

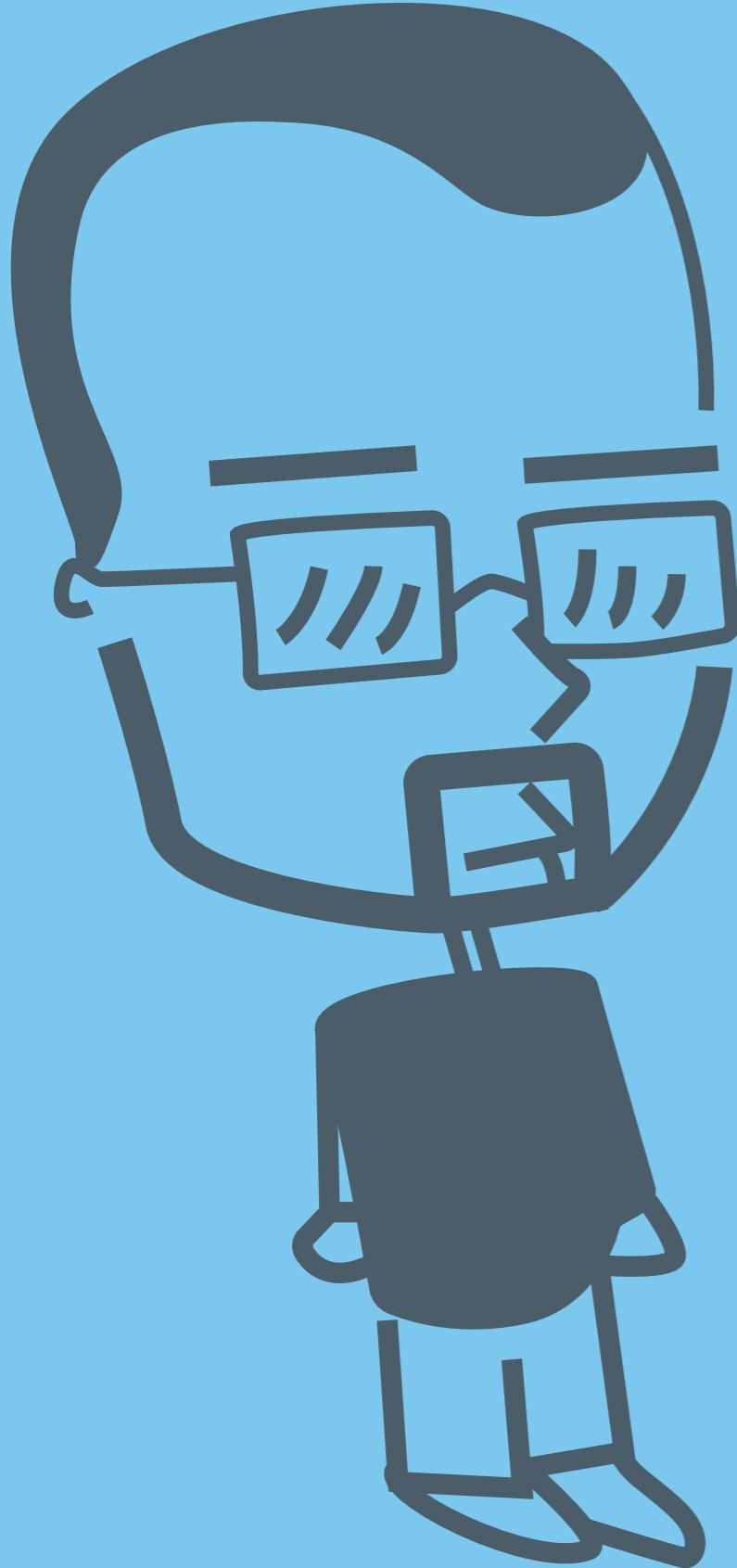


Engineer Better Apps

with



REACT NATIVE



ANDREW SARDONE

Nutshell.com

@andrewa2

github.com/andrewsardone

CURRENT LANDSCAPE





LOTS OF PLATFORMS

USER EXPERIENCE



ALL NON-NEGOTIABLE

A close-up photograph of a person's hand holding a smartphone. The phone's screen displays a camera interface with options like 'VIDEO', 'PHOTO', 'SQUARE', and 'PANO'. In the background, through the phone's screen, a large, ornate Gothic-style church with multiple spires is visible against a clear sky.

Feels Good Consistent
Bug Free Shipped

HOW DO PEOPLE DO THIS?



THEY DON'T

-\(\times\)/-

or...

MASTER LOTS OF STACKS

or...

DEPLOY MULTIPLE TEAMS

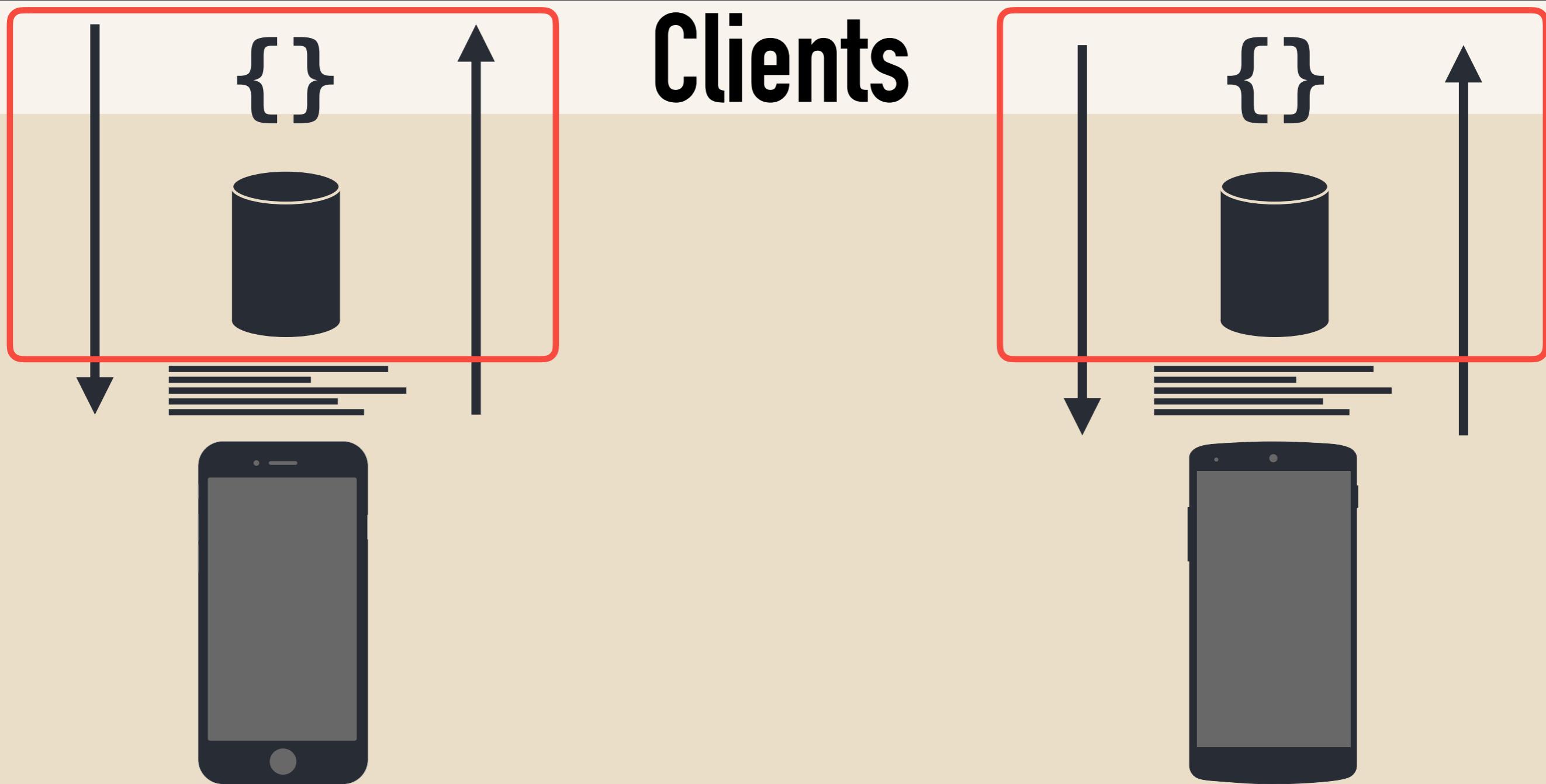


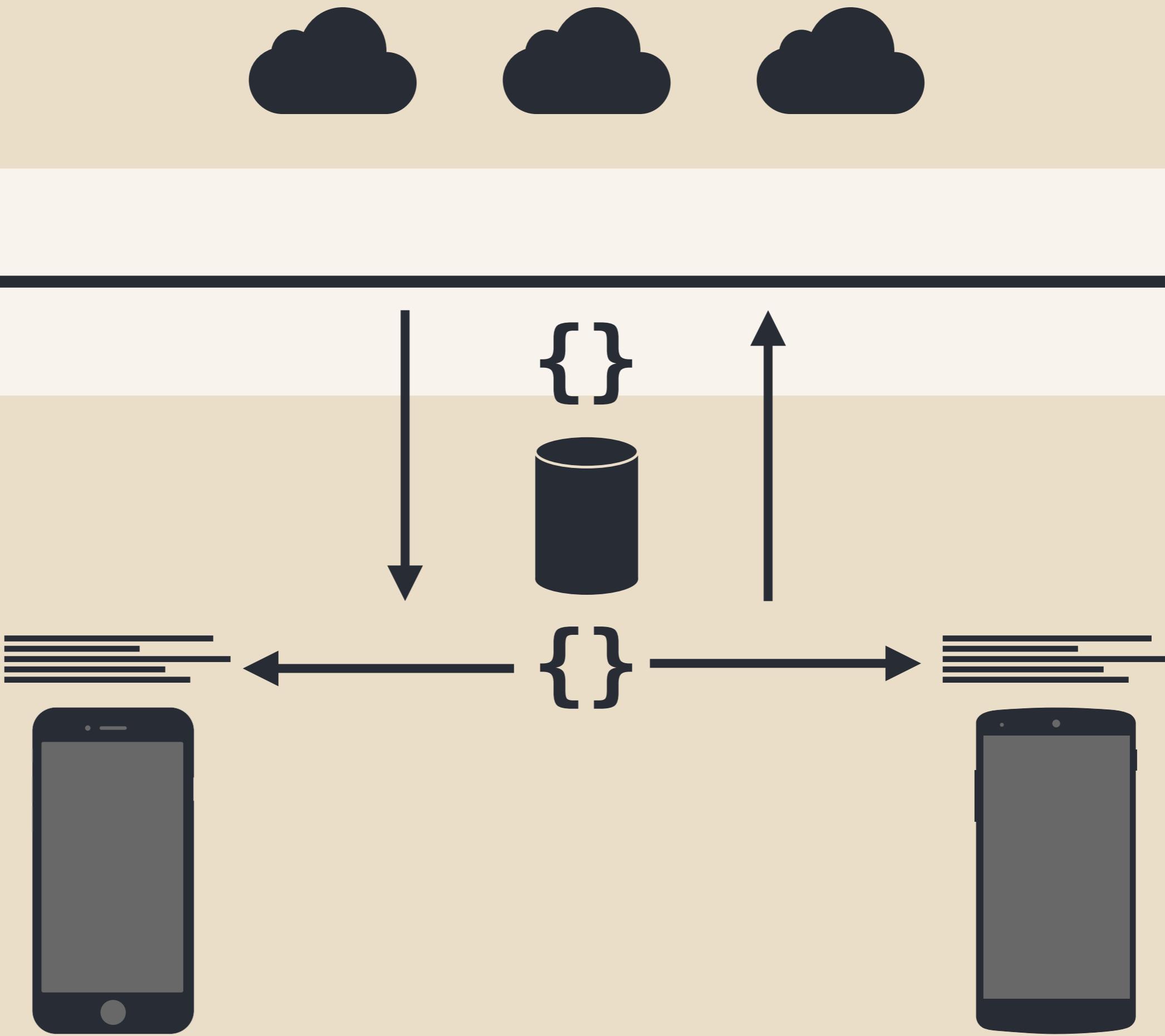
PROBLEMS?



MORE CODE
MORE COORDINATION
MORE SILOS
POOR DEVELOPER EXPERIENCE

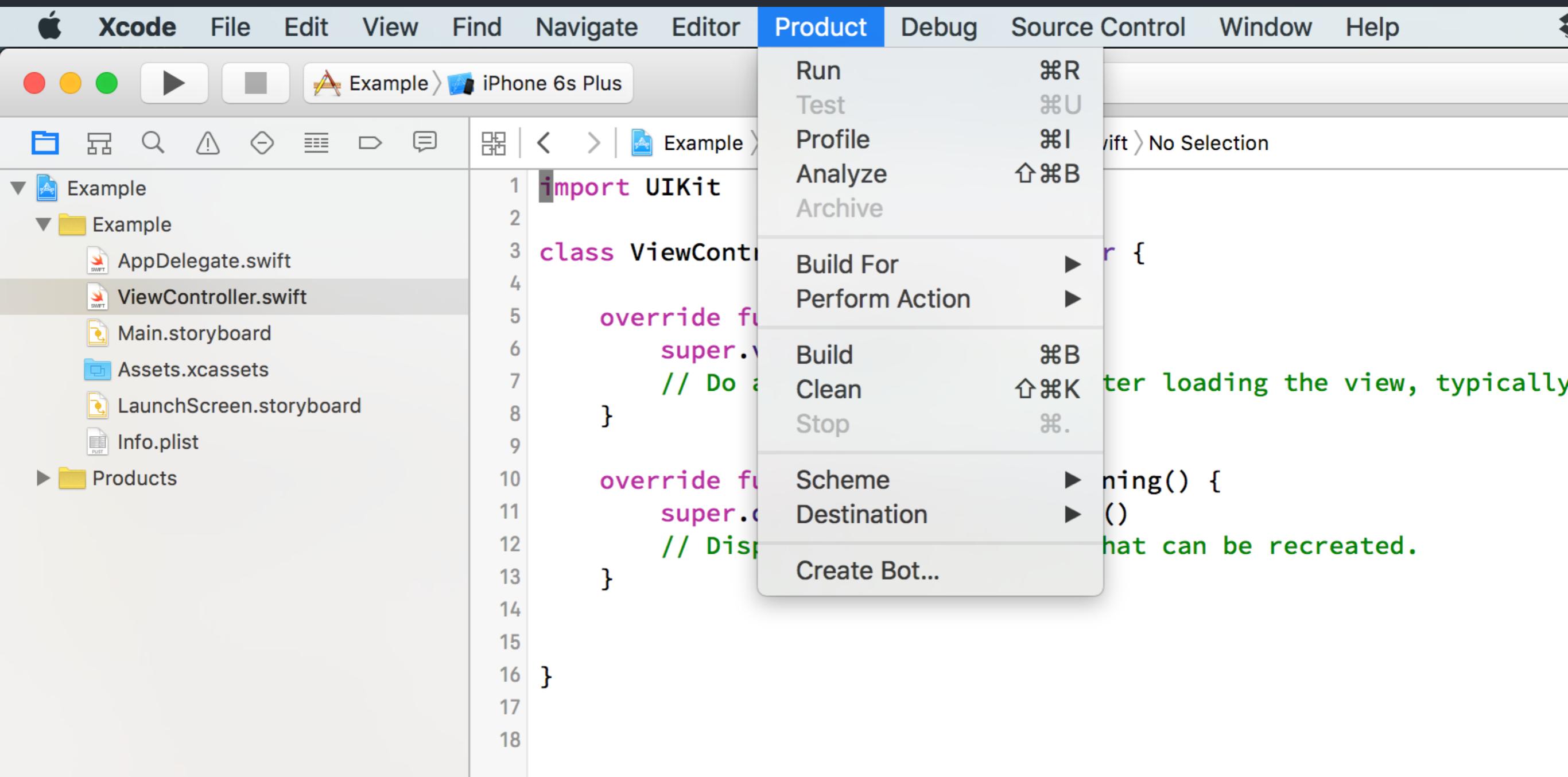
Server Clients





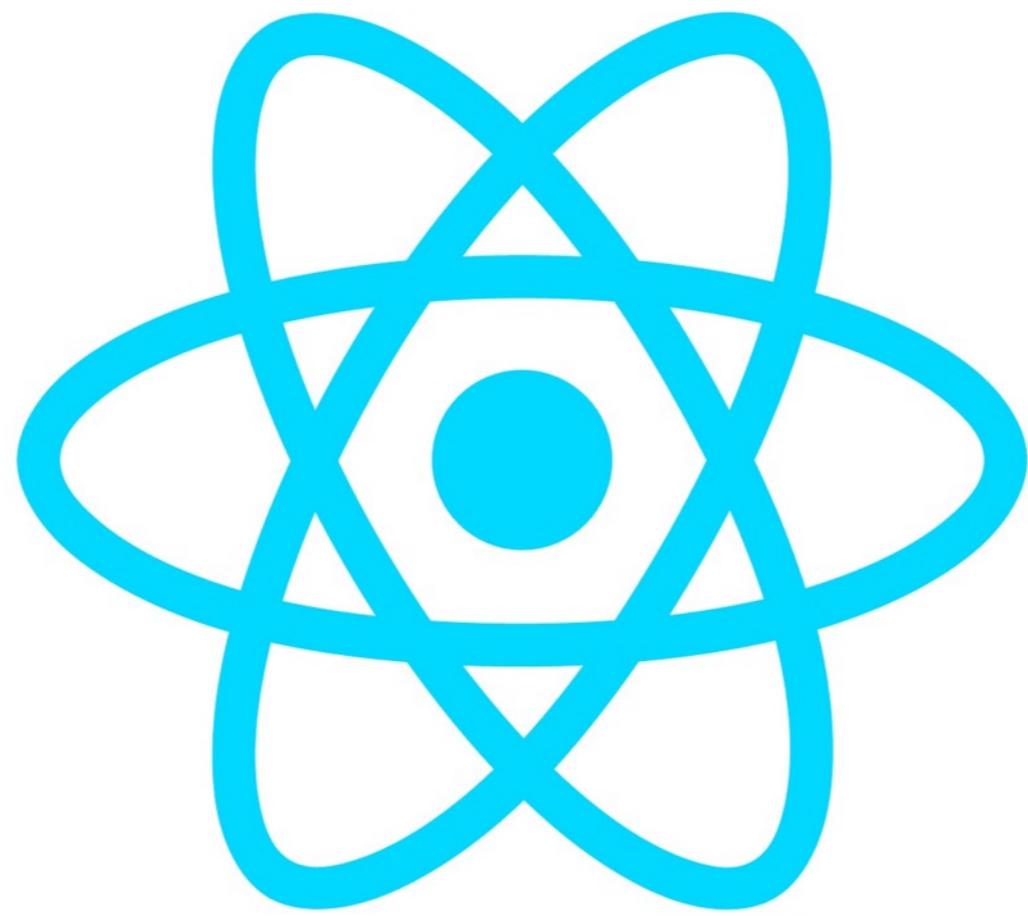
POOR DEV EXPERIENCE

slow feedback loops



POOR UI DEVELOPMENT PARADIGMS





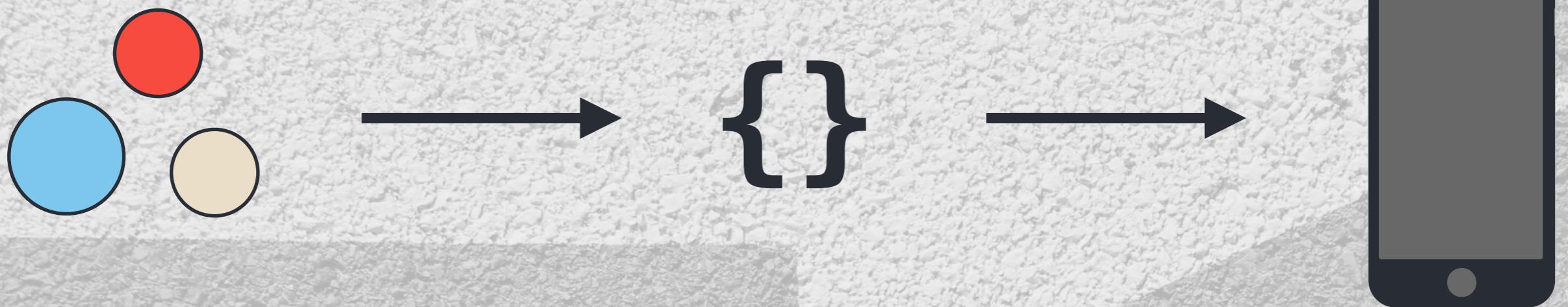
React Native

<http://facebook.github.io/react-native/>

SO WHAT'S REACT?

```
1 import React, {  
2   Component,  
3 } from 'react';  
4 import {  
5   DrawerLayoutAndroid,  
6   ProgressBarAndroid,  
7   Text,  
8 } from 'react-native';  
9  
10 class App extends Component {  
11   render() {  
12     return (  
13       <DrawerLayoutAndroid  
14         renderNavigationView={() => <Text>React Native</Text>}>  
15         <ProgressBarAndroid />  
16       </DrawerLayoutAndroid>  
17     );  
18   }  
19 }  
20
```

UI AS A PURE FUNCTION



```
function userInterface(state: State) -> RootView
```

BENEFITS

PLAIN OL' INSERT DATA
EASIER TO PERSIST
EASIER TO TEST
EASIER TO REASON ABOUT

```
function userInterface(state: State) -> RootView
```



Andy Matuschak

@andy_matuschak

 Follow

I say with confidence as a former UIKit author: React's model for the UI layer is vastly better than UIKit's. React Native is a *huge* deal.

1:54 PM - 28 Jan 2015

  695  697

https://twitter.com/andy_matuschak/status/560511204867575808

```
1 import React, {  
2   Component,  
3 } from 'react';  
4 import {  
5   DrawerLayoutAndroid,  
6   ProgressBarAndroid,  
7   Text,  
8 } from 'react-native';  
9  
10 class App extends Component {  
11   render() {  
12     return (  
13       <DrawerLayoutAndroid  
14         renderNavigationView={() => <Text>React Native</Text>}>  
15         <ProgressBarAndroid />  
16       </DrawerLayoutAndroid>  
17     );  
18   }  
19 }
```

REACT NATIVE

“Learn once, write anywhere”

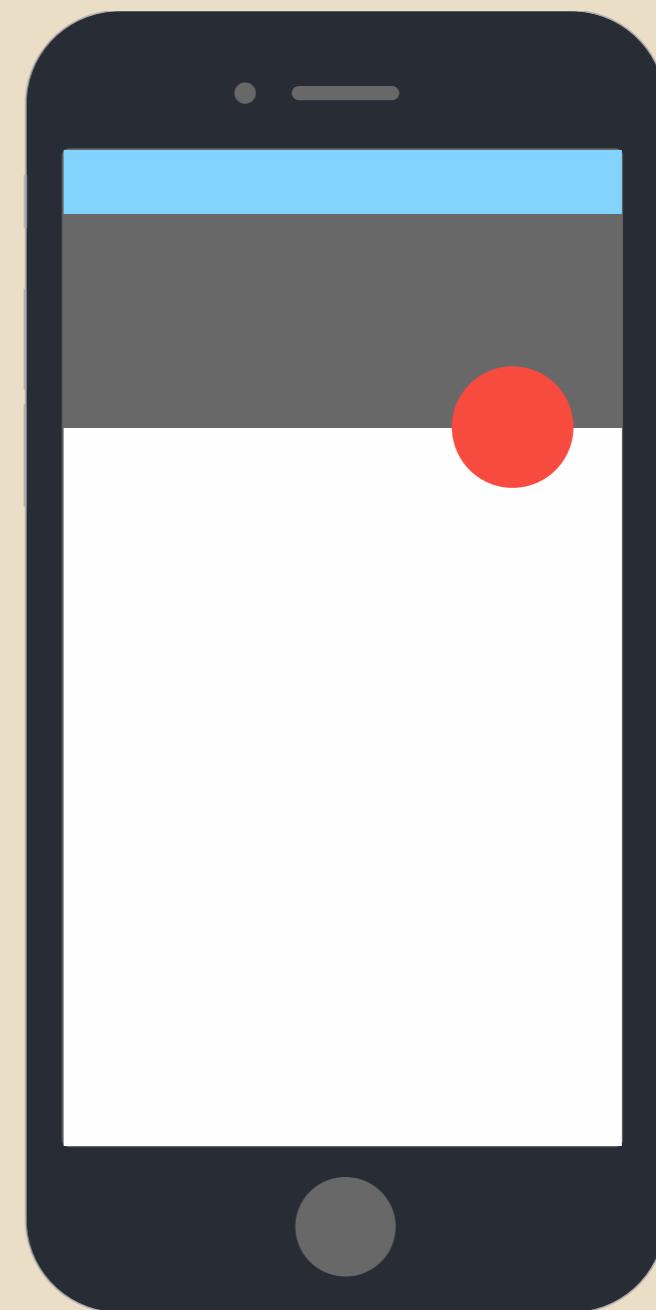
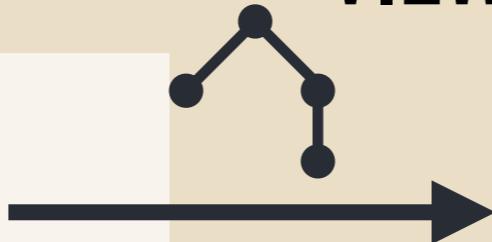
JS Thread

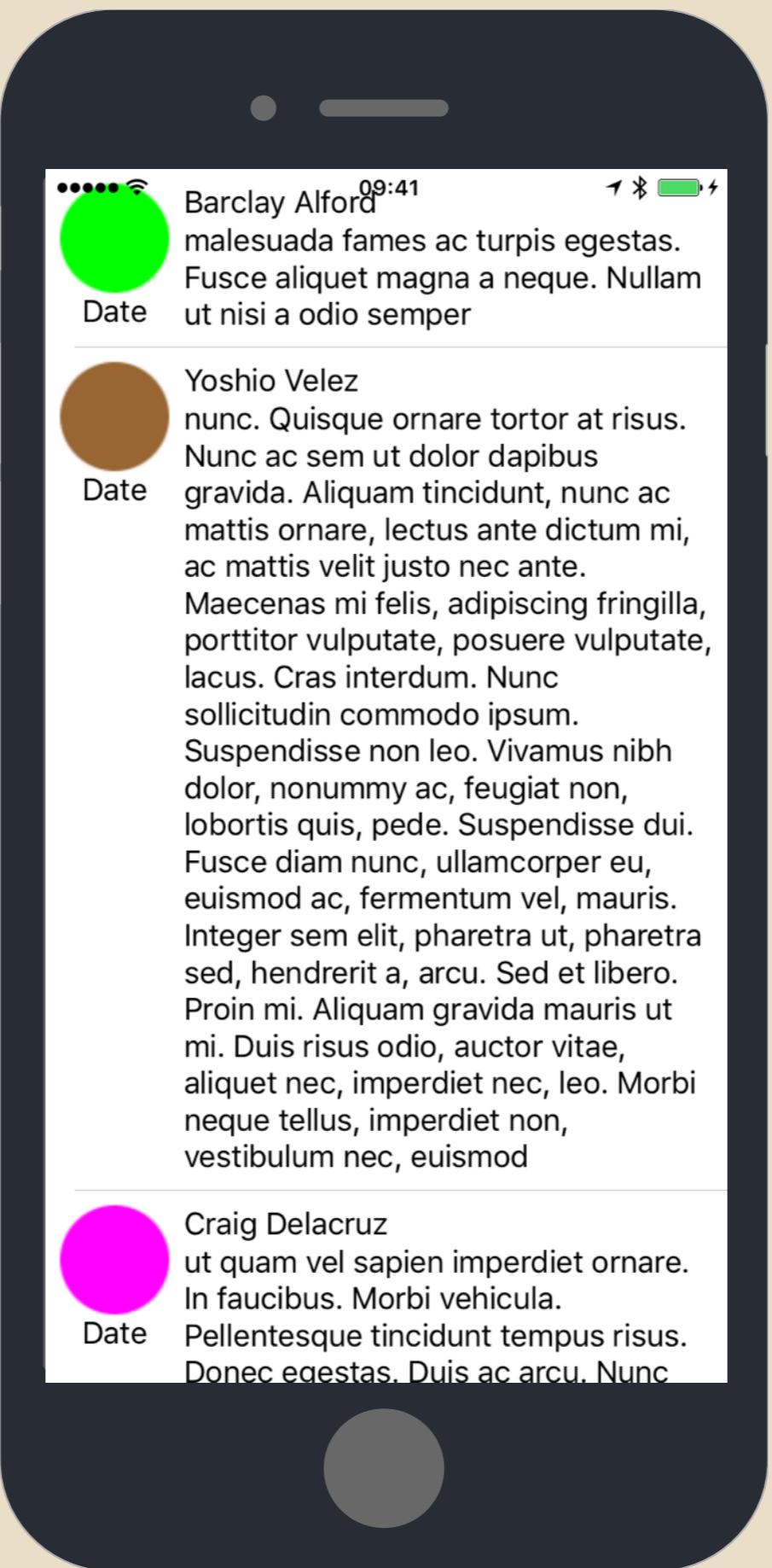
```
class Component {  
  render() {  
    return <View />;  
  }  
}
```

JavaScriptCore
Virtual Layout
Send data to main thread

Main Thread

**NATIVE
VIEWS**



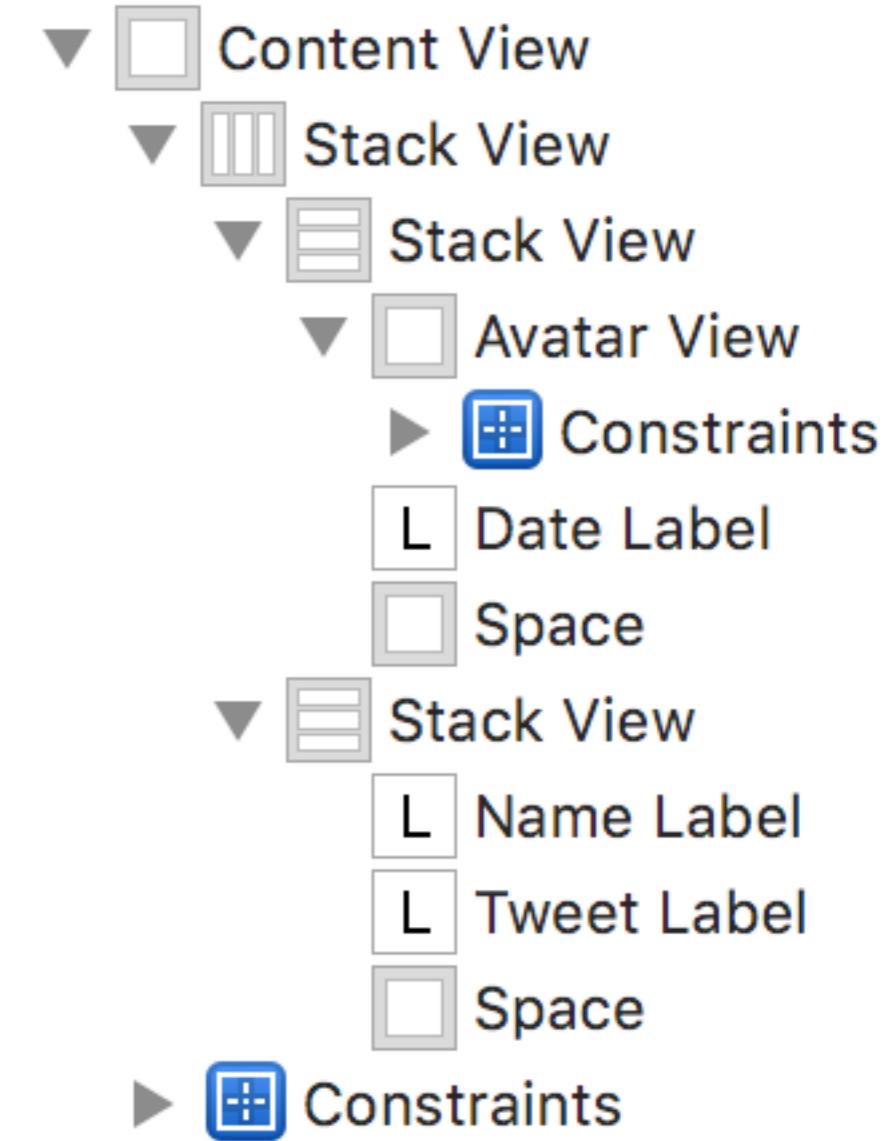




Yoshio Velez

Date

nunc. Quisque ornare tortor at risus.
Nunc ac sem ut dolor dapibus
gravida. Aliquam tincidunt, nunc ac
mattis ornare, lectus ante dictum mi,
ac mattis velit justo nec ante.
Maecenas mi felis, adipiscing fringilla,
porttitor vulputate, posuere vulputate,
lacus. Cras interdum. Nunc
sollicitudin commodo ipsum.
Suspendisse non leo. Vivamus nibh
dolor, nonummy ac, feugiat non,
lobortis quis, pede. Suspendisse dui.
Fusce diam nunc, ullamcorper eu,
euismod ac, fermentum vel, mauris.
Integer sem elit, pharetra ut, pharetra
sed, hendrerit a, arcu. Sed et libero.
Proin mi. Aliquam gravida mauris ut
mi. Duis risus odio, auctor vitae,
aliquet nec, imperdiet nec, leo. Morbi
neque tellus, imperdiet non,
vestibulum nec, euismod





Yoshio Velez

Date

nunc. Quisque ornare tortor at risus. Nunc ac sem ut dolor dapibus gravida. Aliquam tincidunt, nunc ac mattis ornare, lectus ante dictum mi, ac mattis velit justo nec ante. Maecenas mi felis, adipiscing fringilla, porttitor vulputate, posuere vulputate, lacus. Cras interdum. Nunc sollicitudin commodo ipsum. Suspendisse non leo. Vivamus nibh dolor, nonummy ac, feugiat non, lobortis quis, pede. Suspendisse dui. Fusce diam nunc, ullamcorper eu, euismod ac, fermentum vel, mauris. Integer sem elit, pharetra ut, pharetra sed, hendrerit a, arcu. Sed et libero. Proin mi. Aliquam gravida mauris ut mi. Duis risus odio, auctor vitae, aliquet nec, imperdiet nec, leo. Morbi neque tellus, imperdiet non, vestibulum nec, euismod



<View>

<View>

<View />

<Text />

</View>

<View>

<Text />

<Text />

</View>

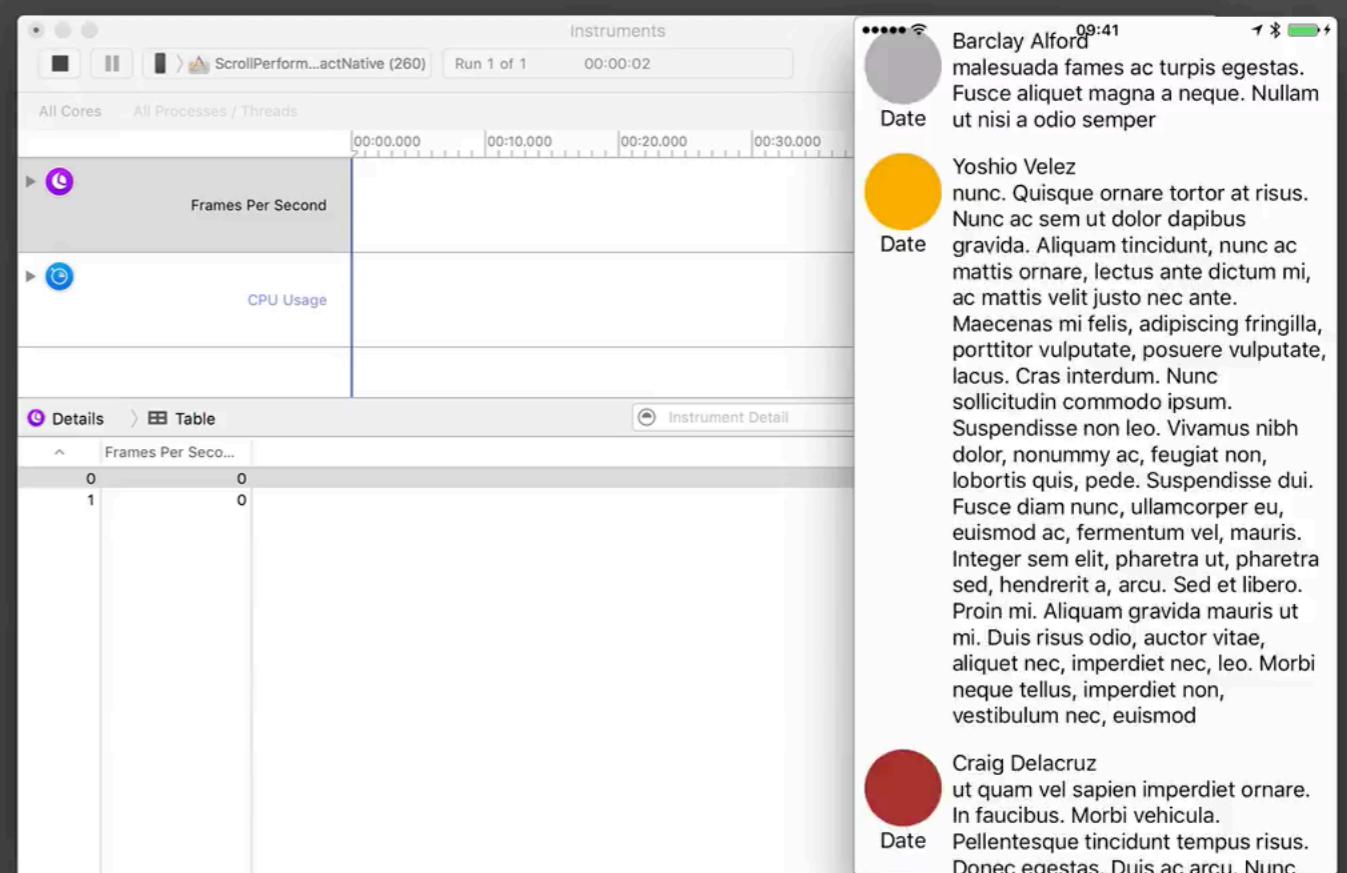
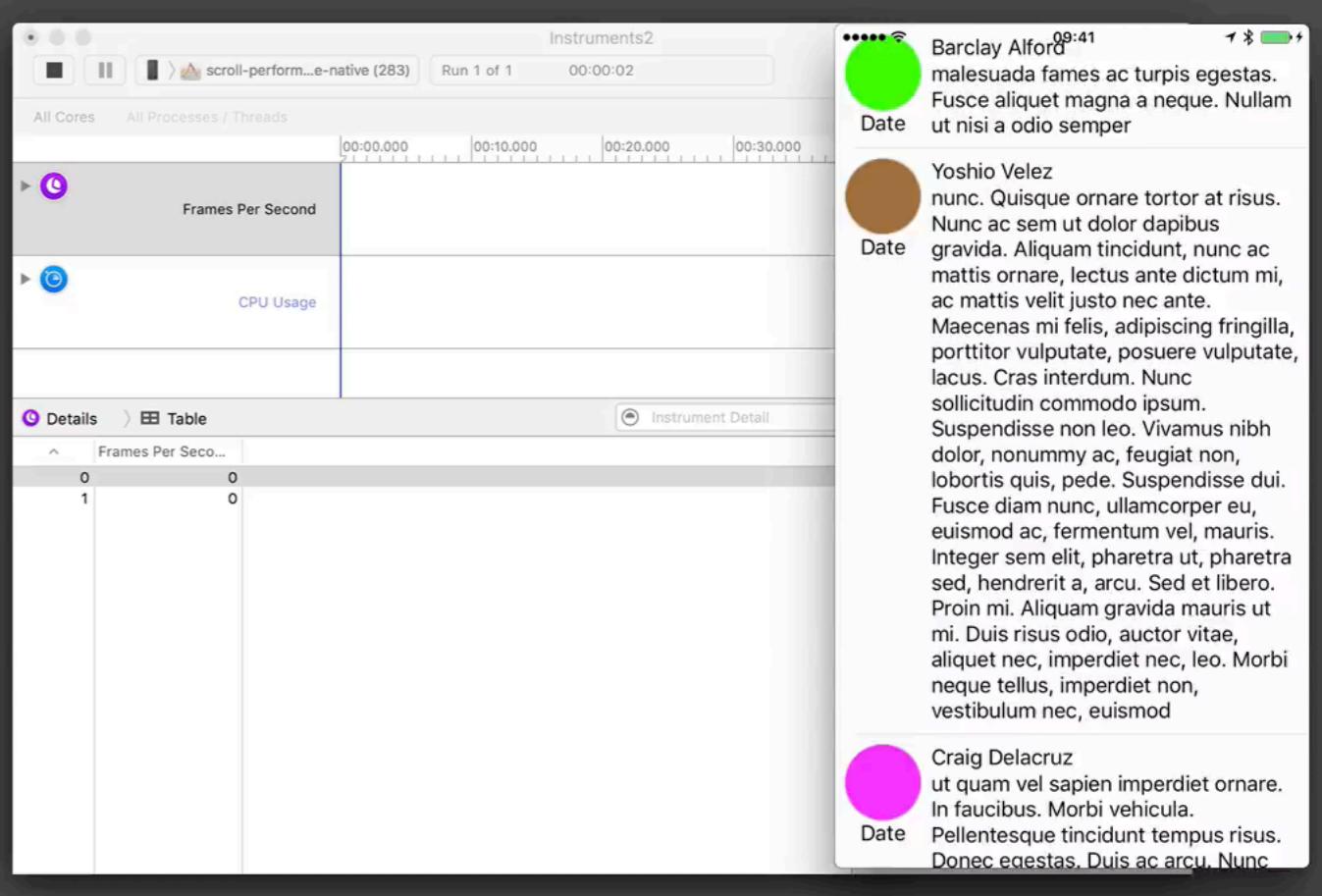
</View>

NATIVE

SIMPLE AUTO LAYOUT ~ 46 avg FPS sample

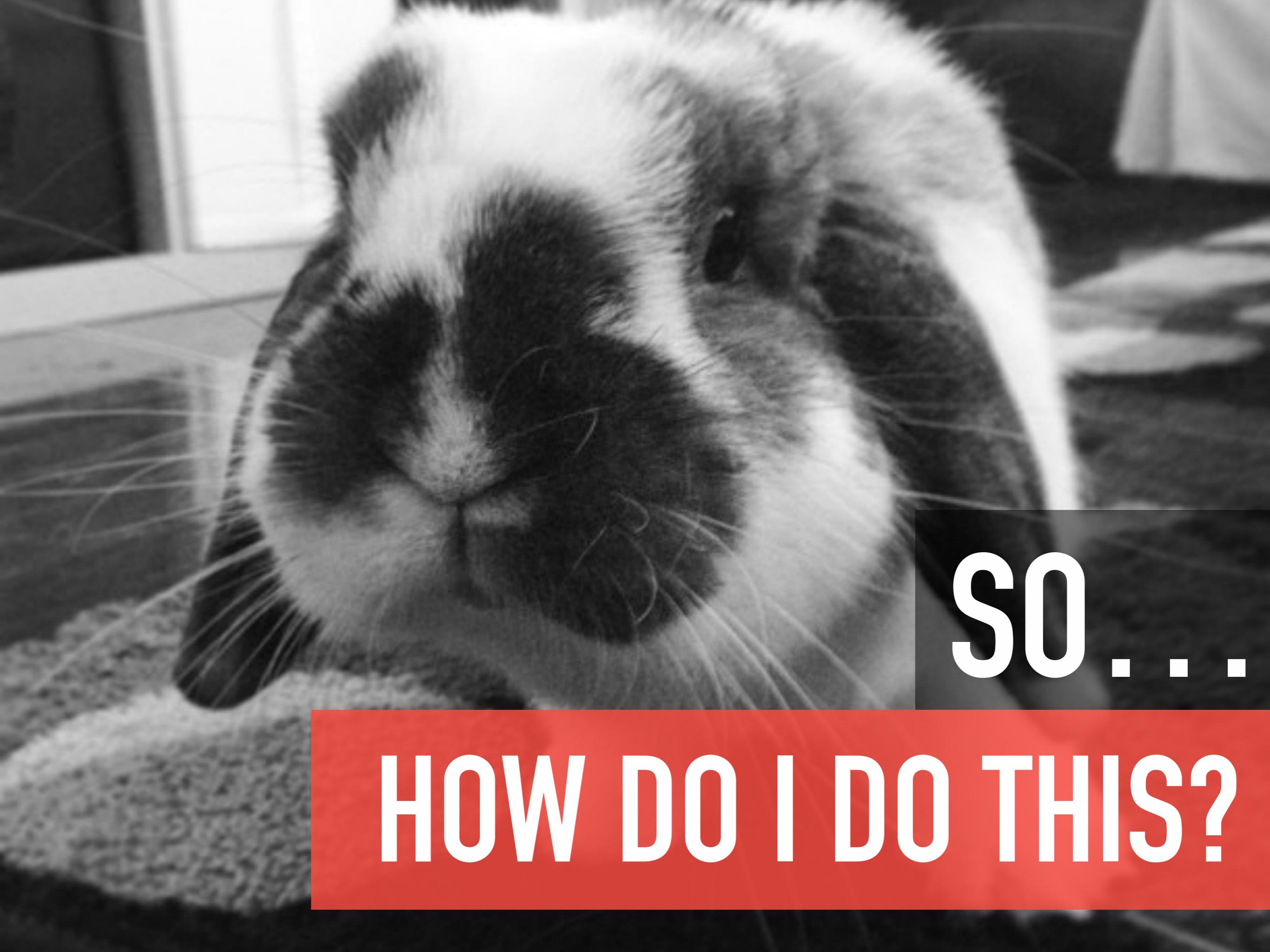
REACT NATIVE

DATA, FLEXBOX ~ 52 avg FPS sample



DEMO





SO....

HOW DO I DO THIS?

CURRENT PROJECT



pod 'React'

compile "com.facebook.react:react-native:+"

START FRESH

react-native init MyNewProject

Sources, Further Reading

Why React Native Matters

Khan Academy's Mobile Code Sharing Strategies

ECMAScript 6 git.io/es6features

Why iOS developers should try React Native

The Skeptic's Guide to React Native

Beyond UXKit

github.com/andrewsardone/glsec-2016-presentation