

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.



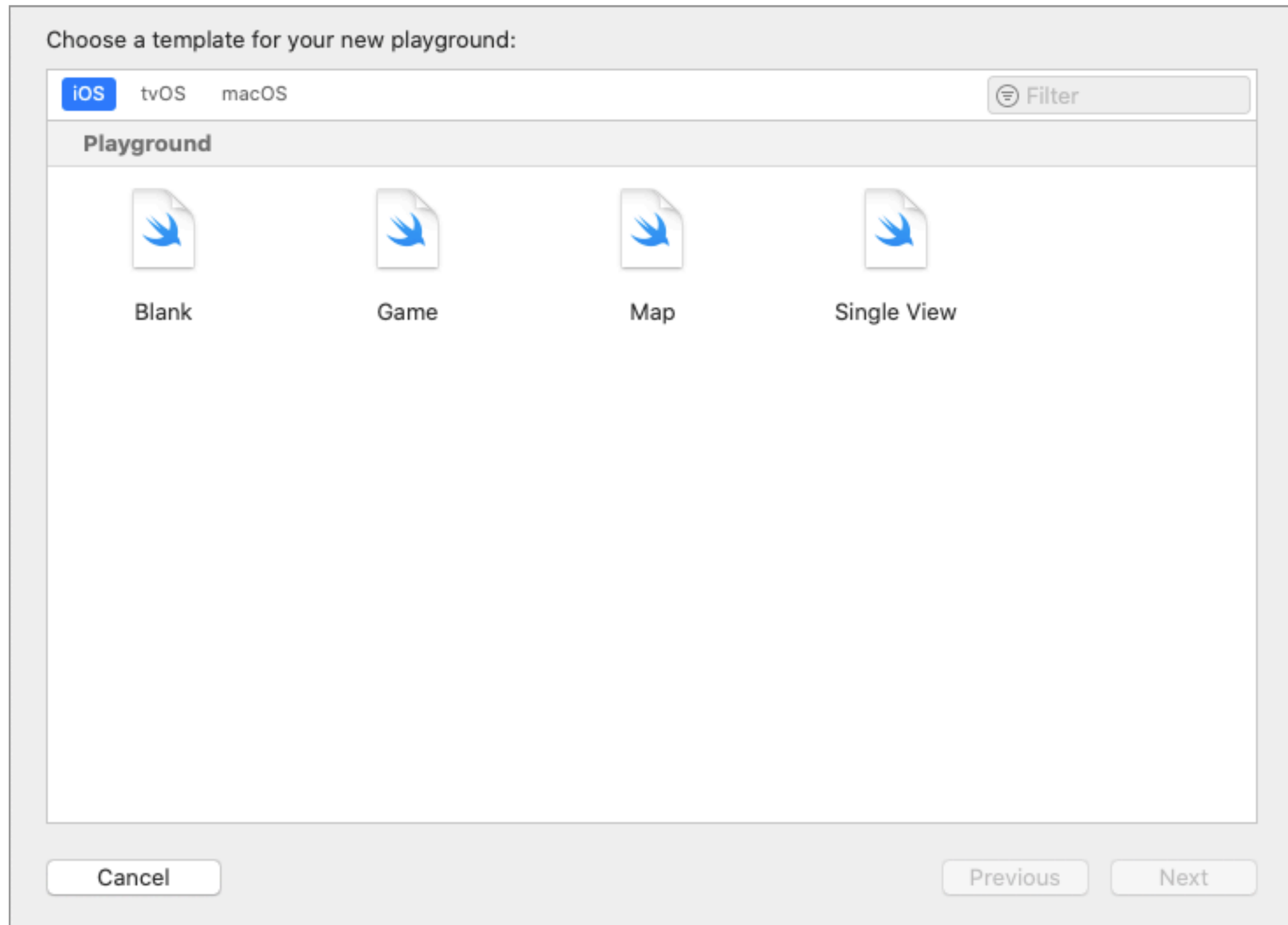
Clone an existing project

Start working on something from a Git repository.

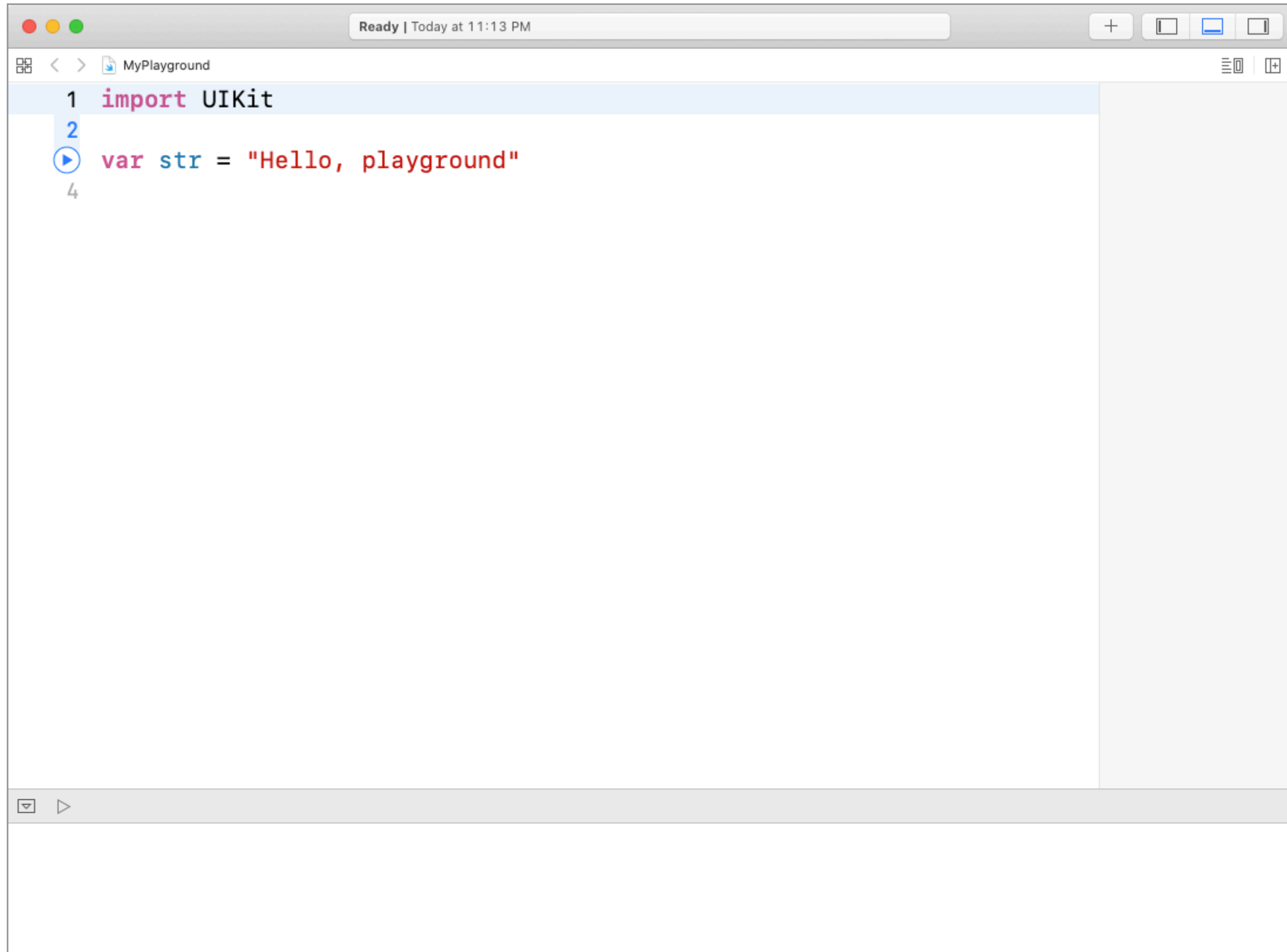
No Recent Projects

Open another project...

Templates



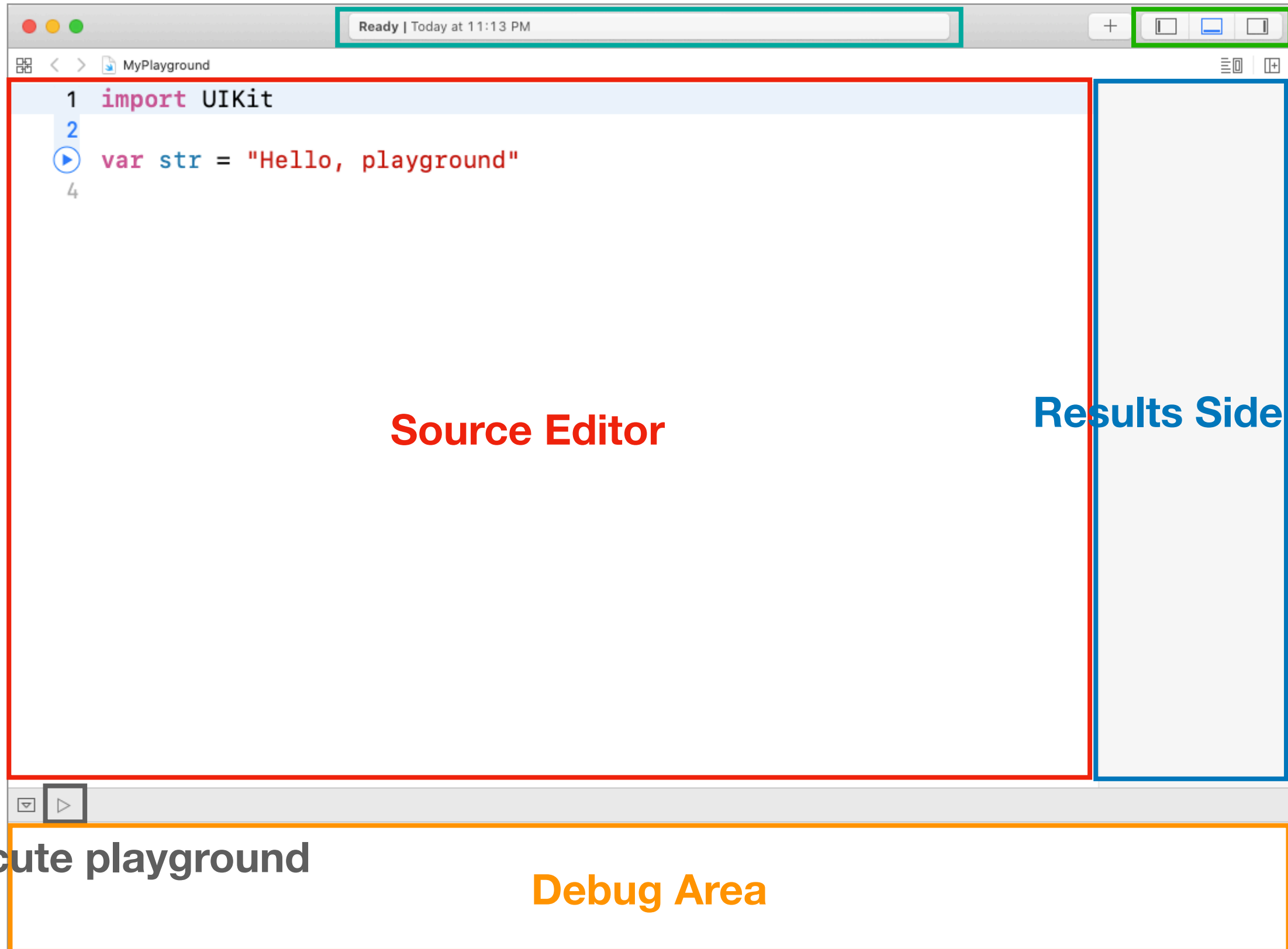
Blank



Playground Area

Activity Viewer

Panel Controls



The screenshot shows the Xcode Playground interface. At the top, a status bar indicates 'Ready | Today at 11:13 PM'. Below it, a toolbar contains icons for source editor, canvas, and results sidebar. 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, a 'Debug Area' is visible, featuring 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

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

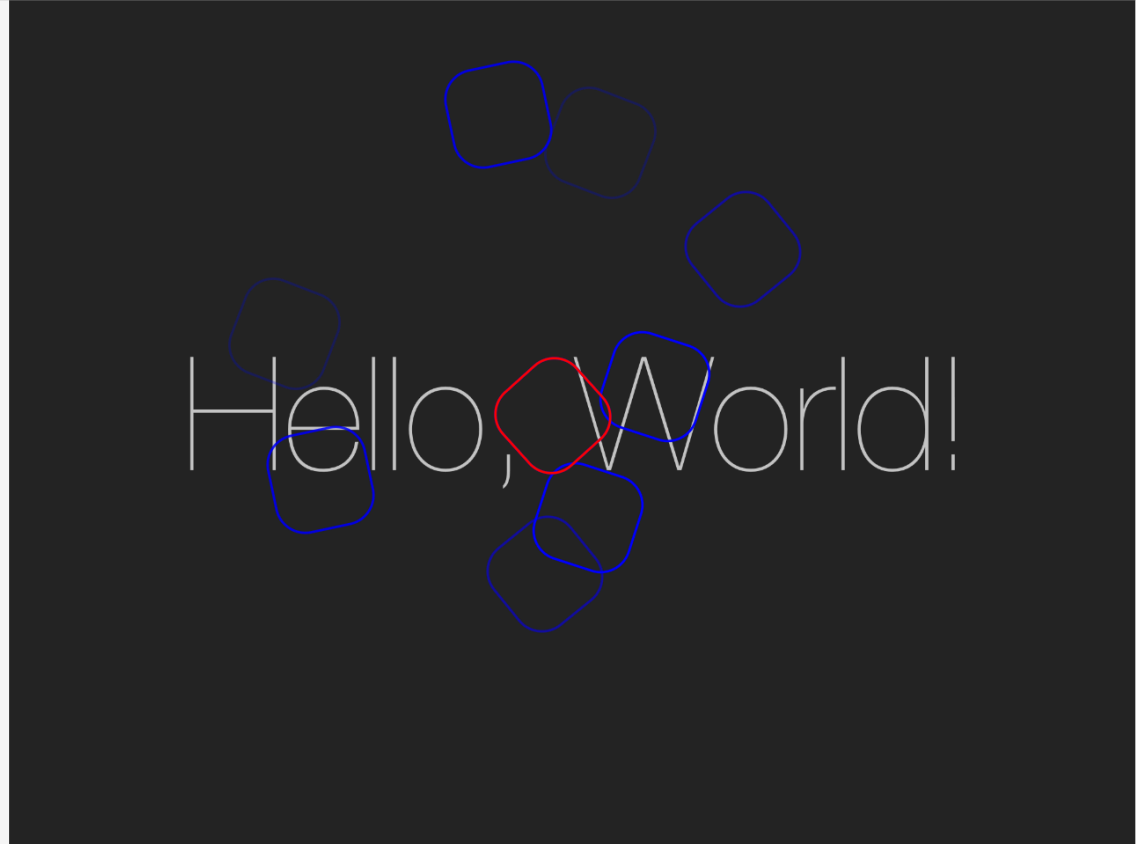
<SKScene> name:'(n...'

"SpriteKit image data"

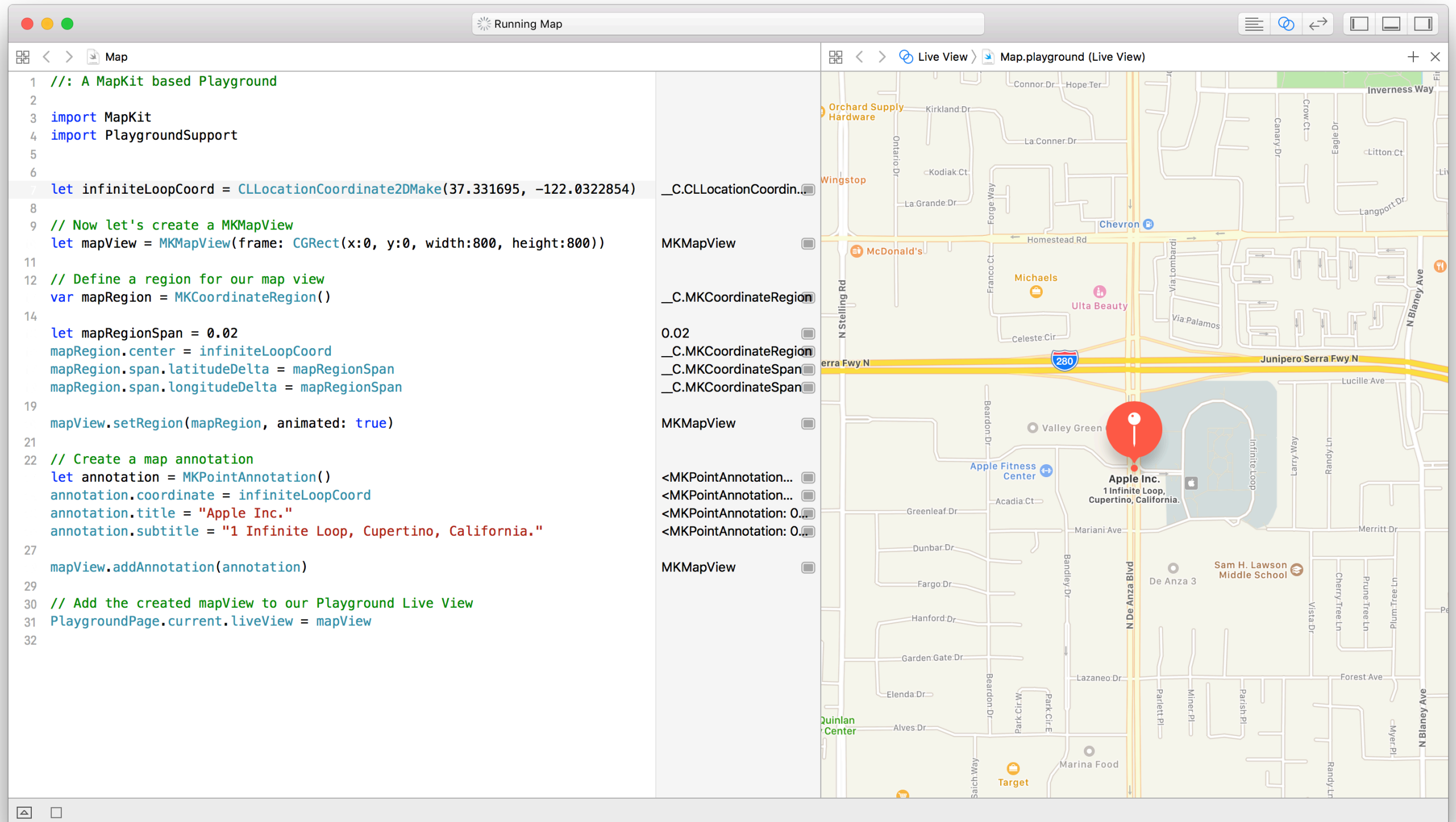
<SKSequence: 0x60...'

"SpriteKit image data"

"SpriteKit image data"



Map



The screenshot displays a Swift Playground environment with two main panes: a code editor on the left and a live view on the right.

Code Editor (Left Pane):

```
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
```

Live View (Right Pane):

The live view shows a map of Cupertino, California, centered on the Apple Inc. location. A red pin annotation is placed at the location, with the title "Apple Inc." and subtitle "1 Infinite Loop, Cupertino, California." The map includes labels for various streets (e.g., N De Anza Blvd, Junipero Serra Fwy N) and landmarks (e.g., Apple Fitness Center, Sam H. Lawson Middle School). The map is displayed in a standard street view style.

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!