# Google I/O 19

Bramley Turner-Jones

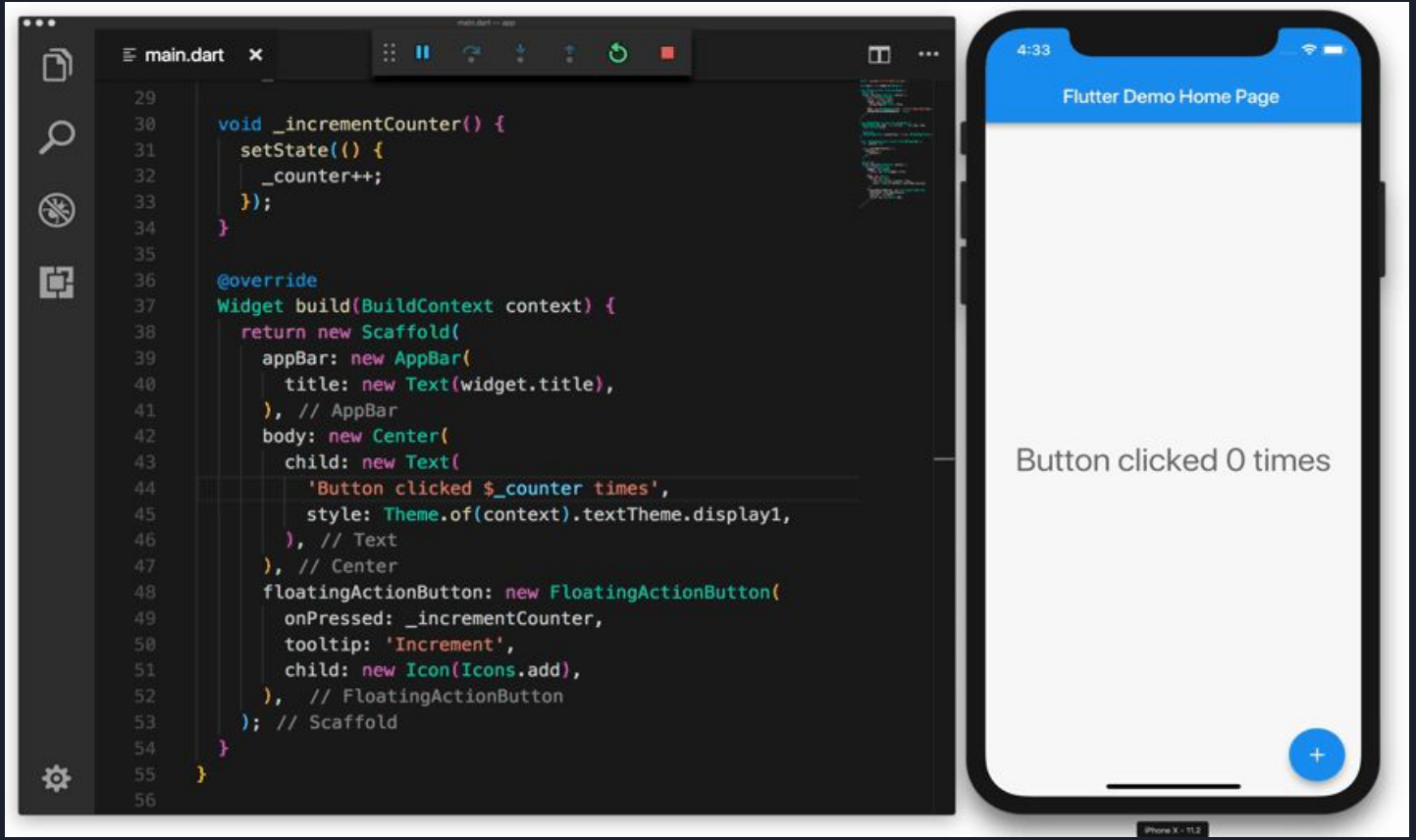
# Me

- Android developer for 7+ years
- Attended I/O in Mountain View in 2018 & 2019, along with others from Melbourne GDG meetup

# Declarative UI & reactive state management ie Flutter & SwiftUI

- Flutter for Android & iOS v1.5
- Flutter for Web. Technical preview announced at I/O 19
- Jetpack Compose for Android. Technical preview announced at I/O 19
- SwiftUI for iOS, MacOS. Beta announced at WWDC 19

# Flutter


main.dart
void _incrementCounter() {
setState(() {
_counter++;
});
}
@override
Widget build(BuildContext context) {
return new Scaffold(
appBar: new AppBar(
title: new Text(widget.title),
), // AppBar
body: new Center(
child: new Text(
'Button clicked $_counter times',
style: Theme.of(context).textTheme.display1,
), // Text
), // Center
floatingActionButton: new FloatingActionButton(
onPressed: _incrementCounter,
tooltip: 'Increment',
child: new Icon(Icons.add),
), // FloatingActionButton
); // Scaffold
}
}
4:33
Flutter Demo Home Page
Button clicked 0 times

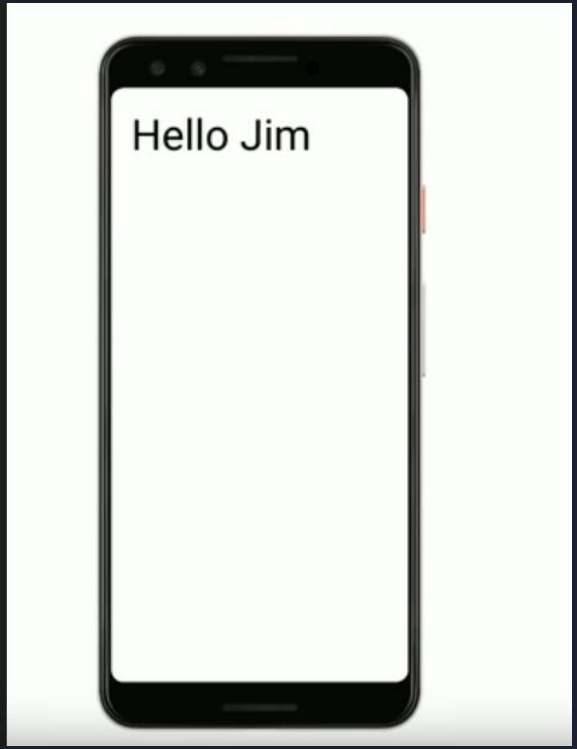
# Flutter

Want to know more?

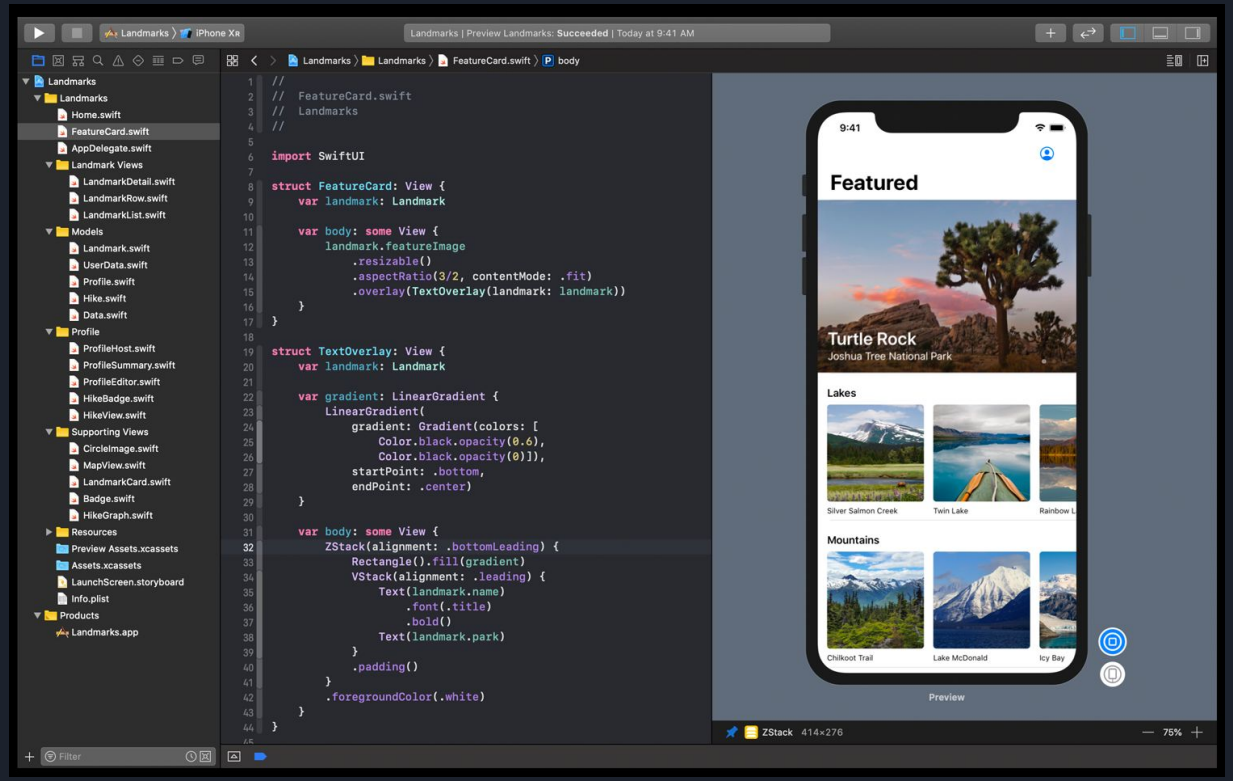
- Combined CocoaHeads / GDG Melbourne / Flutter hack nights. Next one is Wed June 19th.
- Flutter Melbourne running a Study Jam in July
- #declarative-ui in CCH Slack

# Jetpack Compose (Android / Kotlin)

```
@Composable
fun Greeting(name: String) {
    Text("Hello $name")
}
```



# SwiftUI


Landmarks | Preview Landmarks: Succeeded | Today at 9:41 AM
Landmarks
Landmarks
Home.swift
FeatureCard.swift
AppDelegate.swift
Landmark Views
LandmarkDetail.swift
LandmarkRow.swift
LandmarkList.swift
Models
Landmark.swift
UserData.swift
Profile.swift
Hike.swift
Data.swift
Profile
ProfileHost.swift
ProfileSummary.swift
ProfileEditor.swift
HikeBadge.swift
HikeView.swift
Supporting Views
CircleImage.swift
MapView.swift
LandmarkCard.swift
Badge.swift
HikeGraph.swift
Resources
Preview Assets.xcassets
Assets.xcassets
LaunchScreen.storyboard
Info.plist
Products
Landmarks.app
Landmarks › Landmarks › FeatureCard.swift › body
//
// FeatureCard.swift
// Landmarks
//
import SwiftUI
struct FeatureCard: View {
var landmark: Landmark
var body: some View {
landmark.featureImage
.resizable()
.aspectRatio(3/2, contentMode: .fit)
.overlay(TextOverlay(landmark: landmark))
}
}
struct TextOverlay: View {
var landmark: Landmark
var gradient: LinearGradient {
LinearGradient(
gradient: Gradient(colors: [
Color.black.opacity(0.6),
Color.black.opacity(0)]),
startPoint: .bottom,
endPoint: .center)
}
var body: some View {
ZStack(alignment: .bottomLeading) {
Rectangle().fill(gradient)
VStack(alignment: .leading) {
Text(landmark.name)
.font(.title)
.bold()
Text(landmark.park)
}
.padding()
}
.foregroundColor(.white)
}
}
9:41
Featured
Turtle Rock
Joshua Tree National Park
Lakes
Silver Salmon Creek
Twin Lake
Mountains
Chilkoot Trail
Lake McDonald
Icy Bay
Preview
ZStack 414×276
75%

# So?

- I used to love the separation of UI and code
- Then I ported one of my apps to Flutter
- I have seen the light
- ⚡
- Google have seen how powerful reactive-UI is, & added it to Android with the Flutter team's help.
- It is excellent that Apple is doing this for their platforms
- If it hadn't come to Android & iOS this year, would even more people take up Flutter?
- All of this will make our lives easier!