

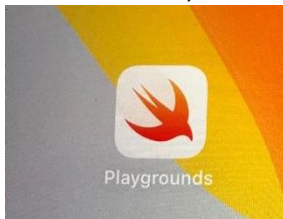
Writing Apple Apps with Swift Playgrounds on iPad

History

Traditionally writing Apple Apps must through XCode on Mac. However, starting from Jan, 2022, we can write Apple Apps on iPad with Swift Playgrounds.

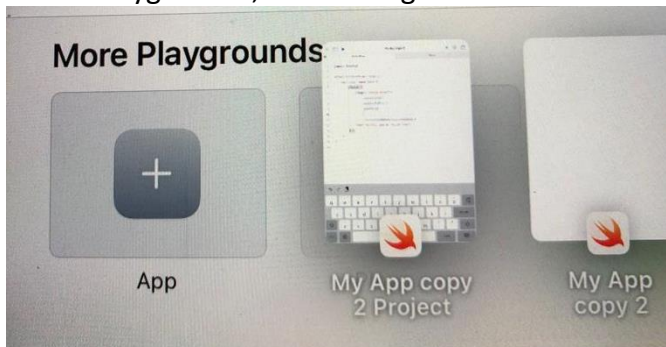
Prerequisite:

iPadOS 15.3 or above, Swift Playgrounds 4.2 or above installed on an iPad



Operations

1. Open Swift Playgrounds, click "+" sign on the bottom left corner to create a new App.




2. The following ContentView will appear.

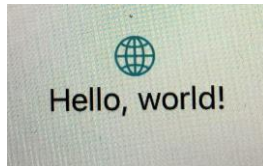
```
import SwiftUI


struct ContentView: View {
    var body: some View {
        VStack {
            Image(systemName: "globe")
                .imageScale(.large)
                .foregroundColor(.accentColor)
            Text("Hello, world!")
        }
    }
}
```

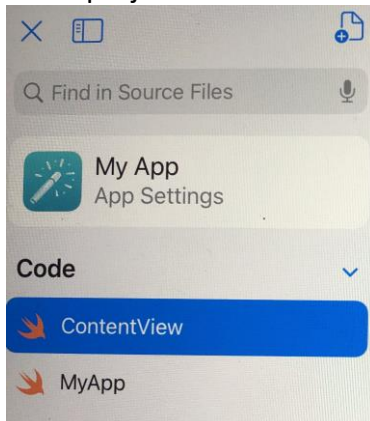
A globe icon


Hello world!

3. Click on the  (Play Button) to play the App.
The following will appear.



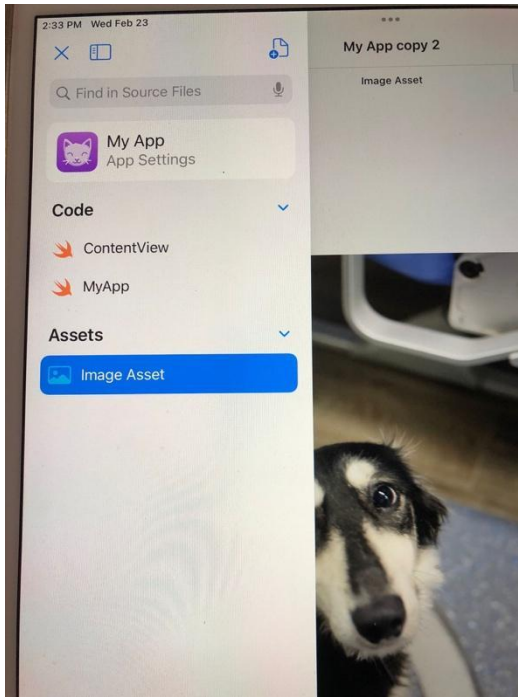
4. Click on the top left corner  icon will show the pane below. This will show all the files source in the project.



5. To insert an image, press the icon . The following appears. Press on "Photo" to insert a new image from the Photos Albums.



The selected image will then be shown under "Assets" in name of "Image Asset".



6. Change the line in "Image..." and "Text..." as below.


```
My App copy 2
ContentView
1 import SwiftUI
2
3 struct ContentView: View {
4     var body: some View {
5         VStack {
6             Image( "Image Asset")
7                 .resizable()
8                 .scaledToFit()
9                 .padding()
10
11             .foregroundColor(.accentColor)
12             Text("Hello, world! by Mr Tam")
13         }
14     }
15 }
16
```

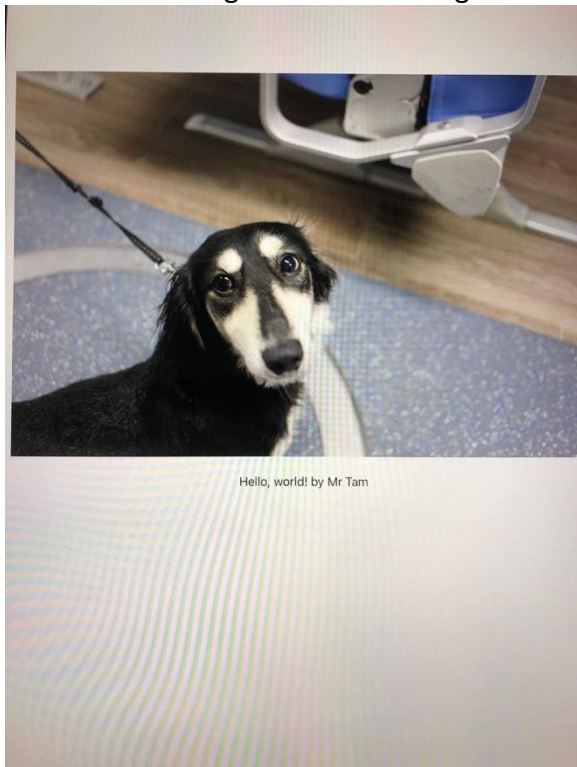
```
import SwiftUI

struct ContentView: View {
    var body: some View {
        VStack {
            Image( "Image Asset")
                .resizable()
                .scaledToFit()
                .padding()

            .foregroundColor(.accentColor)
            Text("Hello, world! by Mr Tam")
        }
    }
}
```

```
}
```

Press  button again. The following shows up.



Congratulations! You have now made your first App with your photo and your text.



Enter your text

中文

English

韓文

日文

泰文

```

//
// ContentView.swift
// HelloWorld
//
// Created by Wing Ching Tam on 28/12/2021.
//

import SwiftUI
import AVFoundation

struct ContentView: View {

    func speak(text: String, language: String) {
        let utterance = AVSpeechUtterance(string: text)
        utterance.voice = AVSpeechSynthesisVoice(language: language)
        let synthesizer = AVSpeechSynthesizer()
        synthesizer.speak(utterance)
    }

    @State var text = ""
    @State var language = "en-AU"
    @State var isFocused: Bool = true

    var body: some View {

        VStack {
            Text("Hello World")
                .fontWeight(.bold)
                .font(.system(.title, design: .rounded))
            Image("Image Asset")
                //Image(systemName: "square.and.arrow.up.circle")
                .resizable()
                .scaledToFit()
                .padding()

            TextField("Enter your text", text: $text, onCommit: { isFocused = false
            })
                .padding()
                // .foregroundColor(.white)
                .font(.system(.title, design: .rounded))
                .border(Color.purple, width:1.0)
                .padding()

            Spacer()
        }
    }
}

```

```

HStack {
  Button {
    language = "zh-HK"
    speak(text:text, language: language)
  } label: {
    Text("中文")
      .fontWeight(.bold)
      .font(.system(.title, design: .rounded))
  }
  .padding()
  .foregroundColor(.white)
  .background(language == "zh-HK" ? Color.indigo : Color.gray)
  .cornerRadius(20)
  Button {
    language = "en-AU"
    speak(text:text, language: language)
  } label: {
    Text("English")
      .fontWeight(.bold)
      .font(.system(.title, design: .rounded))
  }
  .padding()
  .foregroundColor(.white)
  .background(language == "en-AU" ? Color.indigo : Color.gray)
  .cornerRadius(20)

}

```

```

HStack {
  Button {
    language = "ko-KR"
    speak(text:text, language: language)
  } label: {
    Text("韓文")
      .fontWeight(.bold)
      .font(.system(.title, design: .rounded))
  }
  .padding()
  .foregroundColor(.white)
  .background(language == "ko-KR" ? Color.indigo : Color.gray)
  .cornerRadius(20)
  Button {
    language = "ja-JP"
    speak(text:text, language: language)
  } label: {
    Text("日文")

```

```

        .fontWeight(.bold)
        .font(.system(.title, design: .rounded))
    }
    .padding()
    .foregroundColor(.white)
    .background(language == "ja-JP" ? Color.indigo : Color.gray)
    .cornerRadius(20)

    Button {
        language = "th-TH"
        speak(text:text, language: language)
    } label: {
        Text("泰文")
            .fontWeight(.bold)
            .font(.system(.title, design: .rounded))
    }
    .padding()
    .foregroundColor(.white)
    .background(language == "th-TH" ? Color.indigo : Color.gray)
    .cornerRadius(20)
}

}
}
}

struct ContentView_Previews: PreviewProvider {
    static var previews: some View {
        ContentView()
    }
}

```