

Playground

Playground

Create small programs called “playgrounds” that instantly show the results of the code that you write



Get started with a playground



Welcome to Xcode

Version 10.1 (10B61)



Get started with a playground

Explore new ideas quickly and easily.



Create a new Xcode project

Create an app for iPhone, iPad, Mac, Apple Watch, or Apple TV.



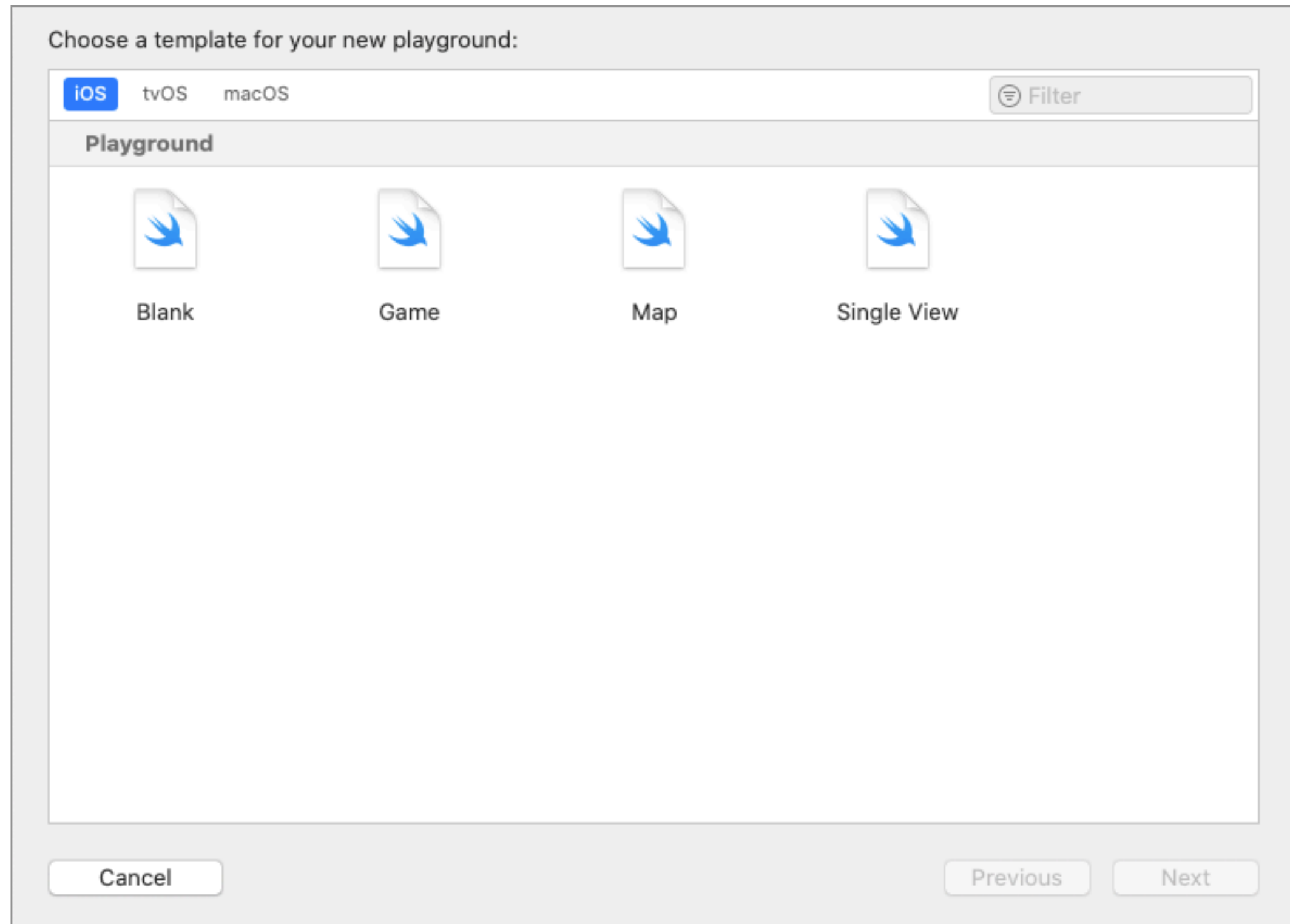
Clone an existing project

Start working on something from a Git repository.

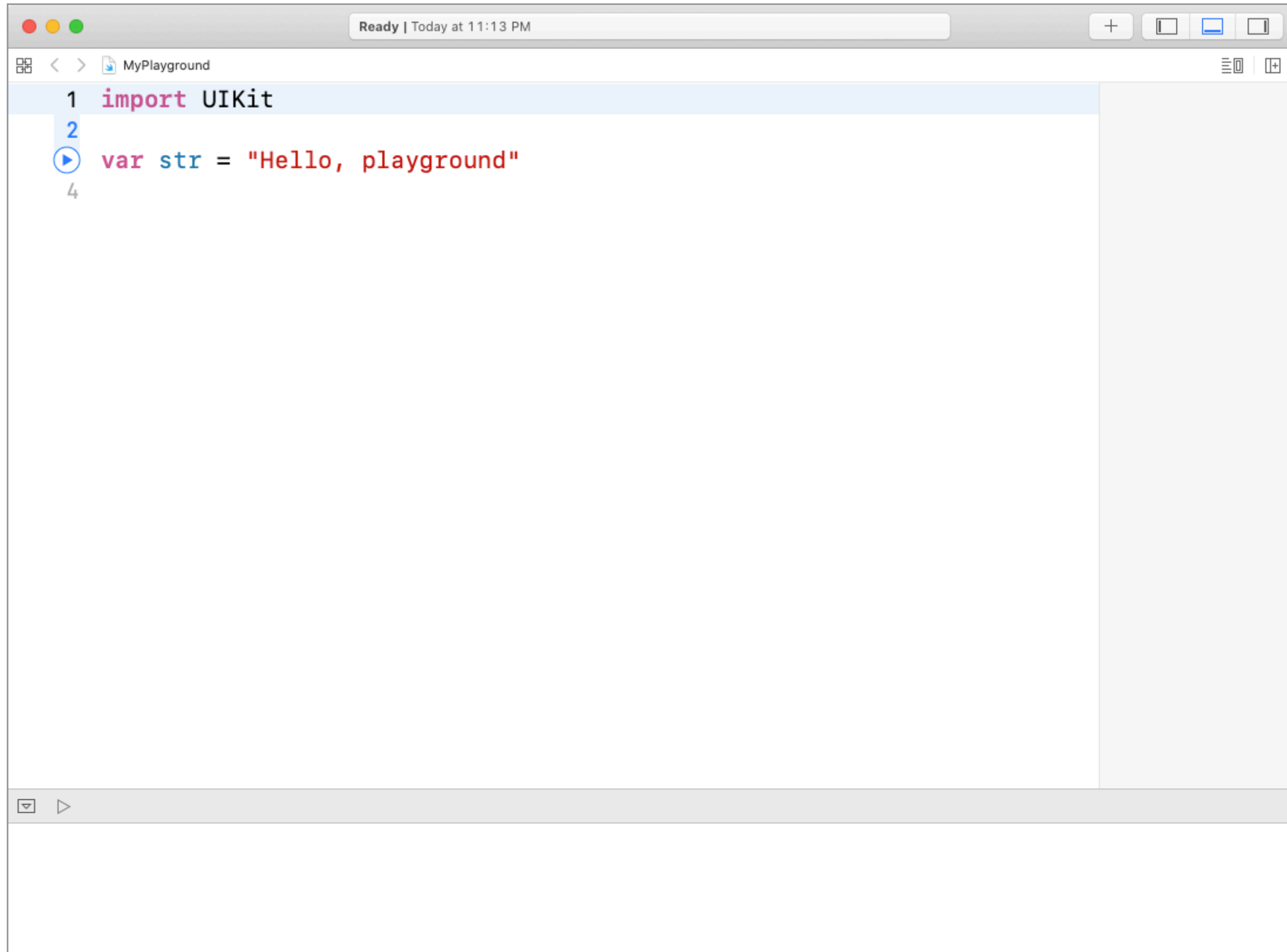
No Recent Projects

Open another project...

Templates



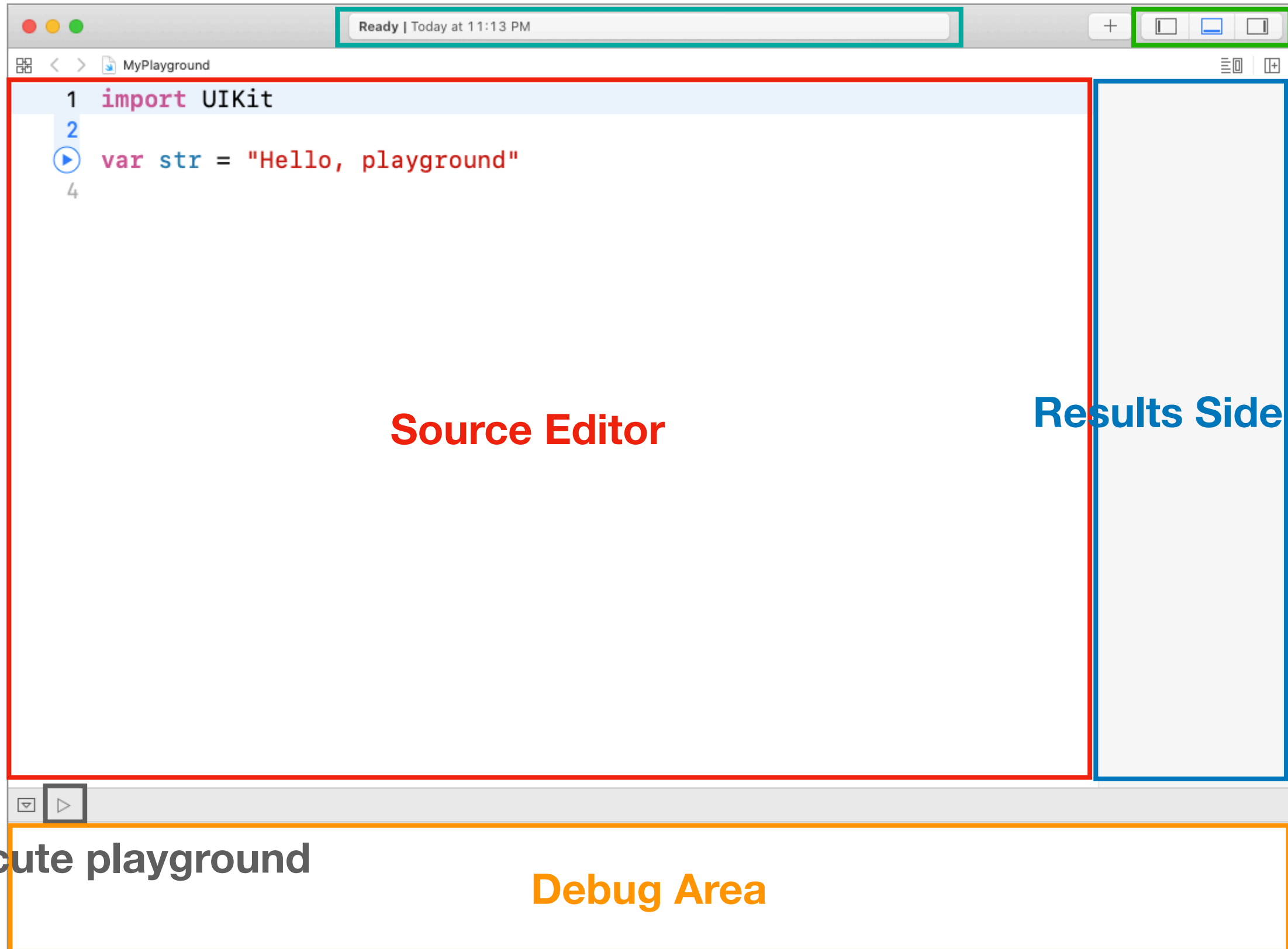
Blank



Playground Area

Activity Viewer

Panel Controls

A screenshot of the Xcode Playground interface. The window title bar shows "Ready | Today at 11:13 PM". The toolbar includes a "+" button and three view icons (outline, canvas, and storyboard). The main area is divided into two panes: the "Source Editor" on the left, which contains Swift code, and the "Results Sidebar" on the right, which is currently empty. At the bottom, there is a "Debug Area" with a play button icon and the text "Execute playground".

```
1 import UIKit
2
3 var str = "Hello, playground"
4
```

Source Editor

Results Sidebar

Execute playground

Debug Area

Game

Running Game

Game

```
A SpriteKit based Playground

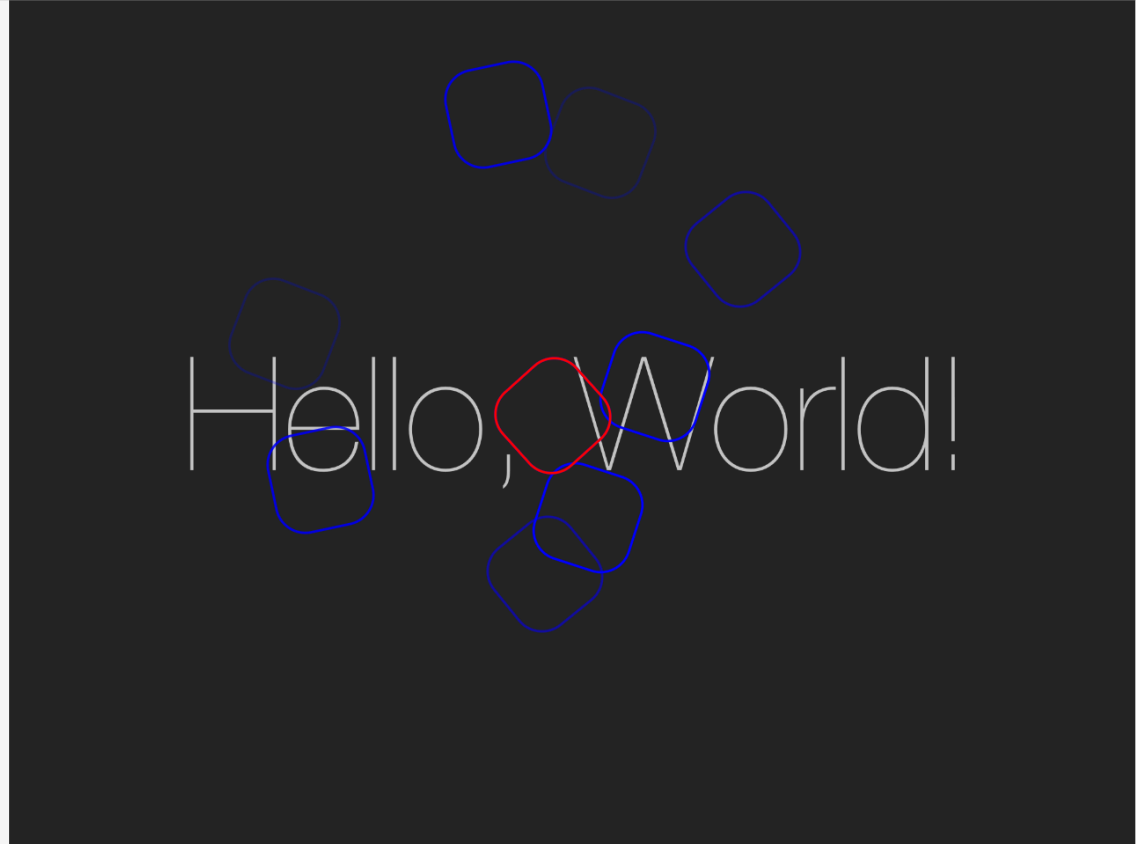
2
3 import PlaygroundSupport
4 import SpriteKit
5
6 class GameScene: SKScene {
7
8     private var label : SKLabelNode!
9     private var spinnyNode : SKShapeNode!
10
11     override func didMove(to view: SKView) {
12         // Get label node from scene and store it for use later
13         label = childNode(withName: "//helloLabel") as? SKLabelNode
14         label.alpha = 0.0
15         let fadeInOut = SKAction.sequence([.fadeIn(withDuration:
16             2.0),
17             .fadeOut(withDuration:
18                 2.0)])
19         label.run(.repeatForever(fadeInOut))
20
21         // Create shape node to use during mouse interaction
22         let w = (size.width + size.height) * 0.05
23
24         spinnyNode = SKShapeNode(rectOf: CGSize(width: w, height: w),
25             cornerRadius: w * 0.3)
26         spinnyNode.lineWidth = 2.5
27
28         let fadeAndRemove = SKAction.sequence([.wait(forDuration:
29             0.5),
30             .fadeOut(withDuration:
31                 0.5),
32             .removeFromParent())])
33         spinnyNode.run(.repeatForever(.rotate(byAngle:
34             CGFloat(Double.pi), duration: 1)))
35         spinnyNode.run(fadeAndRemove)
36     }
37 }
```

Live View

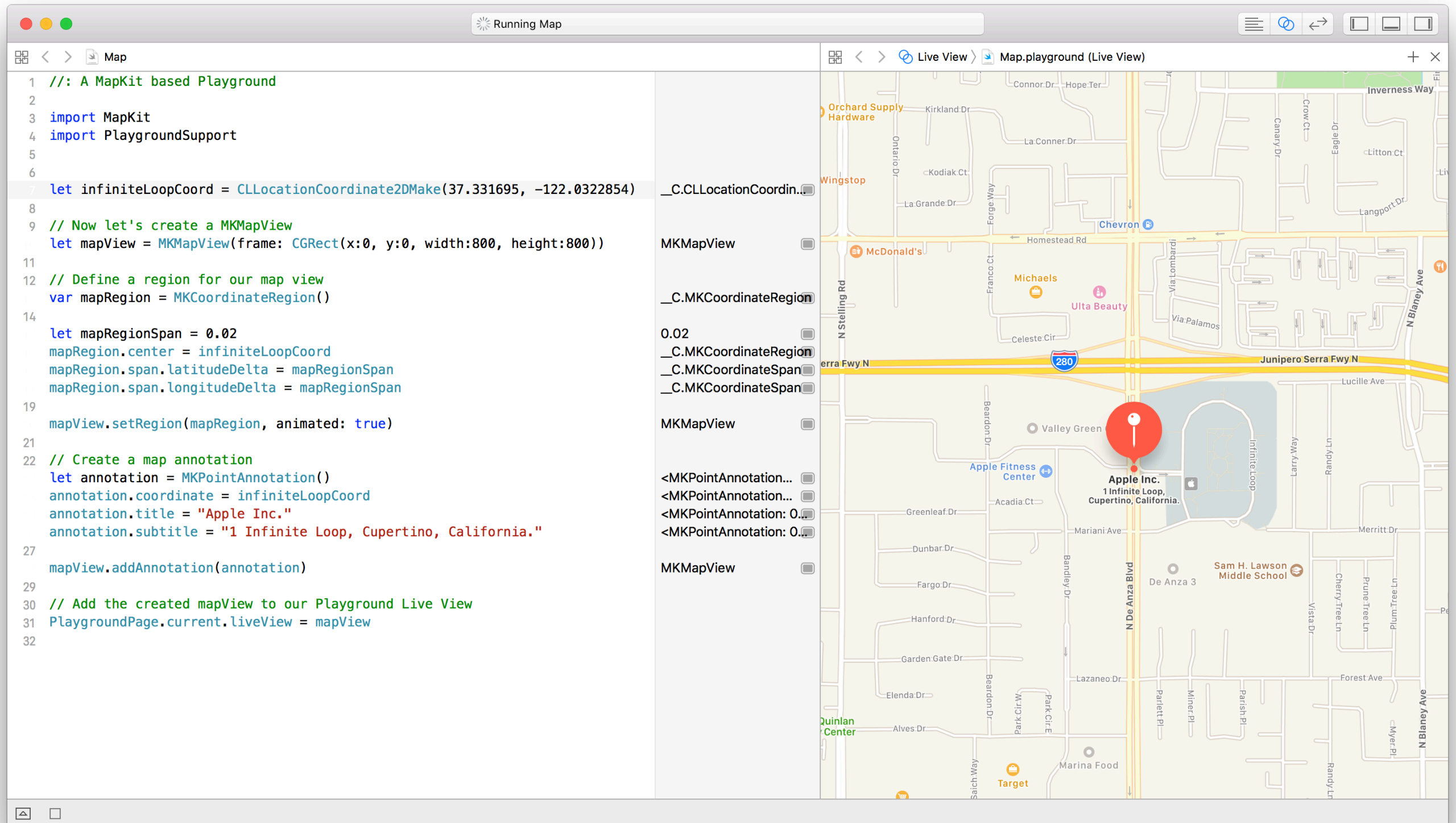
Game.playground (Live View)

<SKScene> name:'(null...
<SKLabelNode> name:'...
<SKSequence: 0x6040...

<SKLabelNode> name:'...
89.6
<SKScene> name:'(n...
"SpriteKit image data"
<SKSequence: 0x60...
"SpriteKit image data"
"SpriteKit image data"



Map



The screenshot displays an Xcode Playground window titled "Map" on the left and "Map.playground (Live View)" on the right. The left pane contains Swift code for creating a map and adding an annotation. The right pane shows a live map view of Cupertino, California, with a red pin annotation placed over Apple Inc. at 1 Infinite Loop. The map includes labels for various streets, landmarks like Apple Fitness Center and Sam H. Lawson Middle School, and a highway (280). The code in the left pane defines a map region, sets its center and span, and adds a point annotation with a title and subtitle.

```
1 //: A MapKit based Playground
2
3 import MapKit
4 import PlaygroundSupport
5
6
7 let infiniteLoopCoord = CLLocationCoordinate2DMake(37.331695, -122.0322854)
8
9 // Now let's create a MKMapView
10 let mapView = MKMapView(frame: CGRect(x:0, y:0, width:800, height:800))
11
12 // Define a region for our map view
13 var mapRegion = MKCoordinateRegion()
14
15 let mapRegionSpan = 0.02
16 mapRegion.center = infiniteLoopCoord
17 mapRegion.span.latitudeDelta = mapRegionSpan
18 mapRegion.span.longitudeDelta = mapRegionSpan
19
20 mapView.setRegion(mapRegion, animated: true)
21
22 // Create a map annotation
23 let annotation = MKPointAnnotation()
24 annotation.coordinate = infiniteLoopCoord
25 annotation.title = "Apple Inc."
26 annotation.subtitle = "1 Infinite Loop, Cupertino, California."
27
28 mapView.addAnnotation(annotation)
29
30 // Add the created mapView to our Playground Live View
31 PlaygroundPage.current.liveView = mapView
32
```


Single View

Running 113

113

```
1  //: A UIKit based Playground for presenting user
  interface
2
3  import UIKit
4  import PlaygroundSupport
5
6  class MyViewController : UIViewController {
7      override func loadView() {
8          let view = UIView()
9          view.backgroundColor = .white
10
11          let label = UILabel()
12          label.frame = CGRect(x: 150, y: 200, width: 200,
13                               height: 20)
14          label.text = "Hello World!"
15          label.textColor = .black
16
17          view.addSubview(label)
18          self.view = view
19      }
20
21  // Present the view controller in the Live View window
22  PlaygroundPage.current.liveView = MyViewController()
23
```

"empty image"
"empty image"
"empty image"
"empty image"
"empty image"
"empty image"
"empty image"
.MyViewController: 0x7fa651c01760>

Hello World!