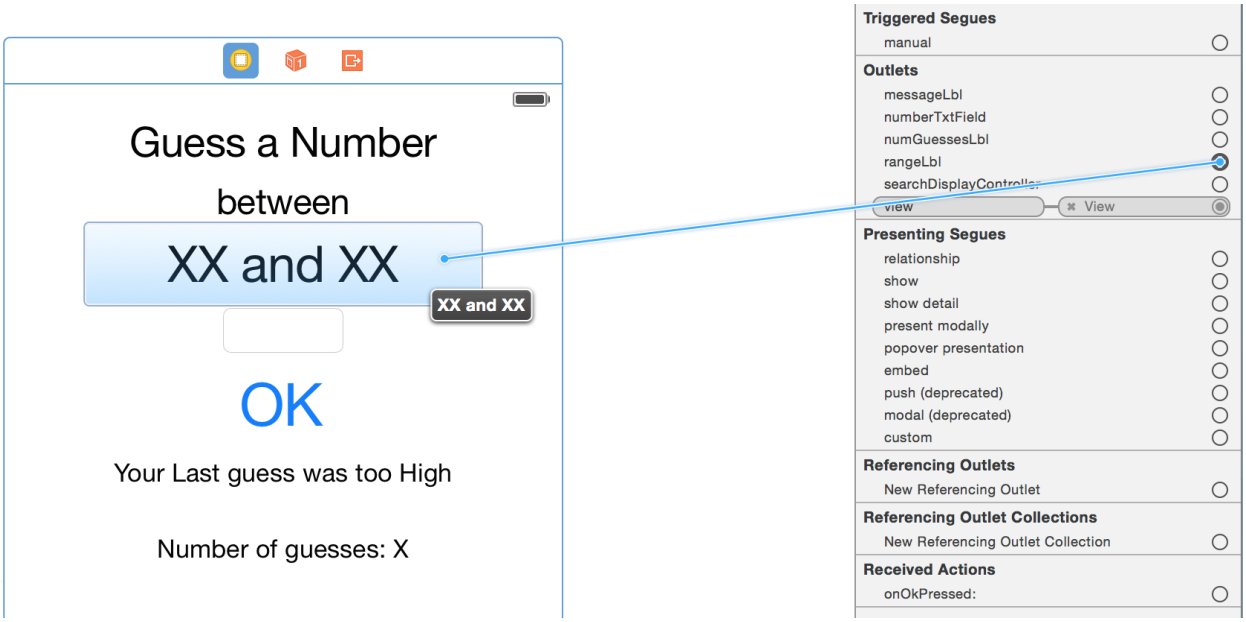

Referencing Outlet Collections
view controller that manages a AVPlayer object.
Object - Provides a template for objects and controllers not directly available in Interface Builder.
Label
Label - A variably sized amount of static text.

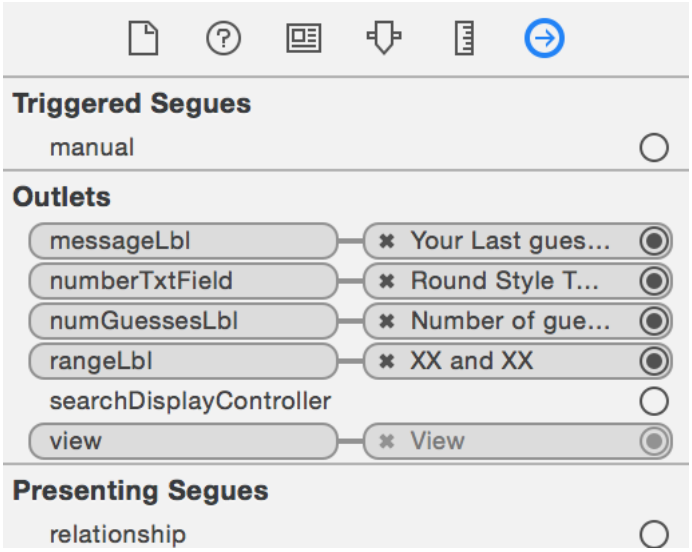

Guess a Number
between
XX and XX

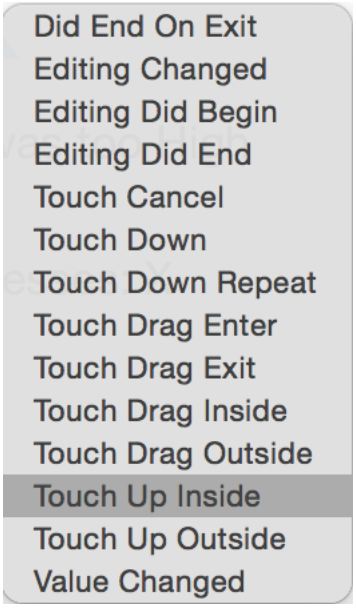

Guess a Number
between
XX and XX
OK
Your Last guess was too High
Number of guesses: X


GuessTheNumber
View Controller Scene
View Controller
Top Layout Guide
Bottom Layout Guide
View
L Guess a Number
L between
L Range Lbl
F Number Txt Field
L Message Lbl
Button OK
L Num Guesses Lbl
First Responder
Exit
Storyboard Entry Point

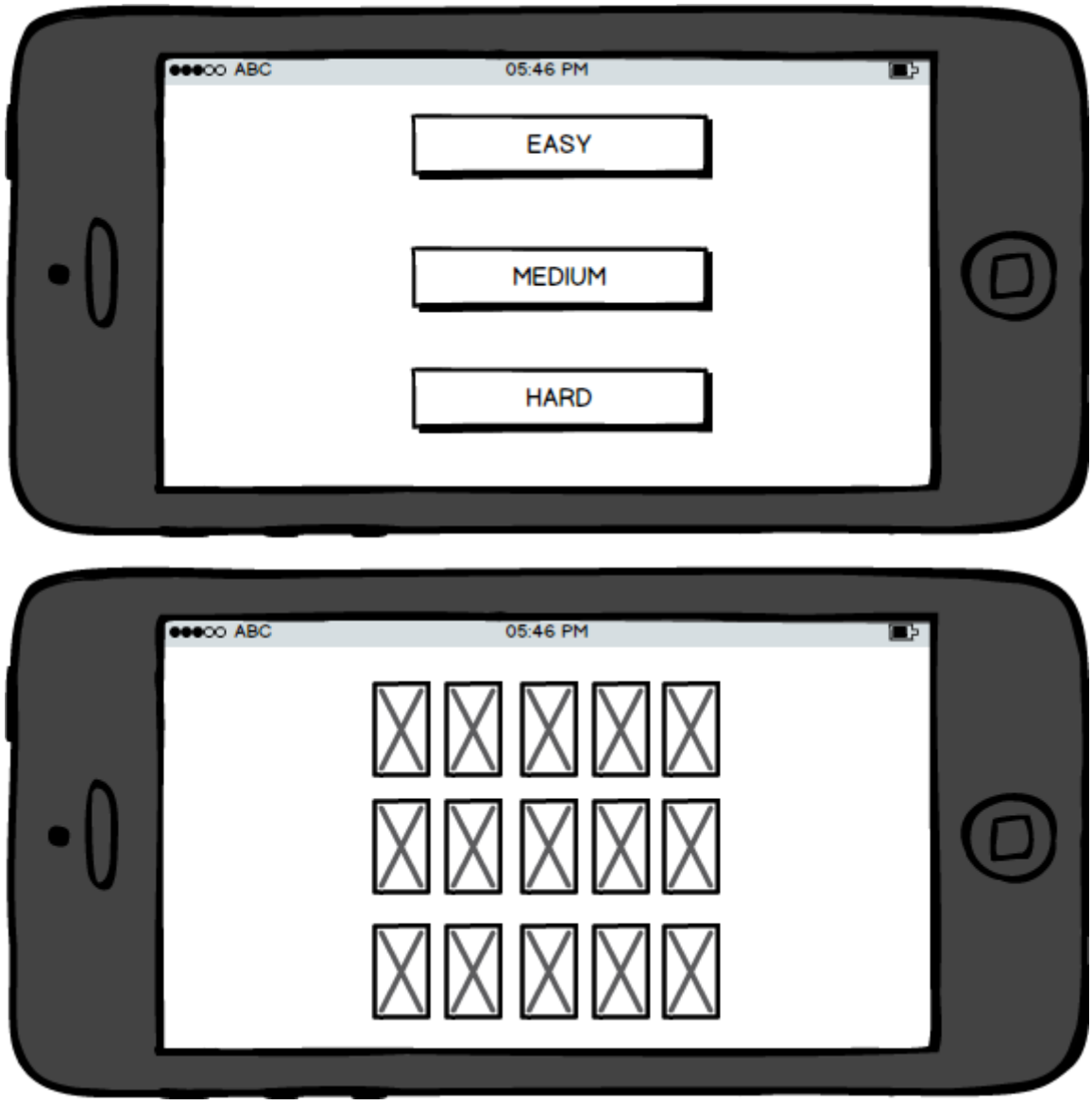

Triggered Segues
manual
Outlets
messageLbl
numberTxtField
numGuessesLbl
rangeLbl
searchDisplayController
view
View
Presenting Segues
relationship
show
show detail
present modally
popover presentation
embed
push (deprecated)
modal (deprecated)
custom
Referencing Outlets
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection
Received Actions
onOkPressed:


Guess a Number
between
XX and XX
XX and XX
OK
Your Last guess was too High
Number of guesses: X
Triggered Segues
manual
Outlets
messageLbl
numberTxtField
numGuessesLbl
rangeLbl
searchDisplayController
view
View
Presenting Segues
relationship
show
show detail
present modally
popover presentation
embed
push (deprecated)
modal (deprecated)
custom
Referencing Outlets
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection
Received Actions
onOkPressed:

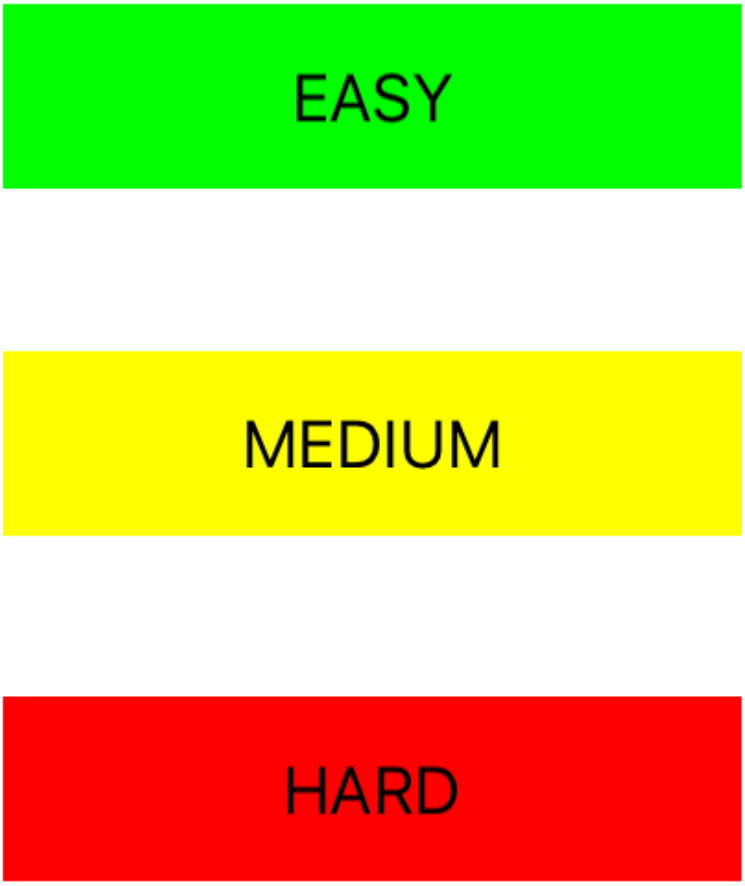

Triggered Segues
manual
Outlets
messageLbl
Your Last gues...
numberTxtField
Round Style T...
numGuessesLbl
Number of gue...
rangeLbl
XX and XX
searchDisplayController
view
View
Presenting Segues
relationship

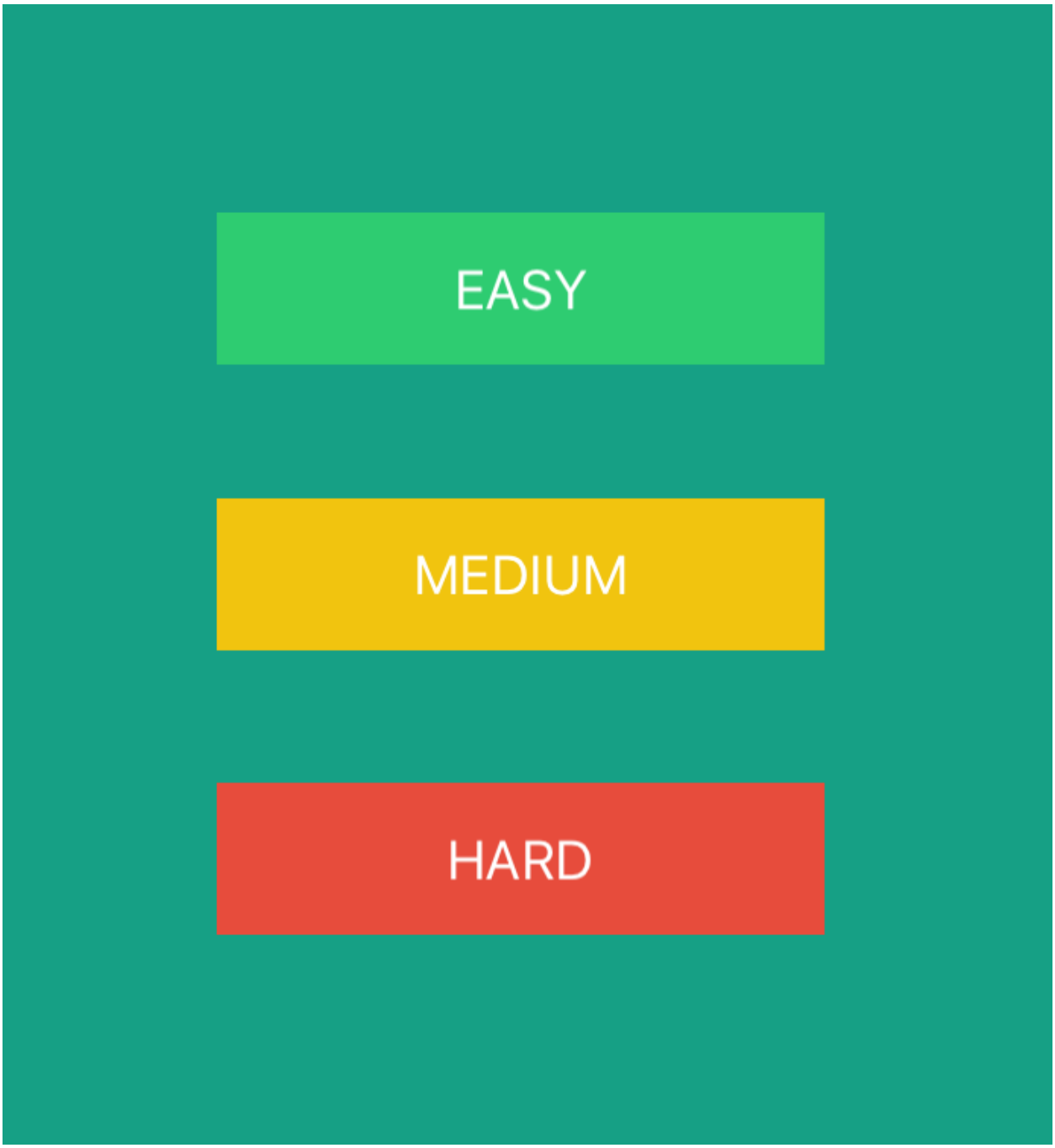

Did End On Exit
Editing Changed
Editing Did Begin
Editing Did End
Touch Cancel
Touch Down
Touch Down Repeat
Touch Drag Enter
Touch Drag Exit
Touch Drag Inside
Touch Drag Outside
Touch Up Inside
Touch Up Outside
Value Changed

Chapter 3: Building a Guess the Number App

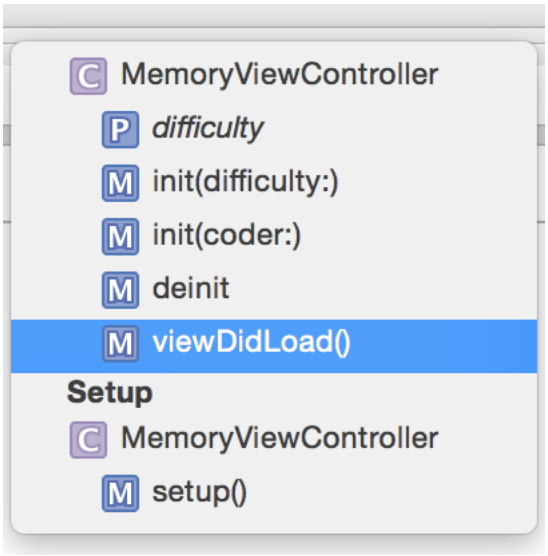


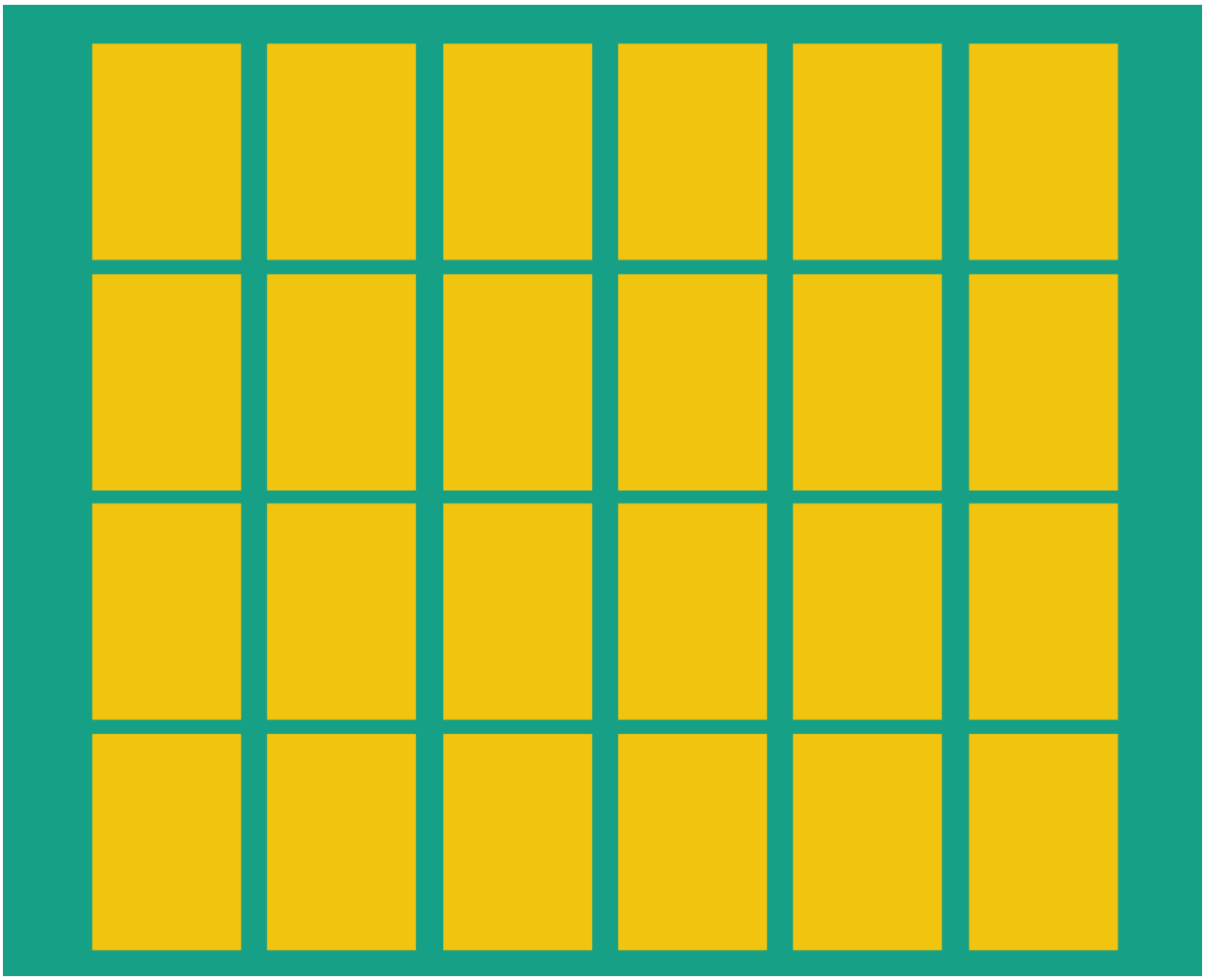
Device Orientation
- [ ] Portrait
- [ ] Upside Down
- [x] Landscape Left
- [x] Landscape Right

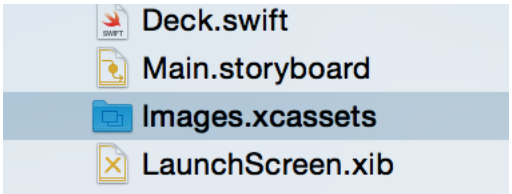

EASY
MEDIUM
HARD

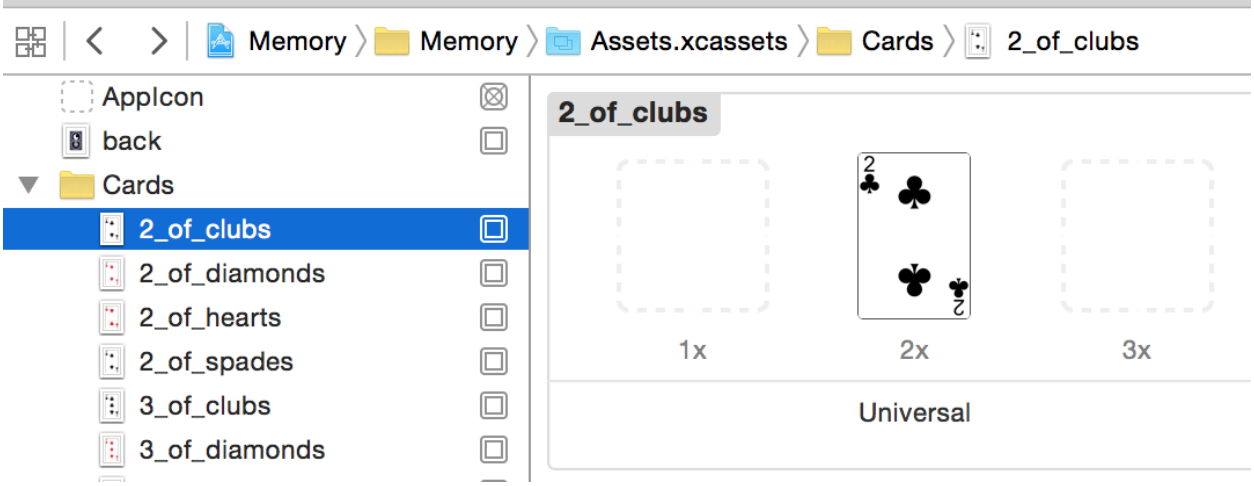

EASY
MEDIUM
HARD

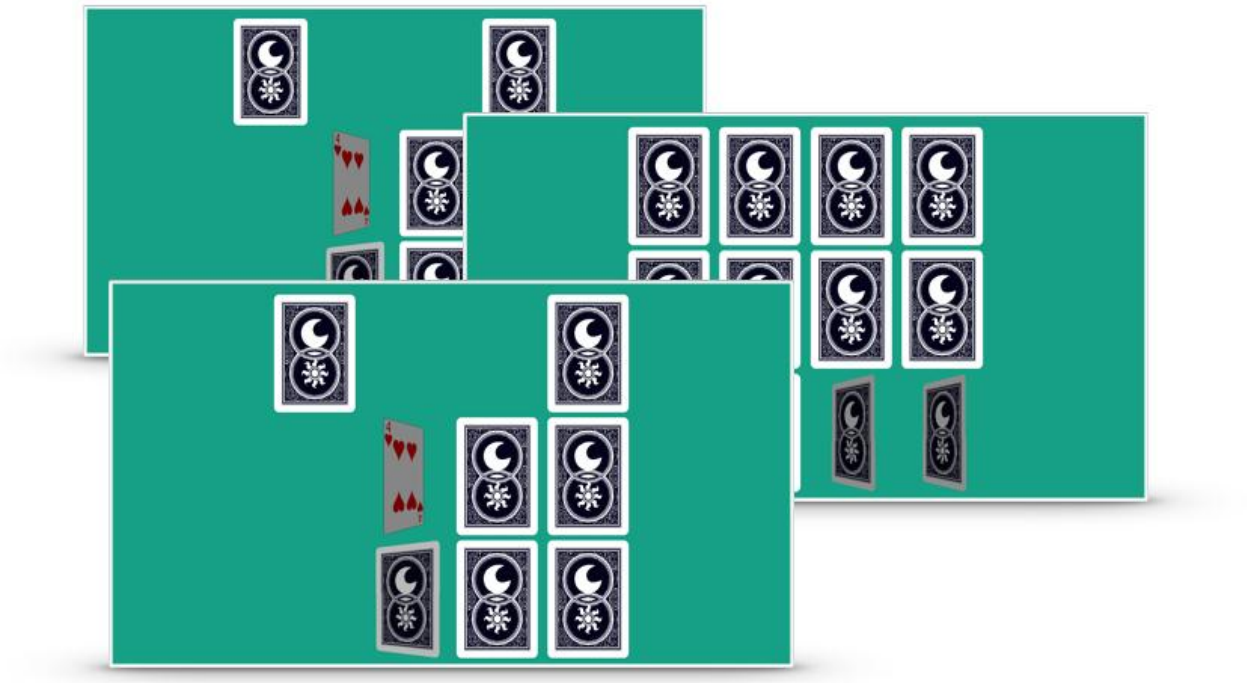
Memory
Memory
MemoryViewController.swift
setup()


MemoryViewController
difficulty
init(difficulty:)
init(coder:)
deinit
viewDidLoad()
Setup
MemoryViewController
setup()

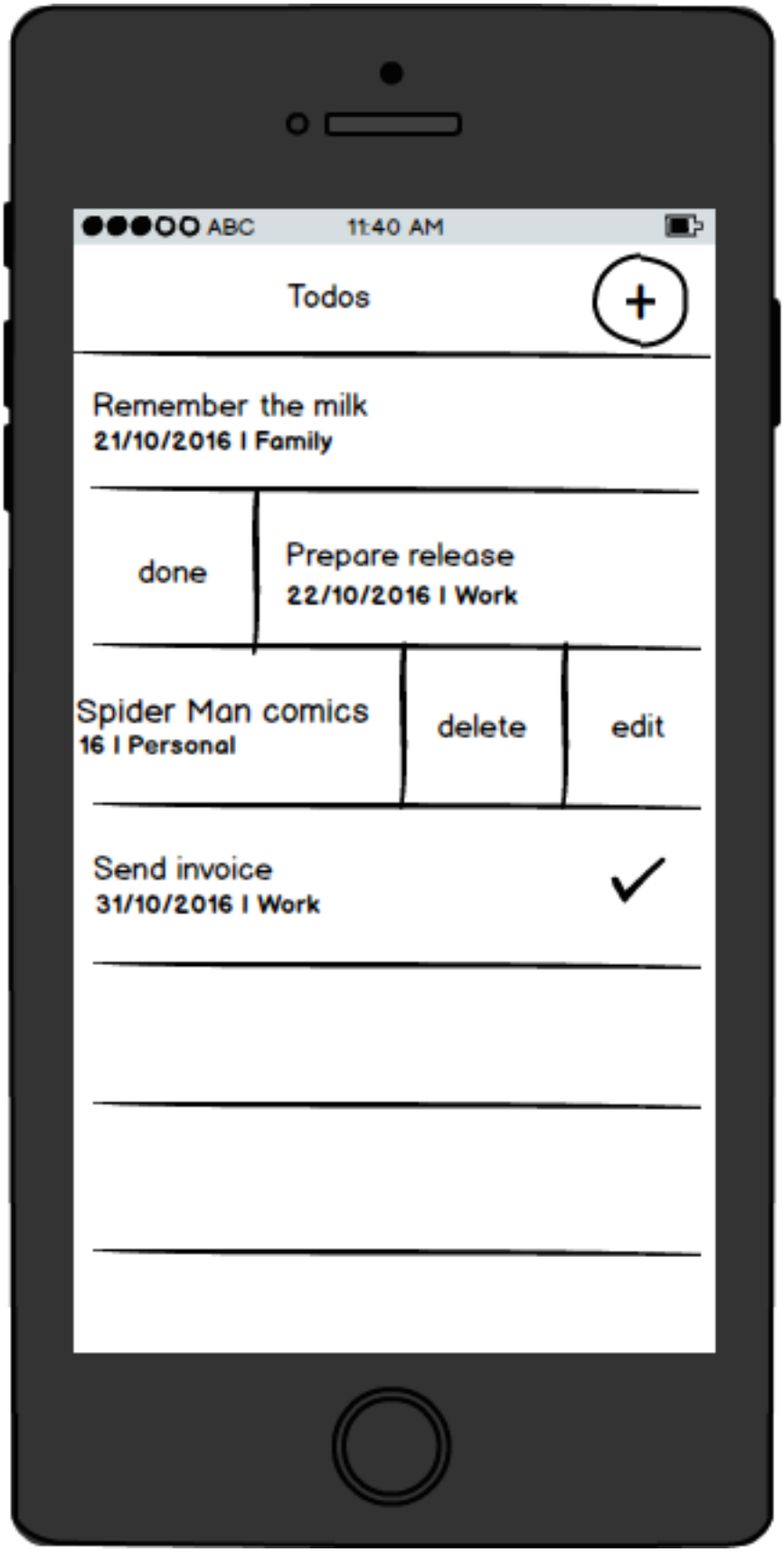


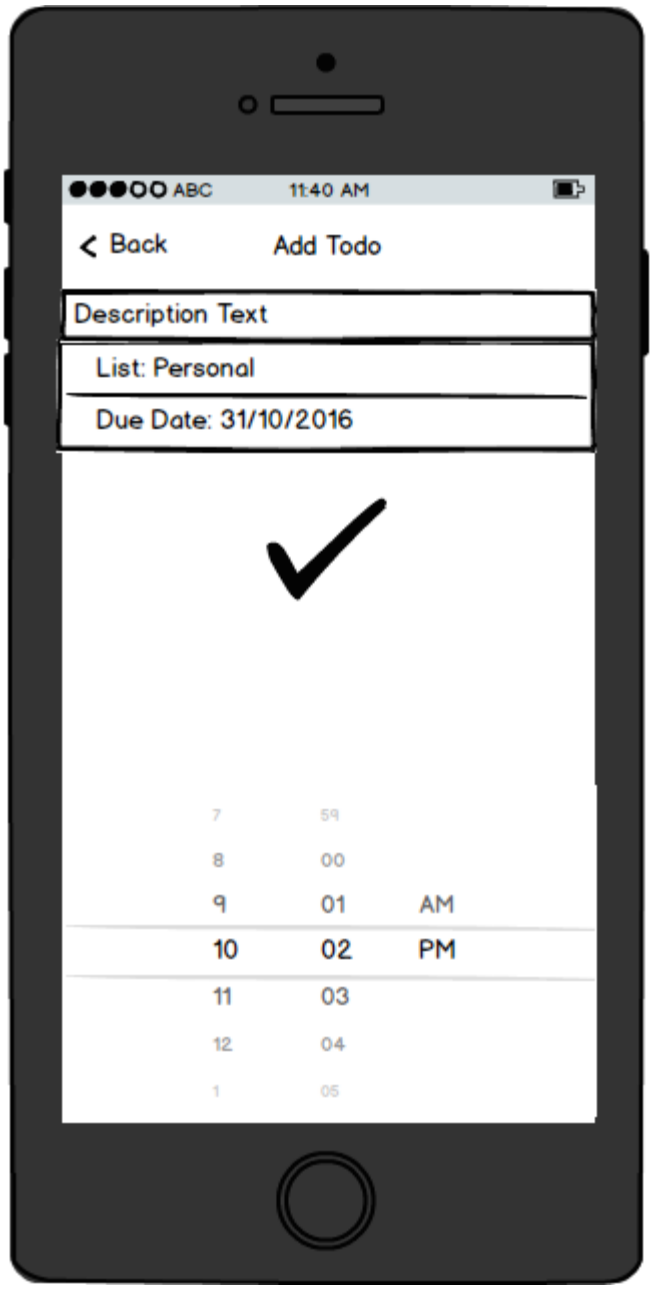

Deck.swift
Main.storyboard
Images.xcassets
LaunchScreen.xib

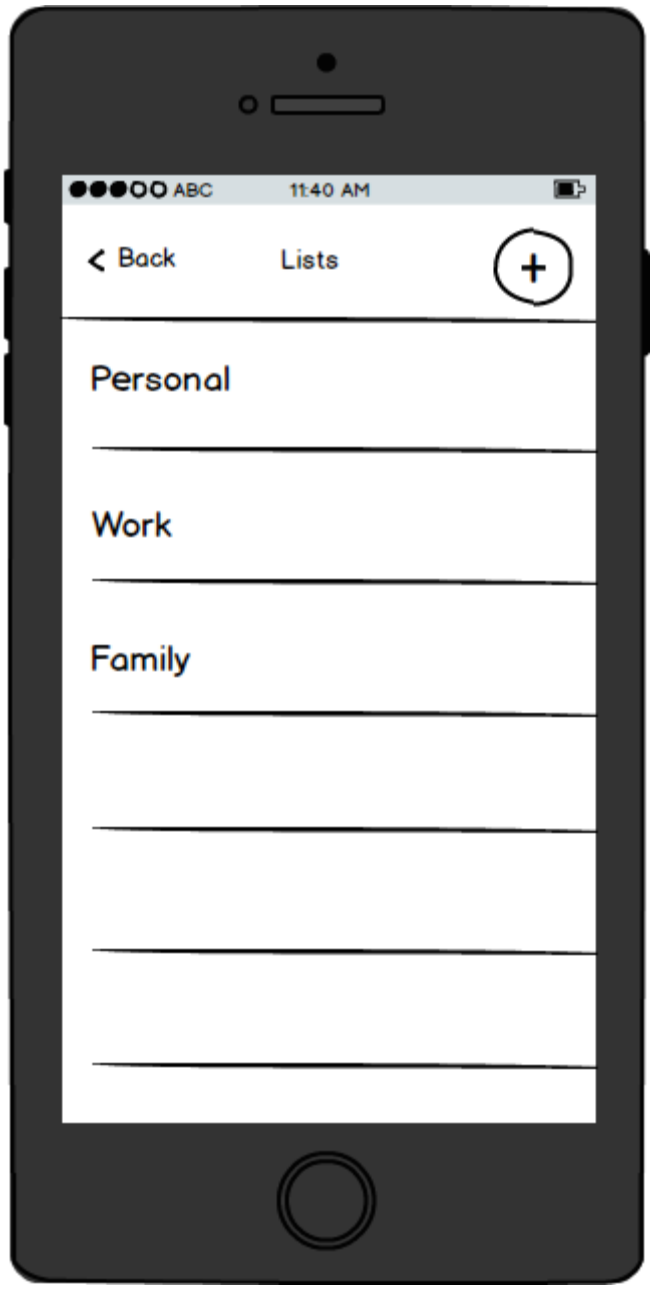

Memory
Memory
Assets.xcassets
Cards
2_of_clubs
AppIcon
back
Cards
2_of_clubs
2_of_diamonds
2_of_hearts
2_of_spades
3_of_clubs
3_of_diamonds
2_of_clubs
1x
2x
3x
Universal



Chapter 4: A TodoList App in Swift

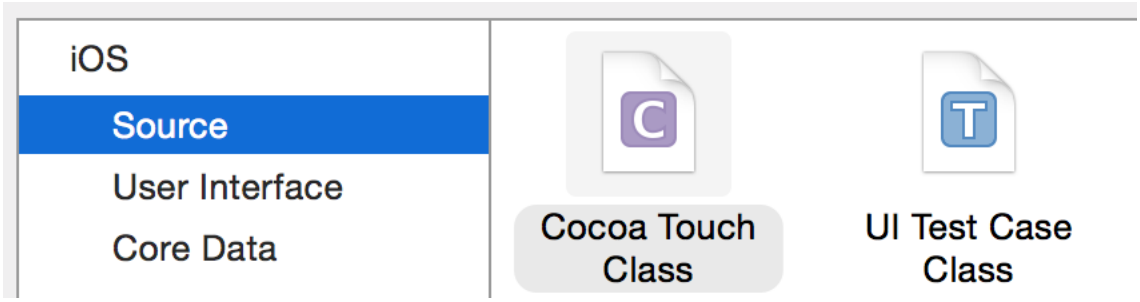

ABC
11:40 AM
Todos
Remember the milk
21/10/2016 I Family
done
Prepare release
22/10/2016 I Work
Spider Man comics
16 I Personal
delete
edit
Send invoice
31/10/2016 I Work

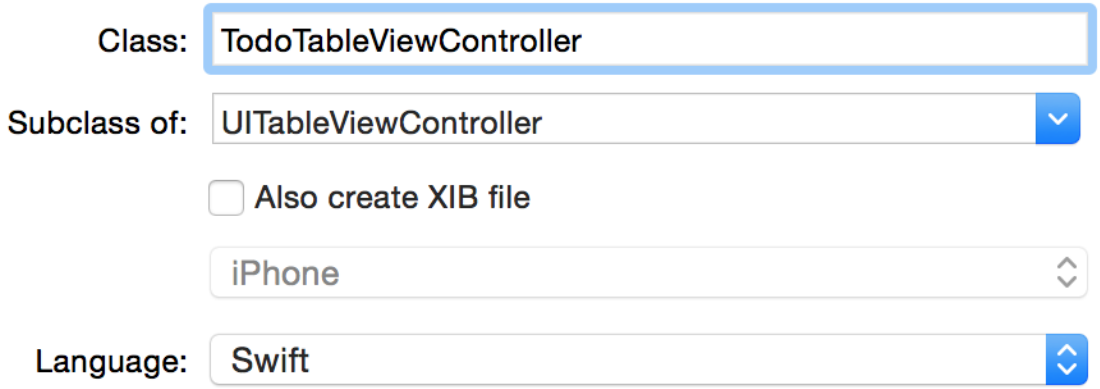

ABC
11:40 AM
Back
Add Todo
Description Text
List: Personal
Due Date: 31/10/2016
7
8
9
10
11
12
1
59
00
01
02
03
04
05
AM
PM



Main Interface Main

Device Orientation
- [x] Portrait
- [ ] Upside Down
- [ ] Landscape Left
- [ ] Landscape Right


iOS
Source
User Interface
Core Data
Cocoa Touch Class
UI Test Case Class


Class: TodoTableViewController
Subclass of: UITableViewController
Also create XIB file
iPhone
Language: Swift

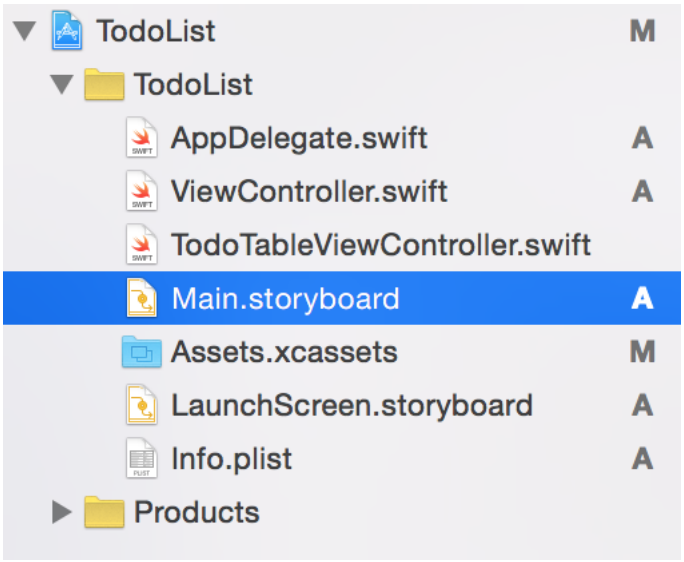
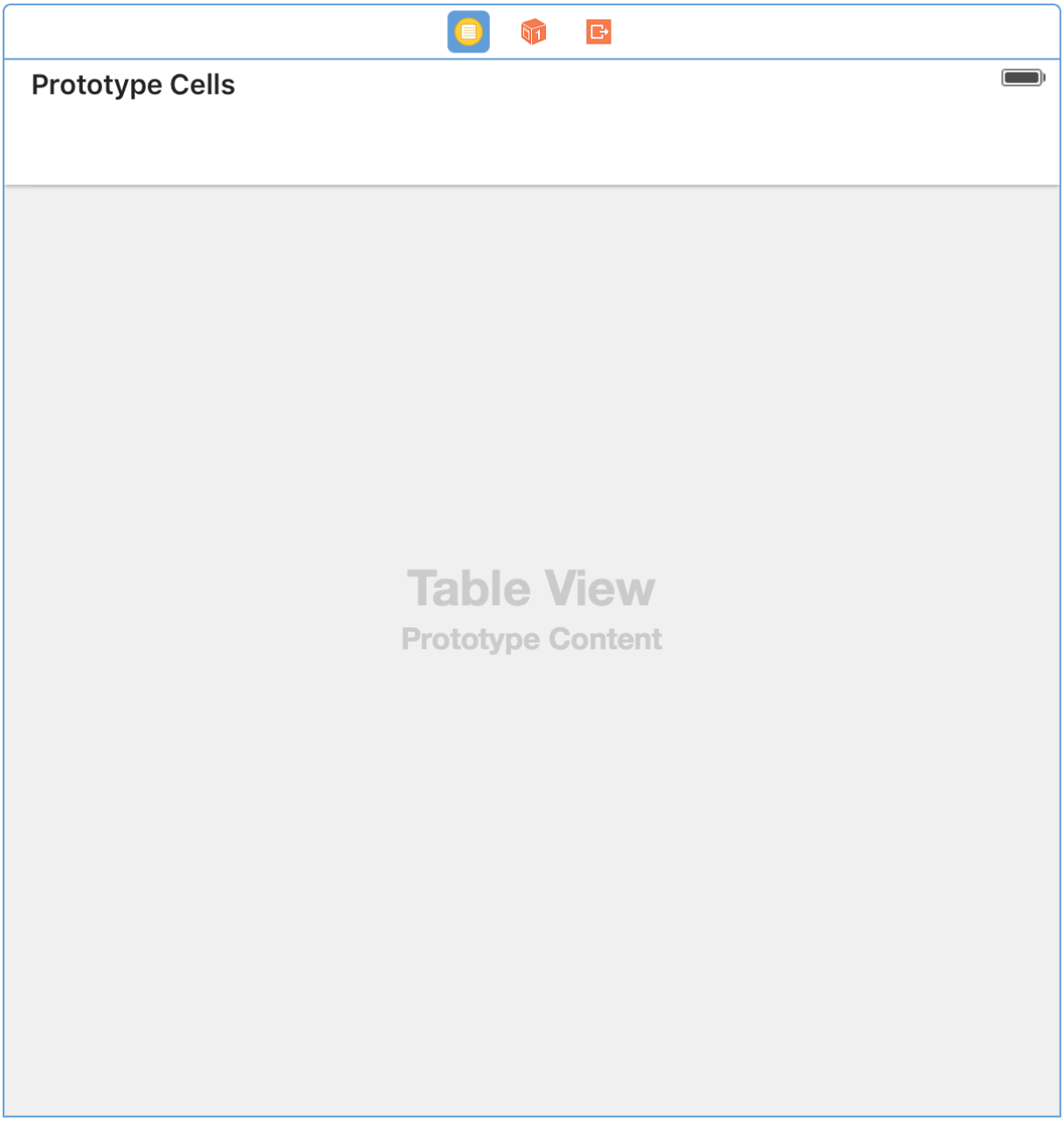
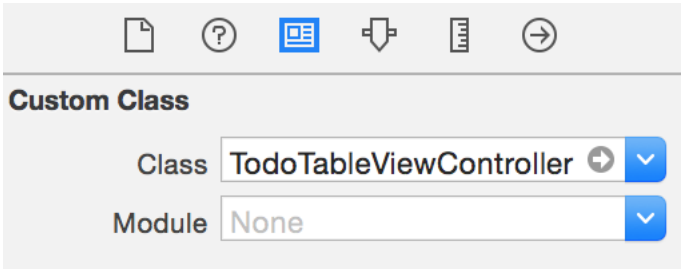
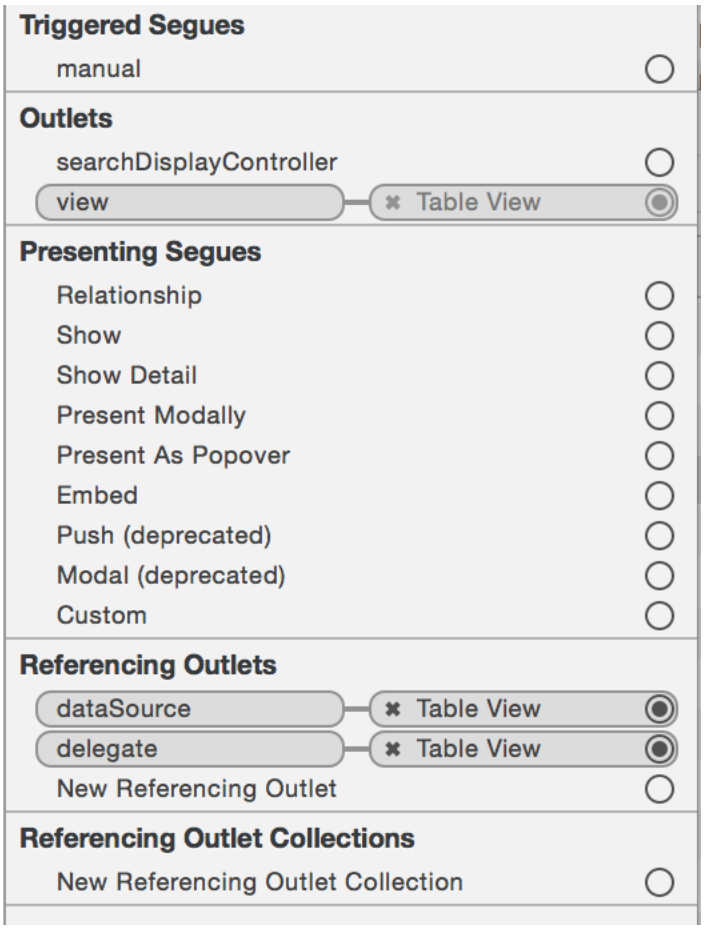
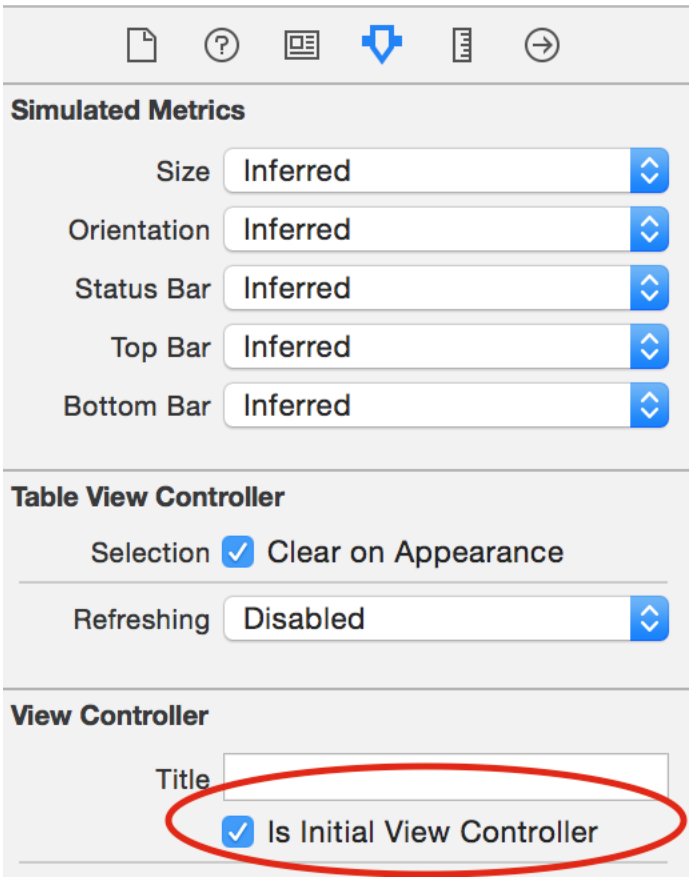

TodoList M
TodoList
AppDelegate.swift A
ViewController.swift A
TodoTableViewController.swift
Main.storyboard A
Assets.xcassets M
LaunchScreen.storyboard A
Info.plist A
Products

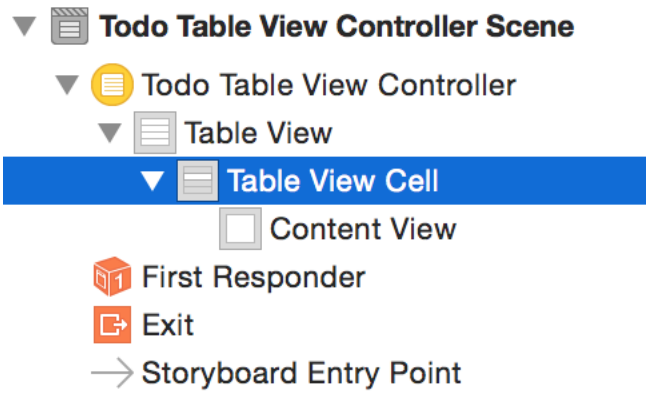
Table View Controller - A controller that manages a table view.


Prototype Cells
Table View
Prototype Content


Custom Class
Class
TodoTableViewController
Module
None


Triggered Segues
manual
Outlets
searchDisplayController
view
Table View
Presenting Segues
Relationship
Show
Show Detail
Present Modally
Present As Popover
Embed
Push (deprecated)
Modal (deprecated)
Custom
Referencing Outlets
dataSource
Table View
delegate
Table View
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection


Simulated Metrics
Size
Inferred
Orientation
Inferred
Status Bar
Inferred
Top Bar
Inferred
Bottom Bar
Inferred
Table View Controller
Selection
Clear on Appearance
Refreshing
Disabled
View Controller
Title
Is Initial View Controller


Todo Table View Controller Scene
Todo Table View Controller
Table View
Table View Cell
Content View
First Responder
Exit
Storyboard Entry Point

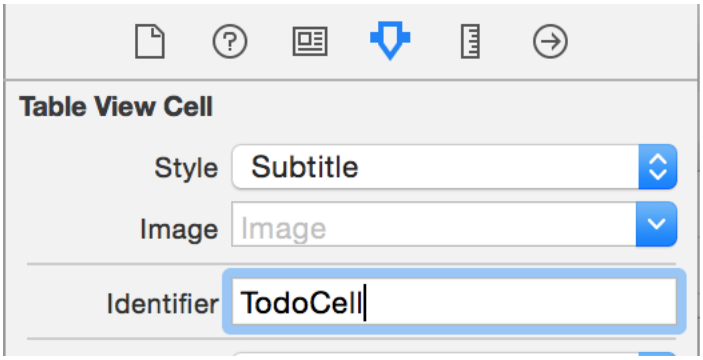
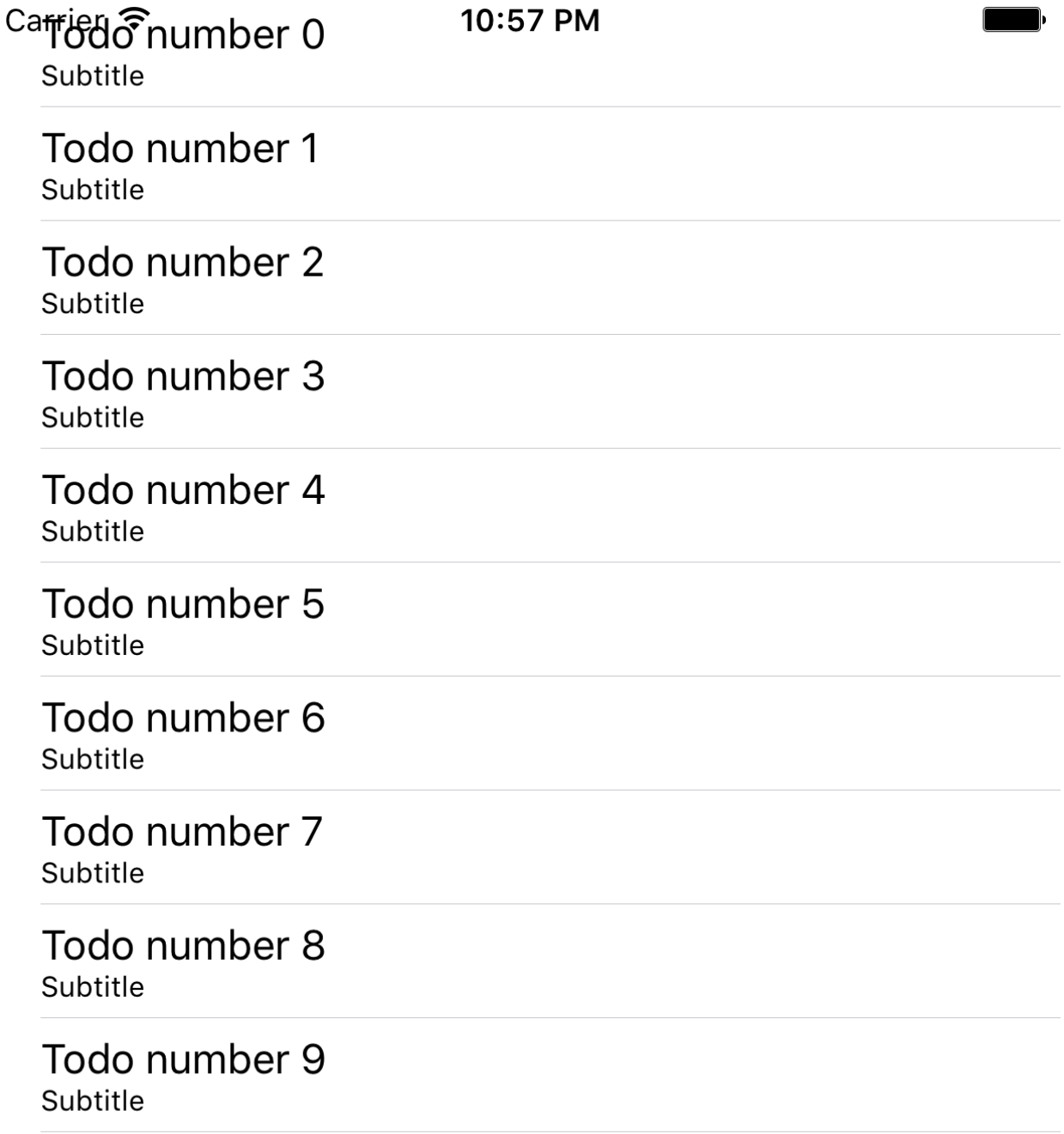
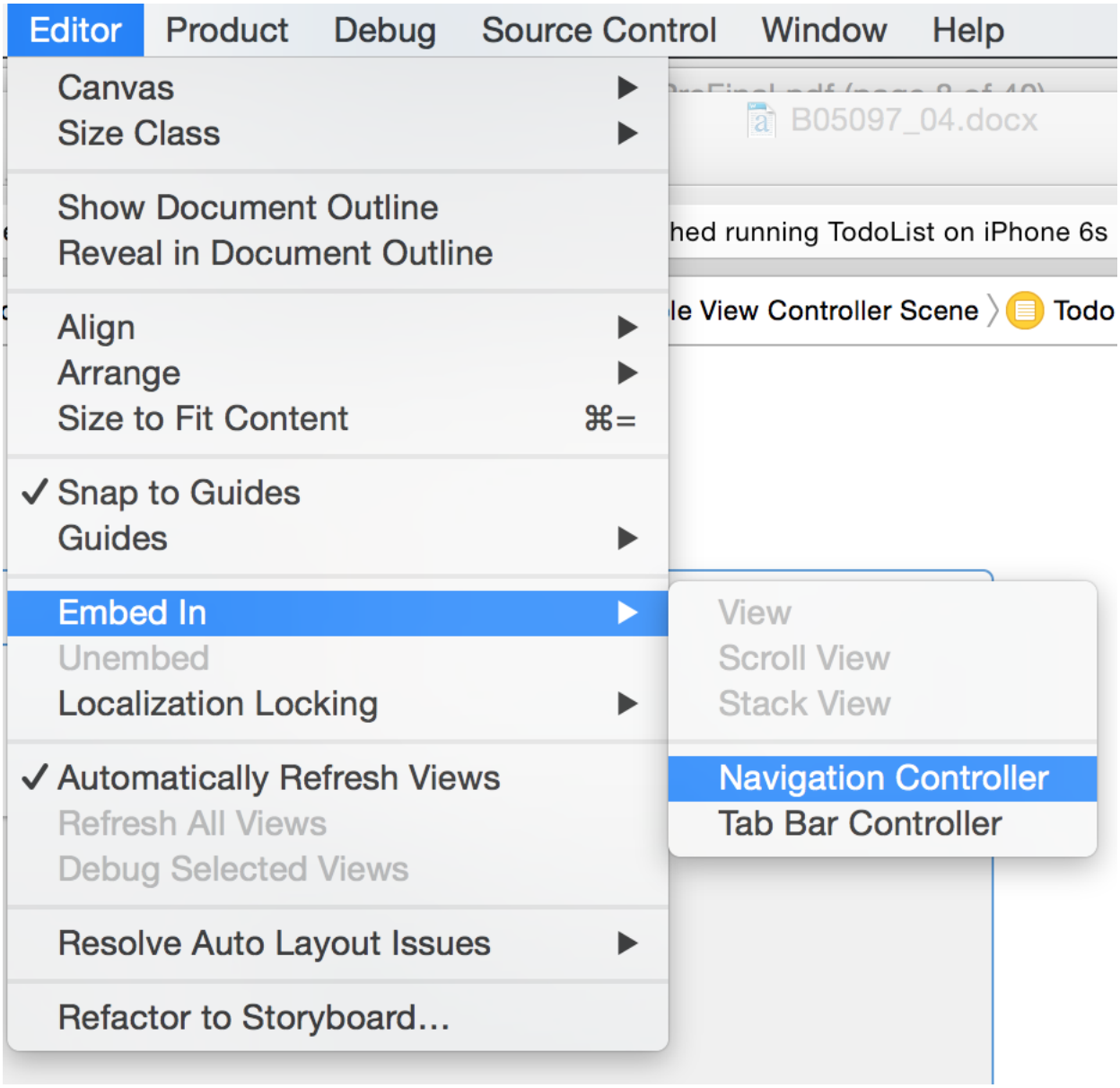
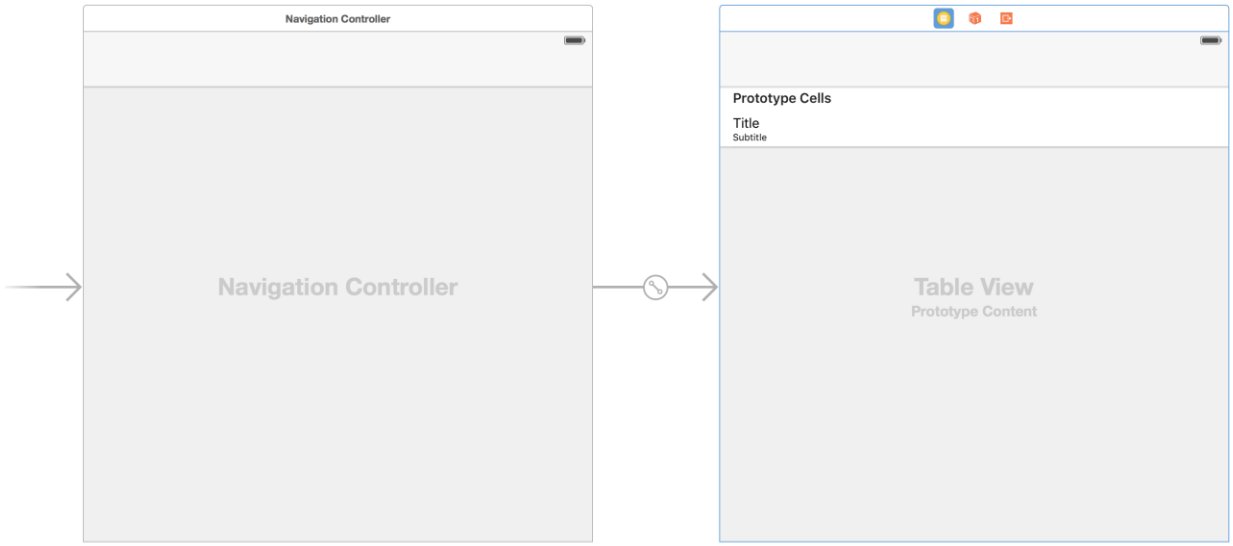
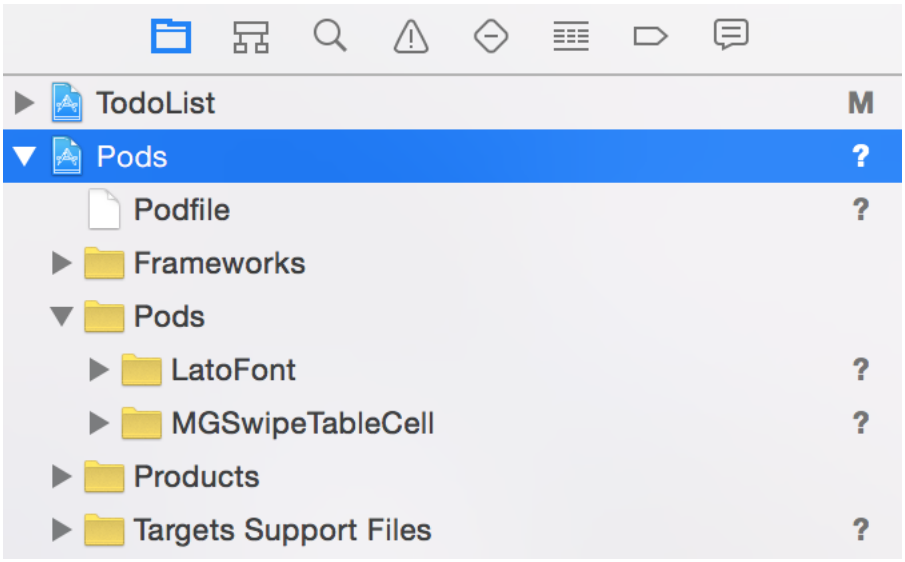


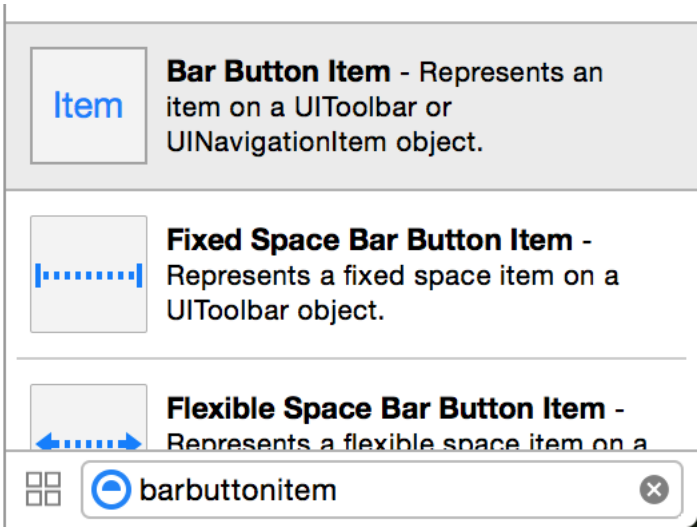
Table View Cell
Style
Subtitle
Image
Image
Identifier
TodoCell

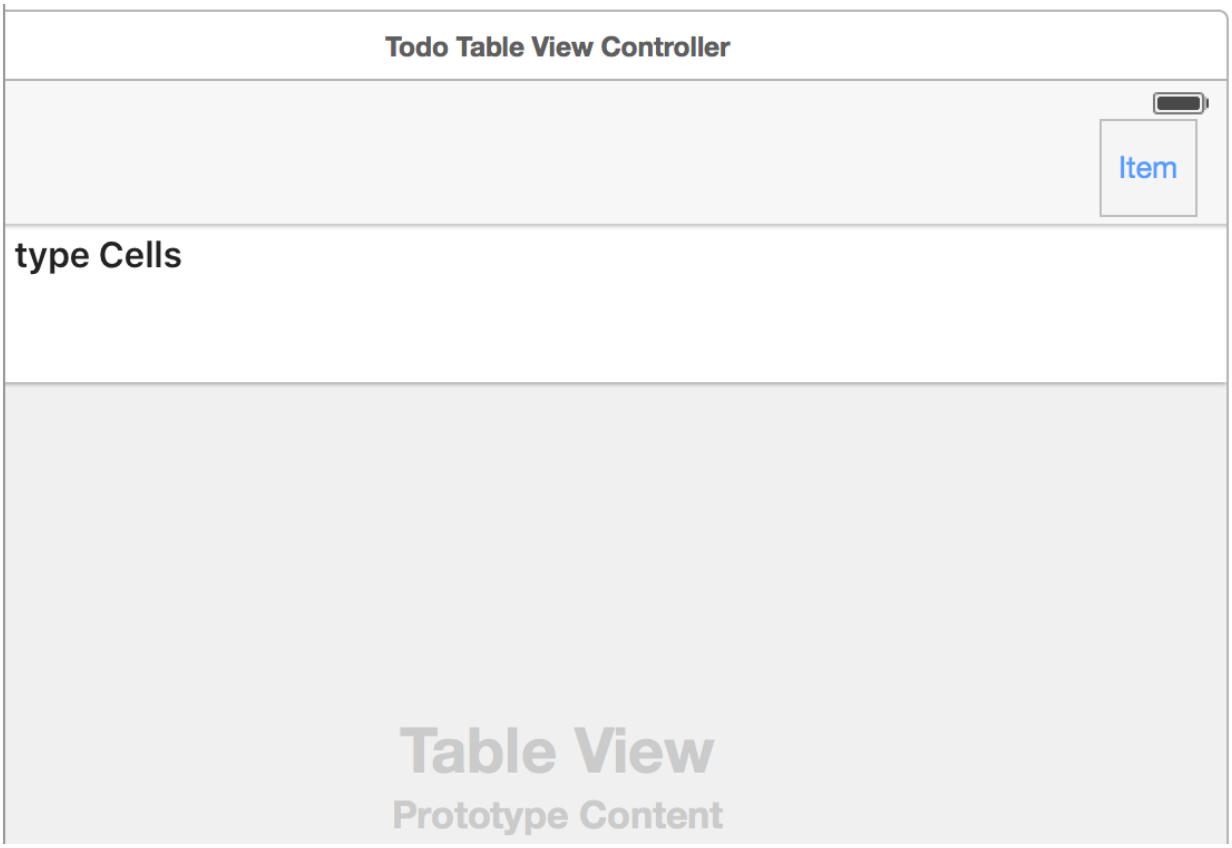

Carrier
10:57 PM
Todo number 0
Subtitle
Todo number 1
Subtitle
Todo number 2
Subtitle
Todo number 3
Subtitle
Todo number 4
Subtitle
Todo number 5
Subtitle
Todo number 6
Subtitle
Todo number 7
Subtitle
Todo number 8
Subtitle
Todo number 9
Subtitle

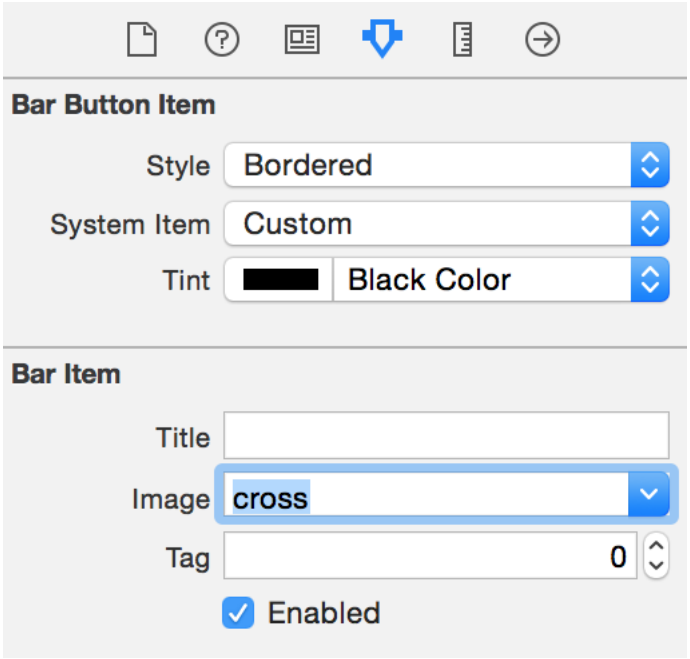

Editor
Product
Debug
Source Control
Window
Help
Canvas
Size Class
Show Document Outline
Reveal in Document Outline
Align
Arrange
Size to Fit Content
⌘=
Snap to Guides
Guides
Embed In
Unembed
Localization Locking
Automatically Refresh Views
Refresh All Views
Debug Selected Views
Resolve Auto Layout Issues
Refactor to Storyboard…
View
Scroll View
Stack View
Navigation Controller
Tab Bar Controller
B05097_04.docx
hed running TodoList on iPhone 6s
le View Controller Scene
Todo

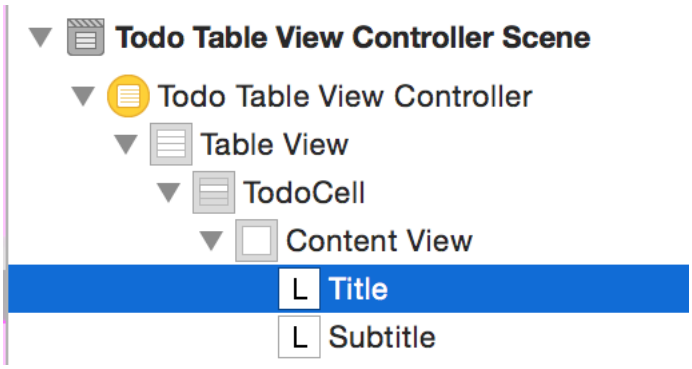

Navigation Controller
Navigation Controller
Prototype Cells
Title
Subtitle
Table View
Prototype Content

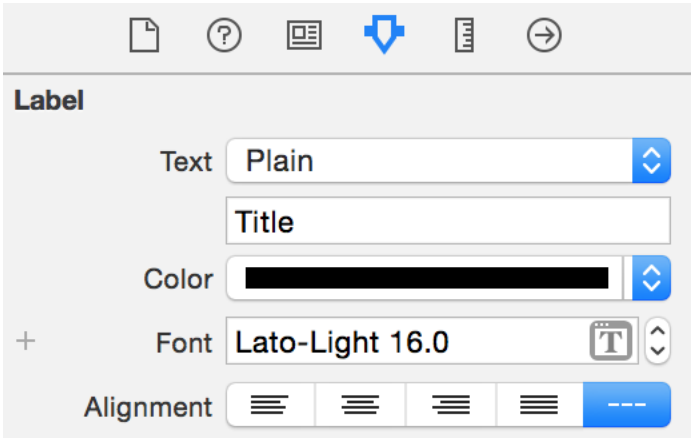

TodoList
M
Pods
?
Podfile
?
Frameworks
Pods
LatoFont
?
MGSwipeTableCell
?
Products
Targets Support Files
?

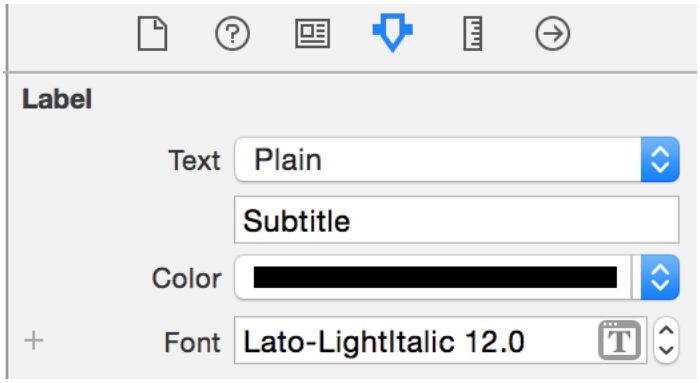

Item
Bar Button Item - Represents an item on a UIToolbar or UINavigationItem object.
Fixed Space Bar Button Item - Represents a fixed space item on a UIToolbar object.
Flexible Space Bar Button Item -
barbuttonitem

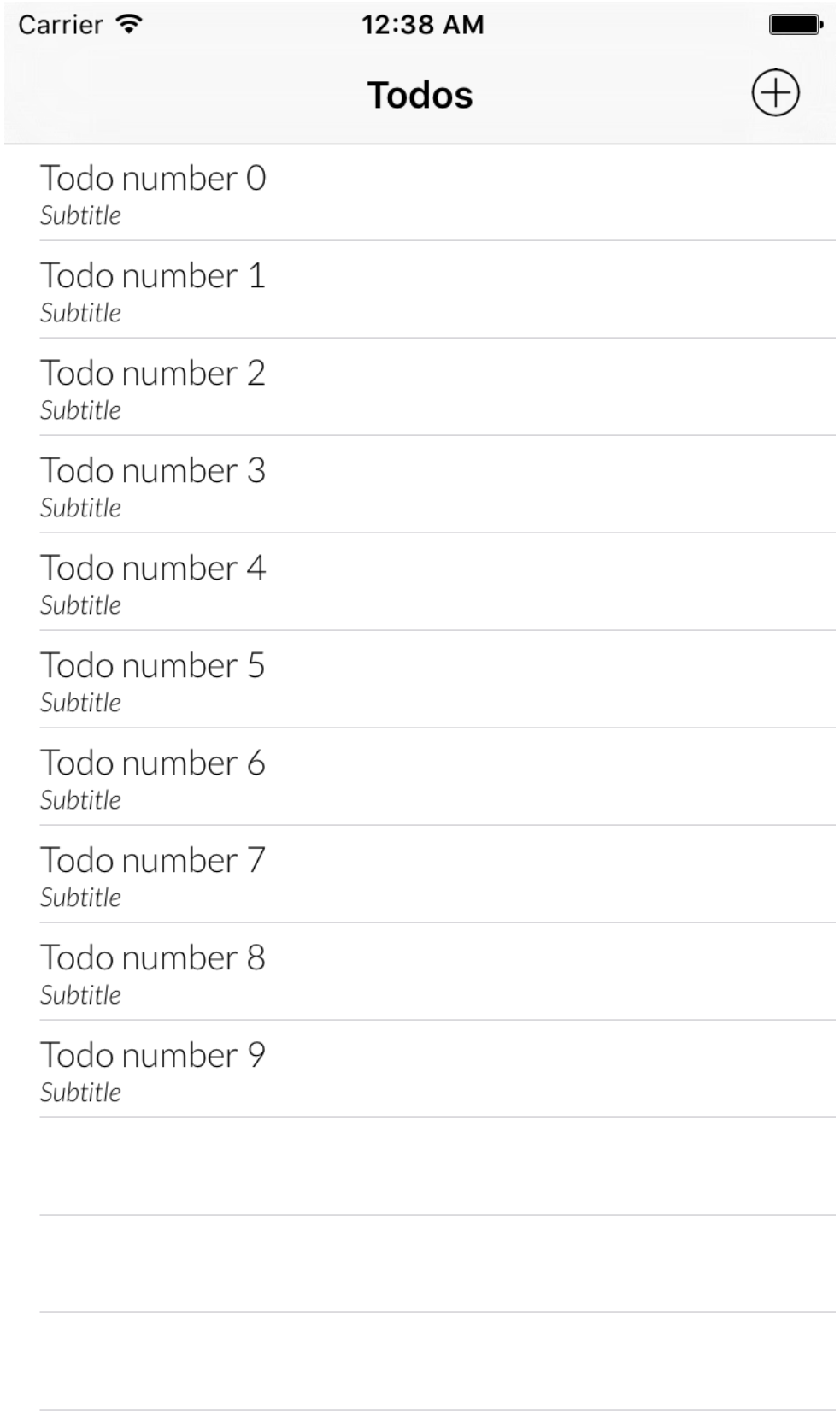

Todo Table View Controller
Item
type Cells
Table View
Prototype Content

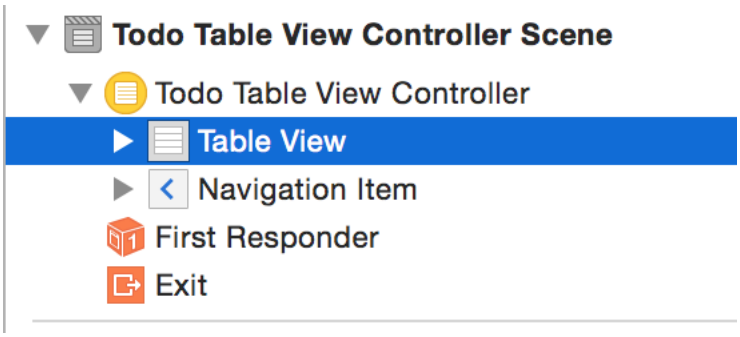

Bar Button Item
Style
Bordered
System Item
Custom
Tint
Black Color
Bar Item
Title
Image
cross
Tag
0
Enabled


Todo Table View Controller Scene
Todo Table View Controller
Table View
TodoCell
Content View
Title
Subtitle


Label
Text
Plain
Title
Color
Font
Lato-Light 16.0
Alignment


Label
Text
Plain
Subtitle
Color
Font
Lato-LightItalic 12.0


Carrier
12:38 AM
Todos
Todo number 0
Subtitle
Todo number 1
Subtitle
Todo number 2
Subtitle
Todo number 3
Subtitle
Todo number 4
Subtitle
Todo number 5
Subtitle
Todo number 6
Subtitle
Todo number 7
Subtitle
Todo number 8
Subtitle
Todo number 9
Subtitle


Todo Table View Controller Scene
Todo Table View Controller
Table View
Navigation Item
First Responder
Exit

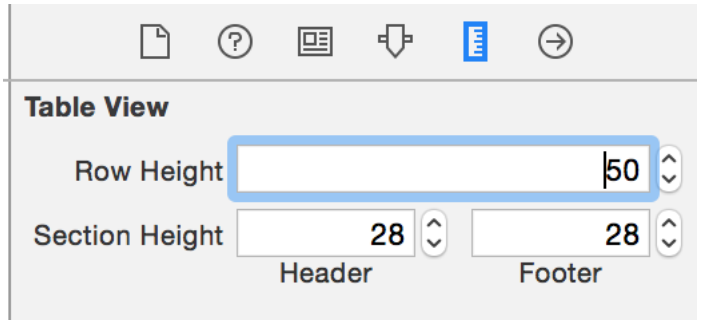
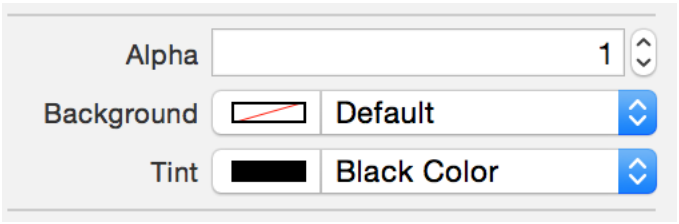
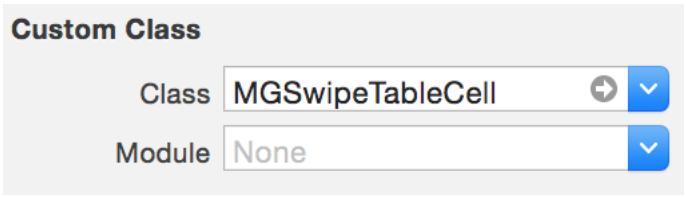
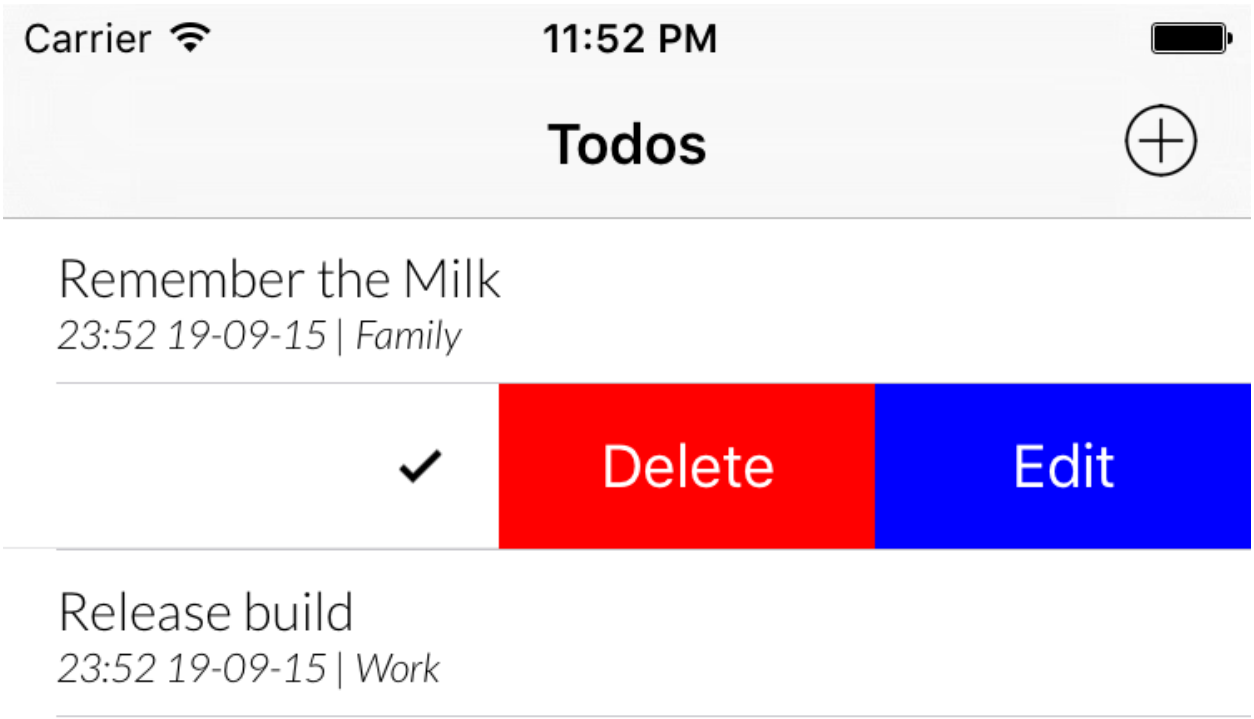


Table View
Row Height
50
Section Height
28
28
Header
Footer


Alpha
1
Background
Default
Tint
Black Color

Carrier
11:33 PM
Todos
Remember the Milk
23:33 19-09-15 | Family
Buy Spider Man Comics
23:33 19-09-15 | Personal
Release build
23:33 19-09-15 | Work


Custom Class
Class
MGSwipeTableCell
Module
None


Carrier
11:52 PM
Todos
Remember the Milk
23:52 19-09-15 | Family
Delete
Edit
Release build
23:52 19-09-15 | Work

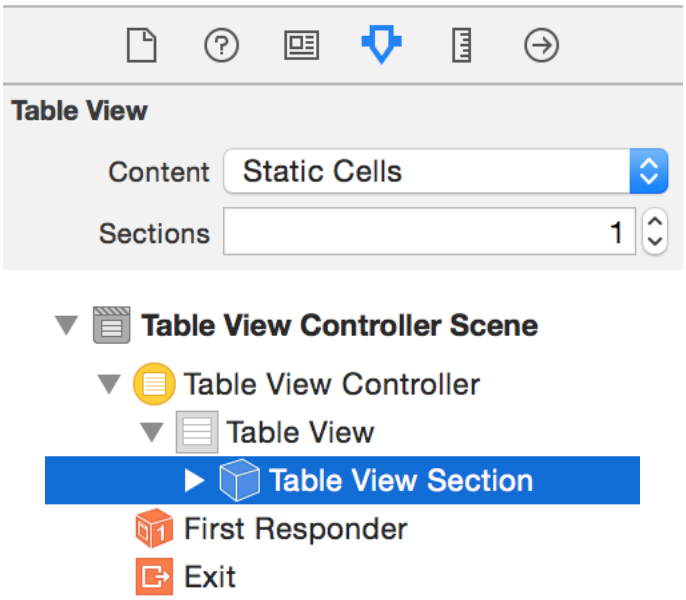


Table View
Content
Static Cells
Sections
1
Table View Controller Scene
Table View Controller
Table View
Table View Section
First Responder
Exit

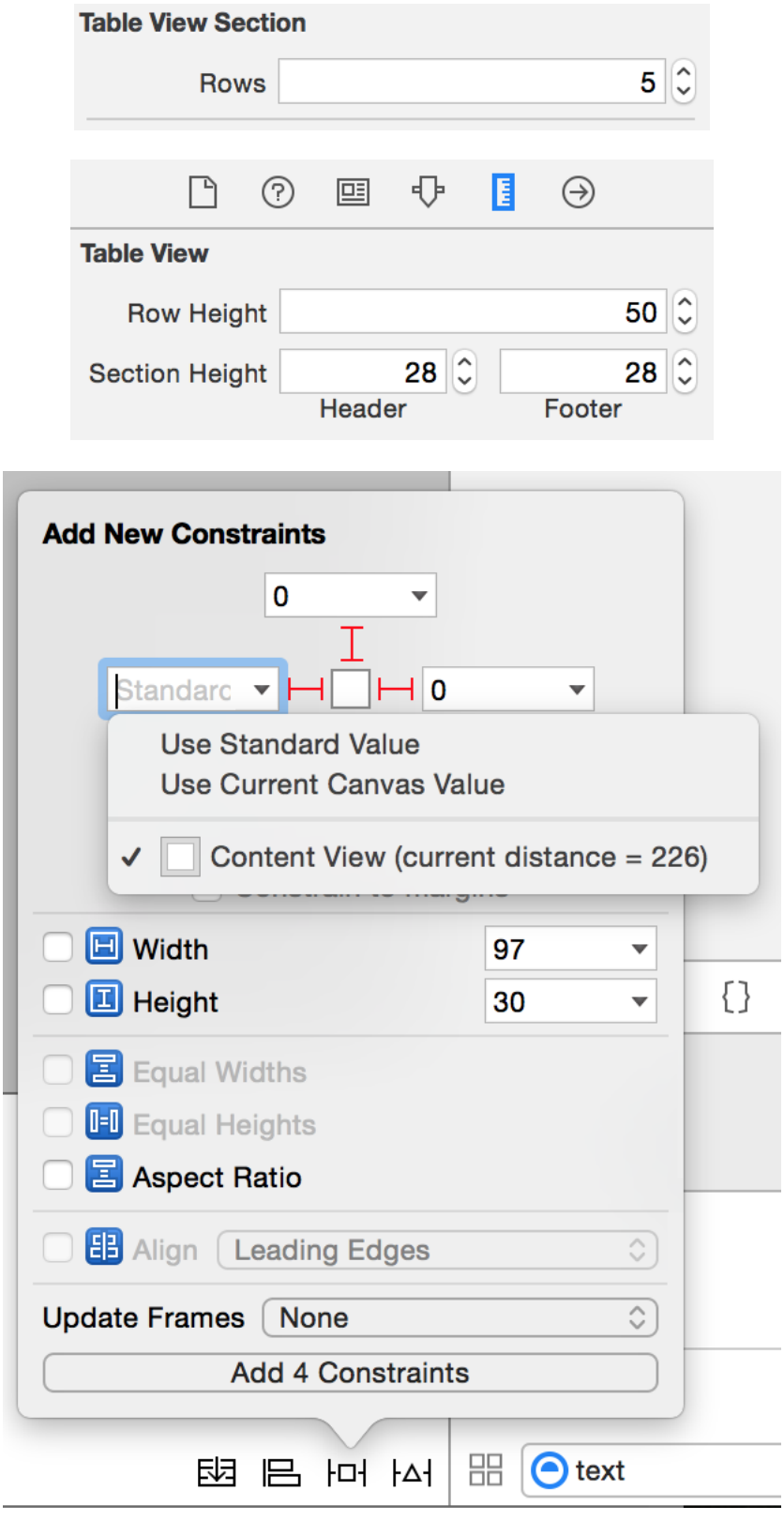


Table View Section
Rows
5
Table View
Row Height
50
Section Height
28
Header
28
Footer
Add New Constraints
0
Standarc
0
Use Standard Value
Use Current Canvas Value
Content View (current distance = 226)
Width
97
Height
30
Equal Widths
Equal Heights
Aspect Ratio
Align
Leading Edges
Update Frames
None
Add 4 Constraints
text

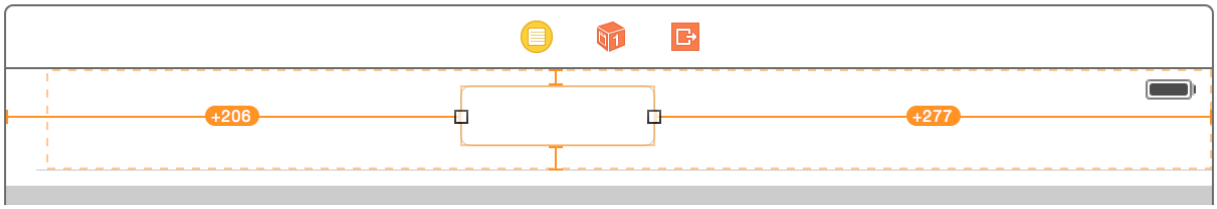


Table View Controller Scene

Table View Controller

Structure

Table View Controller

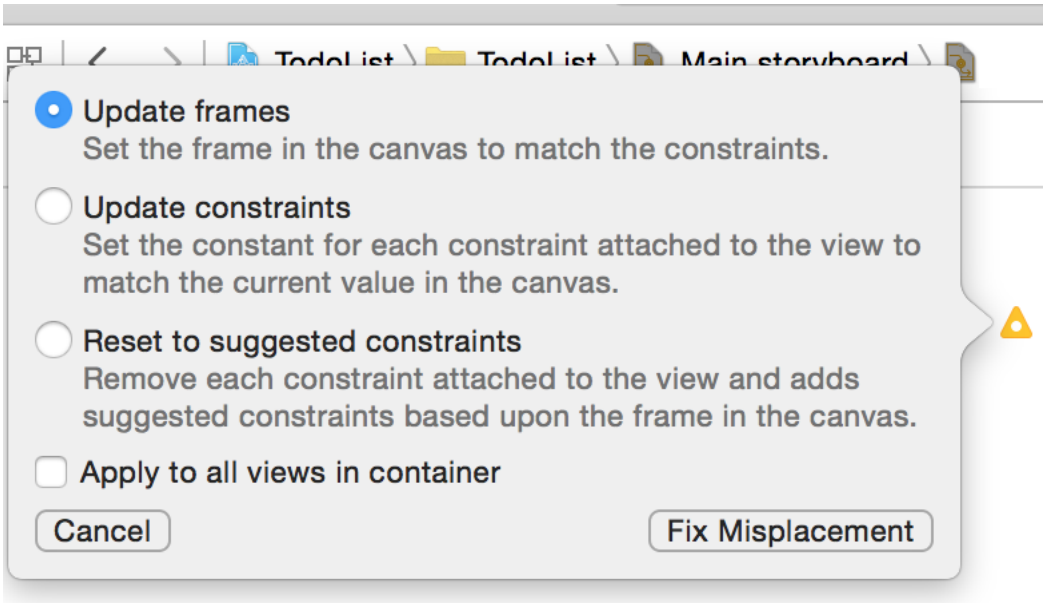
Misplaced Views

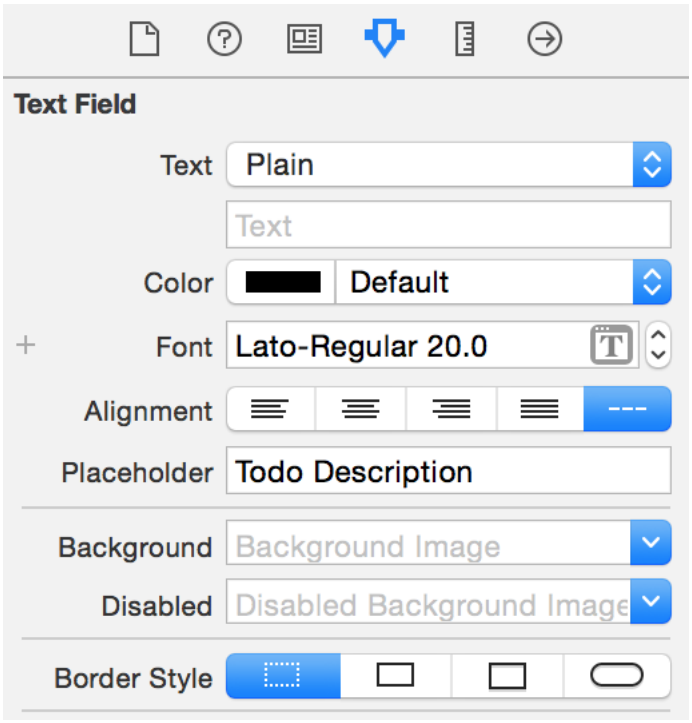
Round Style Text Field

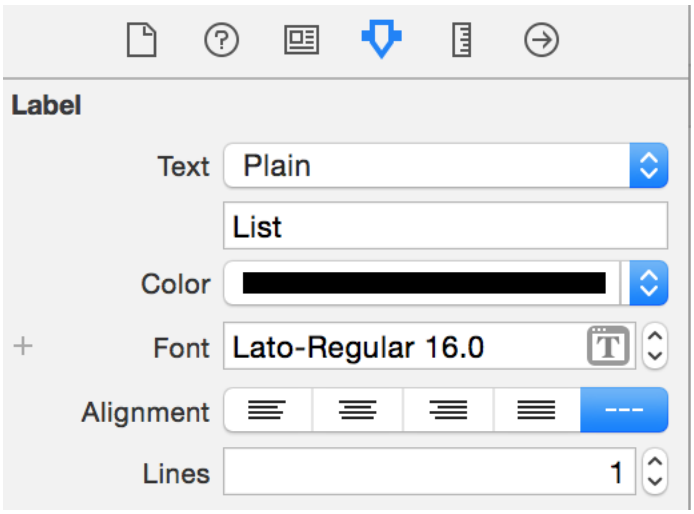
Text

Expected: x=20, y=0, width=580, height=50

Actual: x=226, y=8, width=97, height=30




Text Field
Text
Plain
Text
Color
Default
Font
Lato-Regular 20.0
Alignment
Placeholder
Todo Description
Background
Background Image
Disabled
Disabled Background Image
Border Style


Label
Text
Plain
List
Color
Font
Lato-Regular 16.0
Alignment
Lines
1

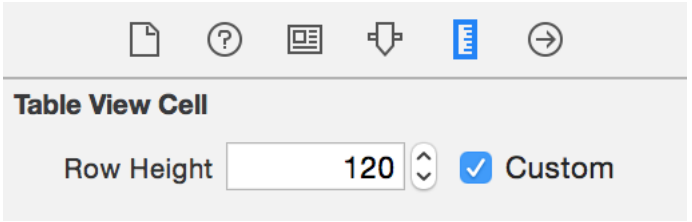
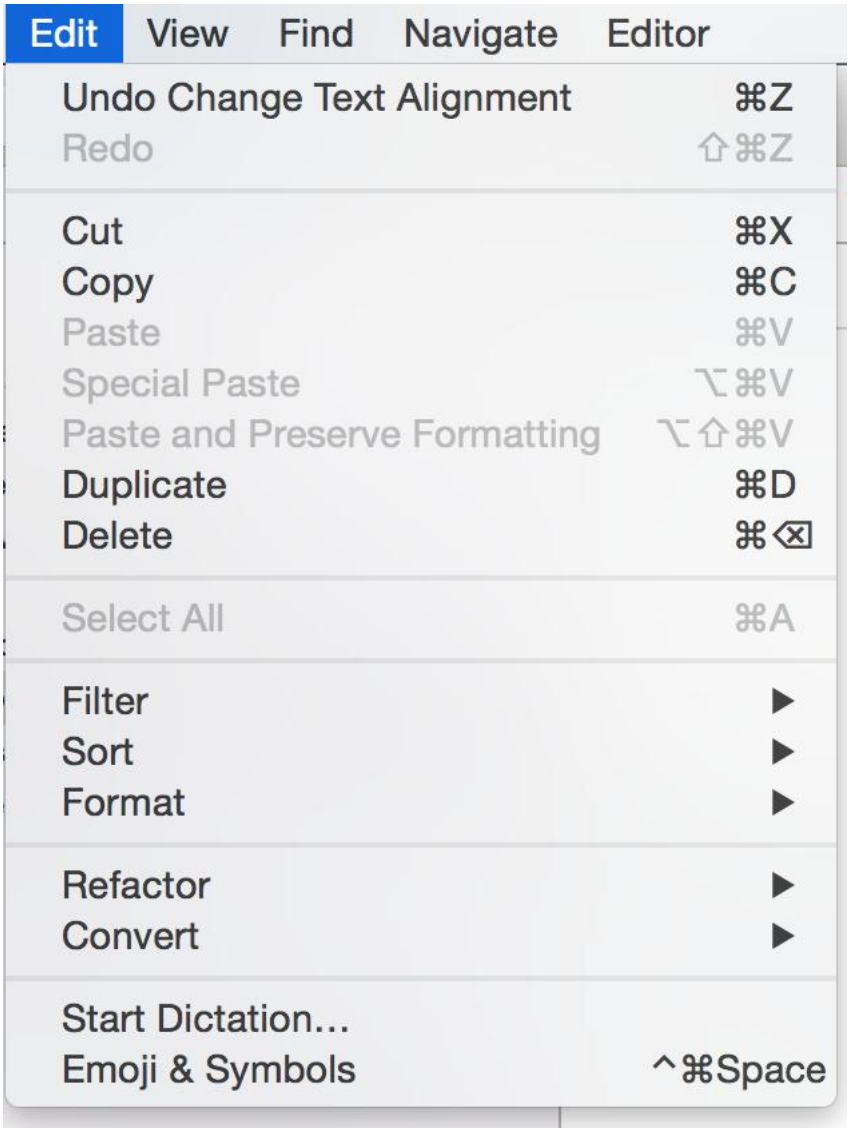
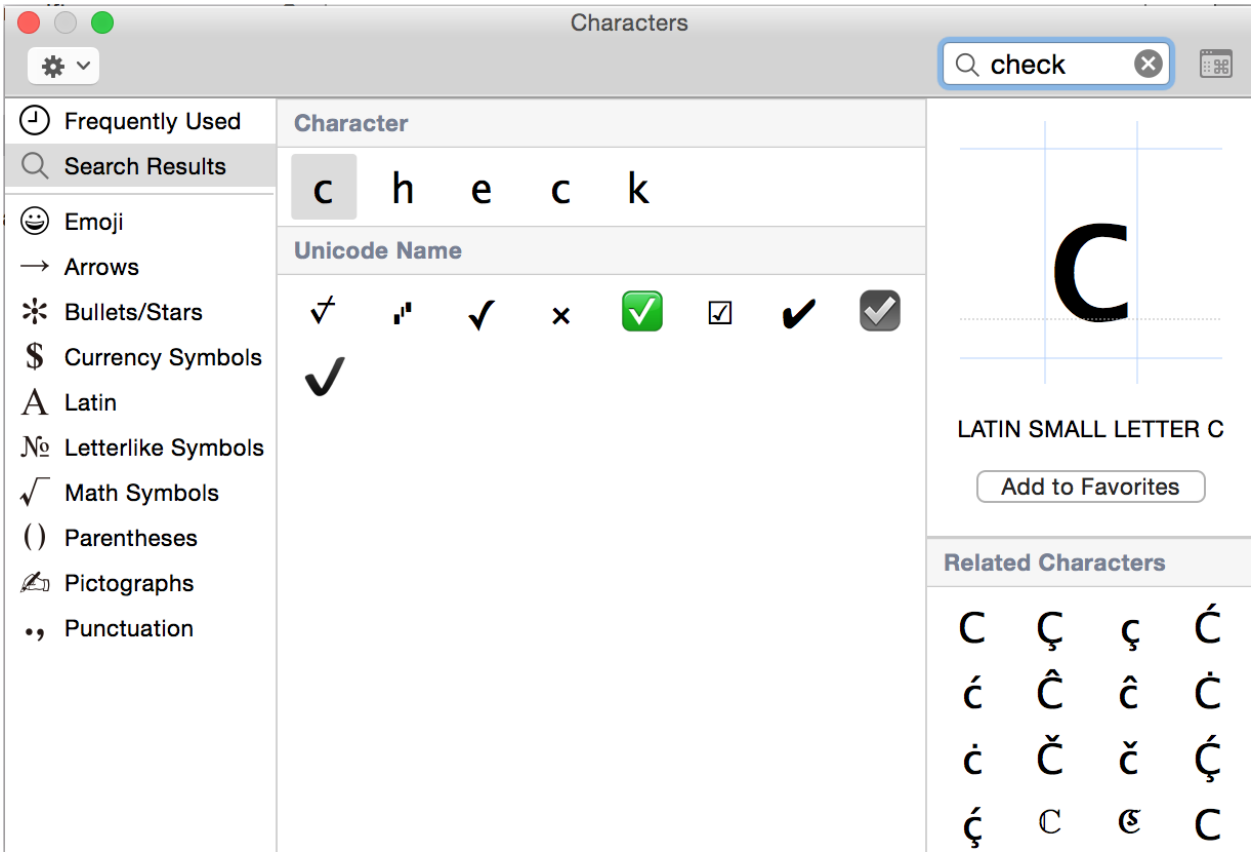
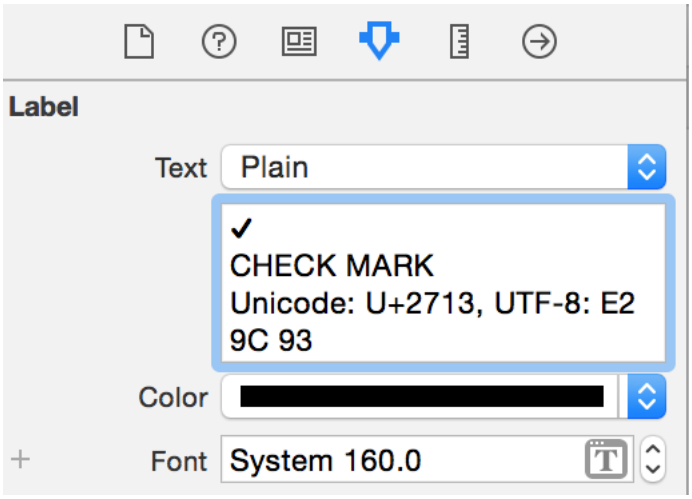
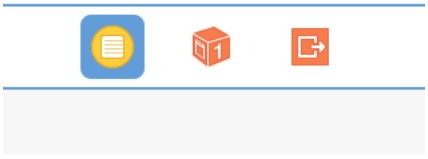


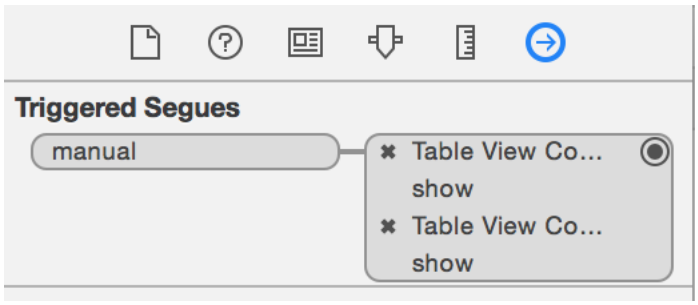
Table View Cell
Row Height
120
Custom

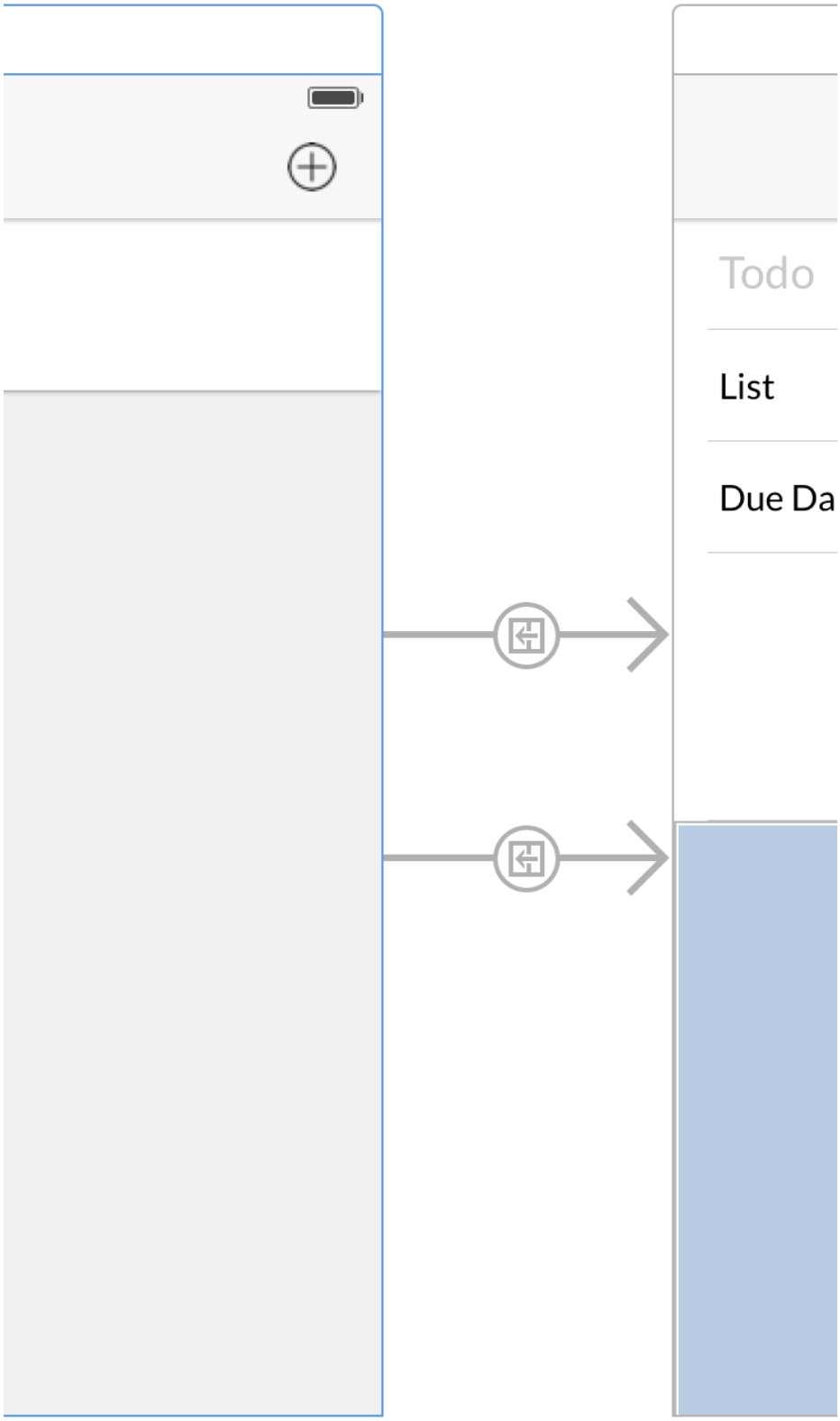

Edit
View
Find
Navigate
Editor
Undo Change Text Alignment ⌘Z
Redo ⇧⌘Z
Cut ⌘X
Copy ⌘C
Paste ⌘V
Special Paste ⌥⌘V
Paste and Preserve Formatting ⌥⇧⌘V
Duplicate ⌘D
Delete ⌘⌫
Select All ⌘A
Filter ▶
Sort ▶
Format ▶
Refactor ▶
Convert ▶
Start Dictation…
Emoji & Symbols ^⌘Space

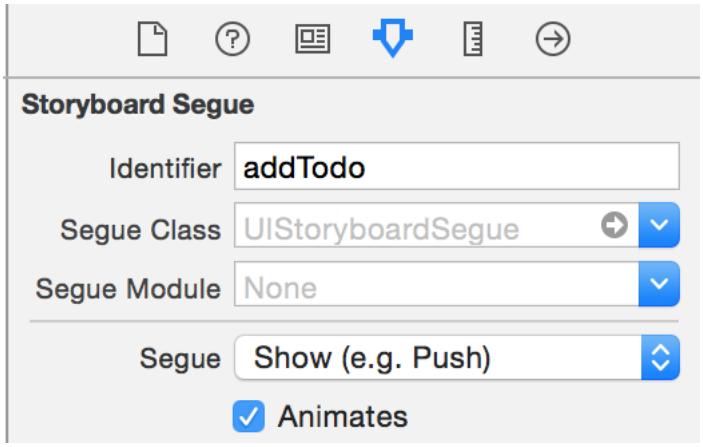

Characters
check
Frequently Used
Search Results
Emoji
Arrows
Bullets/Stars
Currency Symbols
Latin
Letterlike Symbols
Math Symbols
Parentheses
Pictographs
Punctuation
Character
c h e c k
Unicode Name
C
LATIN SMALL LETTER C
Add to Favorites
Related Characters

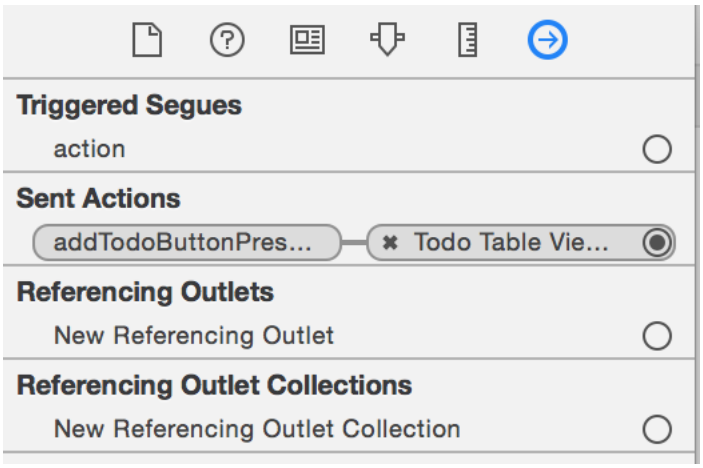

Label
Text
Plain
✓
CHECK MARK
Unicode: U+2713, UTF-8: E2 9C 93
Color
Font
System 160.0

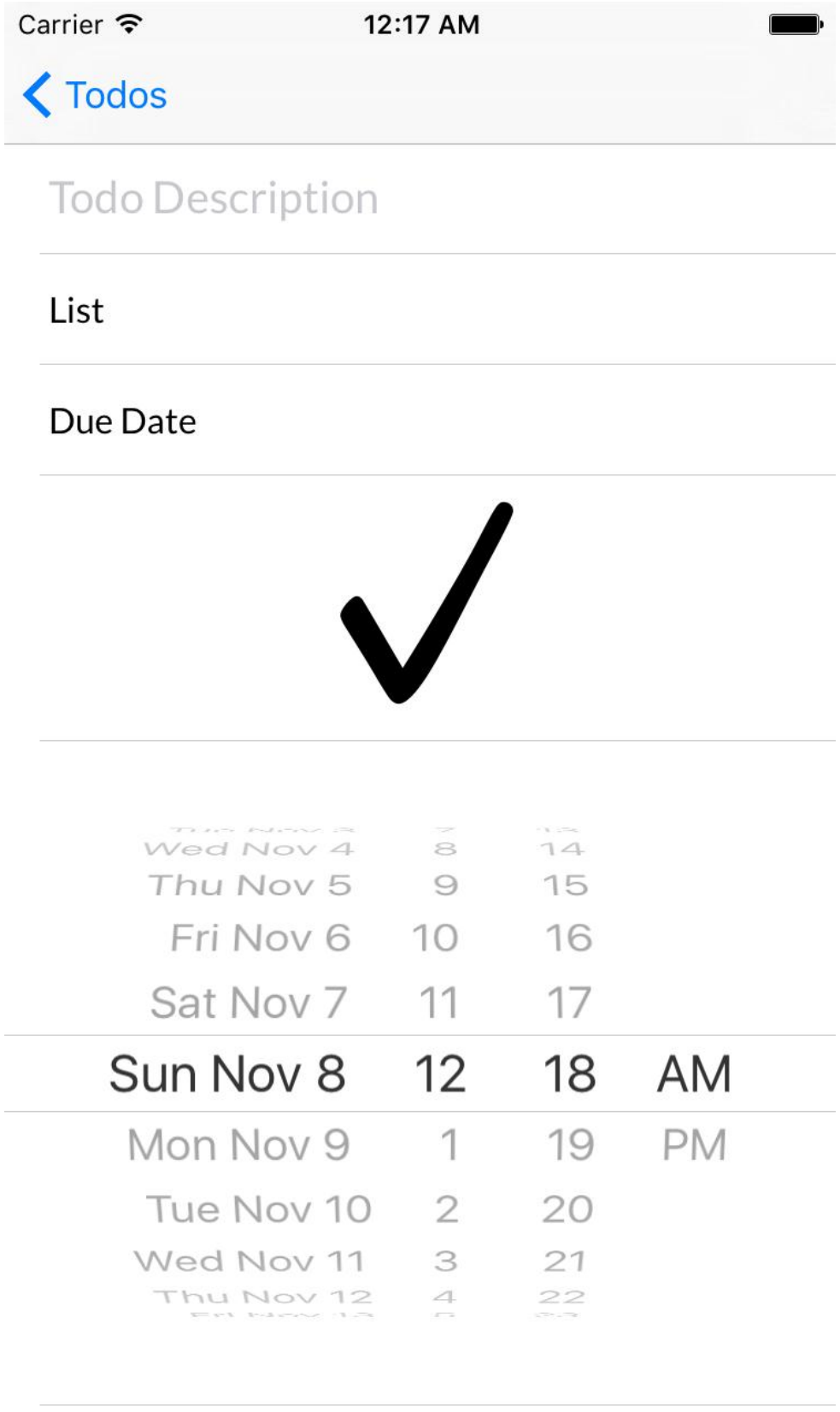


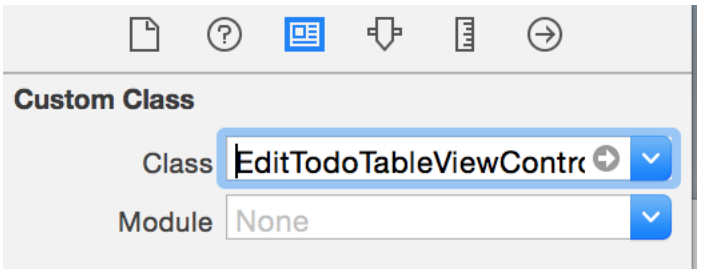

Triggered Segues
manual
Table View Co...
show
Table View Co...
show

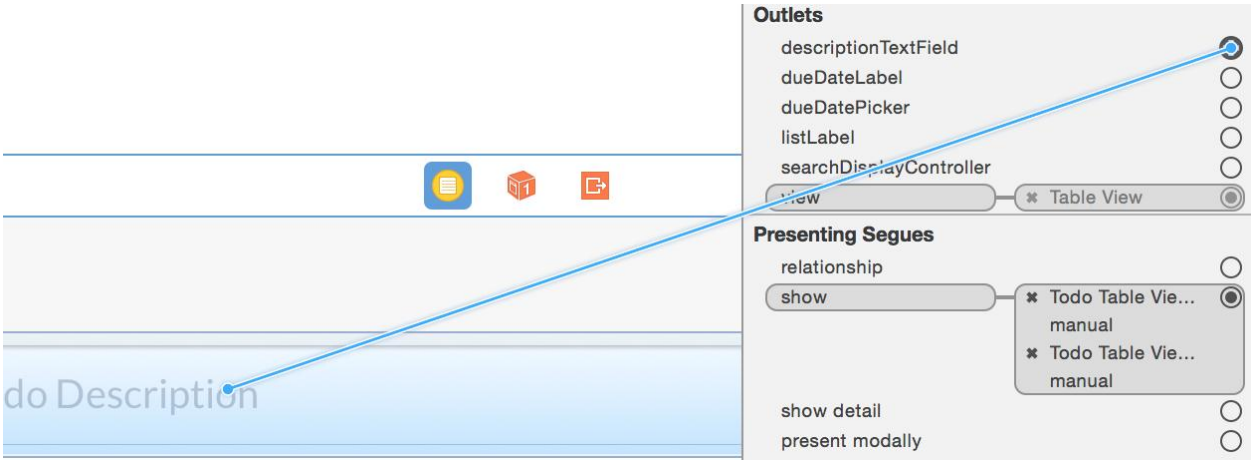

Todo
List
Due Da

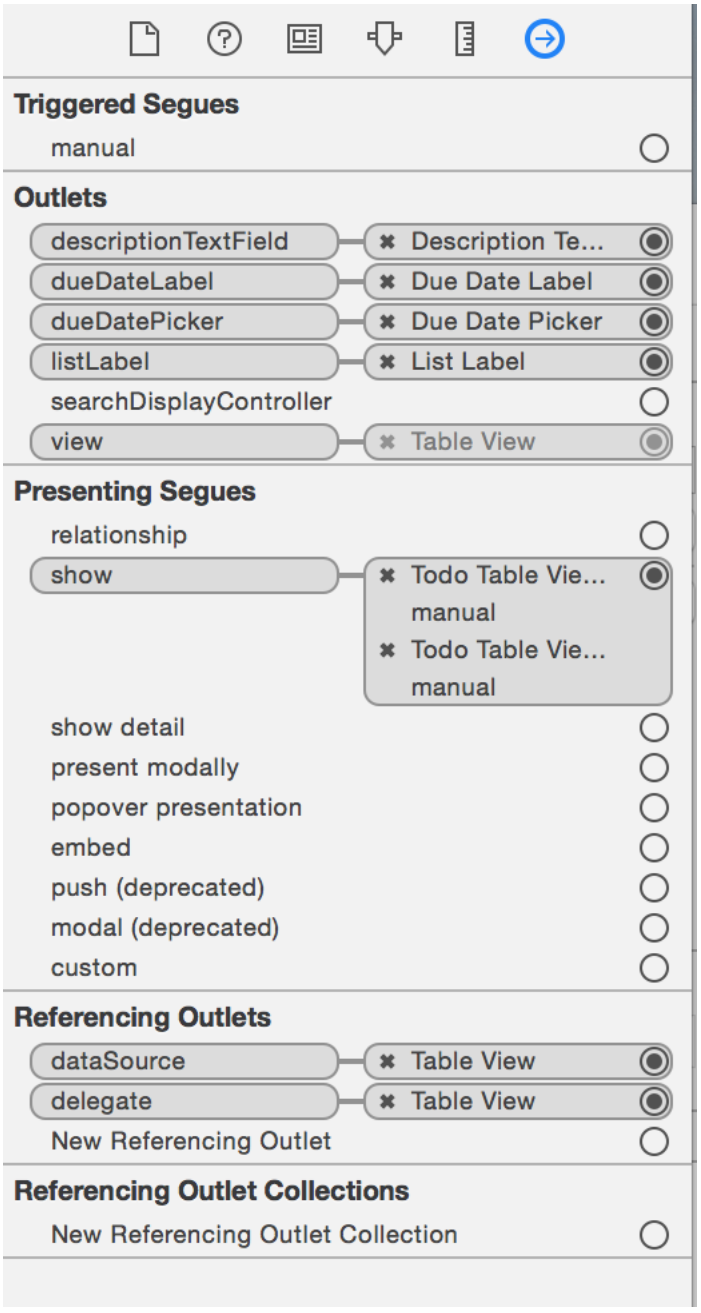

Storyboard Segue
Identifier
addTodo
Segue Class
UIStoryboardSegue
Segue Module
None
Segue
Show (e.g. Push)
Animates

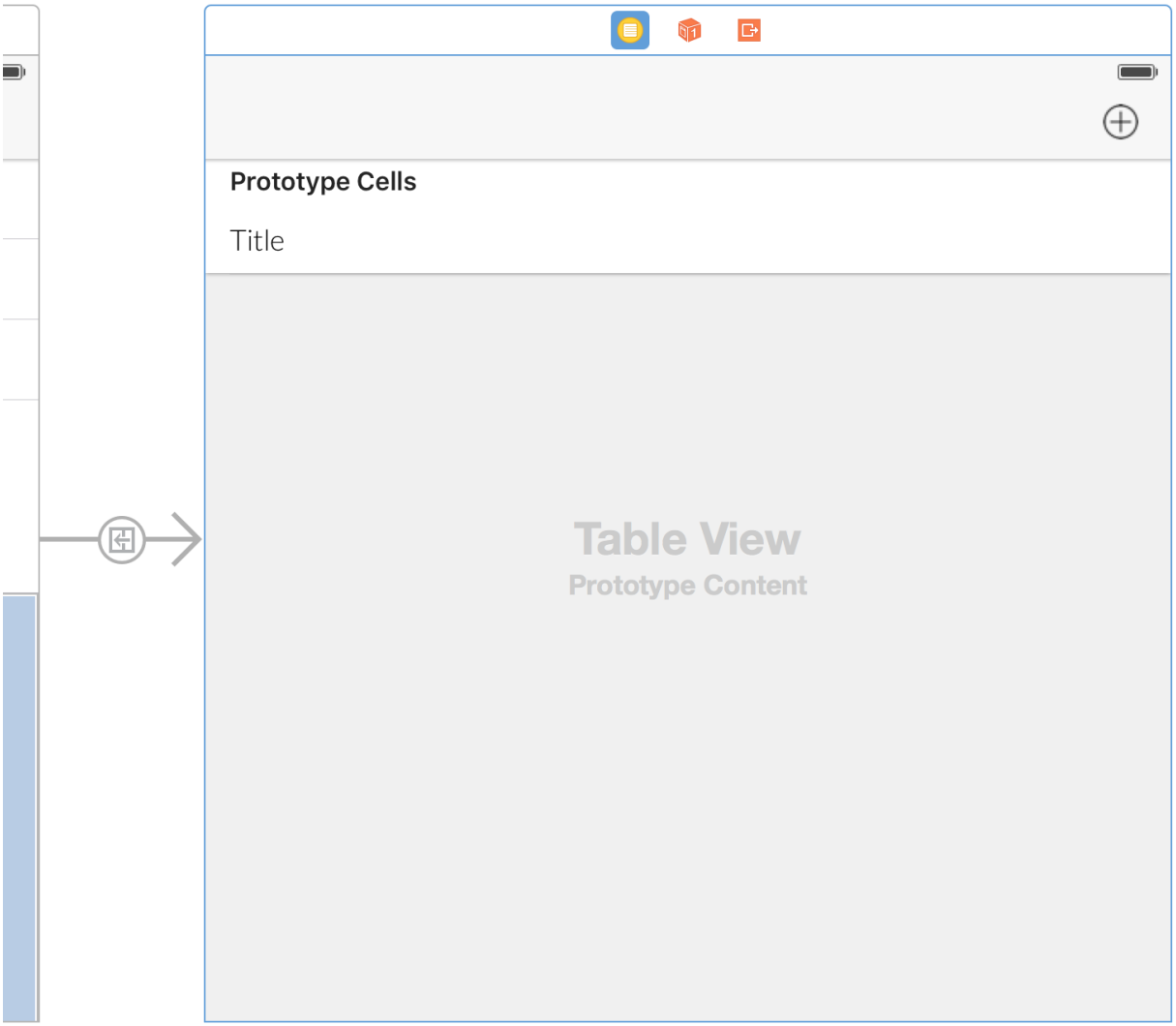

Triggered Segues
action
Sent Actions
addTodoButtonPres...
Todo Table Vie...
Referencing Outlets
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection

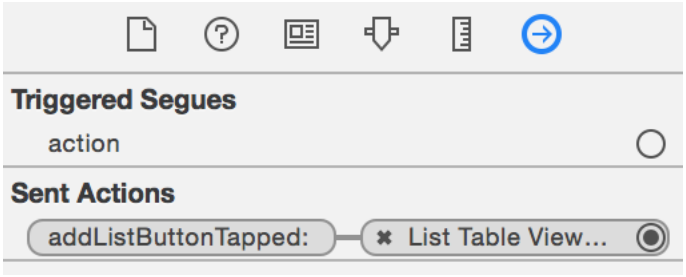

Carrier
12:17 AM
Todos
Todo Description
List
Due Date
Wed Nov 4 8 14
Thu Nov 5 9 15
Fri Nov 6 10 16
Sat Nov 7 11 17
Sun Nov 8 12 18 AM
Mon Nov 9 1 19 PM
Tue Nov 10 2 20
Wed Nov 11 3 21
Thu Nov 12 4 22


Custom Class
Class
EditTodoTableViewContr
Module
None


Outlets
descriptionTextField
dueDateLabel
dueDatePicker
listLabel
searchDisplayController
View
Table View
Presenting Segues
relationship
show
Todo Table Vie...
manual
Todo Table Vie...
manual
show detail
present modally
do Description

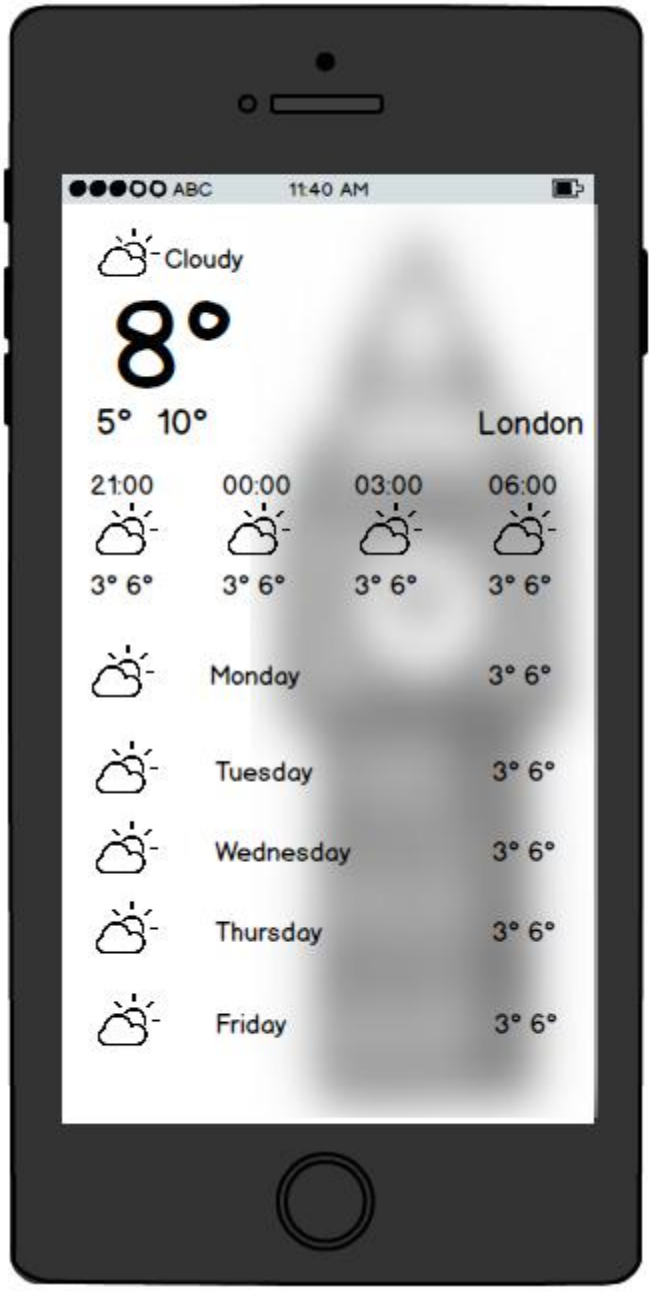

Triggered Segues
manual
Outlets
descriptionTextField
Description Te...
dueDateLabel
Due Date Label
dueDatePicker
Due Date Picker
listLabel
List Label
searchDisplayController
view
Table View
Presenting Segues
relationship
show
Todo Table Vie...
manual
Todo Table Vie...
manual
show detail
present modally
popover presentation
embed
push (deprecated)
modal (deprecated)
custom
Referencing Outlets
dataSource
Table View
delegate
Table View
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection

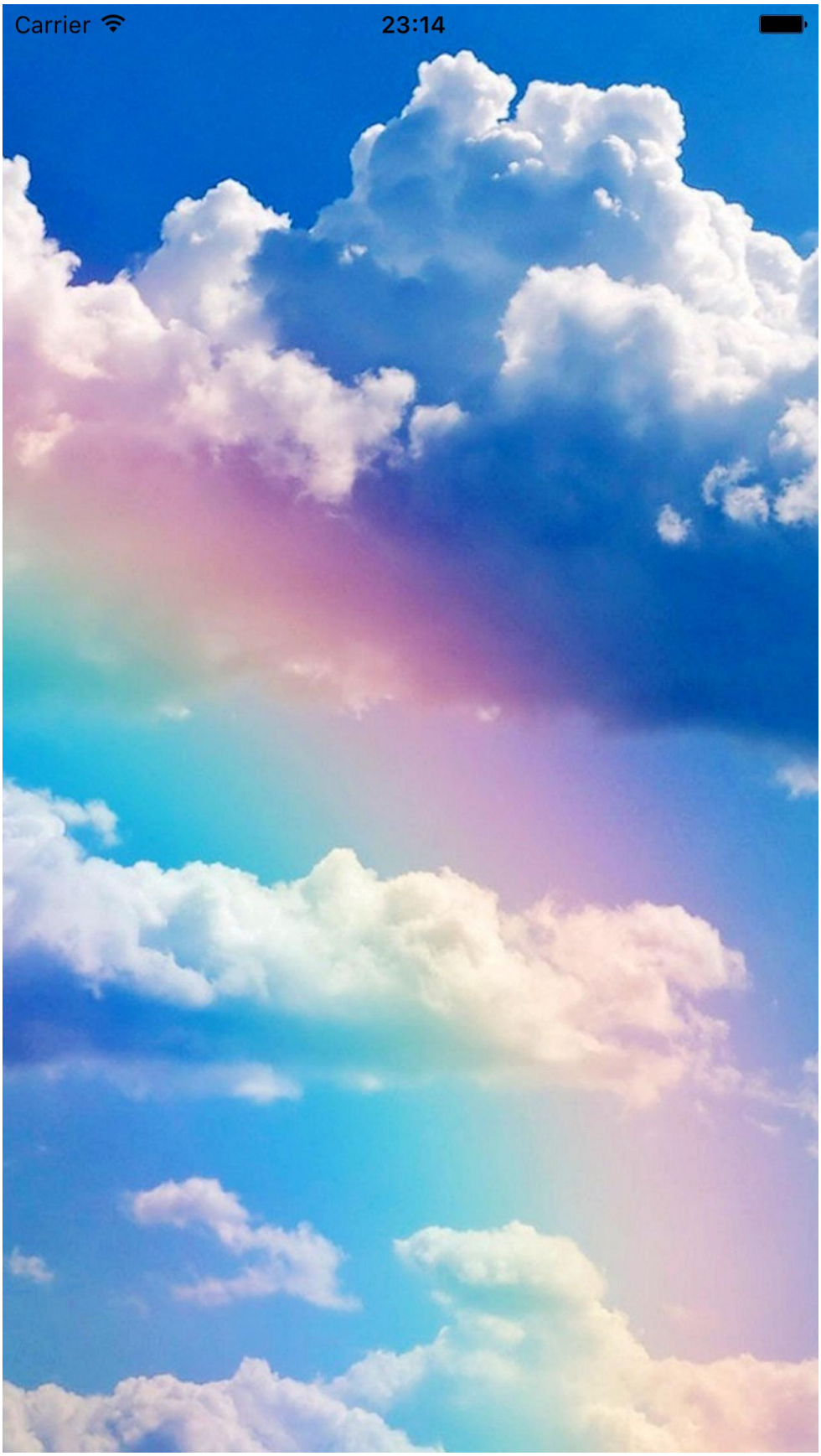

Prototype Cells
Title
Table View
Prototype Content

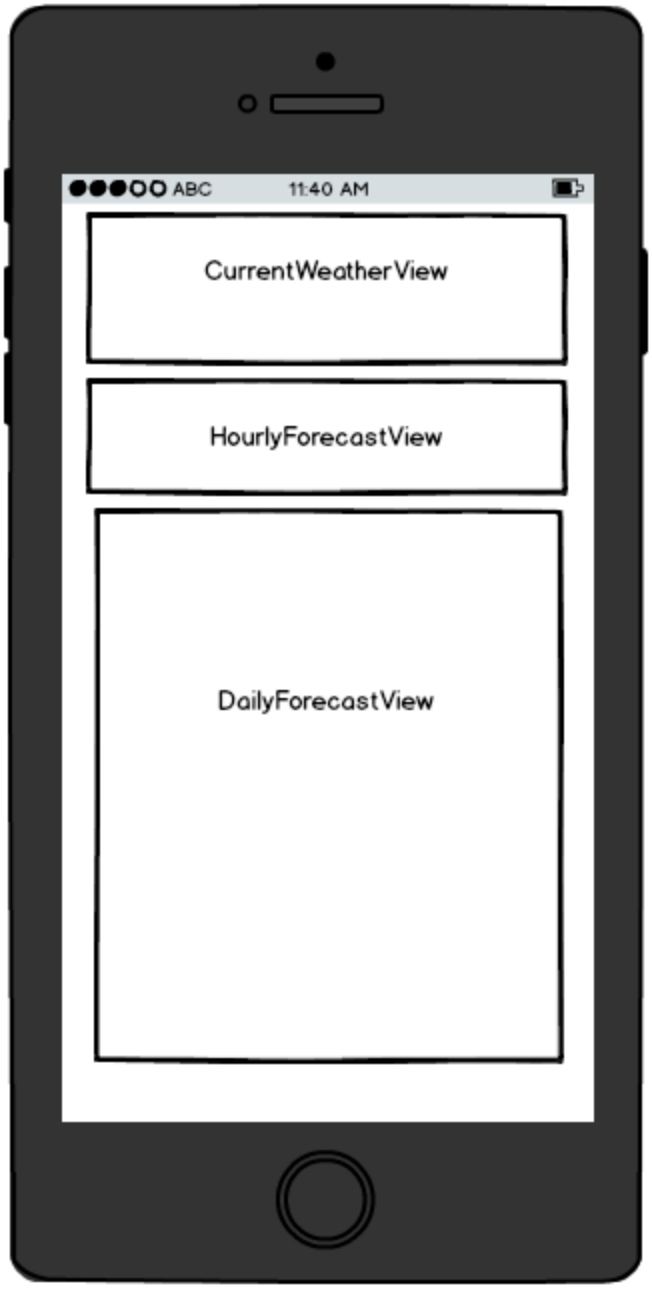

Triggered Segues
action
Sent Actions
addListButtonTapped:
List Table View...

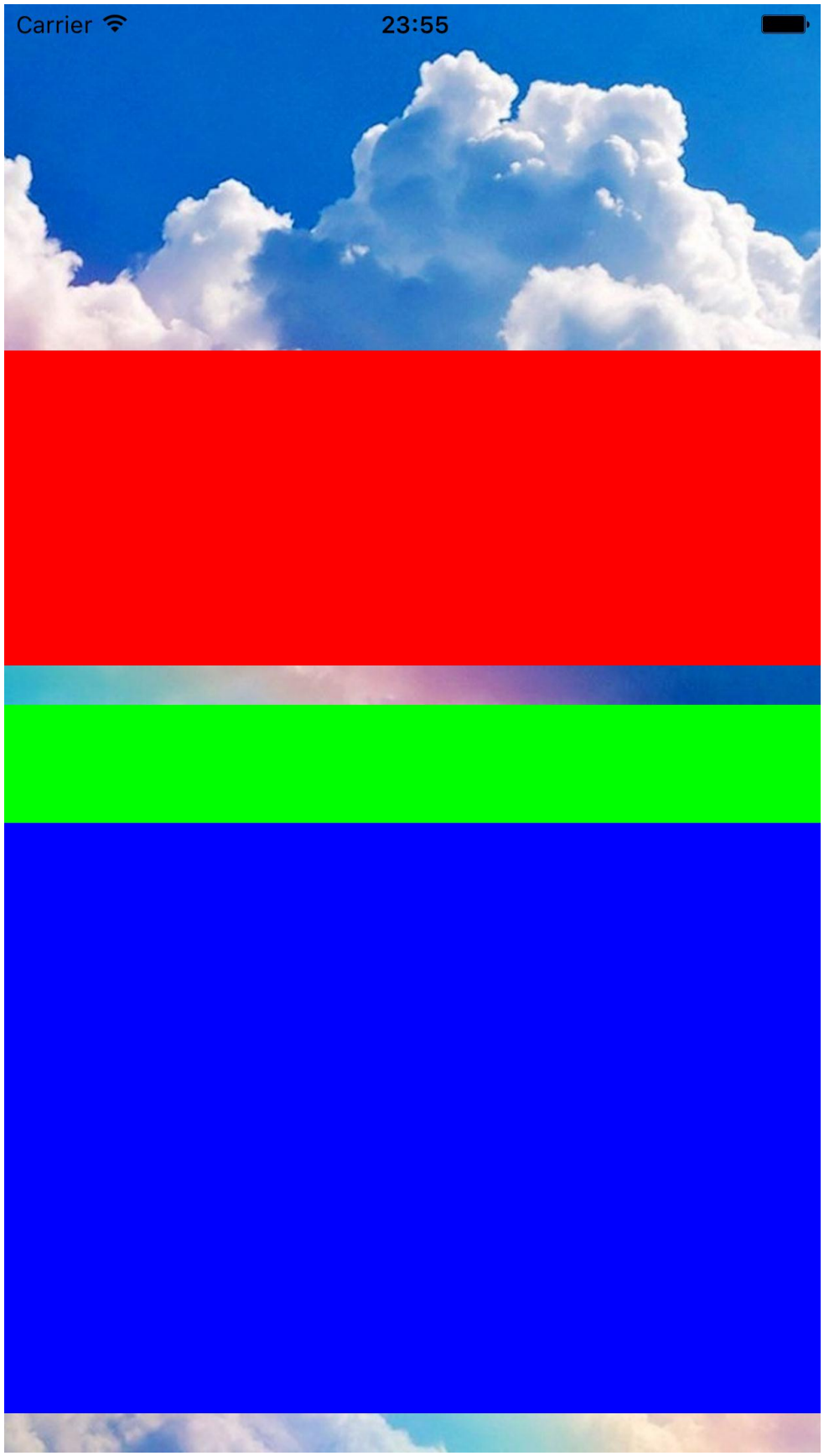
Chapter 5: A Pretty Weather App

ABC
11:40 AM
Cloudy
8°
5° 10°
London

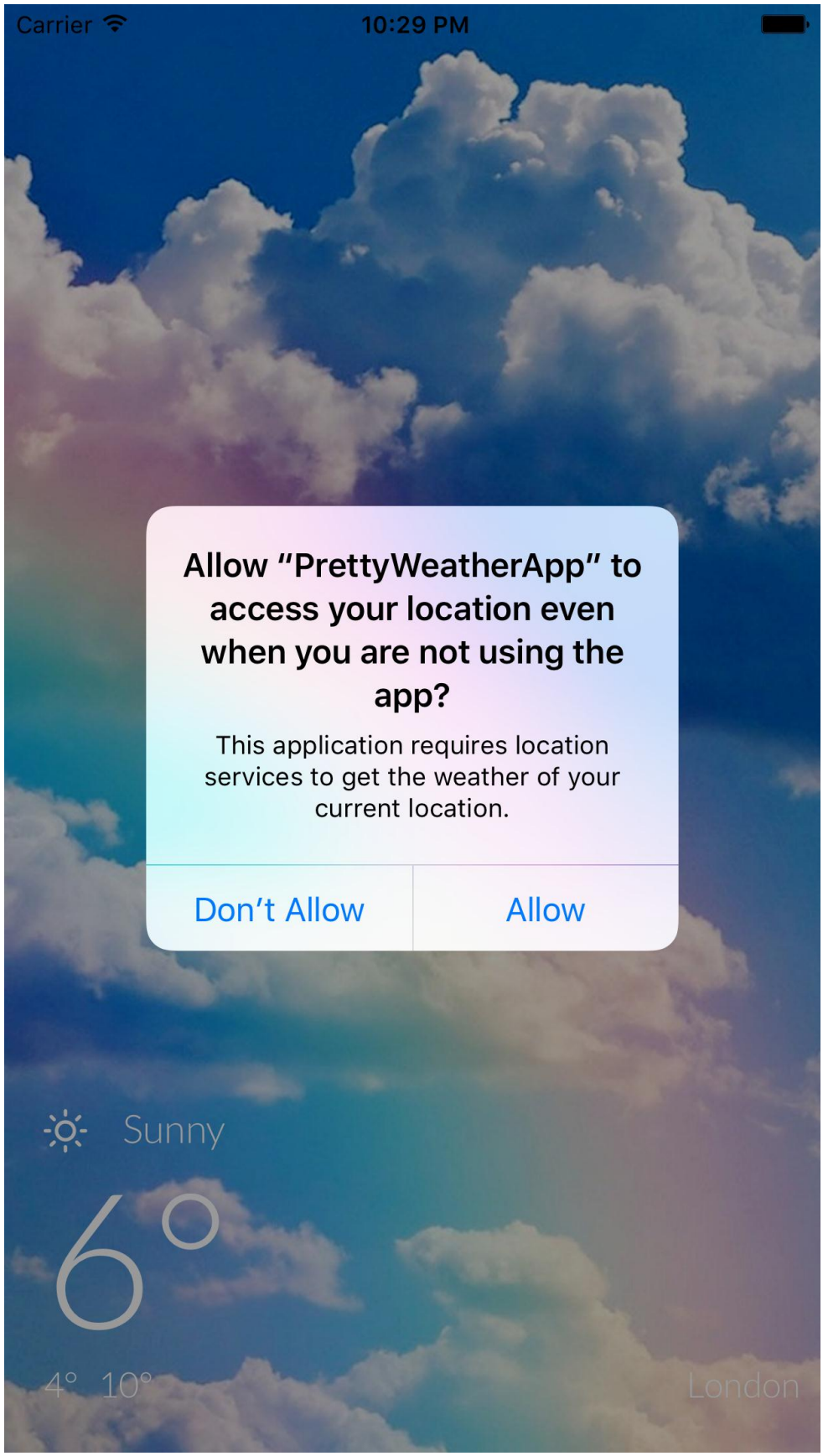

ABC
11:40 AM
Cloudy
8°
5° 10°
London
21:00
00:00
03:00
06:00
3° 6°
3° 6°
3° 6°
3° 6°
Monday
3° 6°
Tuesday
3° 6°
Wednesday
3° 6°
Thursday
3° 6°
Friday
3° 6°

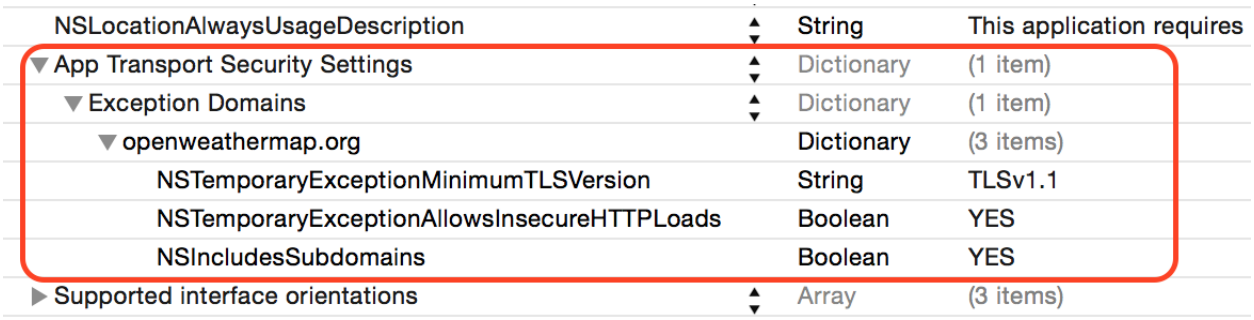

Carrier
23:14


ABC
11:40 AM
CurrentWeatherView
HourlyForecastView
DailyForecastView


Carrier
23:55

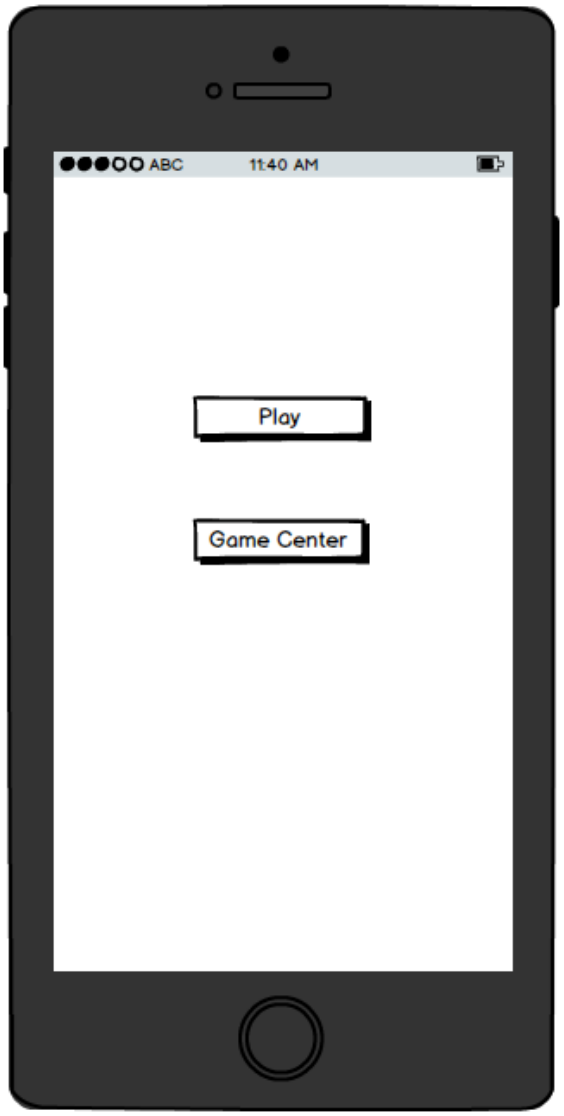
Carrier
10:17 PM
Sunny
6°
4° 10°
London
22:17 22:17 22:17 22:17
5° 8° 5° 8° 5° 8° 5° 8°
Tuesday 7° 11°
Tuesday 7° 11°
Tuesday 7° 11°
Tuesday 7° 11°
Tuesday 7° 11°
Tuesday 7° 11°
Tuesday 7° 11°

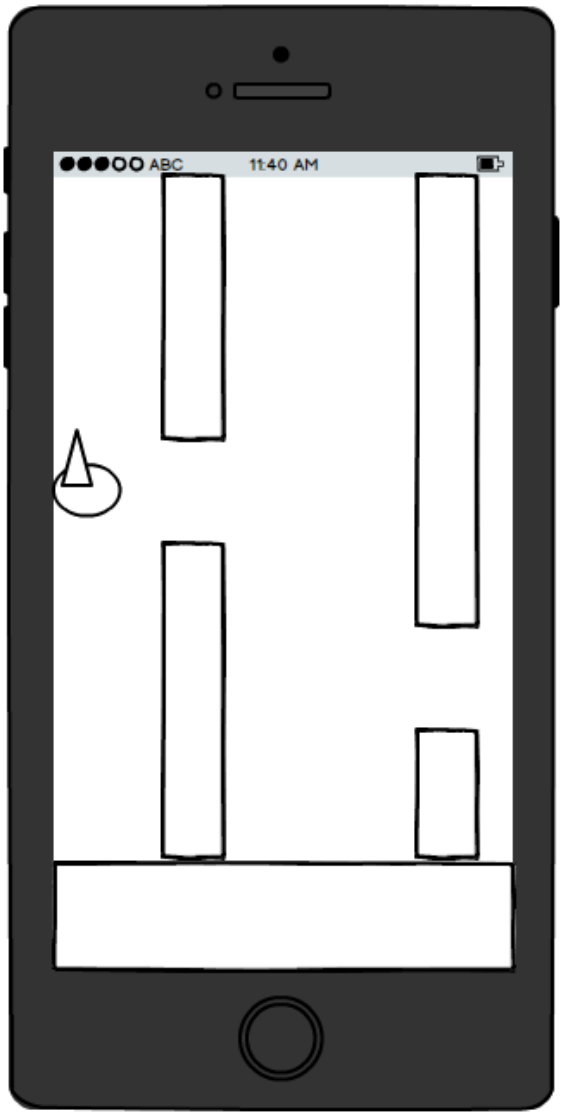

Carrier
10:29 PM
Allow “PrettyWeatherApp” to access your location even when you are not using the app?
This application requires location services to get the weather of your current location.
Don’t Allow
Allow
Sunny
6°
4° 10°
London

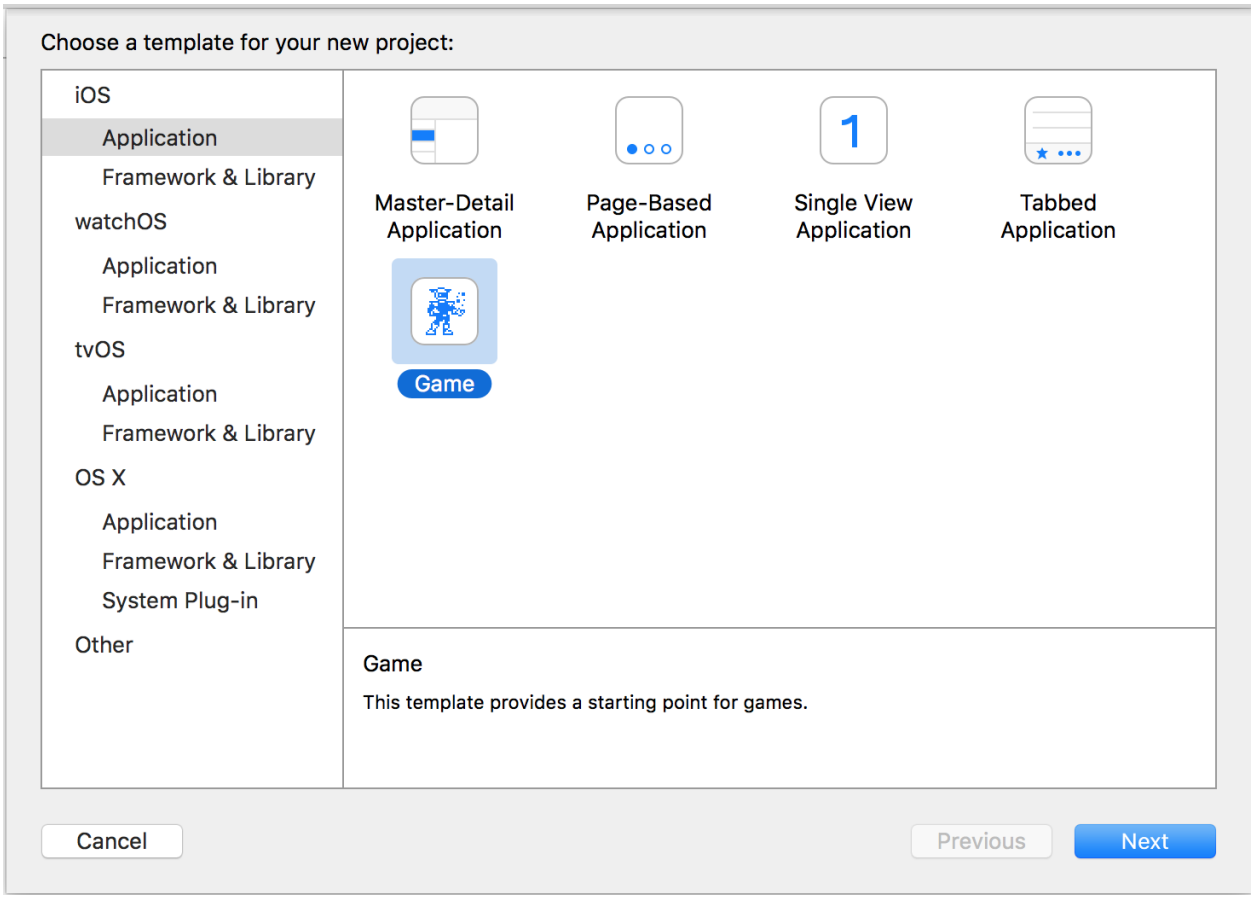

NSLocationAlwaysUsageDescription
String
This application requires
App Transport Security Settings
Dictionary
(1 item)
Exception Domains
Dictionary
(1 item)
openweathermap.org
Dictionary
(3 items)
NSTemporaryExceptionMinimumTLSVersion
String
TLSv1.1
NSTemporaryExceptionAllowsInsecureHTTPLoads
Boolean
YES
NSIncludesSubdomains
Boolean
YES
Supported interface orientations
Array
(3 items)

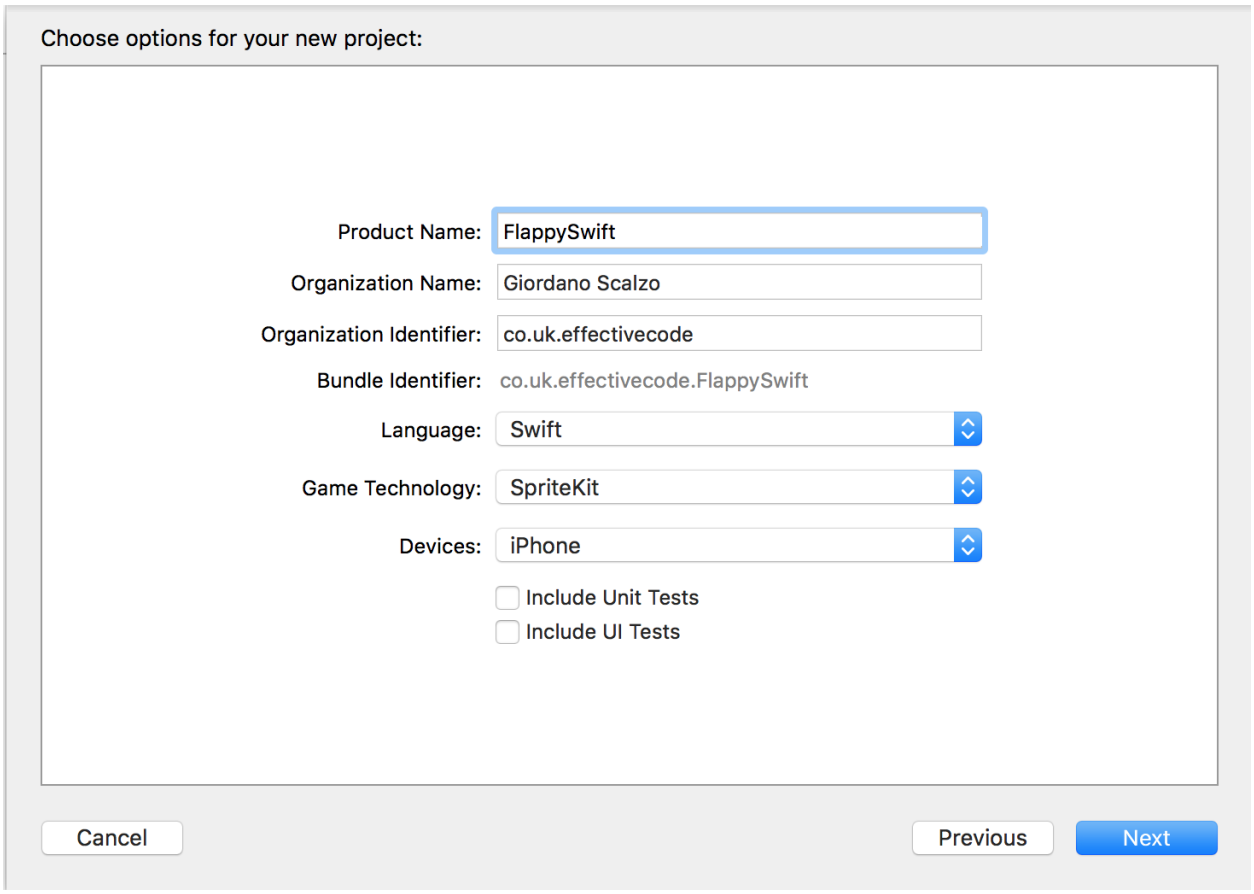
Carrier
22:44
Clouds
20°
17° 25°
Cupertino
01:00
04:00
07:00
10:00
18° 19°
15° 16°
13° 14°
13° 14°
Wednesday
12° 22°
Thursday
10° 23°
Friday
11° 22°

Chapter 6: Flappy Swift

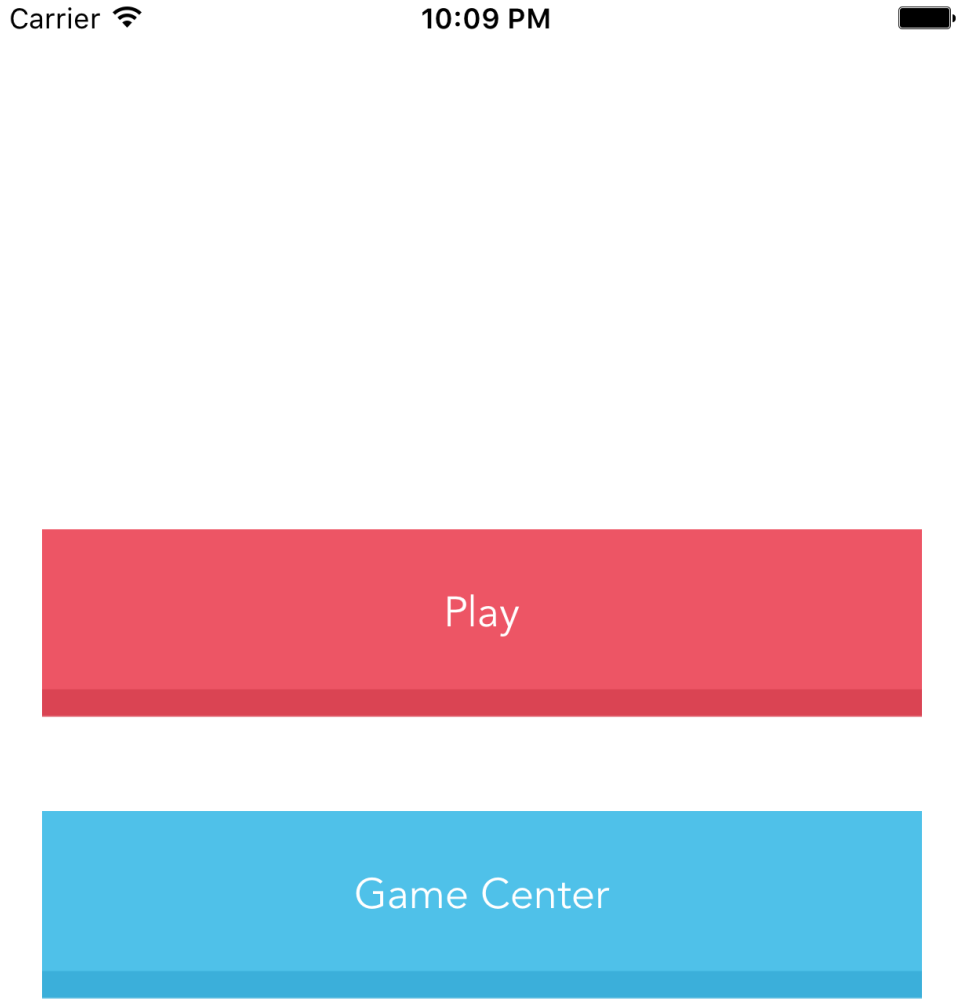


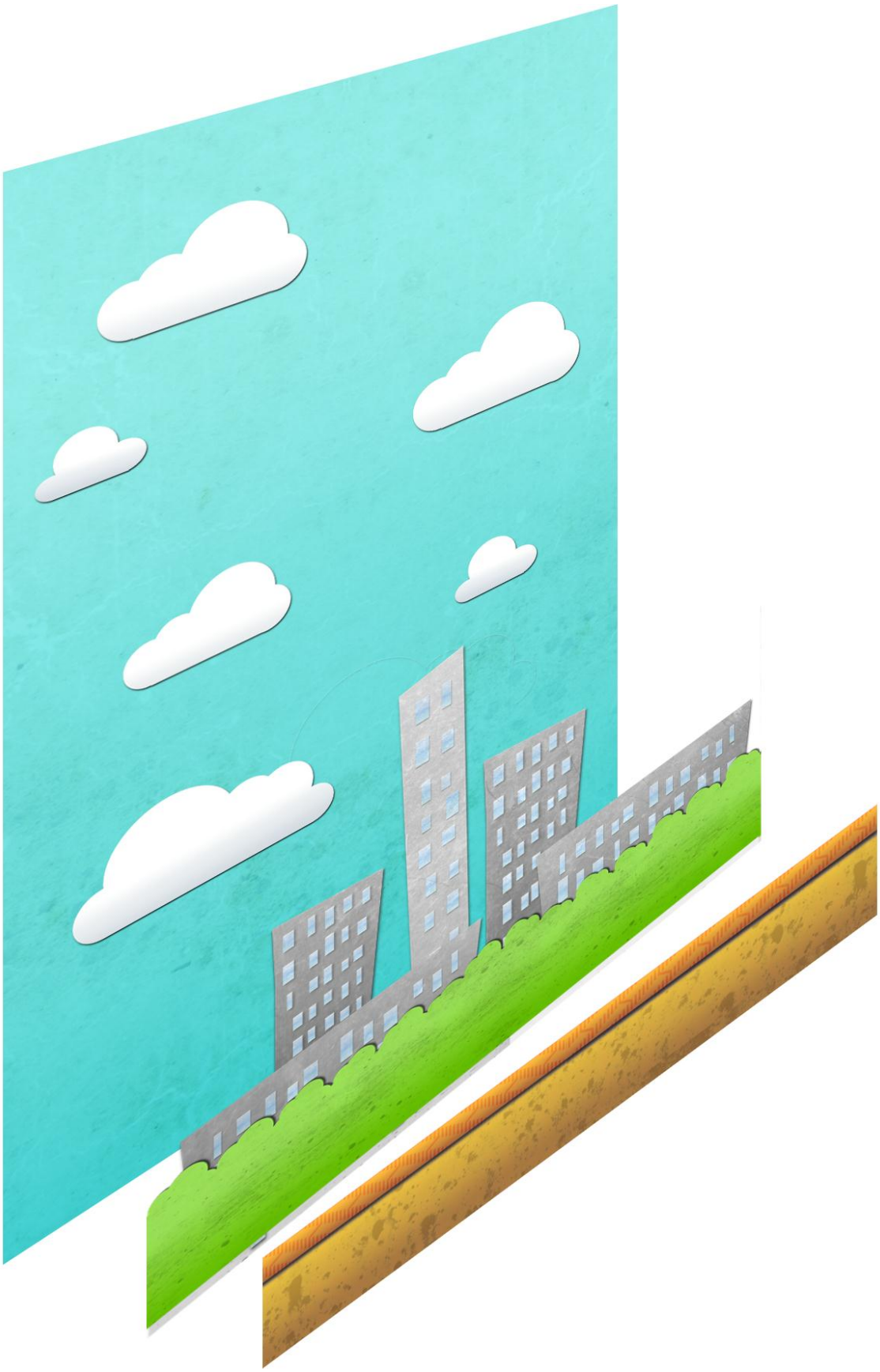


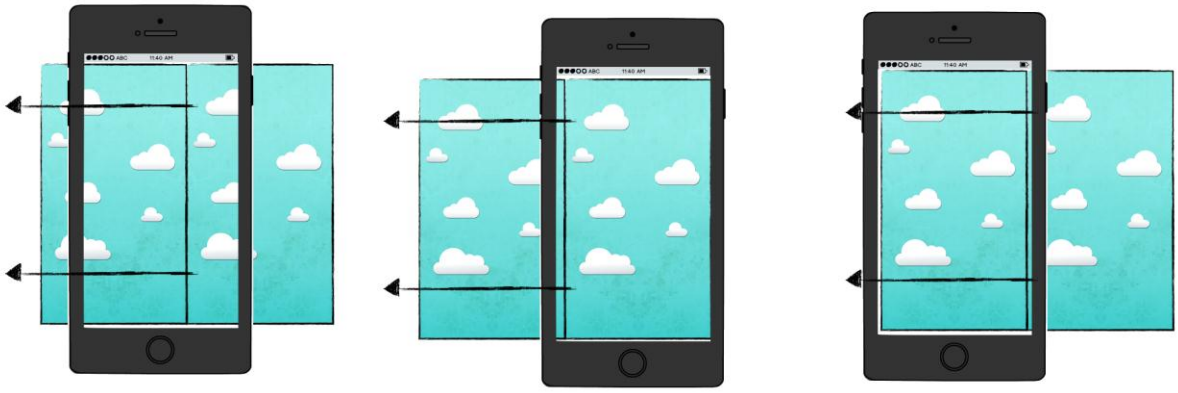

Choose a template for your new project:
iOS
Application
Framework & Library
watchOS
Application
Framework & Library
tvOS
Application
Framework & Library
OS X
Application
Framework & Library
System Plug-in
Other
Master-Detail Application
Page-Based Application
Single View Application
Tabbed Application
Game
Game
This template provides a starting point for games.
Cancel
Previous
Next

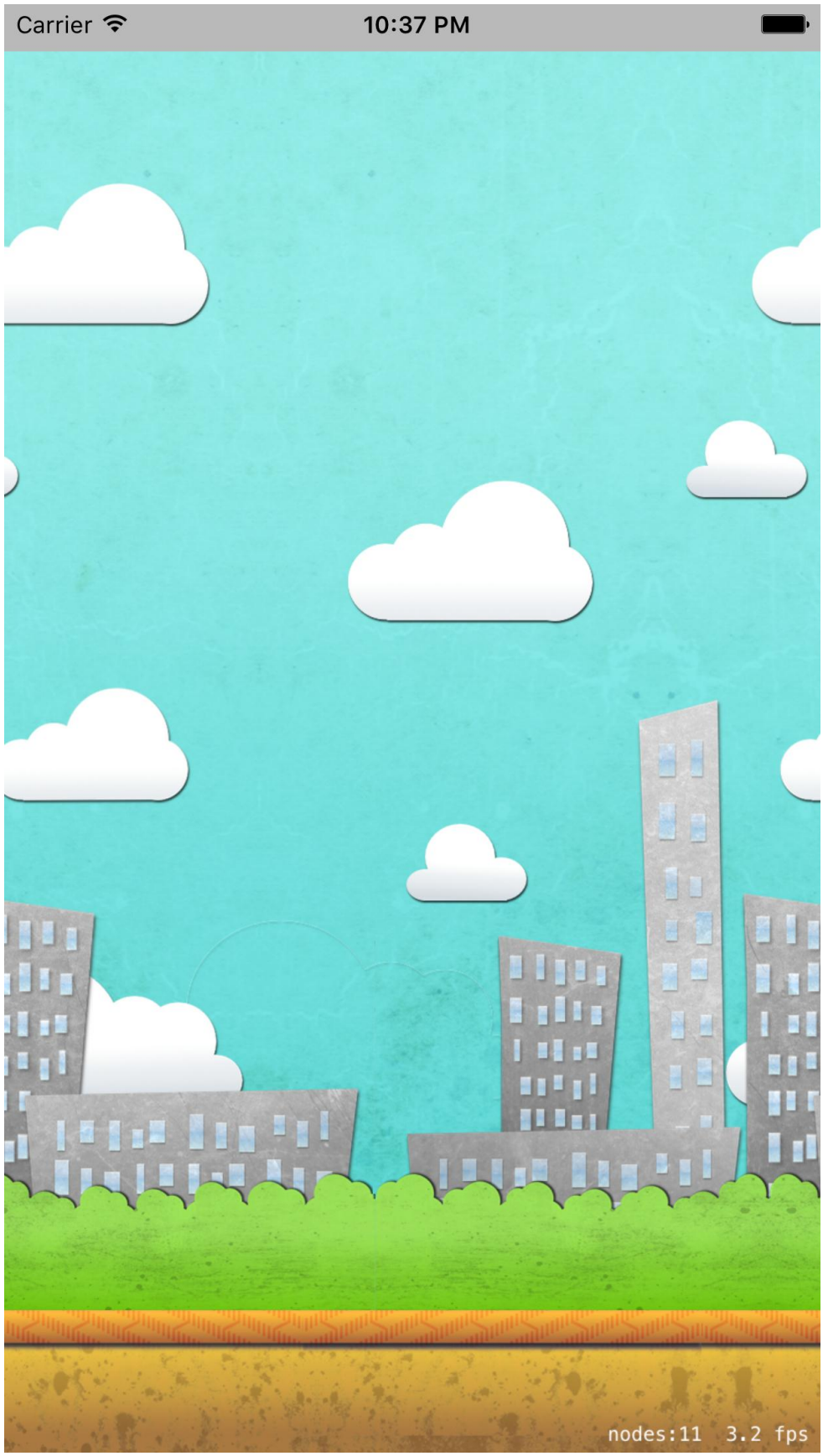

Choose options for your new project:
Product Name: FlappySwift
Organization Name: Giordano Scalzo
Organization Identifier: co.uk.effectivecode
Bundle Identifier: co.uk.effectivecode.FlappySwift
Language: Swift
Game Technology: SpriteKit
Devices: iPhone
Include Unit Tests
Include UI Tests
Cancel
Previous
Next

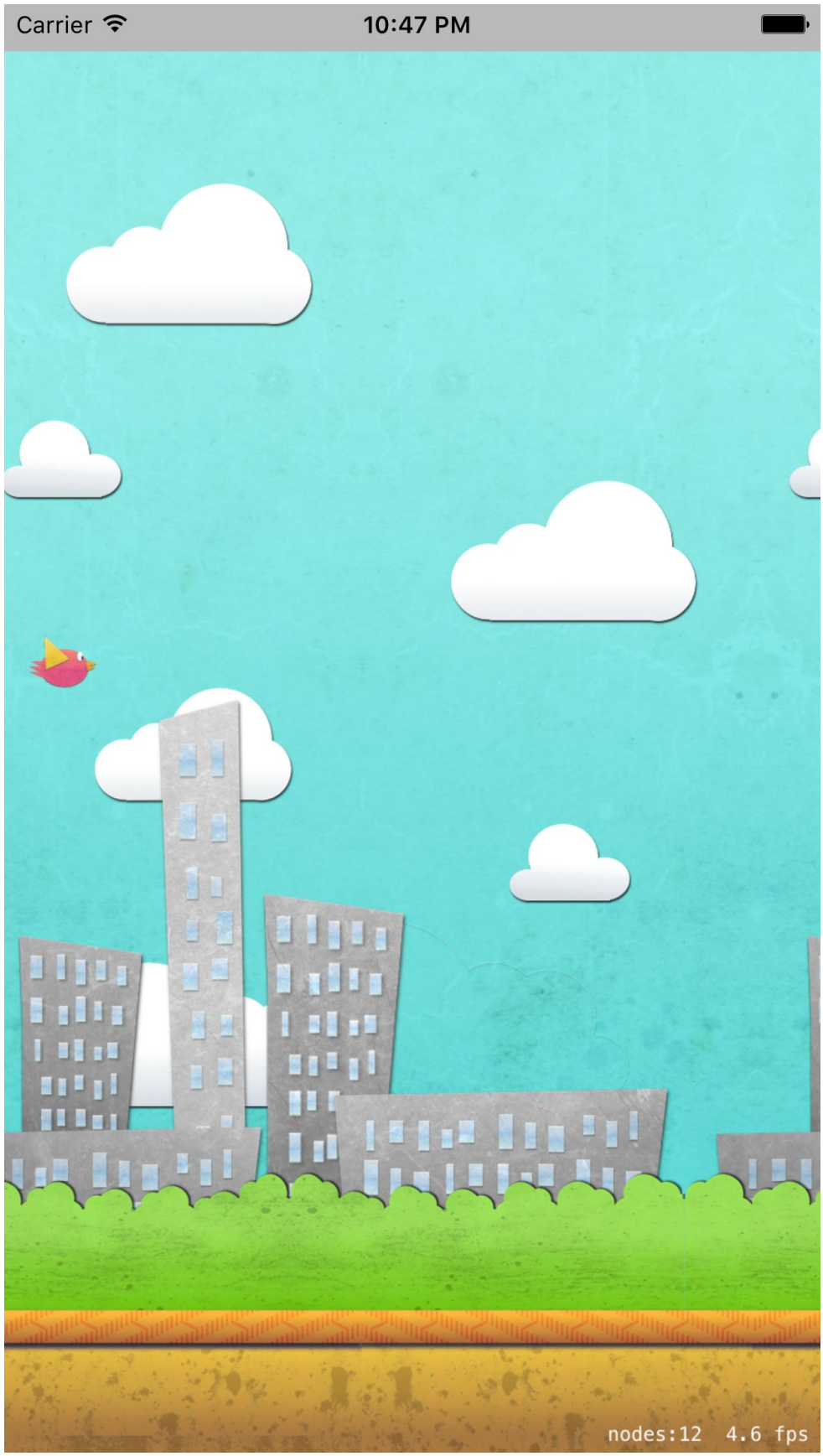
Hello, World!
nodes:16 12.2 fps

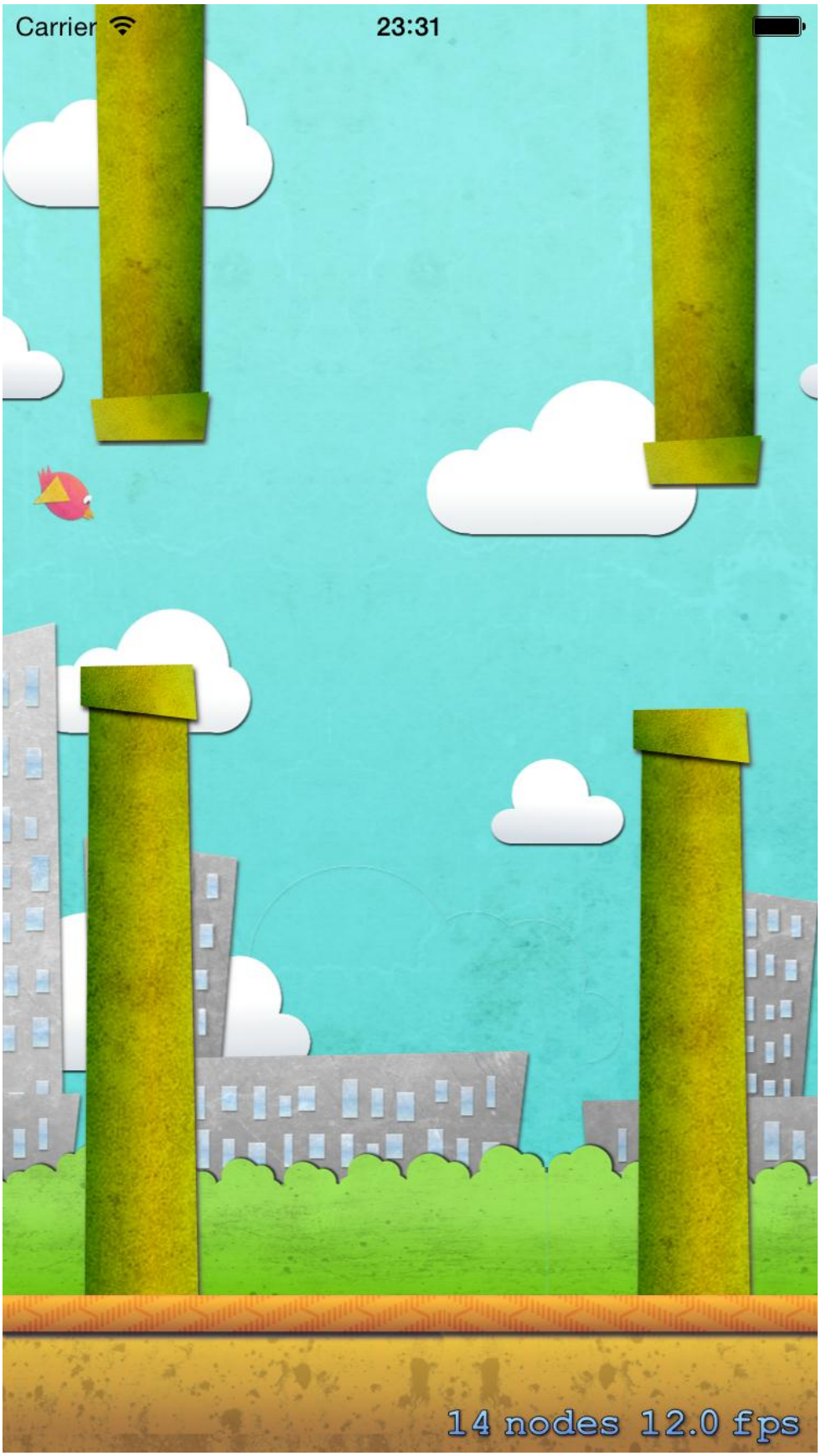

Carrier
10:09 PM
Play
Game Center





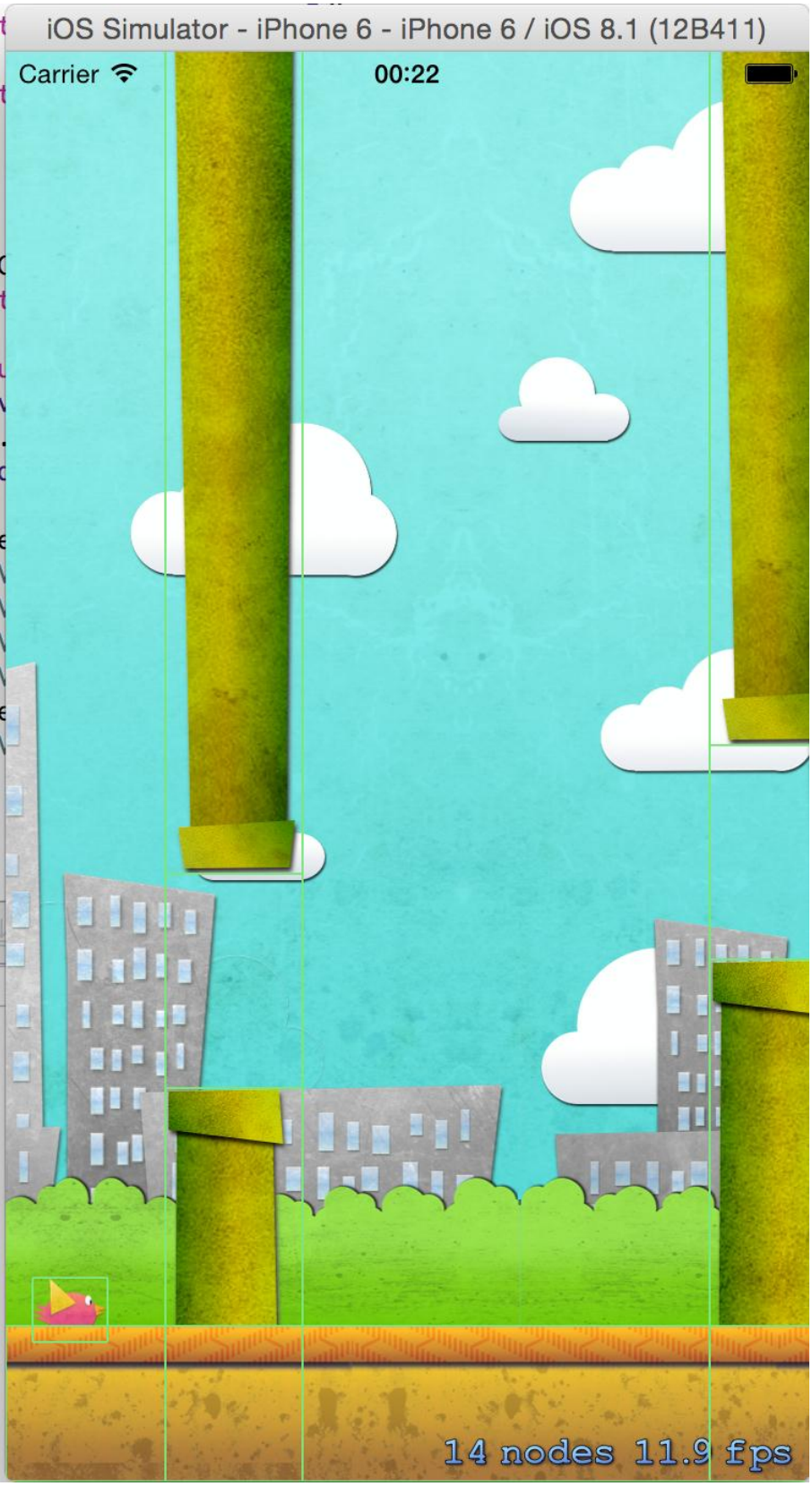

Carrier
10:37 PM
nodes:11 3.2 fps

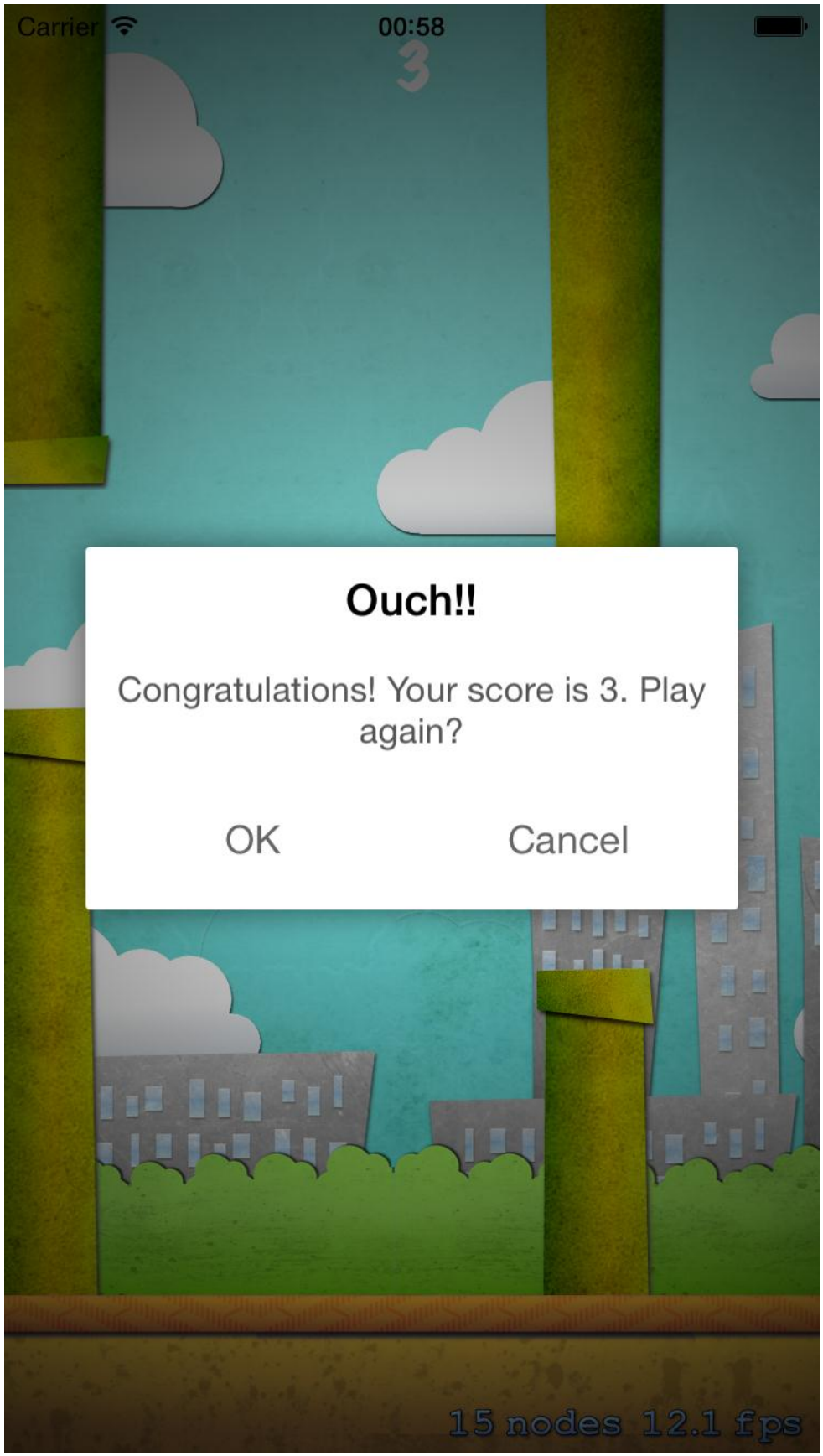

Carrier
10:47 PM
nodes:12 4.6 fps


Carrier
23:31
14 nodes 12.0 fps

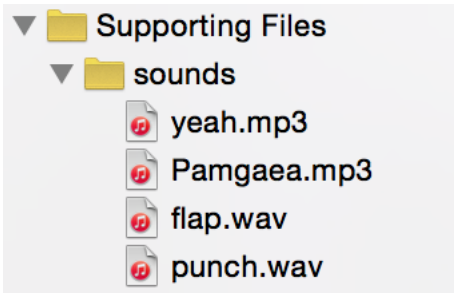
```
21                ret
22            } else
23                ret
24            }
25        }
26    }
27
28    class GameViewC
29        private let
30
31        override fu
32            super.v
33            skView.
34            view.ac
35            if let
36                sce
37                skV
38                skV
39                skV
40                skV
41                sce
42                skV
43            }
44        }
45    }
46
```

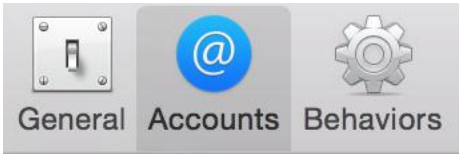
```
Contact with a pipe
Contact with a pipe
Contact with gap
Contact with a pipe
Contact with a pipe
Contact with a pipe
Contact with a pipe
Contact with gap
Contact with a pipe
Contact with gap
Contact with a pipe
Contact with gap
Contact with gap
Contact with a pipe
Contact with gap
Contact with ground
```

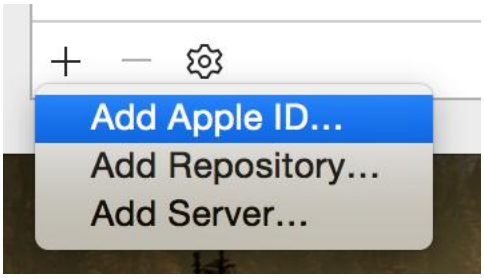


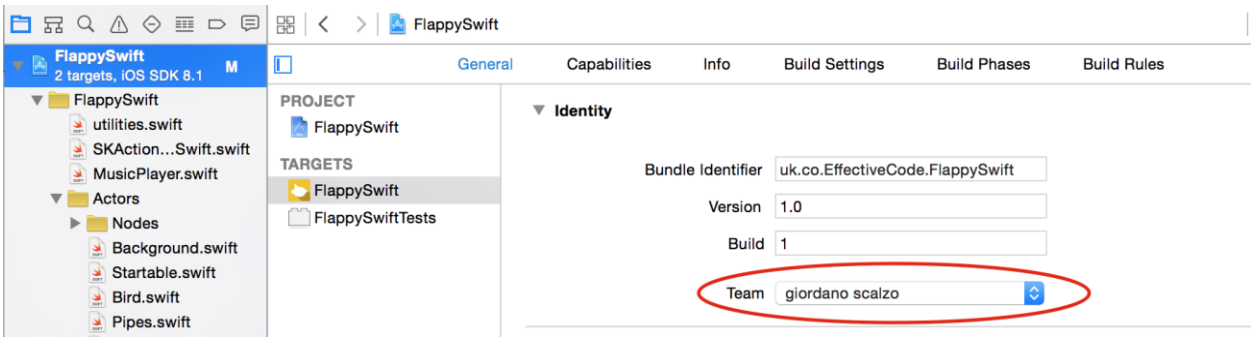

Carrier
00:58
3
Ouch!!
Congratulations! Your score is 3. Play again?
OK
Cancel
15 nodes 12.1 fps

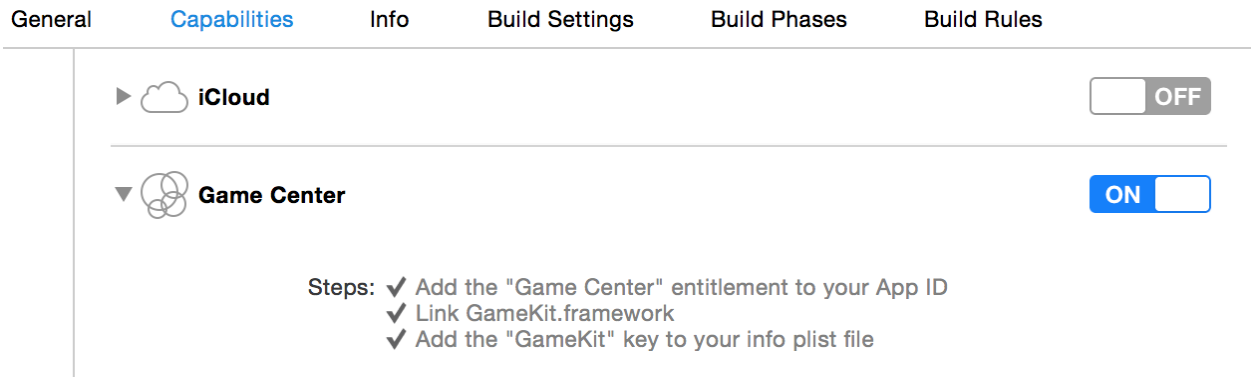
Chapter 7: Polishing Flappy Swift

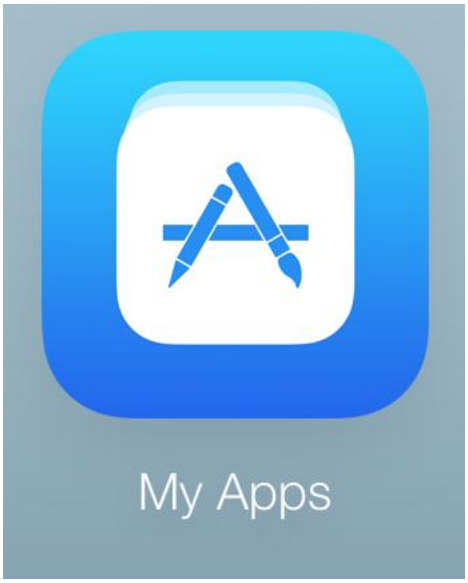


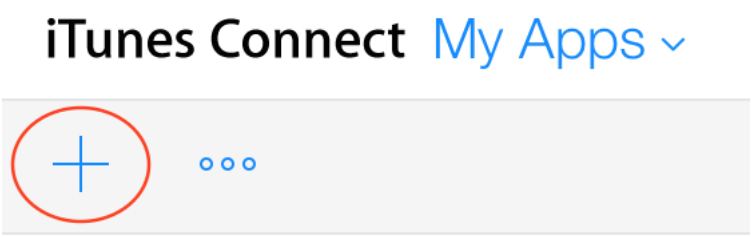


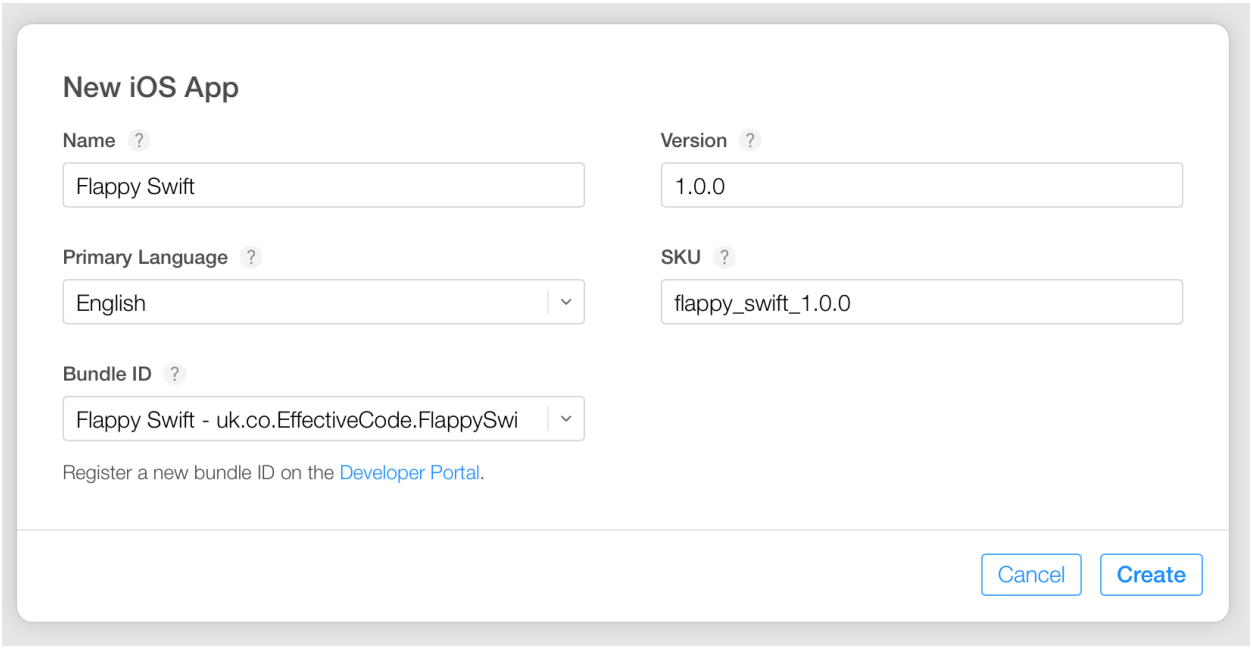


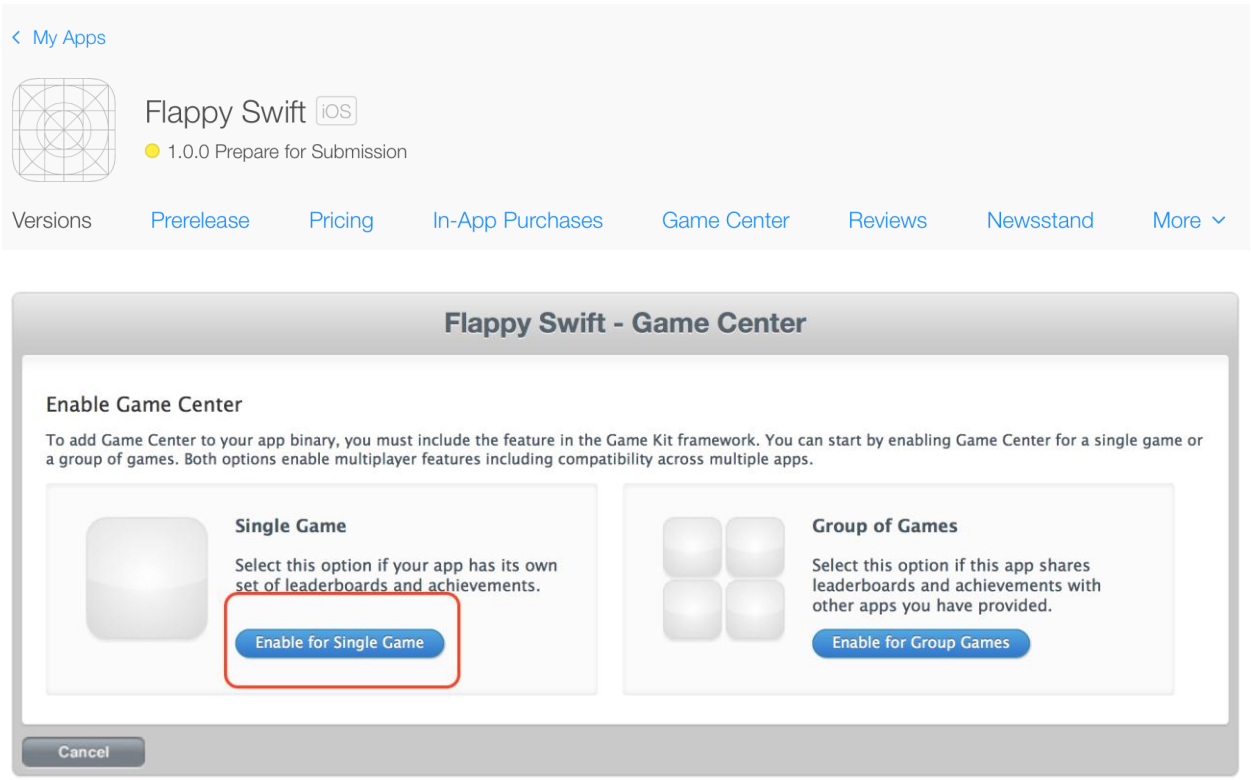


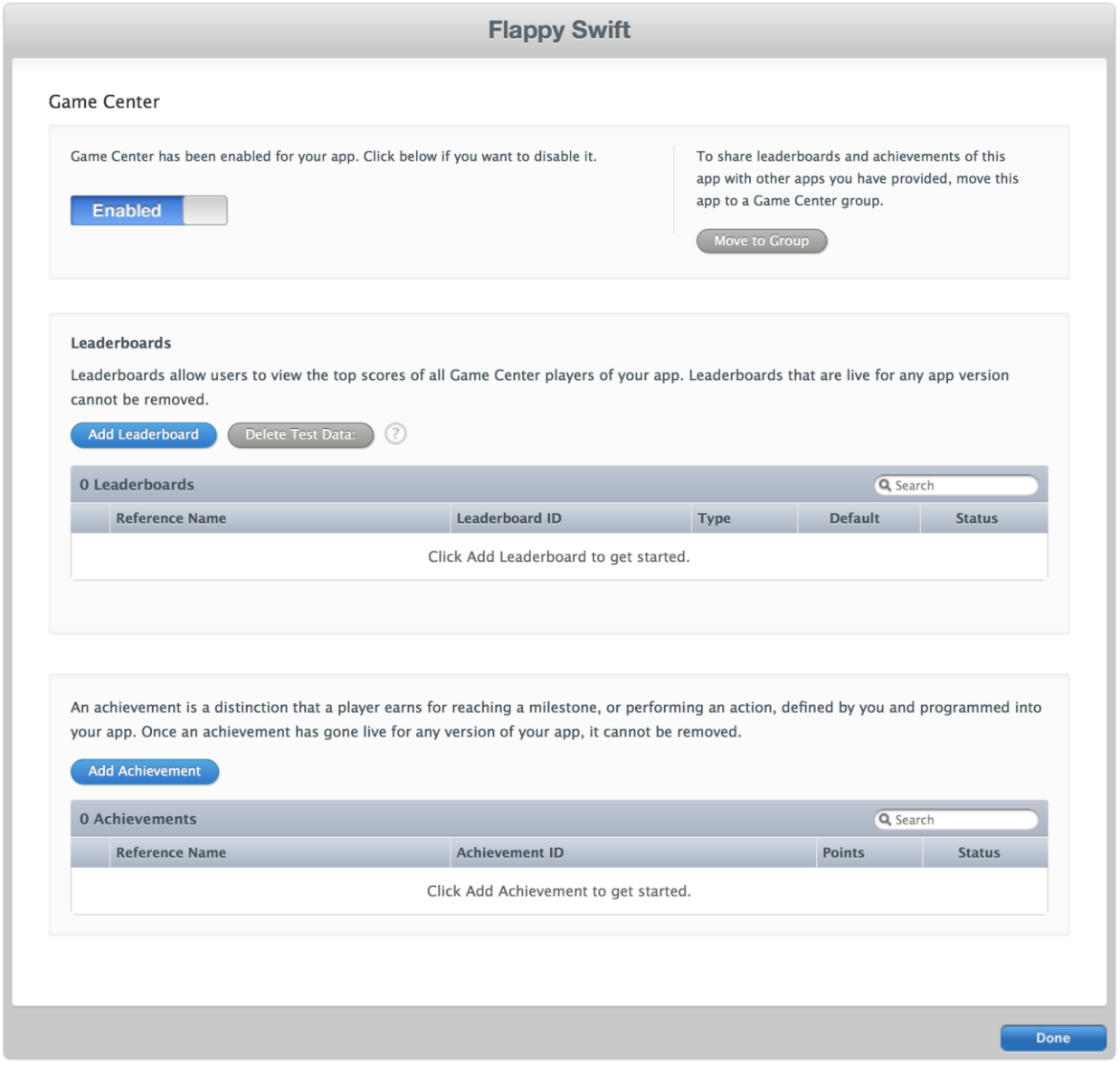



My Apps


iTunes Connect My Apps


New iOS App
Name
Flappy Swift
Version
1.0.0
Primary Language
English
SKU
flappy_swift_1.0.0
Bundle ID
Flappy Swift - uk.co.EffectiveCode.FlappySwi
Register a new bundle ID on the Developer Portal.
Cancel
Create


My Apps
Flappy Swift
iOS
1.0.0 Prepare for Submission
Versions
Prerelease
Pricing
In-App Purchases
Game Center
Reviews
Newsstand
More
Flappy Swift - Game Center
Enable Game Center
To add Game Center to your app binary, you must include the feature in the Game Kit framework. You can start by enabling Game Center for a single game or a group of games. Both options enable multiplayer features including compatibility across multiple apps.
Single Game
Select this option if your app has its own set of leaderboards and achievements.
Enable for Single Game
Group of Games
Select this option if this app shares leaderboards and achievements with other apps you have provided.
Enable for Group Games
Cancel


Flappy Swift
Game Center
Game Center has been enabled for your app. Click below if you want to disable it.
Enabled
To share leaderboards and achievements of this app with other apps you have provided, move this app to a Game Center group.
Move to Group
Leaderboards
Leaderboards allow users to view the top scores of all Game Center players of your app. Leaderboards that are live for any app version cannot be removed.
Add Leaderboard
Delete Test Data:
0 Leaderboards
Search
Reference Name
Leaderboard ID
Type
Default
Status
Click Add Leaderboard to get started.
An achievement is a distinction that a player earns for reaching a milestone, or performing an action, defined by you and programmed into your app. Once an achievement has gone live for any version of your app, it cannot be removed.
Add Achievement
0 Achievements
Search
Reference Name
Achievement ID
Points
Status
Click Add Achievement to get started.
Done

Flappy Swift - Add Leaderboard

Single Leaderboard

Leaderboard Reference Name: Flappy Swift Leaderboard

Leaderboard ID: flappy_swift_leaderboard

Score Format Type: Integer

Score Submission Type: Best Score / Most Recent Score

Sort Order: Low to High / High to Low

Score Range (Optional): To

-9223372036854775000 9223372036854775000

Leaderboard Localization

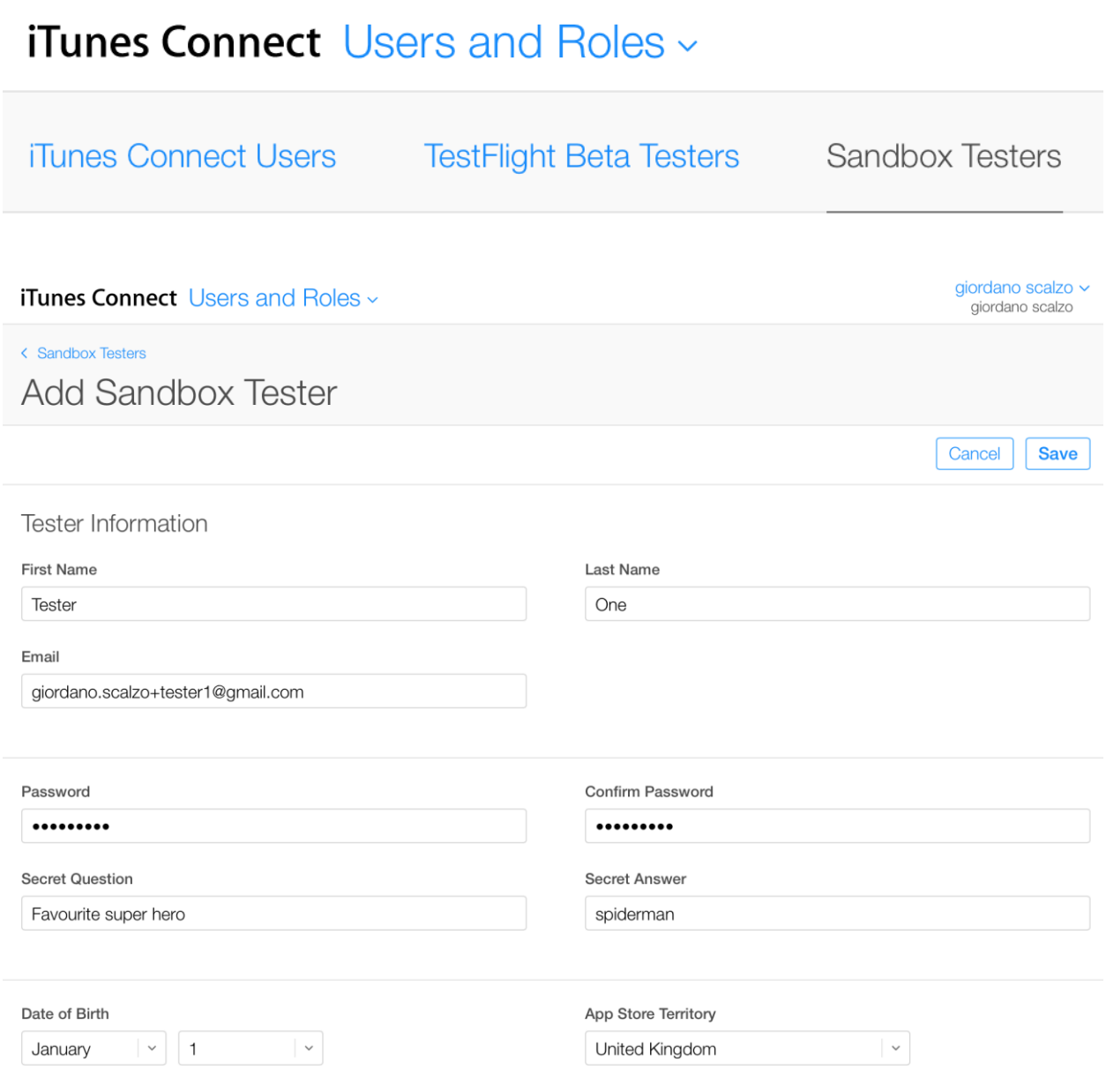
You must add at least one language below. For each language, provide a score format and a leaderboard name.

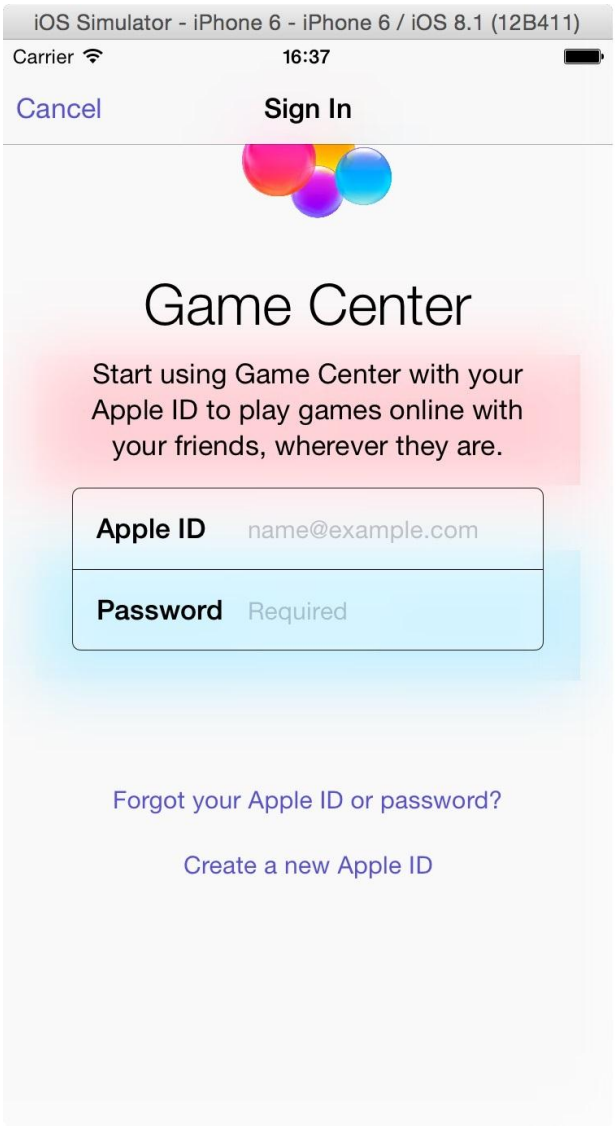
Add Language

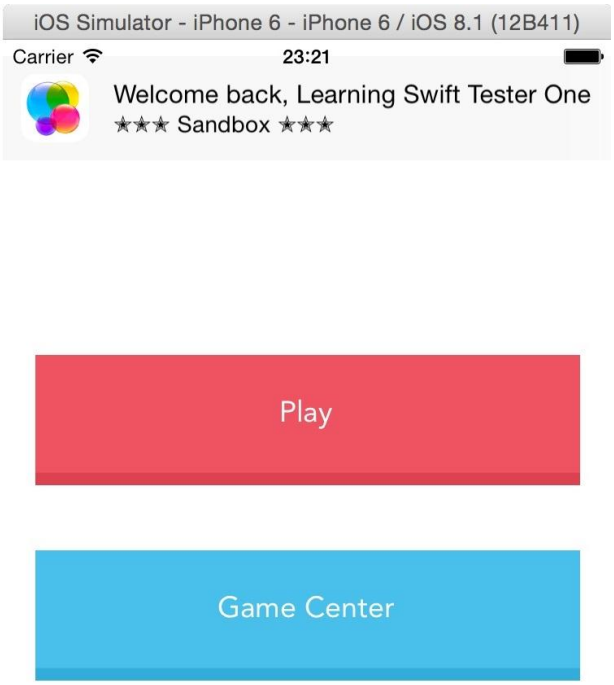
[?] Localizations

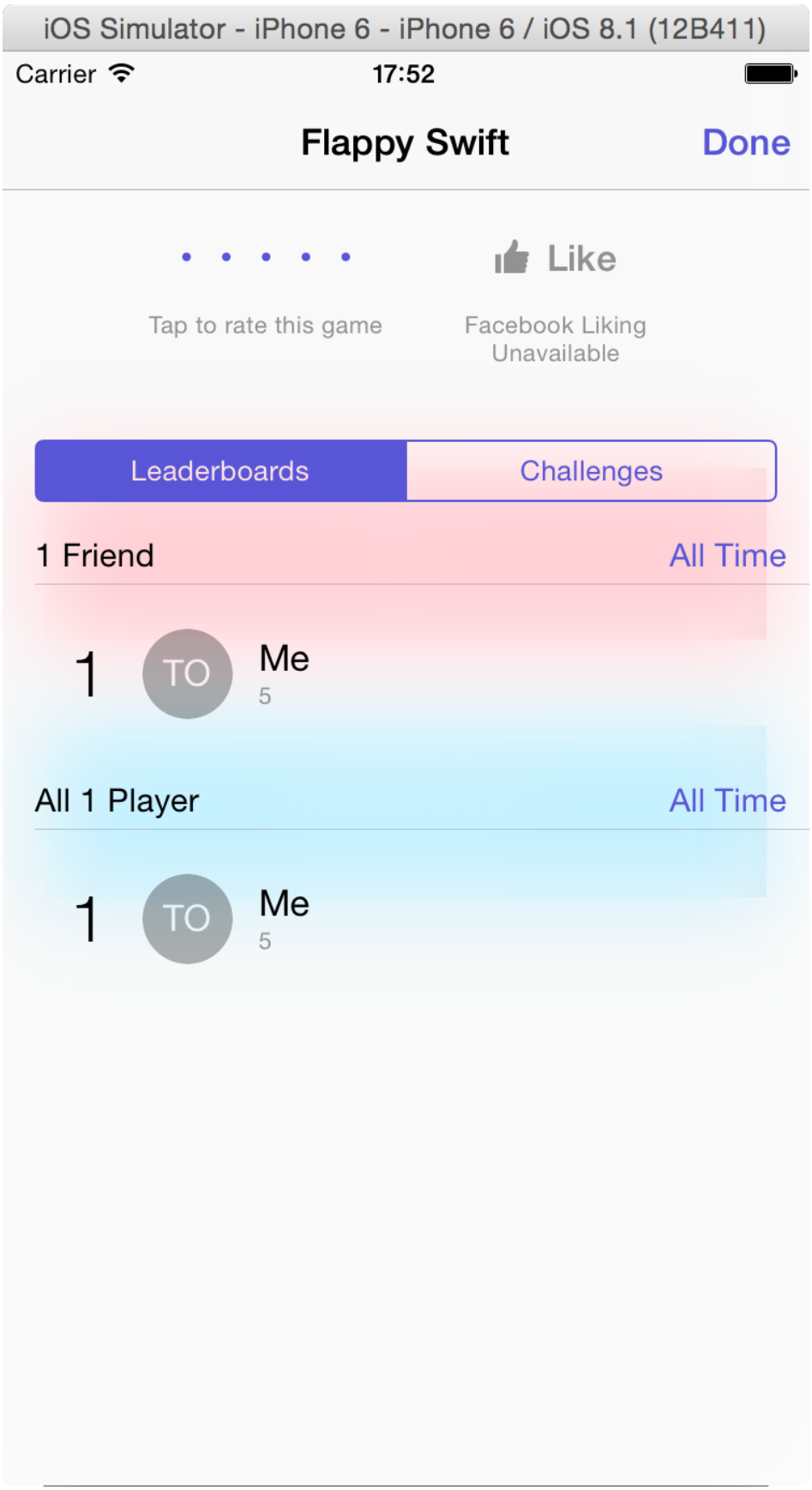
Image	Language	Leaderboard Name	Score Format
Click Add Language to get started.			

Cancel Save


iTunes Connect Users and Roles
iTunes Connect Users
TestFlight Beta Testers
Sandbox Testers
iTunes Connect Users and Roles
giordano scalzo
giordano scalzo
Sandbox Testers
Add Sandbox Tester
Cancel
Save
Tester Information
First Name
Tester
Last Name
One
Email
giordano.scalzo+tester1@gmail.com
Password
Confirm Password
Secret Question
Favourite super hero
Secret Answer
spiderman
Date of Birth
January
1
App Store Territory
United Kingdom

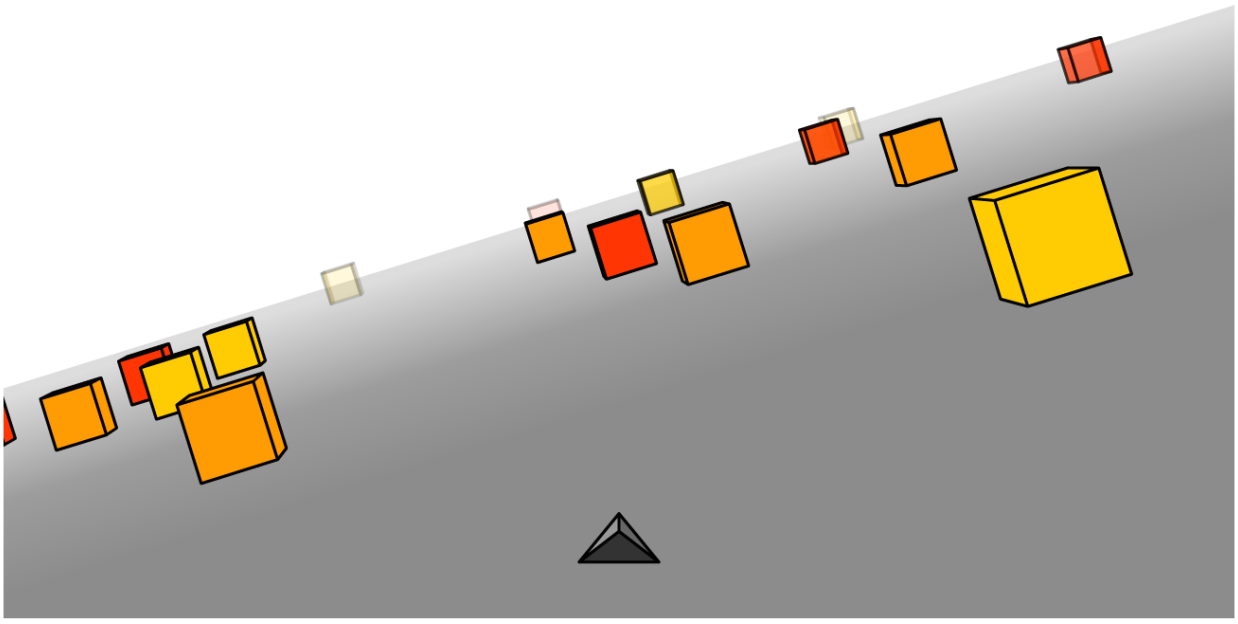

iOS Simulator - iPhone 6 - iPhone 6 / iOS 8.1 (12B411)
Carrier
16:37
Cancel
Sign In
Game Center
Start using Game Center with your Apple ID to play games online with your friends, wherever they are.
Apple ID
name@example.com
Password
Required
Forgot your Apple ID or password?
Create a new Apple ID


iOS Simulator - iPhone 6 - iPhone 6 / iOS 8.1 (12B411)
Carrier
23:21
Welcome back, Learning Swift Tester One
★★★ Sandbox ★★★
Play
Game Center


iOS Simulator - iPhone 6 - iPhone 6 / iOS 8.1 (12B411)
Carrier
17:52
Flappy Swift
Done
Like
Tap to rate this game
Facebook Liking Unavailable
Leaderboards
Challenges
1 Friend
All Time
1
TO
Me
5
All 1 Player
All Time
1
TO
Me
5

Chapter 8: Cube Runner

16675

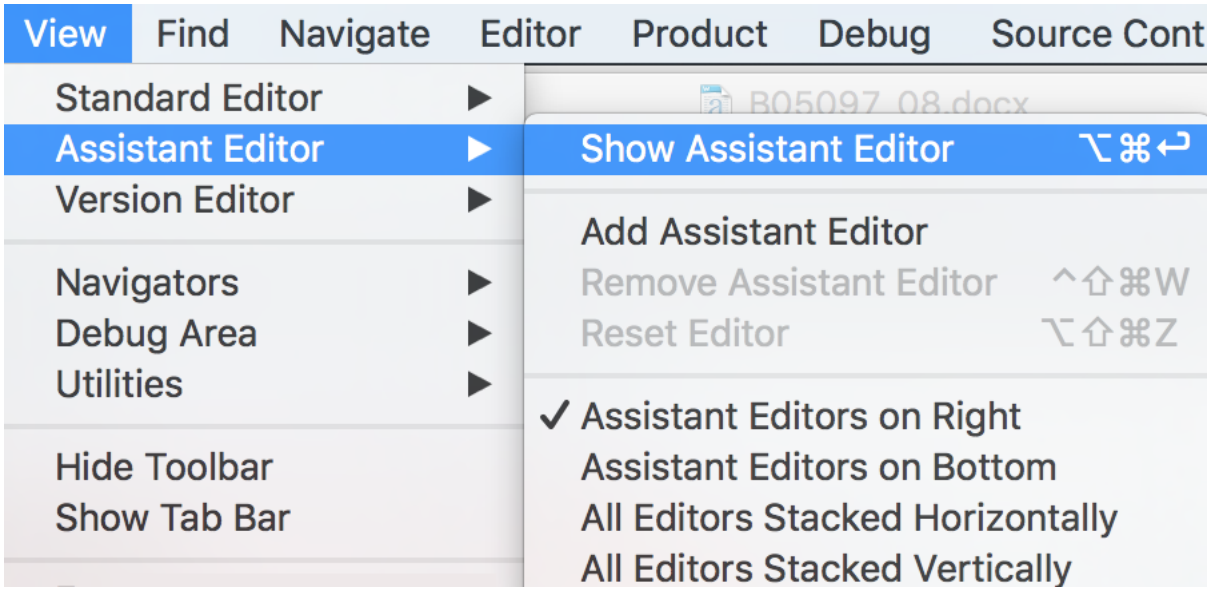


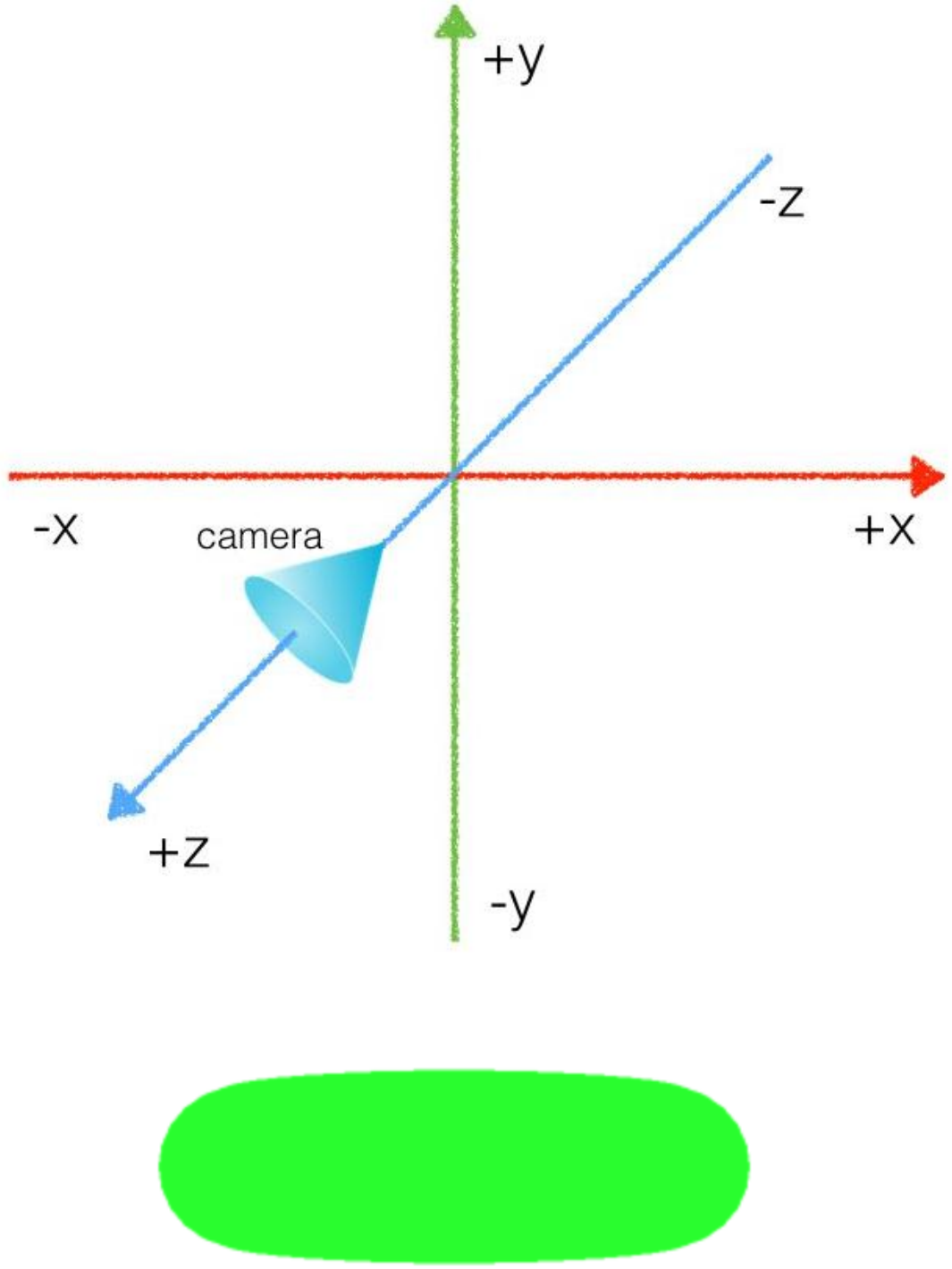
SceneKitPlayground

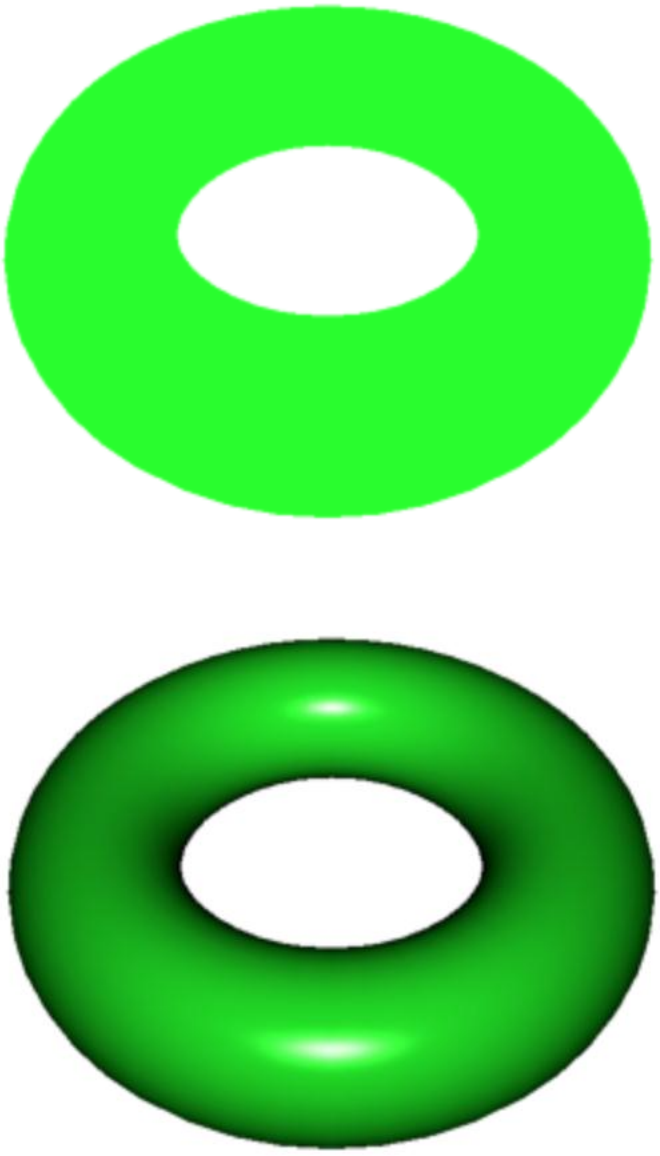
```
1  import UIKit
2  import SceneKit
3  import XCPlayground
4
5  var sceneView = SCNView(frame:
6      CGRect(x: 0, y: 0,
7          width: 400, height: 400))
8  var scene = SCNScene()
9  sceneView.scene = scene
10 XCPlaygroundPage.currentPage.liveView =
       sceneView
```

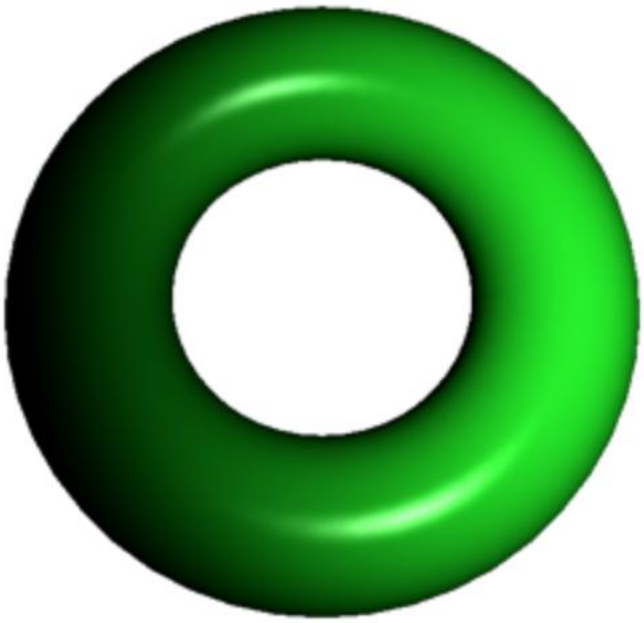
SCNView

<SCNScene: 0x7ffaebd28c70>
SCNView

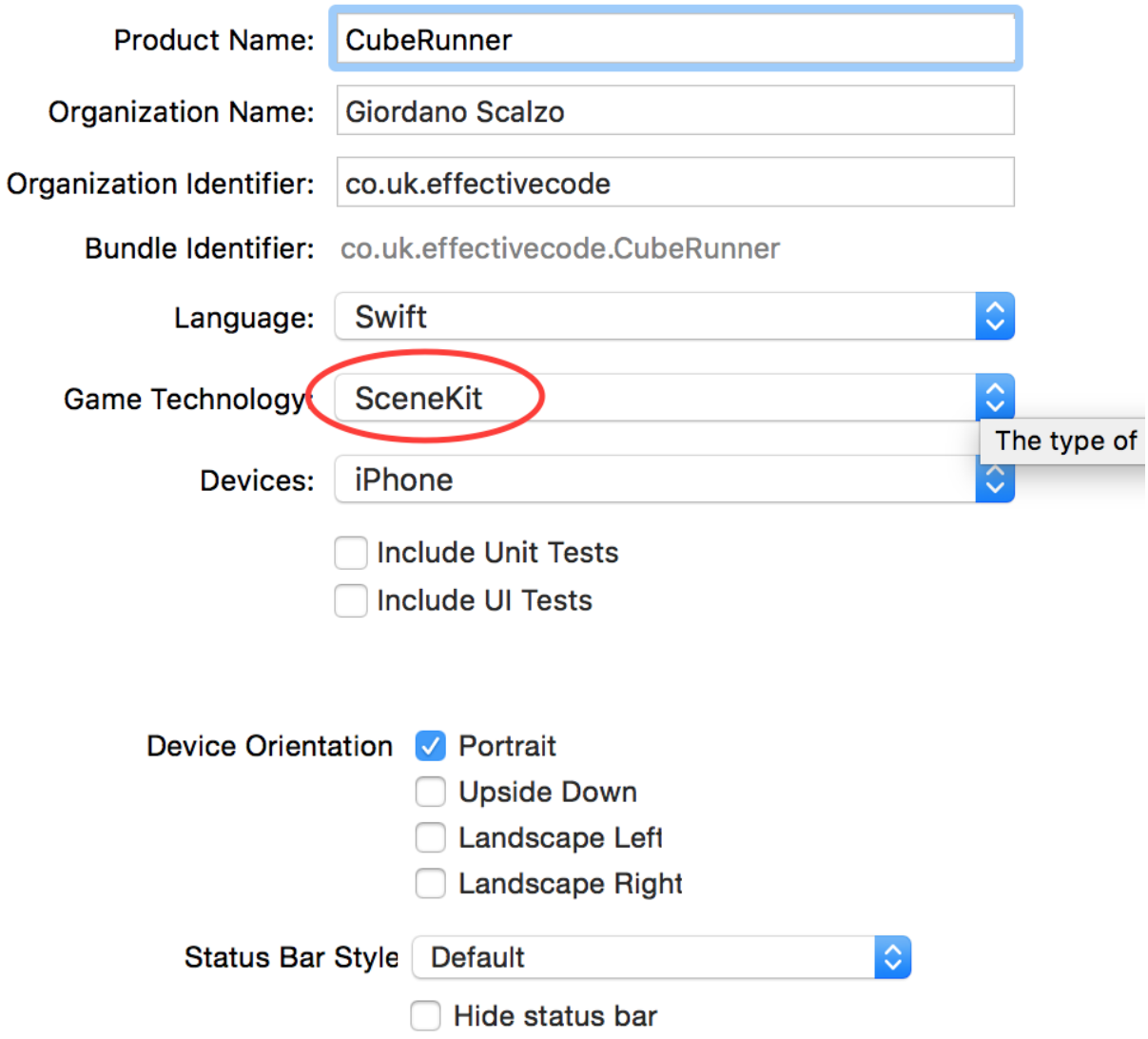

View
Find
Navigate
Editor
Product
Debug
Source Cont
Standard Editor
Assistant Editor
Version Editor
Navigators
Debug Area
Utilities
Hide Toolbar
Show Tab Bar
B05097_08.docx
Show Assistant Editor ⌥⌘↩
Add Assistant Editor
Remove Assistant Editor ^⇧⌘W
Reset Editor ⌥⇧⌘Z
✓ Assistant Editors on Right
Assistant Editors on Bottom
All Editors Stacked Horizontally
All Editors Stacked Vertically

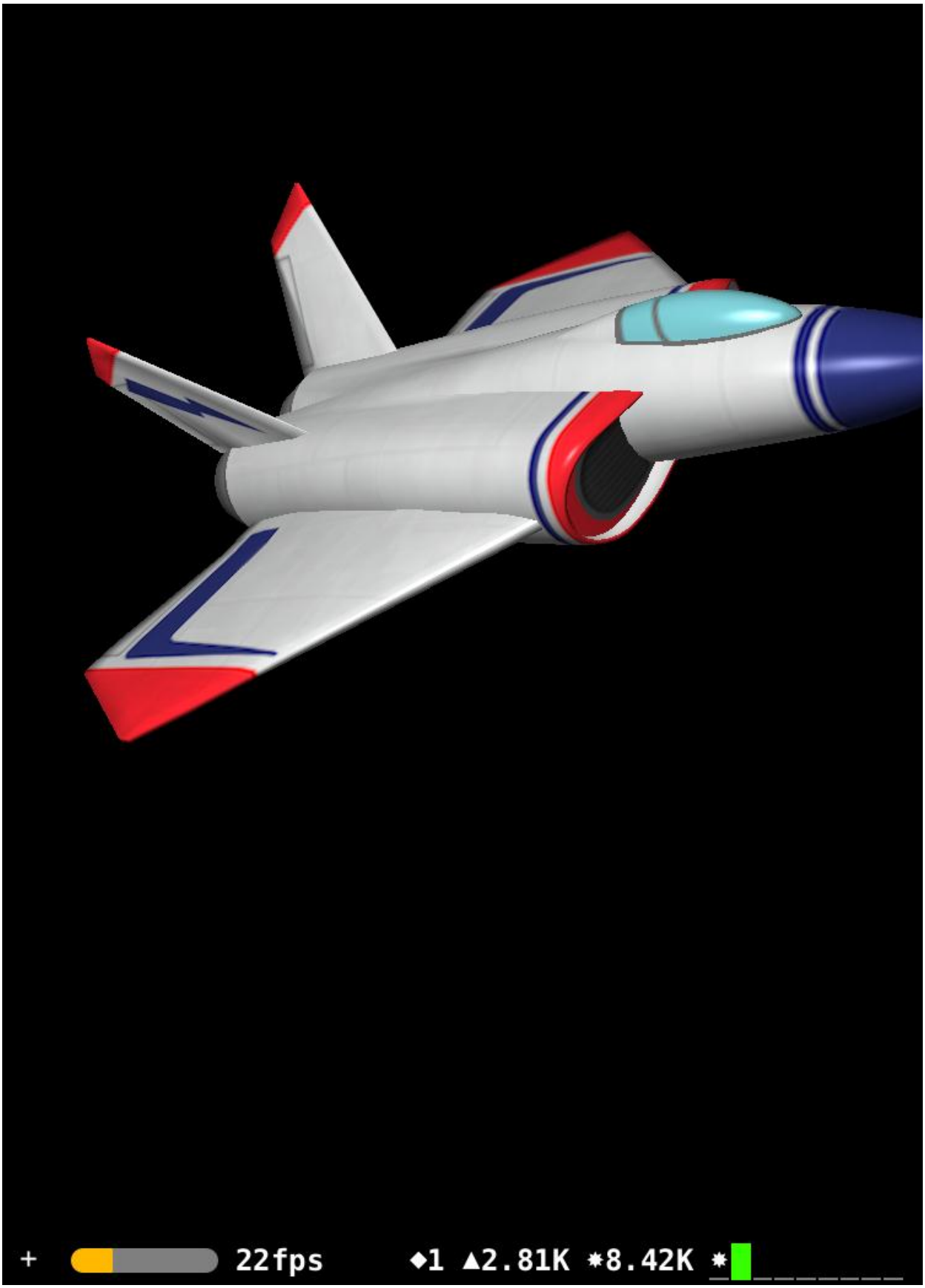

+y
-z
-x
camera
+x
+z
-y

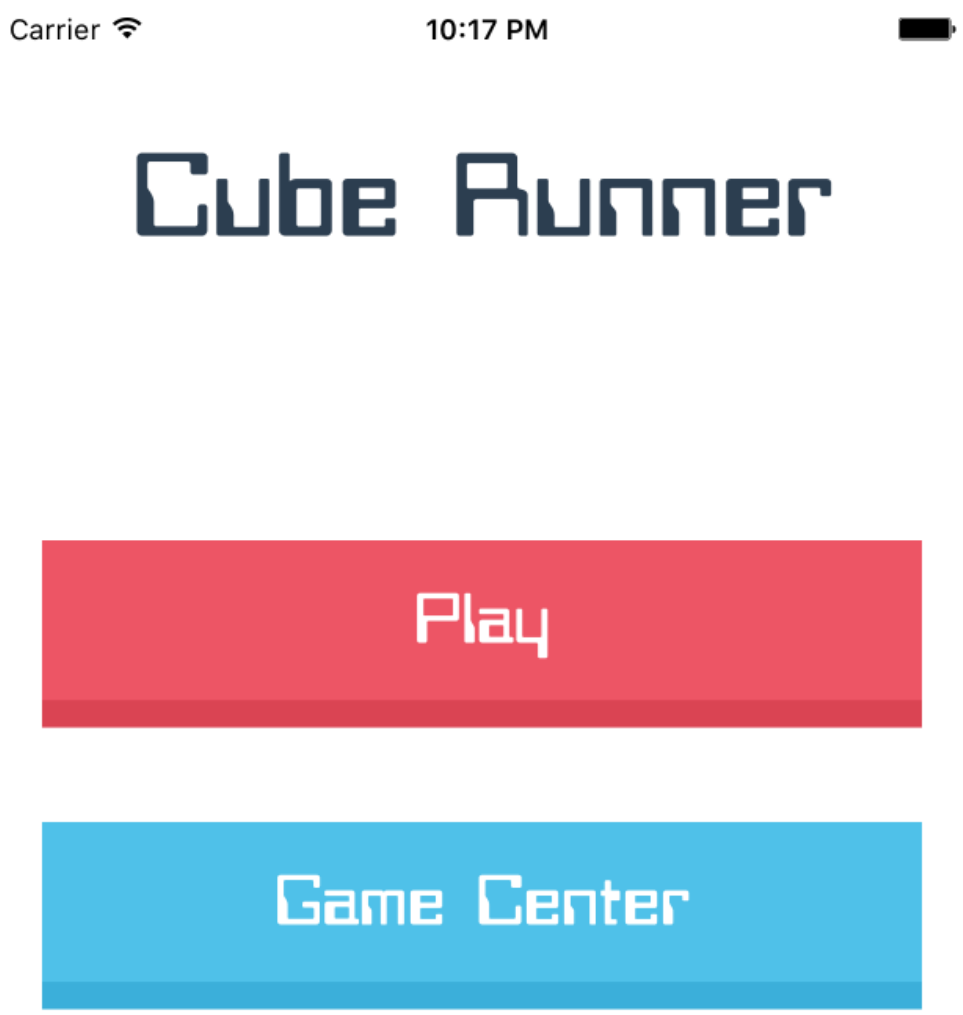


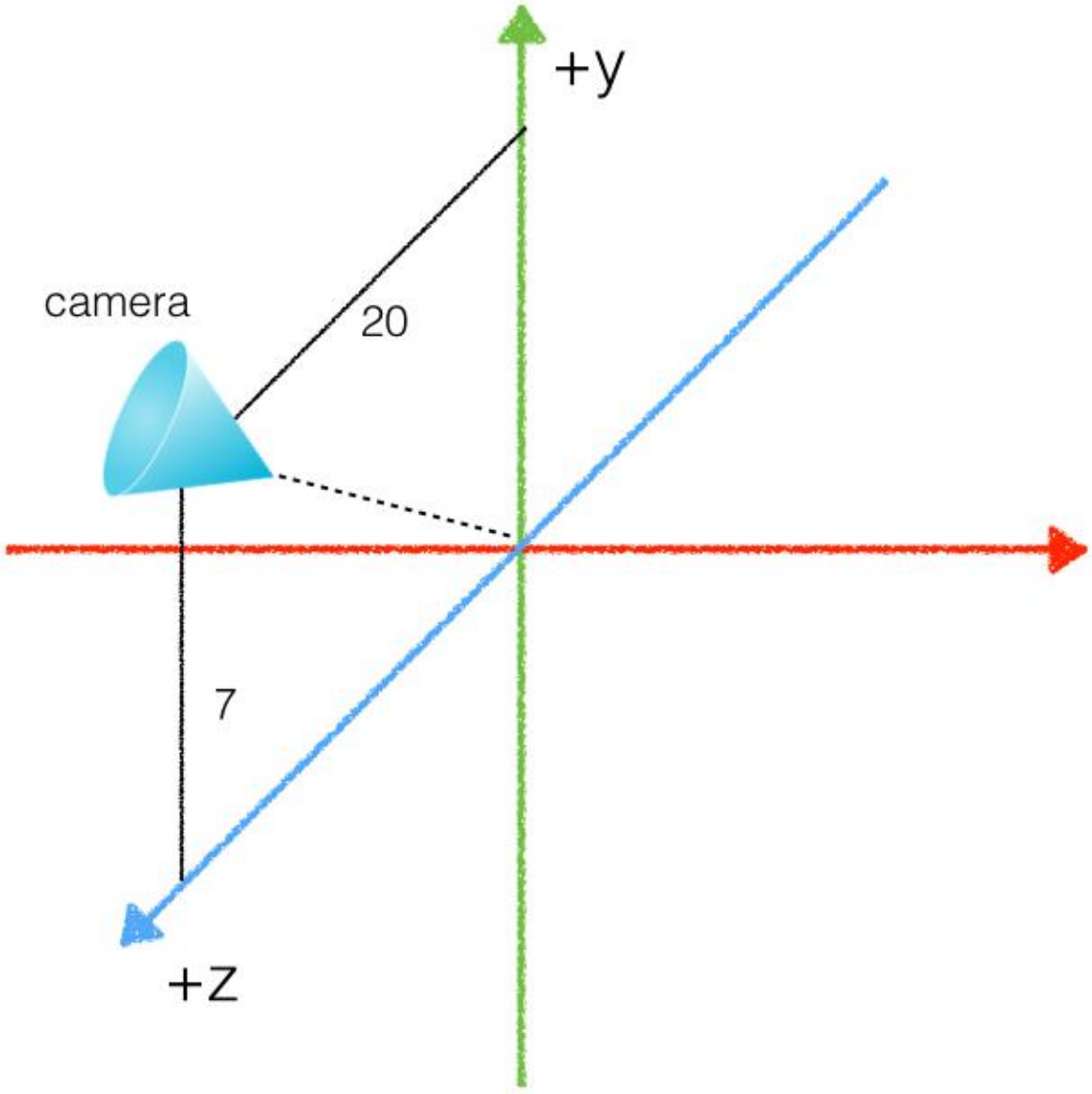


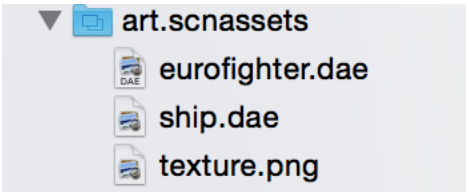
Game


Product Name: CubeRunner
Organization Name: Giordano Scalzo
Organization Identifier: co.uk.effectivecode
Bundle Identifier: co.uk.effectivecode.CubeRunner
Language: Swift
Game Technology: SceneKit
The type of
Devices: iPhone
Include Unit Tests
Include UI Tests
Device Orientation
Portrait
Upside Down
Landscape Left
Landscape Right
Status Bar Style Default
Hide status bar


+
22fps
◆1 ▲2.81K ✸8.42K ✸

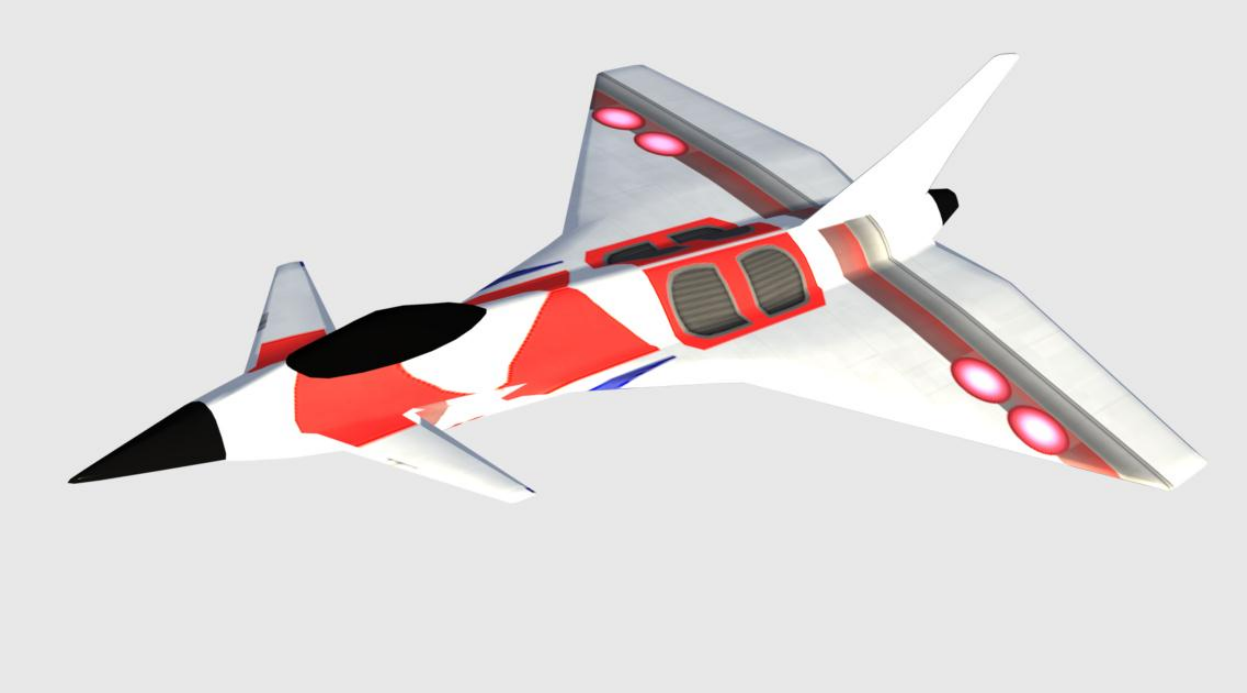

Carrier
10:17 PM
Cube Runner
Play
Game Center


+y
camera
20
7
+Z

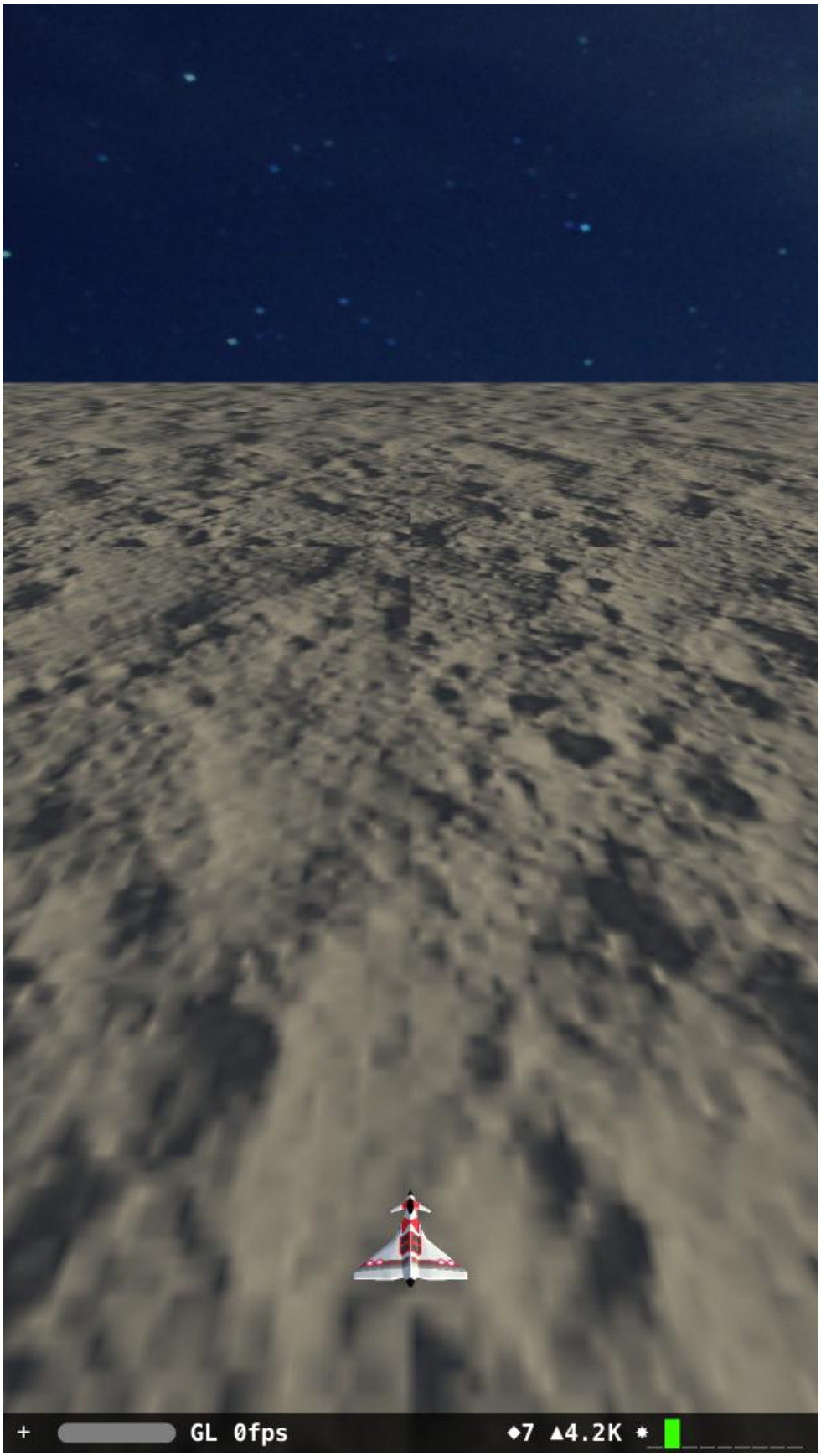

art.scnassets
eurofighter.dae
ship.dae
texture.png

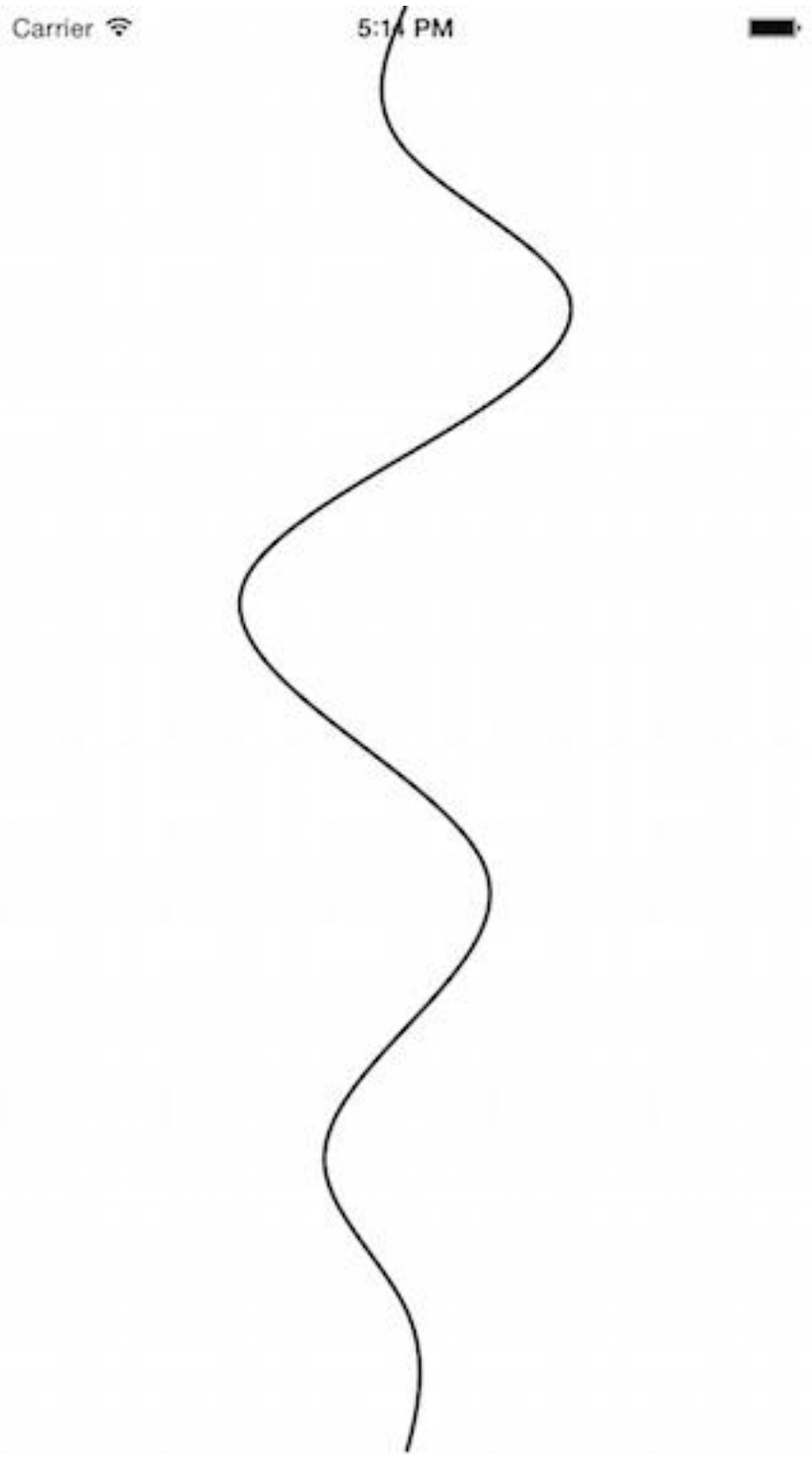
Scene graph

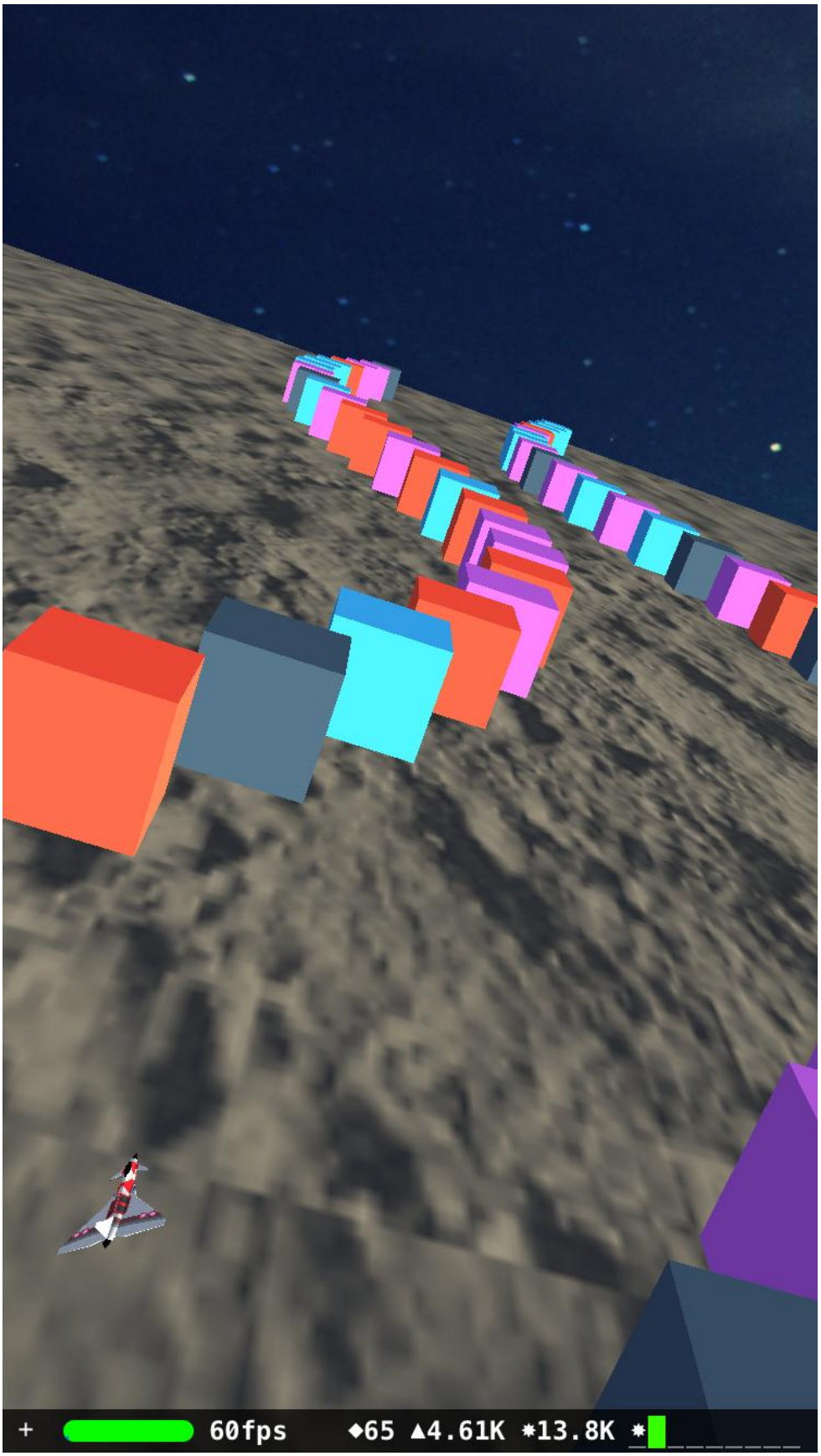
- lamp_ambient
- lamp_ambient
- lamp_directional
- camera
- jetfighter

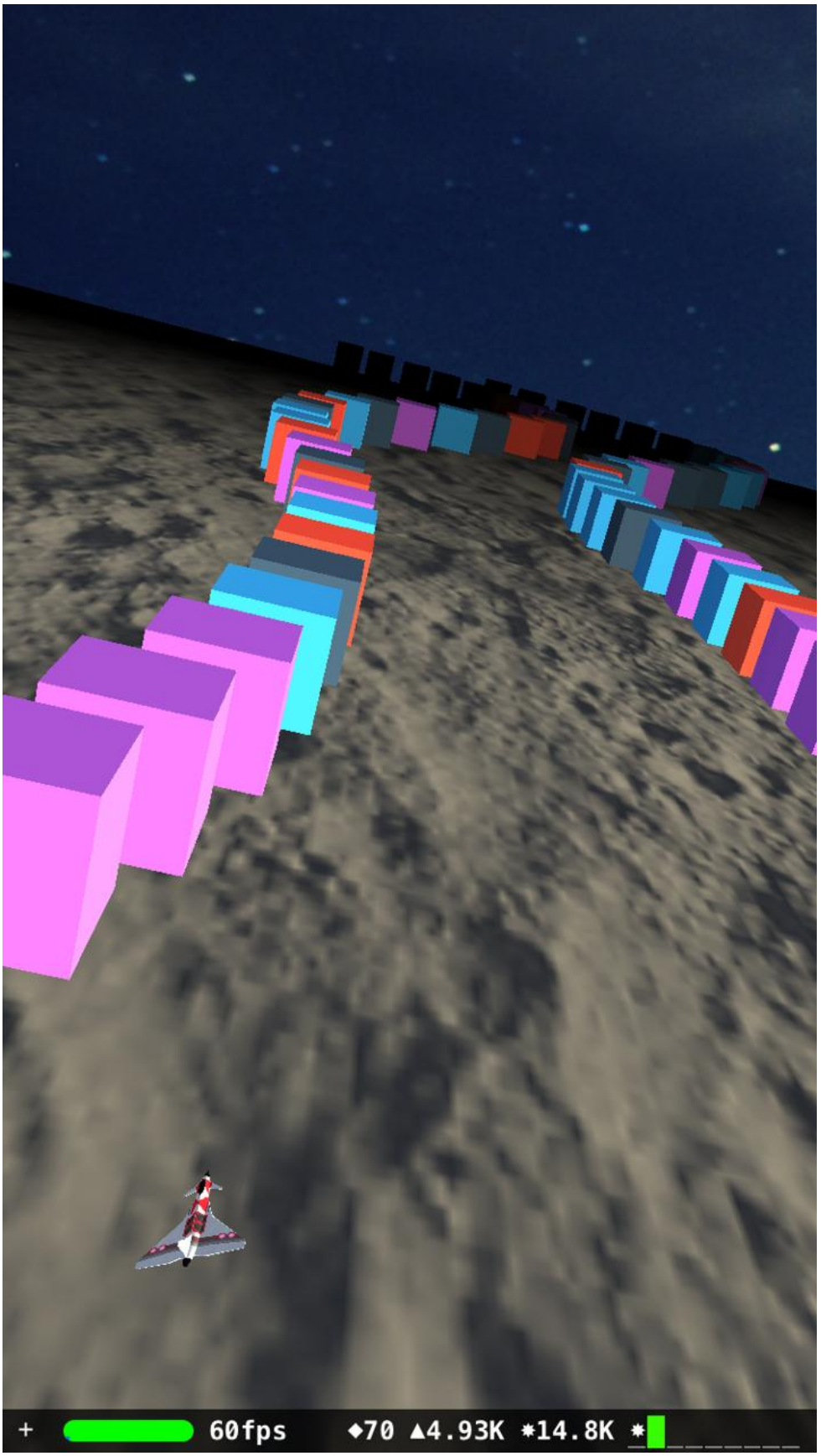


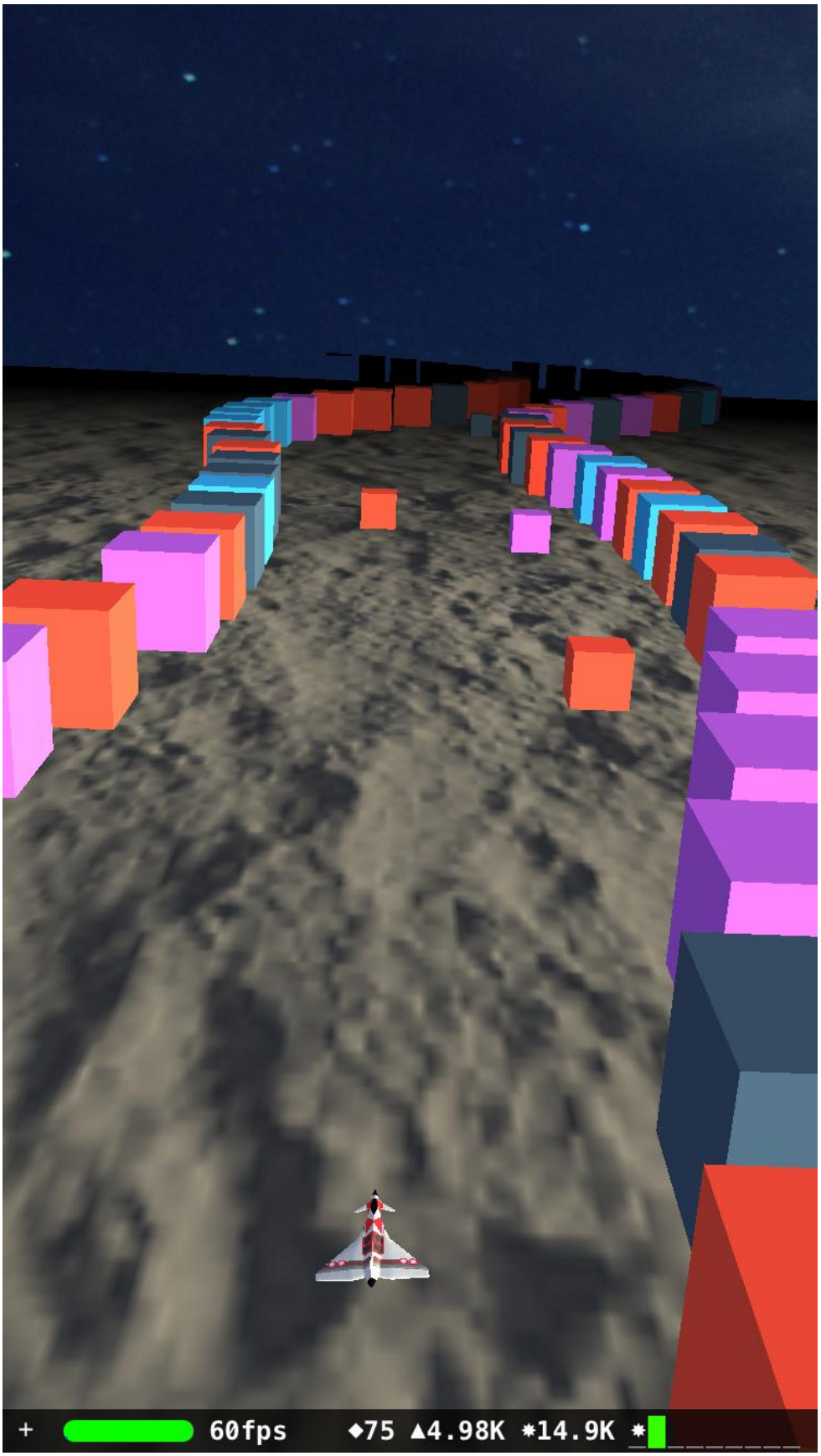
+
GL 0fps
◆5 ▲4K

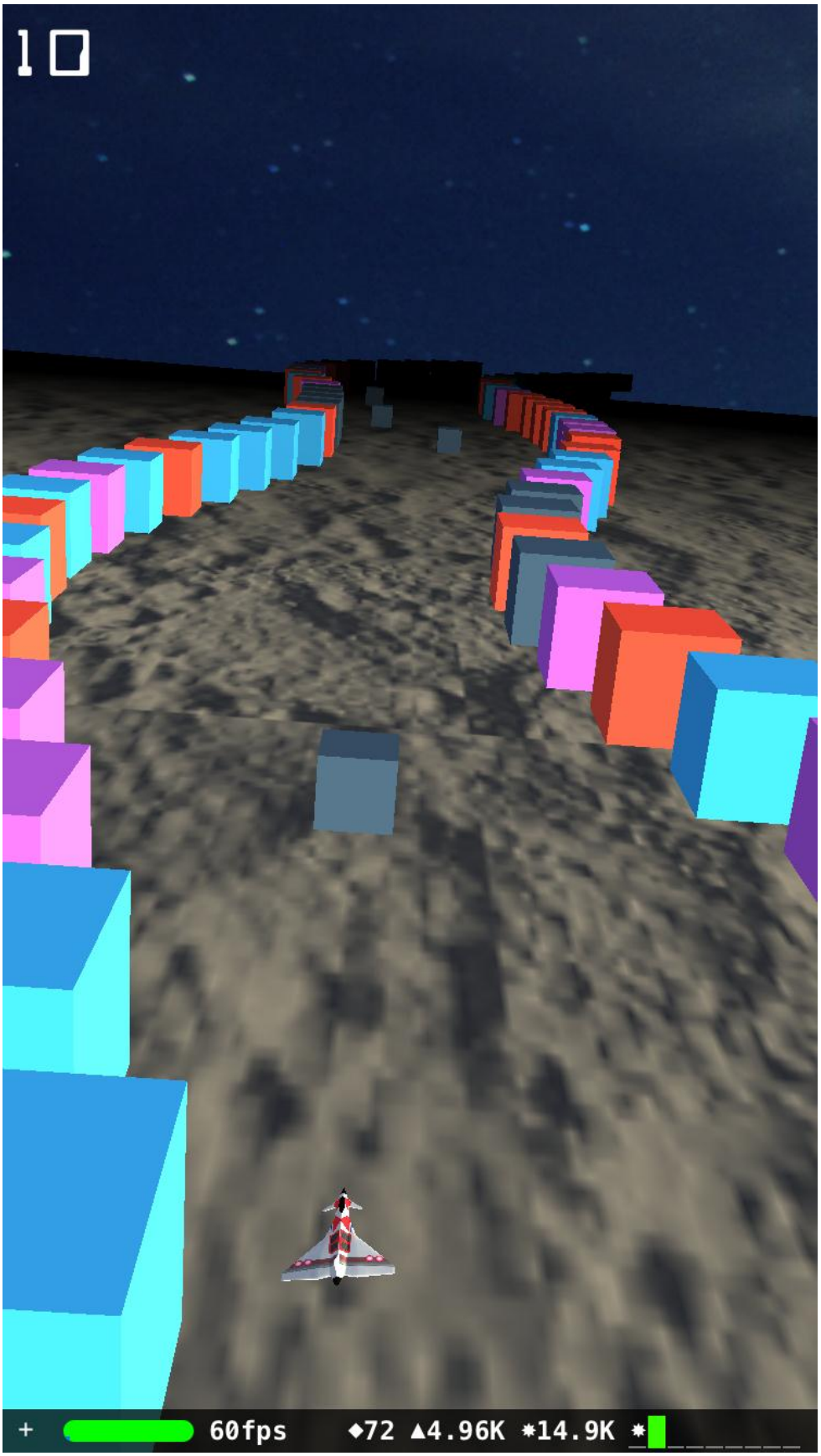

+
GL 0fps
◆7 ▲4.2K ✱


Carrier
5:14 PM

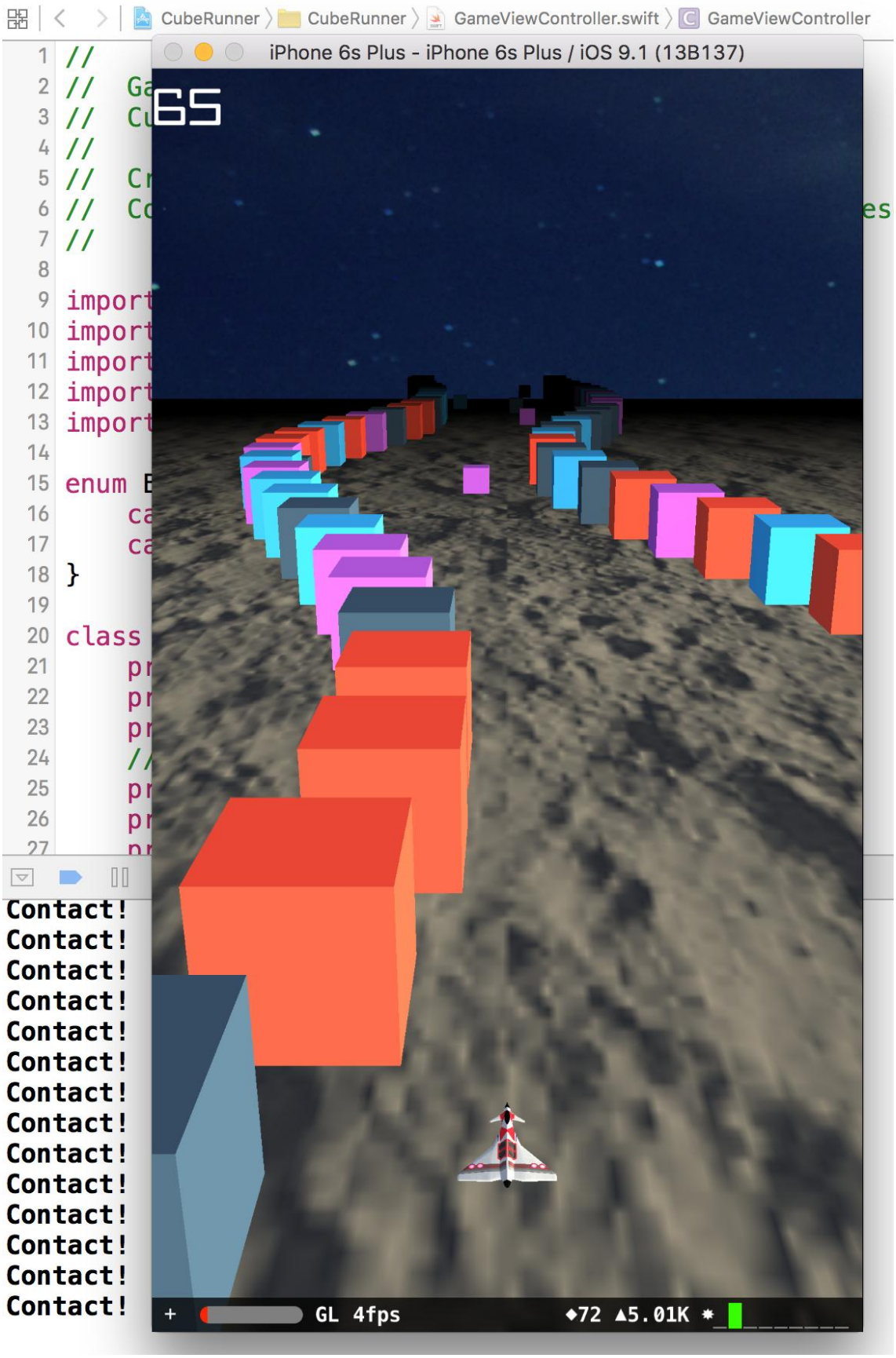

+
60fps
◆65 ▲4.61K ✱13.8K ✱

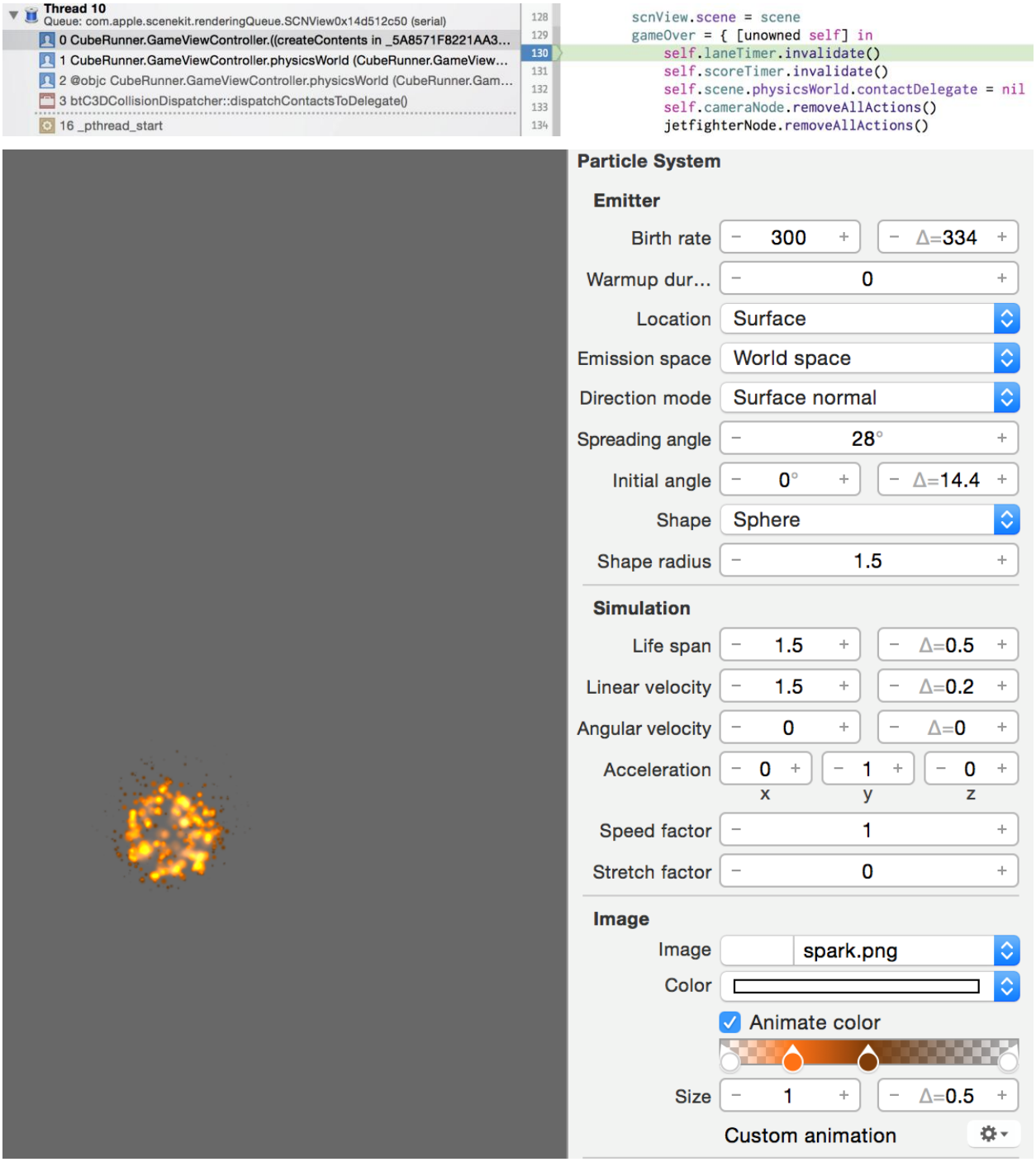

+
60fps
◆70 ▲4.93K ✱14.8K ✱

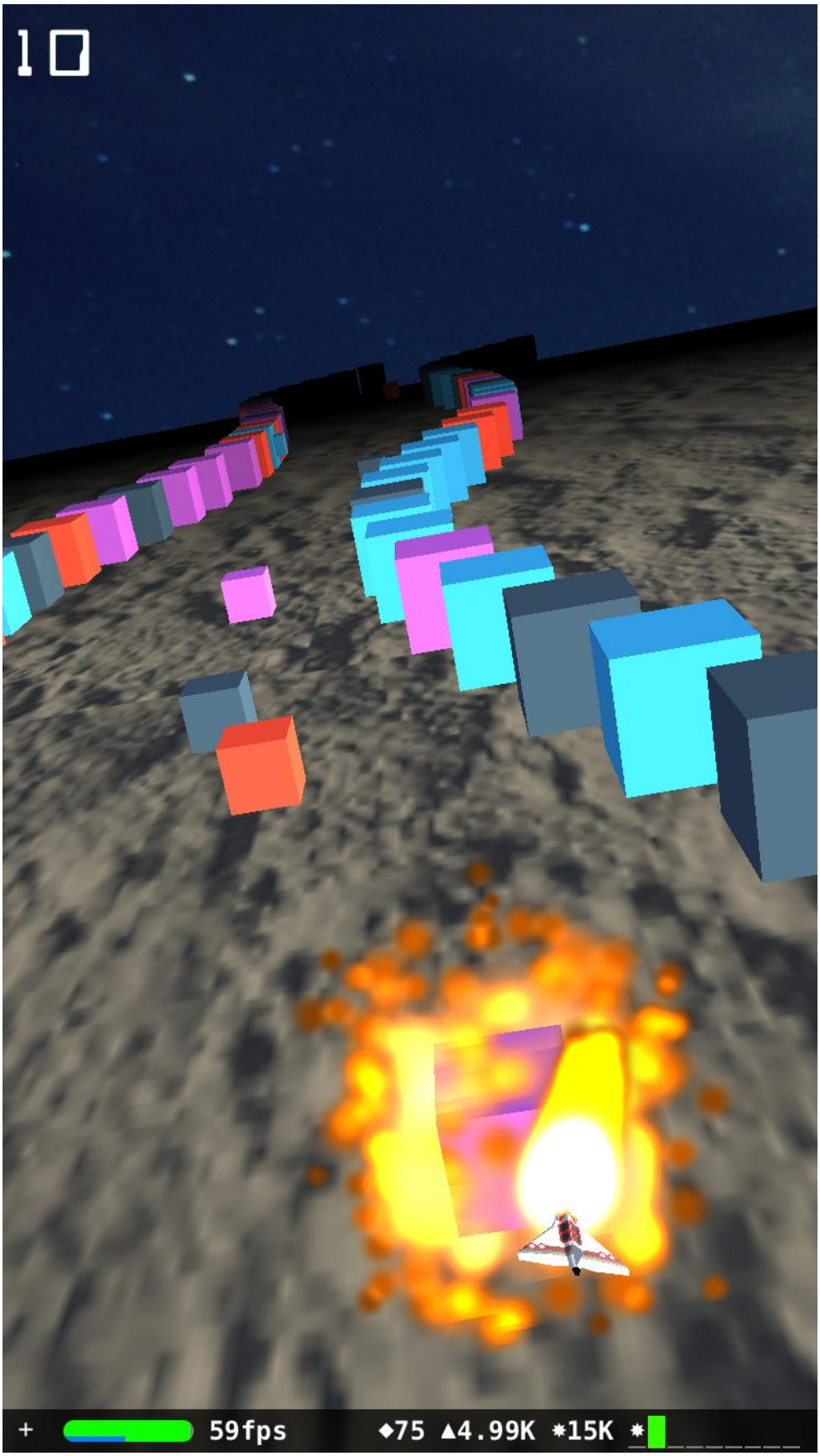

+
60fps
◆75 ▲4.98K ✱14.9K ✱


10
+
60fps
◆72 ▲4.96K ✱14.9K ✱

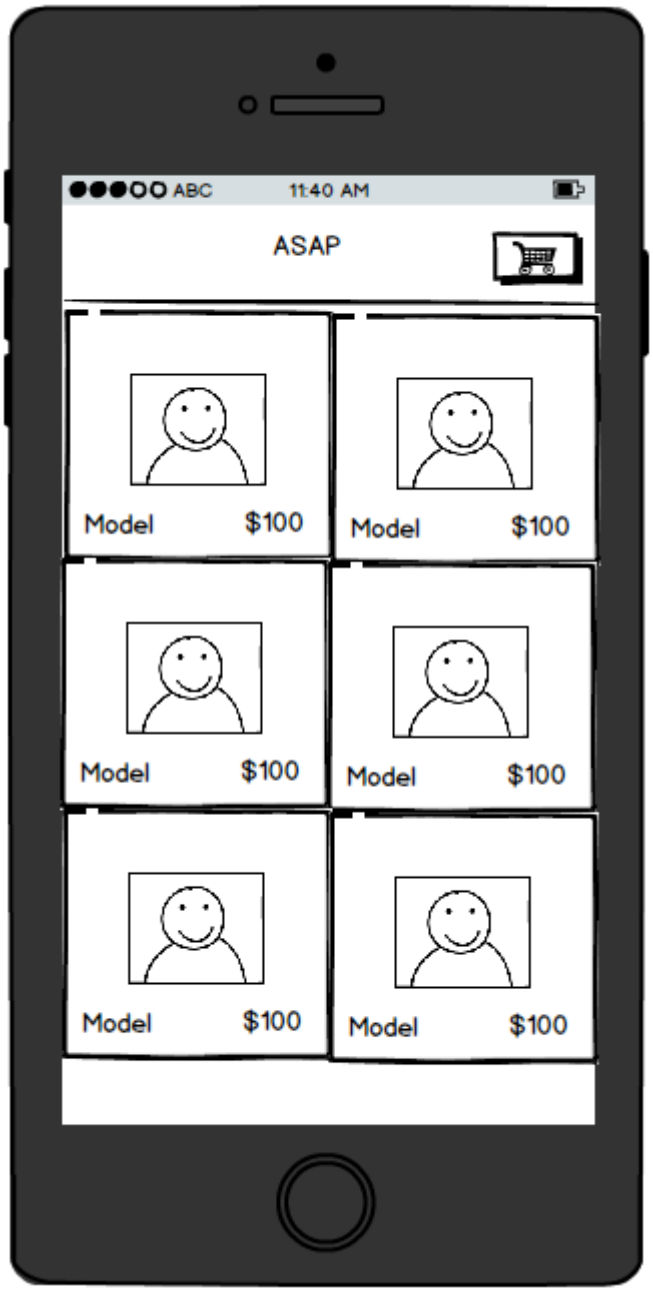
Chapter 9: Completing Cube Runner

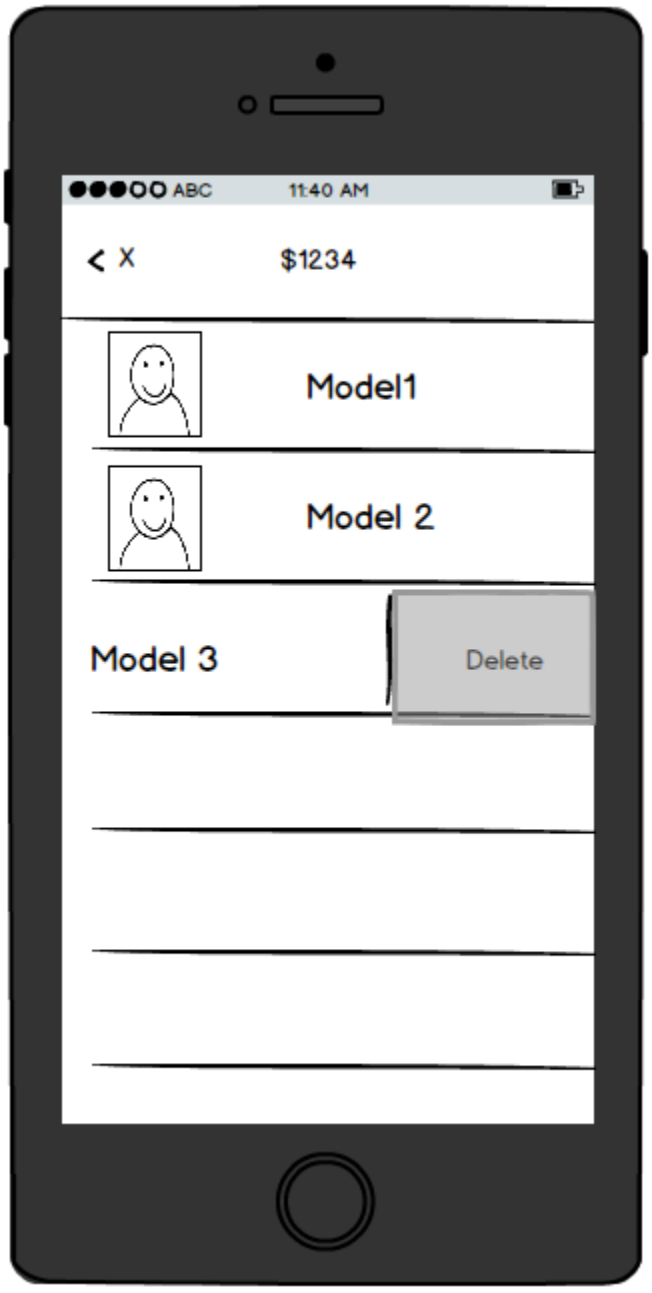

CubeRunner
CubeRunner
GameViewController.swift
GameViewController
iPhone 6s Plus - iPhone 6s Plus / iOS 9.1 (13B137)
65
GL 4fps
◆72 ▲5.01K
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!
Contact!

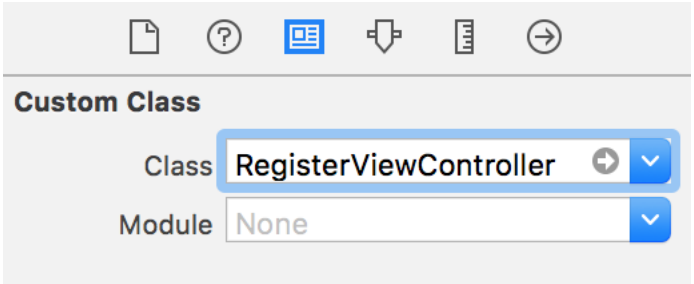

Thread 10
Queue: com.apple.scenekit.renderingQueue.SCNView0x14d512c50 (serial)
0 CubeRunner.GameViewController.((createContents in _5A8571F8221AA3...
1 CubeRunner.GameViewController.physicsWorld (CubeRunner.GameView...
2 @objc CubeRunner.GameViewController.physicsWorld (CubeRunner.Gam...
3 btC3DCollisionDispatcher::dispatchContactsToDelegate()
16 _pthread_start
128 scnView.scene = scene
129 gameOver = { [unowned self] in
130 self.laneTimer.invalidate()
131 self.scoreTimer.invalidate()
132 self.scene.physicsWorld.contactDelegate = nil
133 self.cameraNode.removeAllActions()
134 jetfighterNode.removeAllActions()
Particle System
Emitter
Birth rate
300
Δ=334
Warmup dur...
0
Location
Surface
Emission space
World space
Direction mode
Surface normal
Spreading angle
28°
Initial angle
0°
Δ=14.4
Shape
Sphere
Shape radius
1.5
Simulation
Life span
1.5
Δ=0.5
Linear velocity
1.5
Δ=0.2
Angular velocity
0
Δ=0
Acceleration
0
1
0
x
y
z
Speed factor
1
Stretch factor
0
Image
Image
spark.png
Color
Animate color
Size
1
Δ=0.5
Custom animation

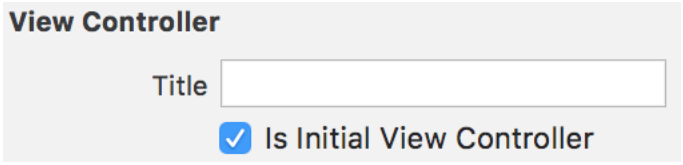

10
+
59fps
◆75 ▲4.99K ✱15K ✱

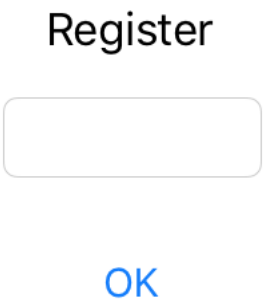
Chapter 10: ASAP – an E-commerce App in Swift


ABC
11:40 AM
ASAP
Model
$100
Model
$100
Model
$100
Model
$100
Model
$100
Model
$100

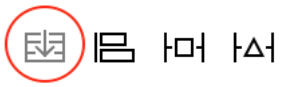

ABC
11:40 AM
< X
$1234
Model1
Model 2
Model 3
Delete


Custom Class
Class
RegisterViewController
Module
None

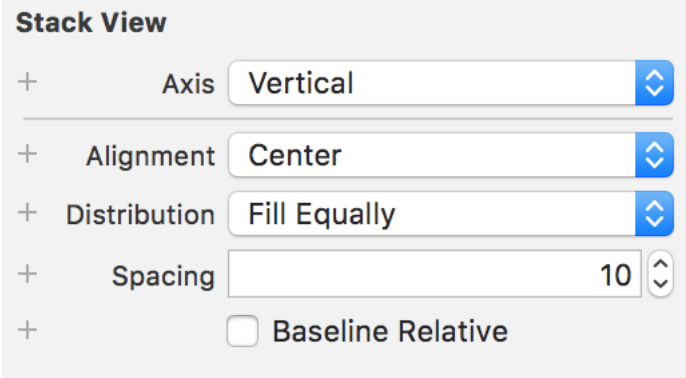

View Controller
Title
Is Initial View Controller

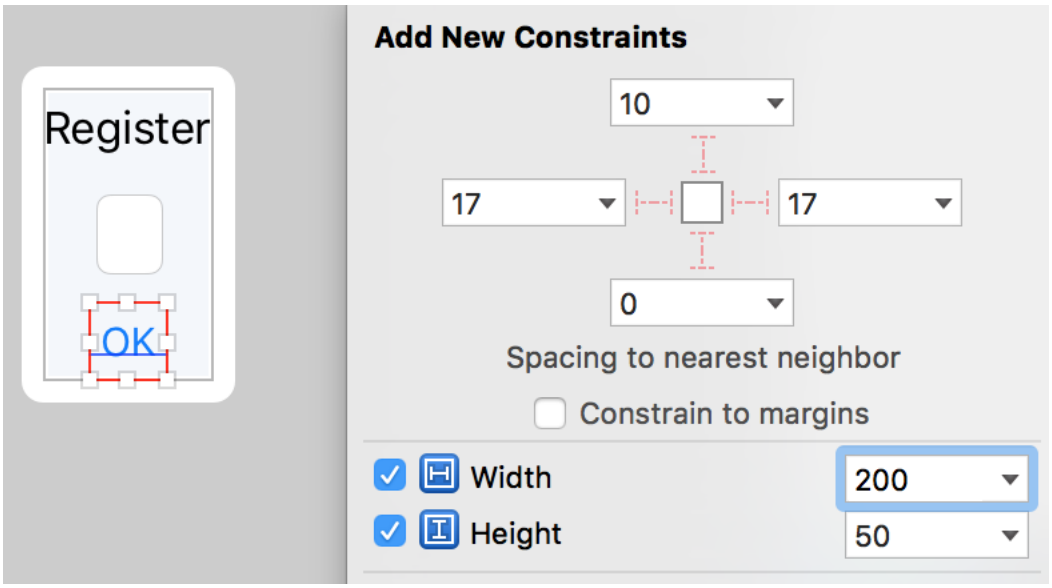

Register
OK

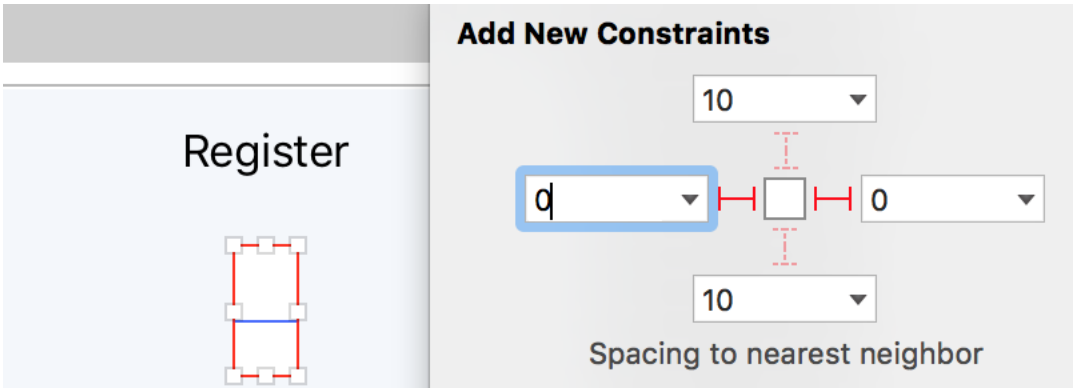
Register
OK

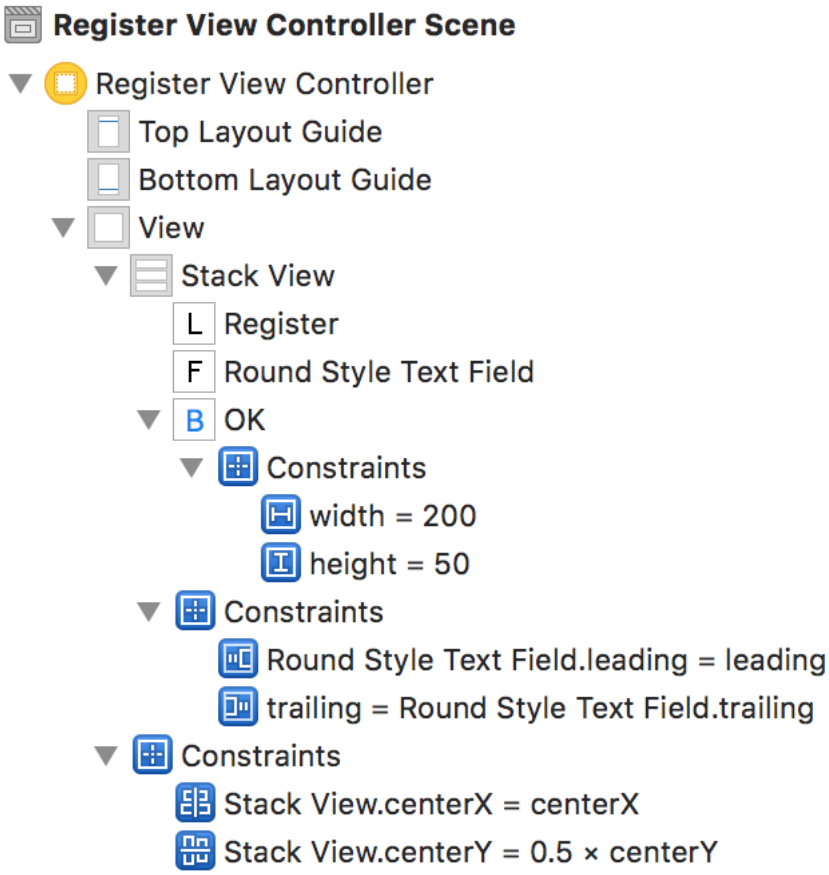


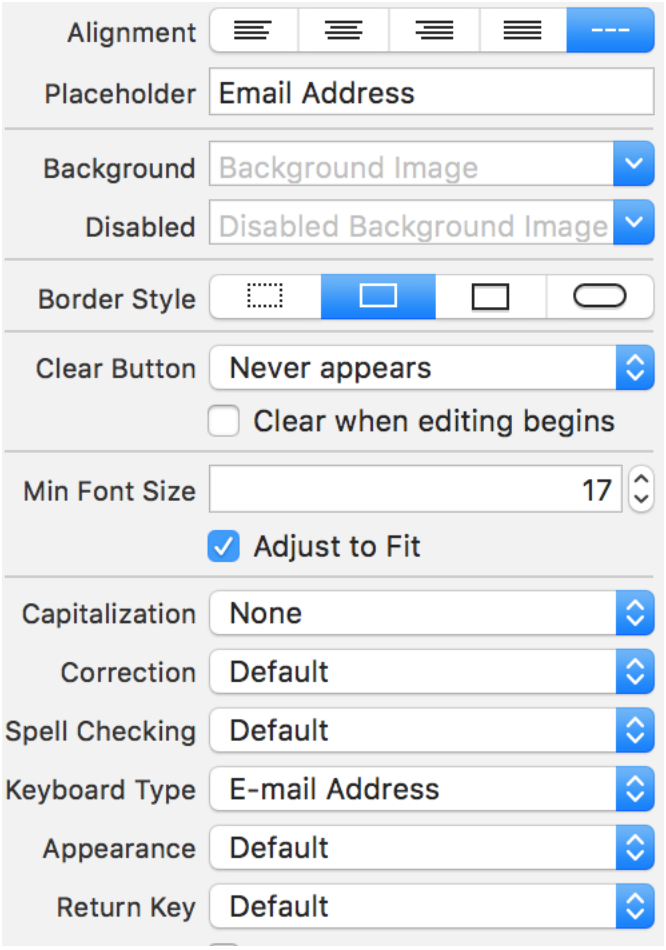
Register
OK

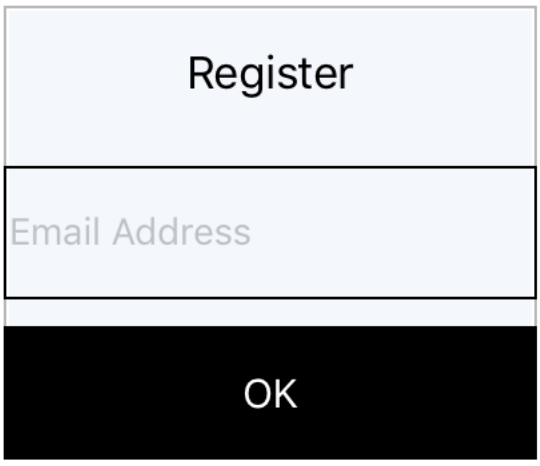

Stack View
Axis
Vertical
Alignment
Center
Distribution
Fill Equally
Spacing
10
Baseline Relative

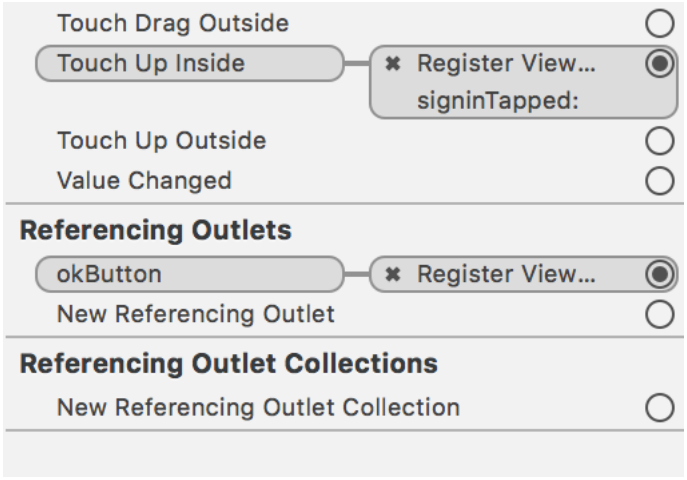

Register
OK
Add New Constraints
10
17
17
0
Spacing to nearest neighbor
Constrain to margins
Width
200
Height
50

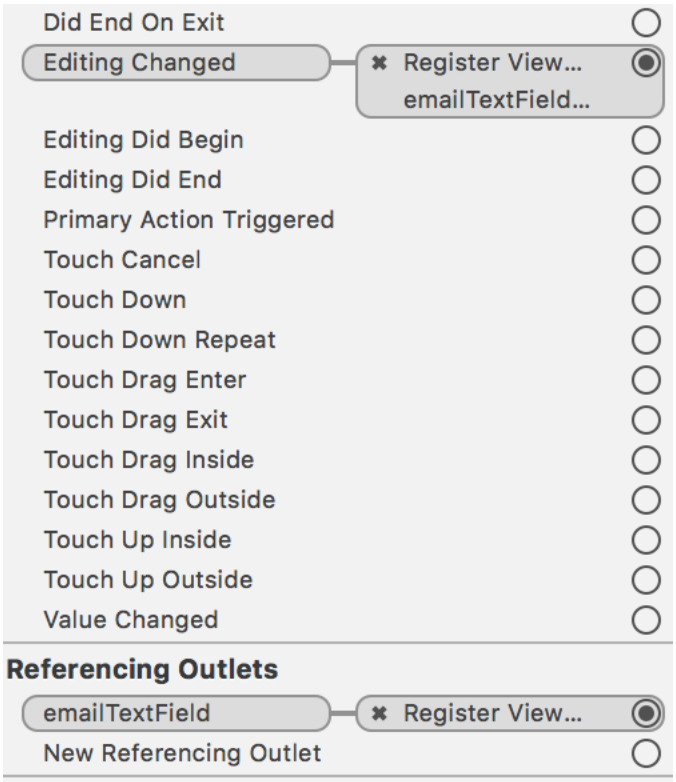

Register
Add New Constraints
10
0
0
10
Spacing to nearest neighbor

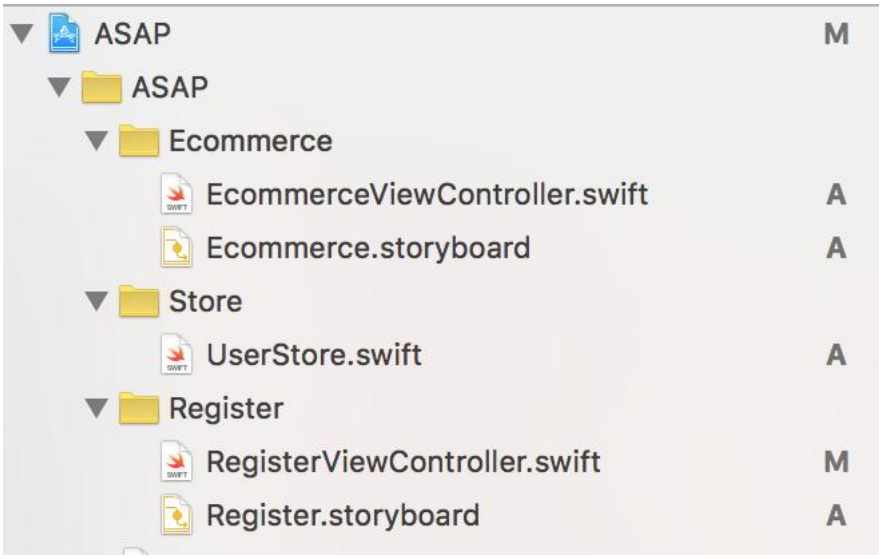

Register View Controller Scene
Register View Controller
Top Layout Guide
Bottom Layout Guide
View
Stack View
L Register
F Round Style Text Field
B OK
Constraints
width = 200
height = 50
Constraints
Round Style Text Field.leading = leading
trailing = Round Style Text Field.trailing
Constraints
Stack View.centerX = centerX
Stack View.centerY = 0.5 × centerY

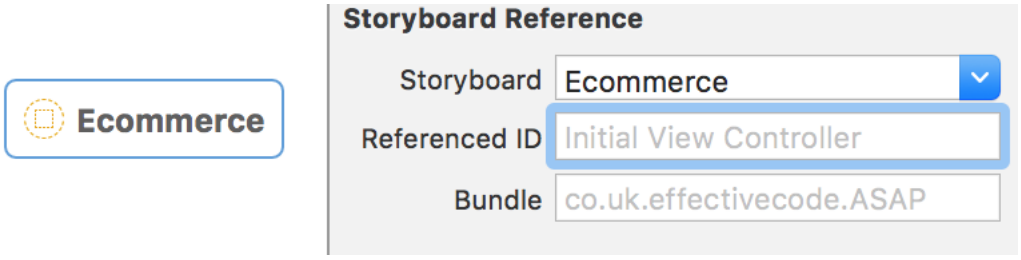

Alignment
Placeholder
Email Address
Background
Background Image
Disabled
Disabled Background Image
Border Style
Clear Button
Never appears
Clear when editing begins
Min Font Size
17
Adjust to Fit
Capitalization
None
Correction
Default
Spell Checking
Default
Keyboard Type
E-mail Address
Appearance
Default
Return Key
Default

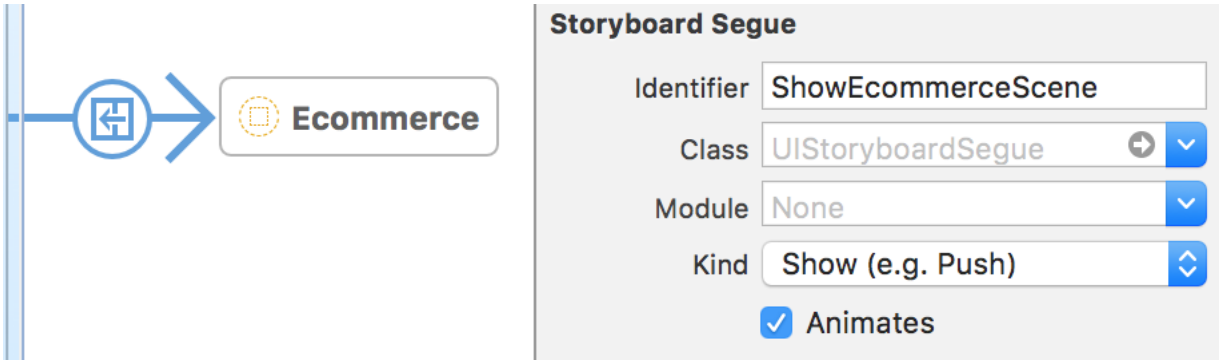

Register
Email Address
OK

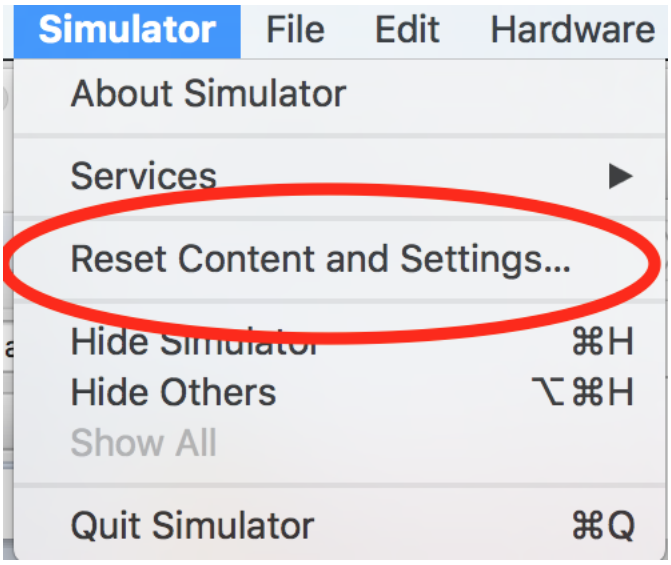

Touch Drag Outside
Touch Up Inside
Register View...
signinTapped:
Touch Up Outside
Value Changed
Referencing Outlets
okButton
Register View...
New Referencing Outlet
Referencing Outlet Collections
New Referencing Outlet Collection

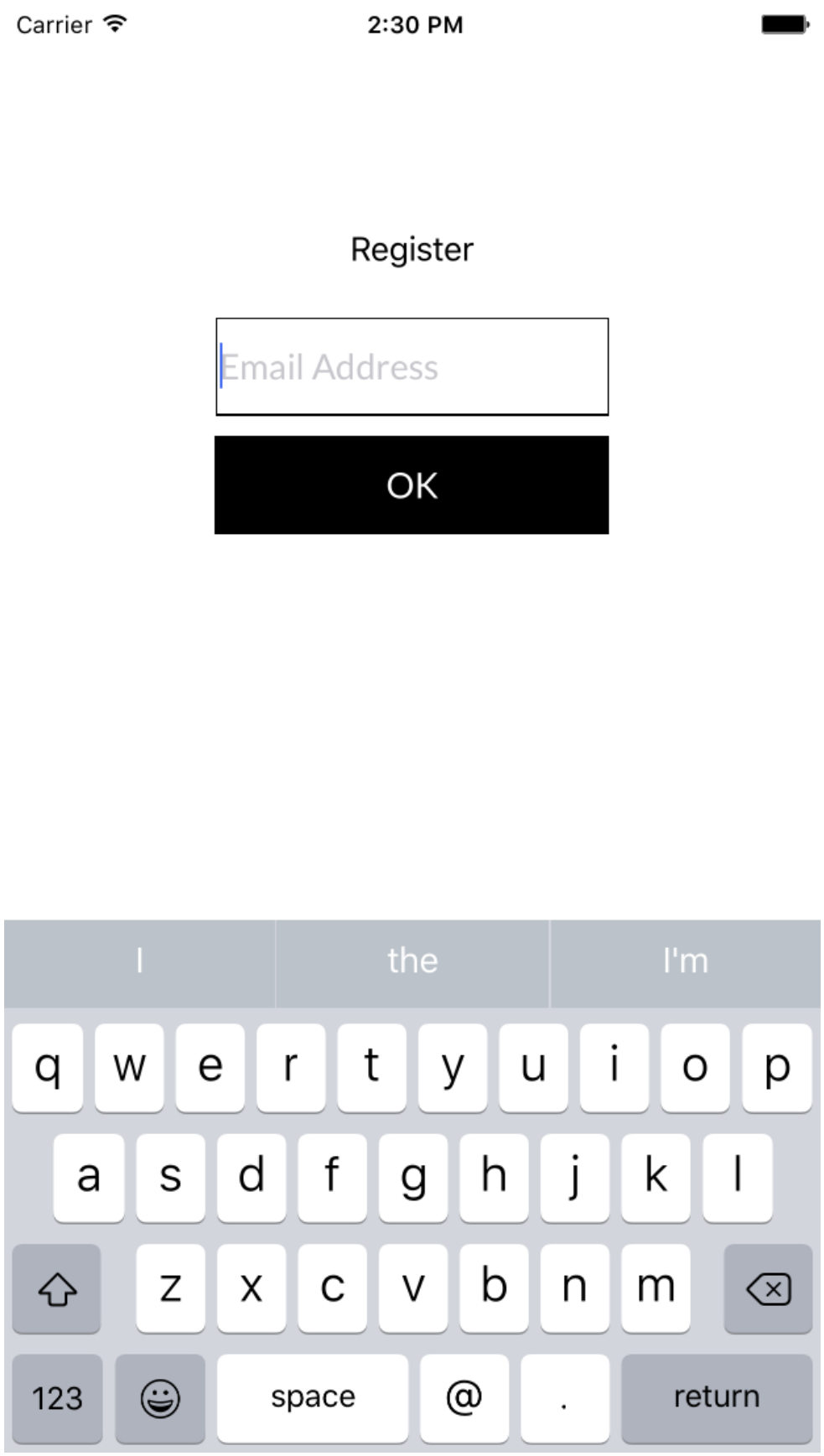

Did End On Exit
Editing Changed
Register View...
emailTextField...
Editing Did Begin
Editing Did End
Primary Action Triggered
Touch Cancel
Touch Down
Touch Down Repeat
Touch Drag Enter
Touch Drag Exit
Touch Drag Inside
Touch Drag Outside
Touch Up Inside
Touch Up Outside
Value Changed
Referencing Outlets
emailTextField
Register View...
New Referencing Outlet

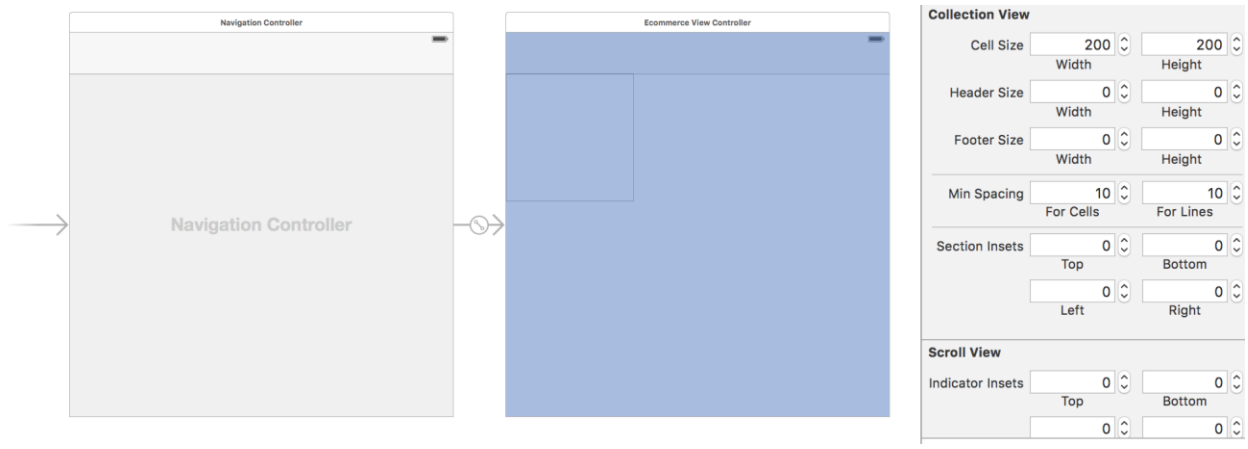

ASAP
M
ASAP
Ecommerce
EcommerceViewController.swift
A
Ecommerce.storyboard
A
Store
UserStore.swift
A
Register
RegisterViewController.swift
M
Register.storyboard
A

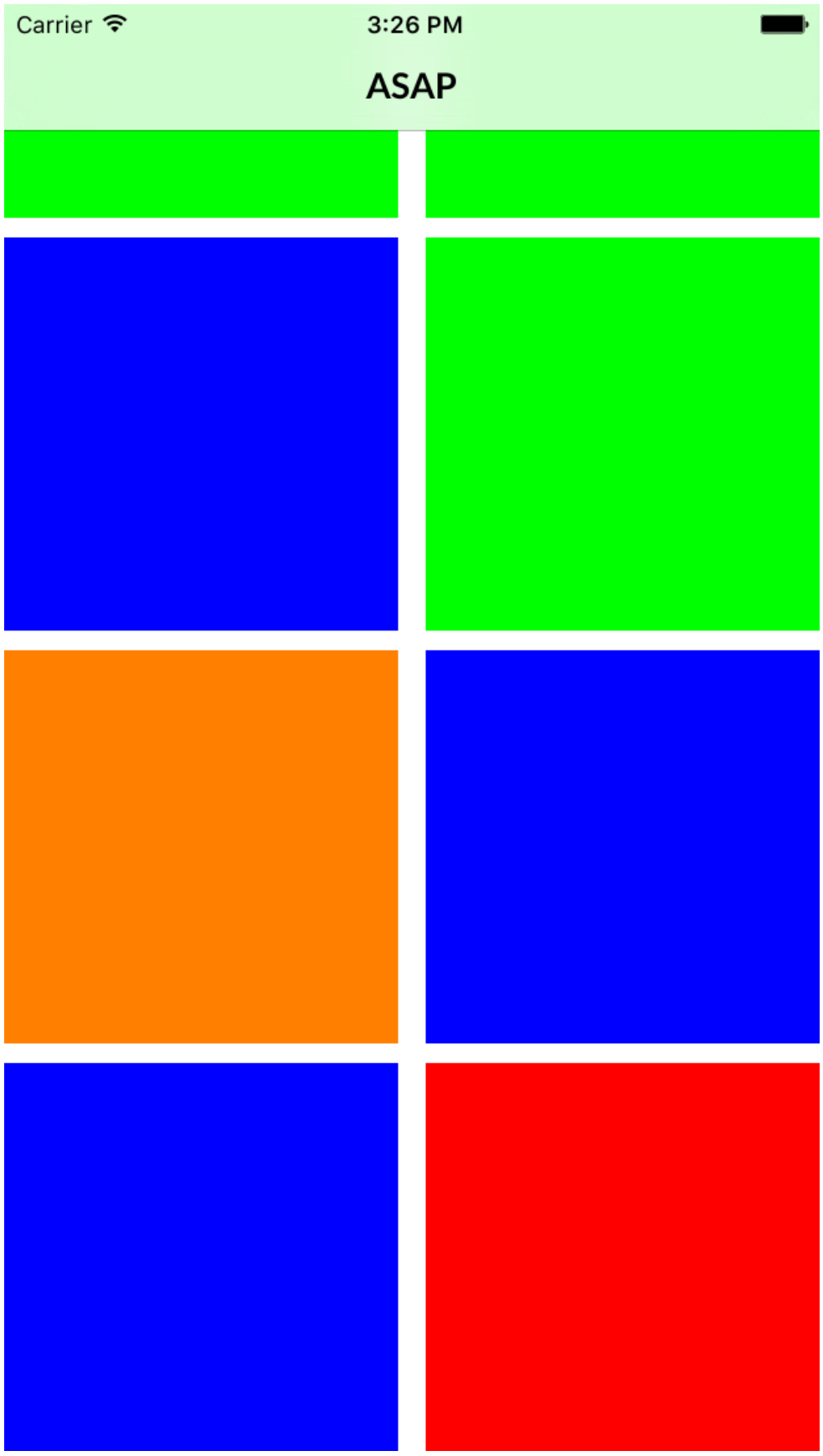

Ecommerce
Storyboard Reference
Storyboard
Ecommerce
Referenced ID
Initial View Controller
Bundle
co.uk.effectivecode.ASAP

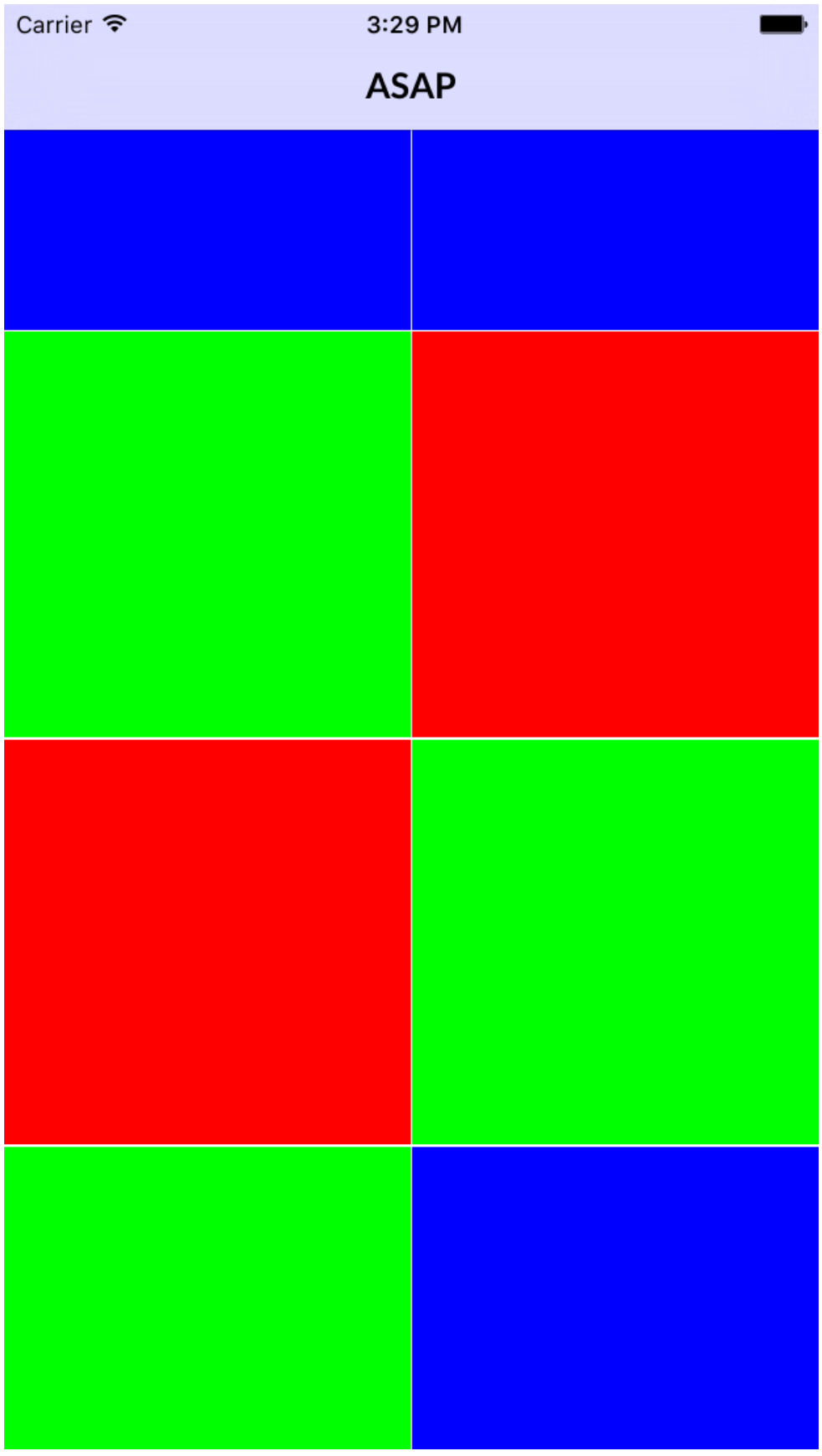

Ecommerce
Storyboard Segue
Identifier
ShowEcommerceScene
Class
UIStoryboardSegue
Module
None
Kind
Show (e.g. Push)
Animates

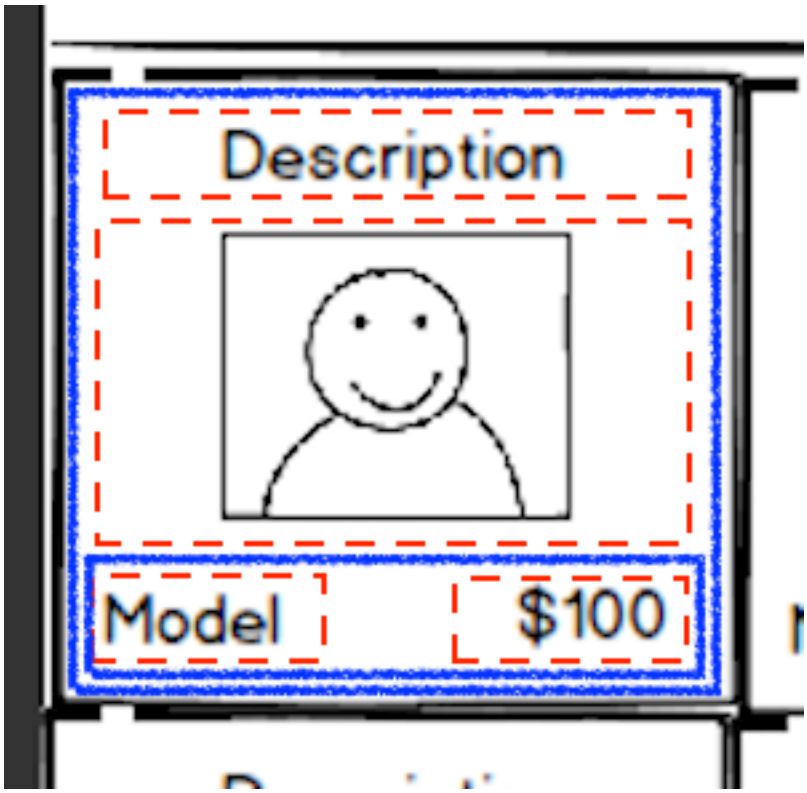

Simulator
File
Edit
Hardware
About Simulator
Services
Reset Content and Settings...
Hide Simulator ⌘H
Hide Others ⌥⌘H
Show All
Quit Simulator ⌘Q


Carrier
2:30 PM
Register
Email Address
OK
I
the
I'm
q w e r t y u i o p
a s d f g h j k l
z x c v b n m
123
space
@
.
return


Navigation Controller
Navigation Controller
Ecommerce View Controller
Collection View
Cell Size
200
Width
200
Height
Header Size
0
Width
0
Height
Footer Size
0
Width
0
Height
Min Spacing
10
For Cells
10
For Lines
Section Insets
0
Top
0
Bottom
0
Left
0
Right
Scroll View
Indicator Insets
0
Top
0
Bottom
0
0

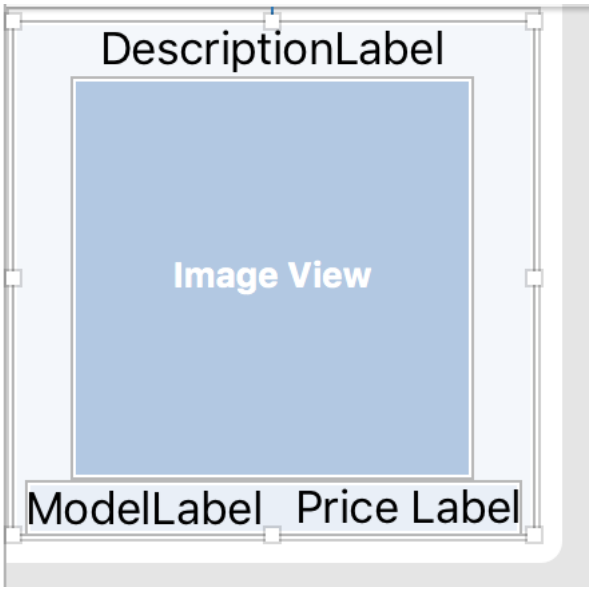

Carrier
3:26 PM
ASAP

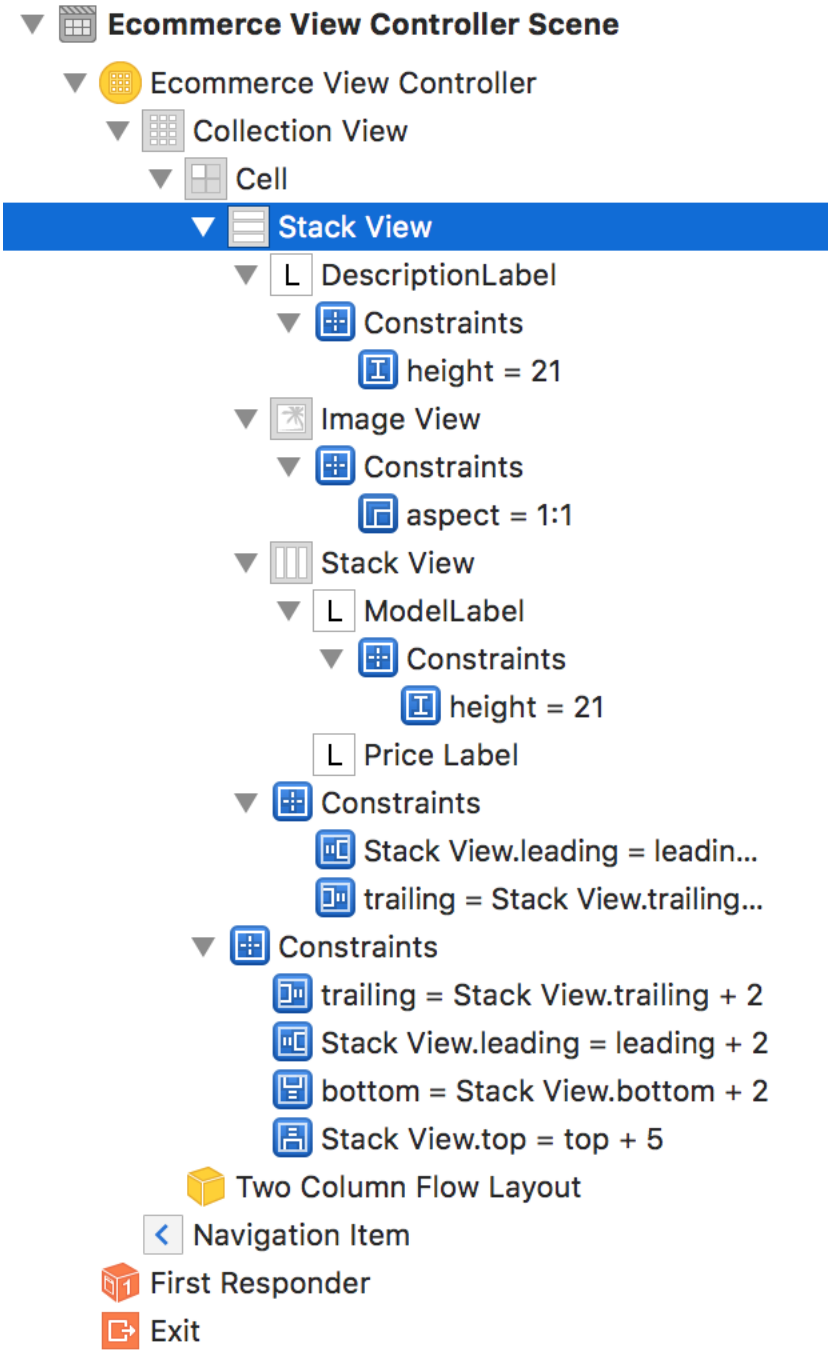

Carrier
3:29 PM
ASAP



Stack View

Axis	Horizontal
Alignment	Top
Distribution	Equal Spacing
Spacing	0
	Baseline Relative


DescriptionLabel
Image View
ModelLabel
Price Label



App Transport Security Settings	Dictionary	(1 item)
Allow Arbitrary Loads	Boolean	YES

Carrier 4:37 PM

ASAP

Ex Model **$123**

Ex Description

Ex Model **$123**

Ex Description

Ex Model **$123**

Ex Description

Ex Model **$123**

Ex Description

Ex Model **$123**

Ex Description

Ex Model **$123**

Ex Description

Carrier 6:17 PM

ASAP

leggings **$48.83**

Fantastic Concrete Glo...

hoodie **$89.77**

Aerodynamic Granite S...

mlkshk **$71.53**

Rustic Concrete Pants

tacos **$46.51**

Small Bronze Bench

biodiesel **$41.85**

Heavy Duty Linen Pants

mixtape **$81.05**

Synergistic Leather Chair

Carrier 7:19 PM

ASAP 4

synth $97.96

normcore $4.58

Enormous Plastic Shoes

brooklyn $93.52

Sleek Silk Bench

chartreuse $75.76

Fantastic Cotton Shirt

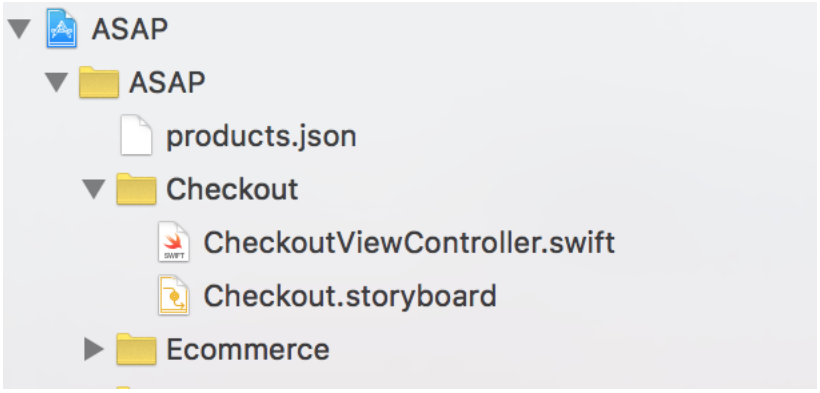
bitters $26.06

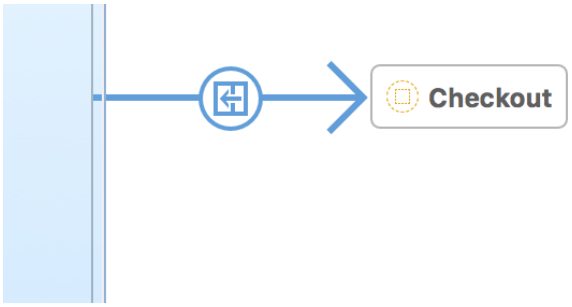
Practical Bronze Bag

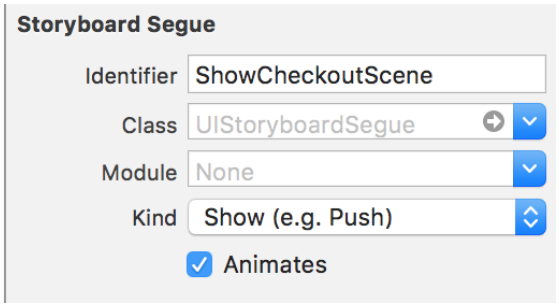
loko $26.71

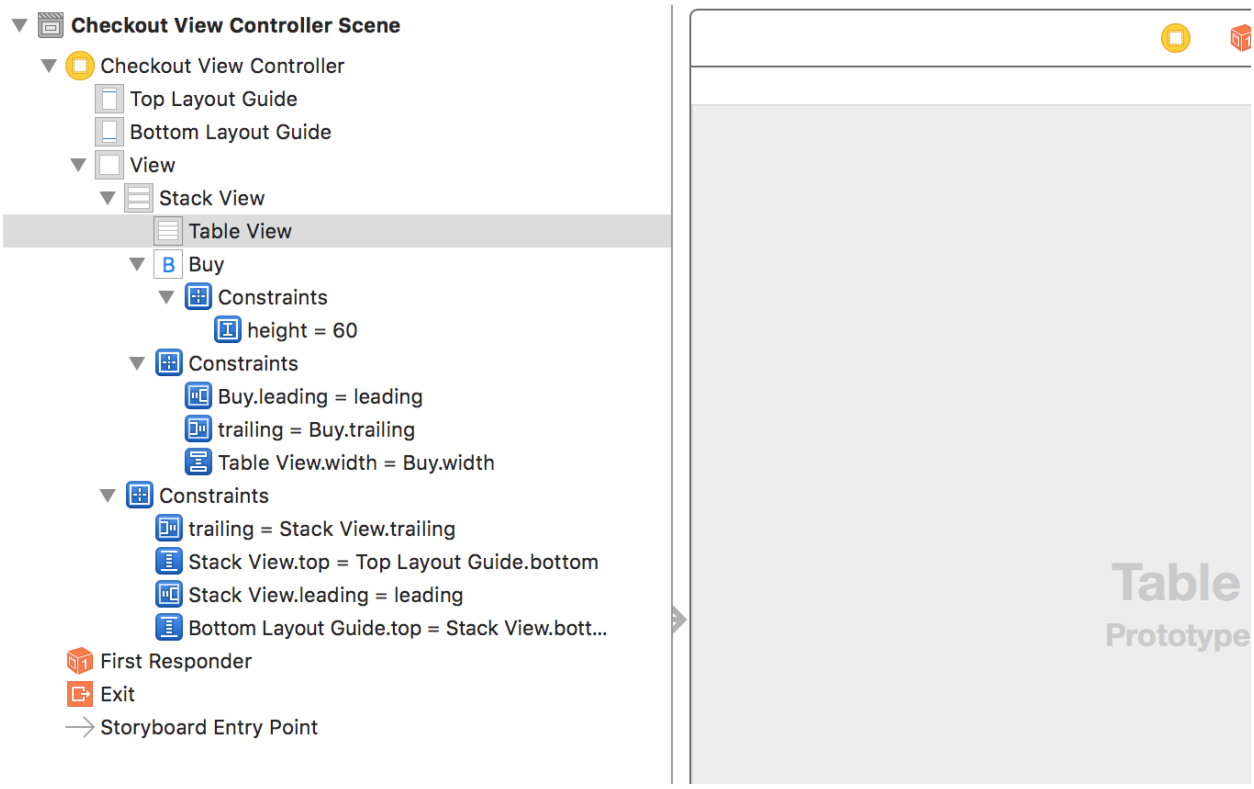
Sleek Concrete Gloves

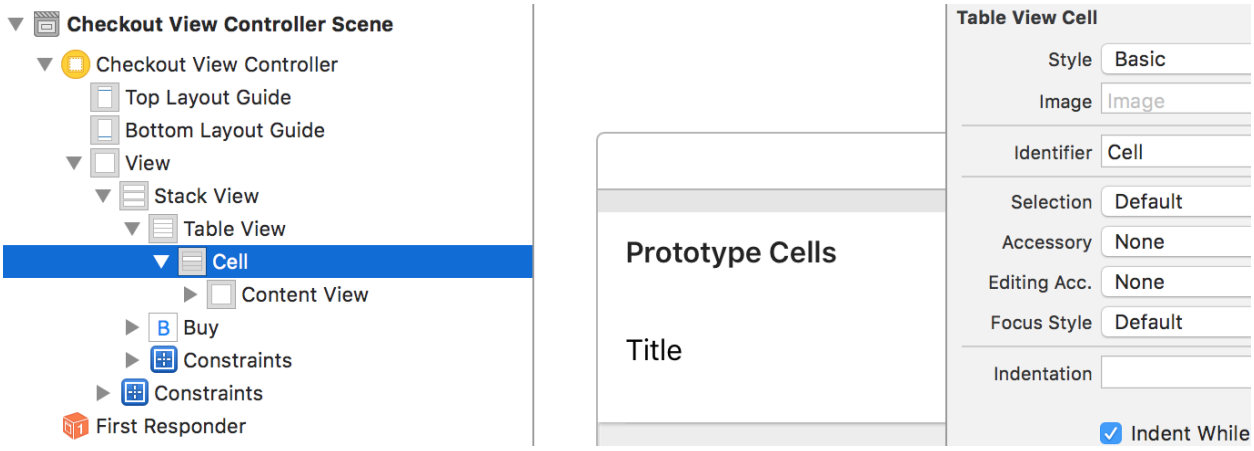
Practical Concrete Car


ASAP
ASAP
products.json
Checkout
CheckoutViewController.swift
Checkout.storyboard
Ecommerce


Checkout


Storyboard Segue
Identifier
ShowCheckoutScene
Class
UIStoryboardSegue
Module
None
Kind
Show (e.g. Push)
Animates


Checkout View Controller Scene
Checkout View Controller
Top Layout Guide
Bottom Layout Guide
View
Stack View
Table View
Buy
Constraints
height = 60
Constraints
Buy.leading = leading
trailing = Buy.trailing
Table View.width = Buy.width
Constraints
trailing = Stack View.trailing
Stack View.top = Top Layout Guide.bottom
Stack View.leading = leading
Bottom Layout Guide.top = Stack View.bott...
First Responder
Exit
Storyboard Entry Point
Table
Prototype


Checkout View Controller Scene
Checkout View Controller
Top Layout Guide
Bottom Layout Guide
View
Stack View
Table View
Cell
Content View
Buy
Constraints
Constraints
First Responder
Prototype Cells
Title
Table View Cell
Style
Basic
Image
Image
Identifier
Cell
Selection
Default
Accessory
None
Editing Acc.
None
Focus Style
Default
Indentation
Indent While

Carrier 3:48 PM

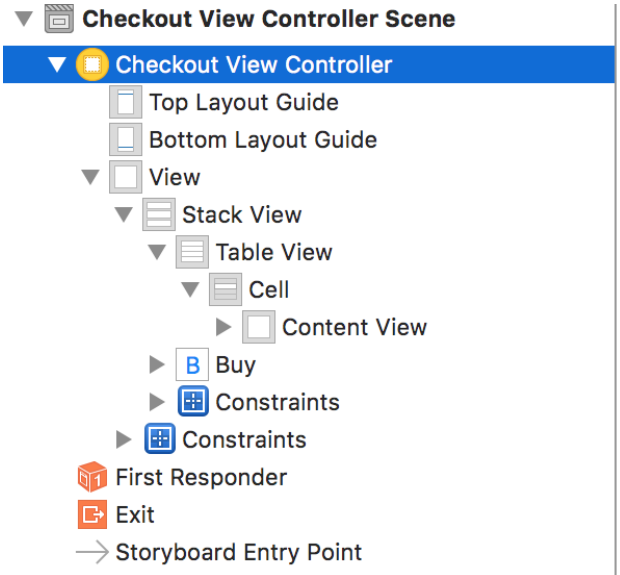
ASAP

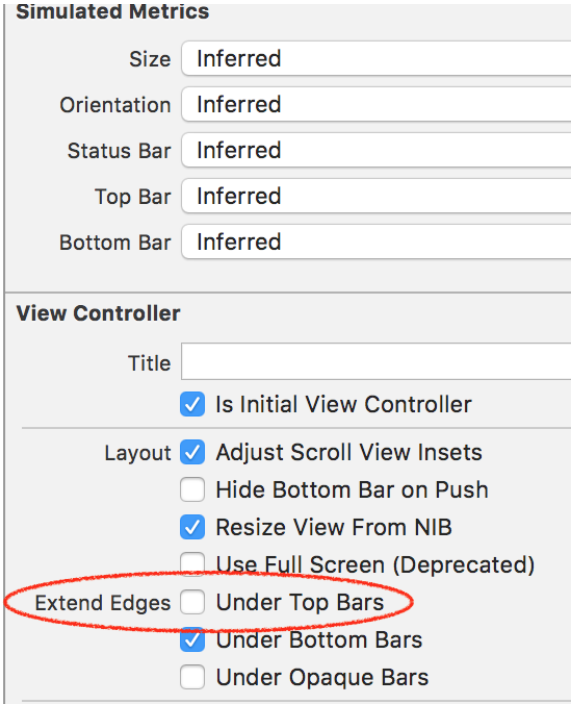
synth

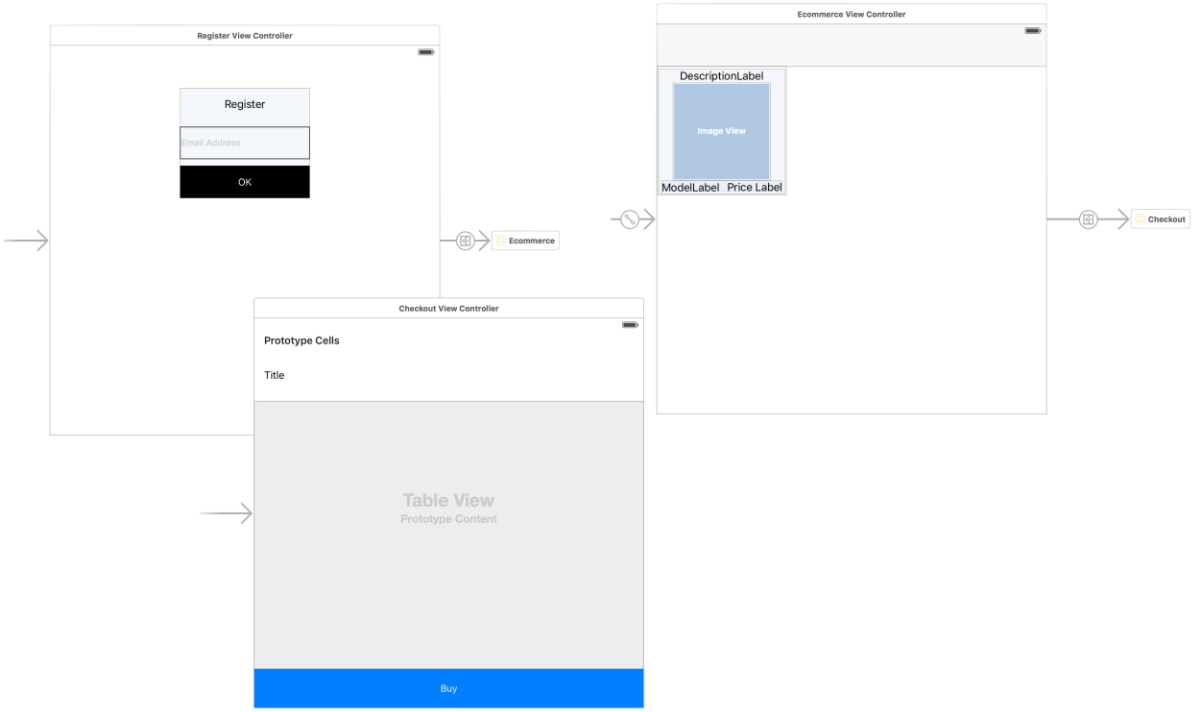
normcore

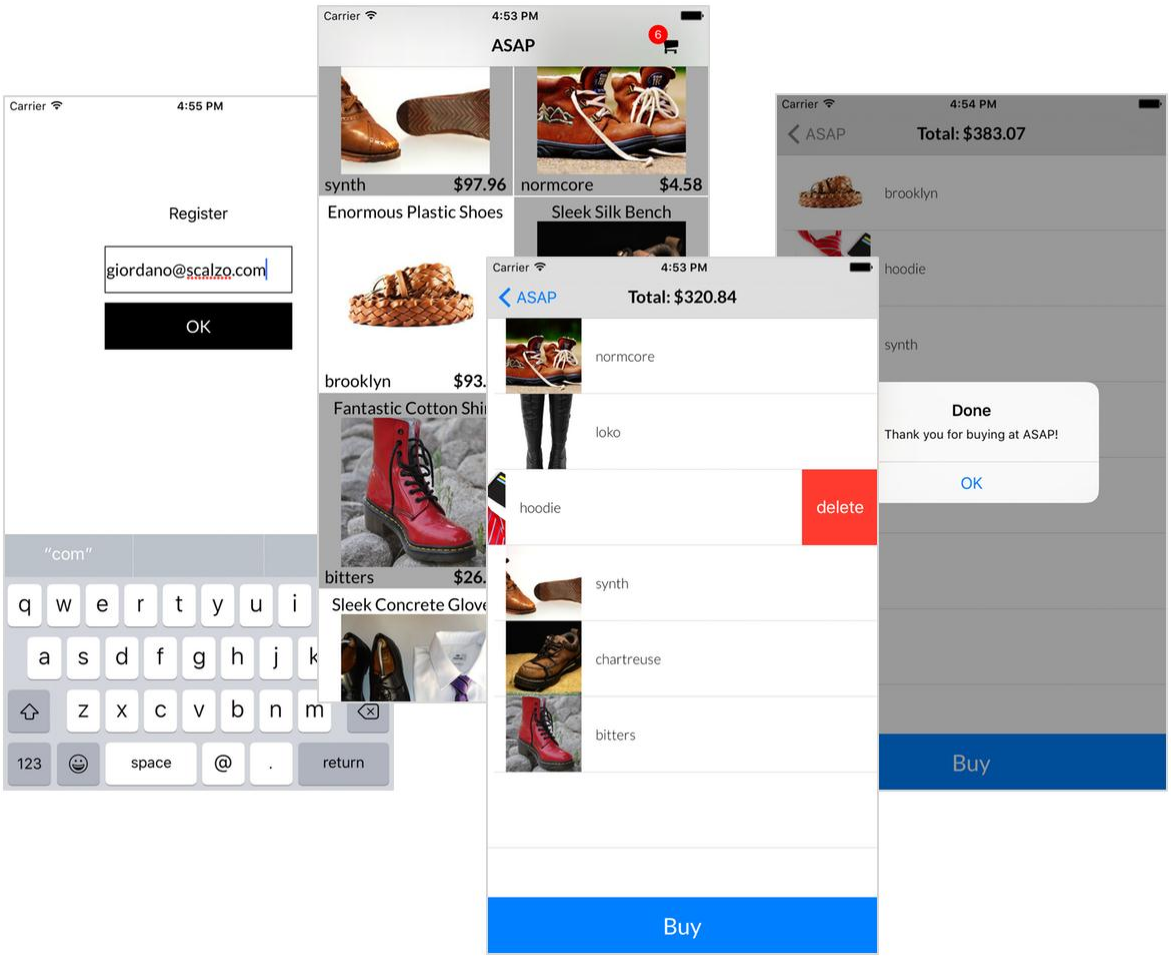
chartreuse

Buy


Checkout View Controller Scene
Checkout View Controller
Top Layout Guide
Bottom Layout Guide
View
Stack View
Table View
Cell
Content View
Buy
Constraints
Constraints
First Responder
Exit
Storyboard Entry Point


Simulated Metrics
Size
Inferred
Orientation
Inferred
Status Bar
Inferred
Top Bar
Inferred
Bottom Bar
Inferred
View Controller
Title
Is Initial View Controller
Layout
Adjust Scroll View Insets
Hide Bottom Bar on Push
Resize View From NIB
Use Full Screen (Deprecated)
Extend Edges
Under Top Bars
Under Bottom Bars
Under Opaque Bars


Register View Controller
Register
Email Address
OK
Ecommerce
Ecommerce View Controller
DescriptionLabel
Image View
ModelLabel
Price Label
Checkout
Checkout View Controller
Prototype Cells
Title
Table View
Prototype Content
Buy



Chapter 11: ASAPServer, a Server in Swift

```
➜  Swif2ByExample  curl http://localhost:8888/hello/james/bond
Hello Optional("james") Optional("bond")%
➜  Swif2ByExample
➜  Swif2ByExample
➜  Swif2ByExample
➜  Swif2ByExample  curl -X POST http://localhost:8888/hello/james/bond
{"greeting":"Hello","surname":"bond","name":"james"}%
➜  Swif2ByExample
➜  Swif2ByExample
```

```
Linking Executable:  .build/debug/ASAP
.build/debug/ASAP
Starting...
Hello Optional("james") Optional("bond")


Created object: {
    "greeting": "Hello",
    "name": "james",
    "surname": "bond"
}
```

```
➜  ASAPServer git:(7_ASAP_9_ASAPWithServer) ✗ make run
swift build
Compiling Swift Mo
Linking Library:
Compiling Swift Mo
Linking Library:
Compiling Swift Mo
Linking Library:
Compiling Swift Mo
Linking Executable
.build/debug/ASAP
Starting...
Get /products
Add product e75e3b                                  to cart of user jamesbond@mi6.org
Add product 65d236                                  to cart of user jamesbond@mi6.org
Add product 77e745                                  to cart of user jamesbond@mi6.org
Add product a52176                                  to cart of user jamesbond@mi6.org
Add product 306184                                  to cart of user jamesbond@mi6.org
Remove product 65d                                 8b to cart of user jamesbond@mi6.org
Remove product 77e                                 5f to cart of user jamesbond@mi6.org
Remove product a52                                 c2 to cart of user jamesbond@mi6.org
Add product 77e745                                  to cart of user jamesbond@mi6.org
Add product 4f6607                                  to cart of user jamesbond@mi6.org
Add product 65d236                                  to cart of user jamesbond@mi6.org
```