

INTRODUCTION TO REACT NATIVE

BY QCC - TECH WORKS

GOAL

- ▶ What we can build with React Native
- ▶ What environments it uses to test and build
- ▶ Learn flex box
- ▶ Learn the differences between React & React Native



WHAT IS REACT NATIVE

- ▶ React Native is a framework developed by Facebook - that uses one common language, JavaScript.
- ▶ It was developed for creating native-style applications for Android and iOS
- ▶ Initially, React Native was only developed to support iOS but now with the framework can render mobile UI's for both platforms

WHY REACT NATIVE

- ▶ By 2023 mobile applications are expected to be a **trillion dollar industry** via: paid subscriptions, in-app purchases, and paid downloads.



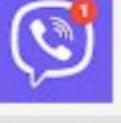
WHY REACT NATIVE

- ▶ When you write apps in Swift/Objective-C or Java, the whole app needs to be recompiled, and the new version has to be distributed via the App Store again.
- ▶ This can take weeks depending on the App Store review process.
- ▶ To avoid this hassle, React Native apps work in a different way, a native app is able to locate specific JavaScript code, which is later downloaded and complied when the app is launched on the actual device.

WHY REACT NATIVE (CONT)

- ▶ It is gaining increasing community support. New features, and packages are under development or being published everyday.
- ▶ No context switching - Use JavaScript for both android and iOS applications.
- ▶ Gaining a large marketshare of the mobile applications in both Android and iOS app stores.

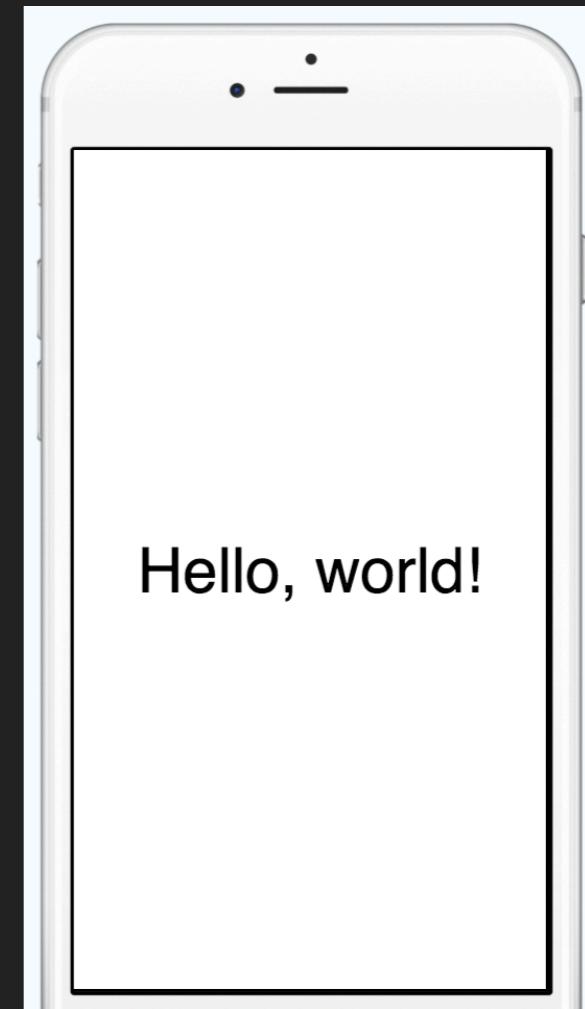
WHO USES REACT NATIVE?

 Instagram Instagram ★ 4.5 Free 1,000,000,000+	 Microsoft PowerPoint: Slideshows and ... Microsoft Corporation ★ 4.4 Free 500,000,000+
 TikTok musical.ly ★ 4.4 Free 500,000,000+	 Messenger – Text and Video Chat for F... Facebook ★ 4.1 Free 1,000,000,000+
 Zomato - Restaurant Finder and Food D... Zomato ★ 4.3 Free 50,000,000+	 Shopee: Big Ramadhan Sale Shopee ★ 4.3 Free 50,000,000+
 Netflix Netflix, Inc. ★ 4.4 Free 500,000,000+	 Uber Uber Technologies, Inc. ★ 4.2 Free 100,000,000+
 Viber Messenger - Messages, Group Ch... Viber Media S.à r.l. ★ 4.4 Free 500,000,000+	 Club Factory - Online Shopping App Club Factory ★ 4.2 Free 50,000,000+

LETS LEARN THE BASICS

- ▶ React Native is like React - but instead of using web components (like native HTML tags) - React Native uses native components instead. Exp: <View> is like a div tag and <Text> is like a <p>.

```
1 import React, { Component } from 'react';
2 import { Text, View } from 'react-native';
3
4 export default class HelloWorldApp extends Component {
5   render() {
6     return (
7       <View style={{ flex: 1, justifyContent: "center", alignItems: "center" }}>
8         <Text>Hello, world!</Text>
9       </View>
10    );
11  }
12}
13
```



[Source: React Native Documentation](#)

INTRODUCTION TO REACT NATIVE

BASIC COMPONENTS

View

The most fundamental component for building a UI.

Text

A component for displaying text.

Image

A component for displaying images.

TextInput

A component for inputting text into the app via a keyboard.

ScrollView

Provides a scrolling container that can host multiple components and views.

StyleSheet

Provides an abstraction layer similar to CSS stylesheets.

USER INTERFACE

Button

A basic button component for handling touches that should render nicely on any platform.

Picker

Renders the native picker component on iOS and Android.

Slider

A component used to select a single value from a range of values.

Switch

Renders a boolean input.

LIST VIEWS

Unlike the more generic `ScrollView`, the following list view components only render elements that are currently showing on the screen. This makes them a great choice for displaying long lists of data.

FlatList

A component for rendering performant scrollable lists.

SectionList

Like `FlatList`, but for sectioned lists.

STYLING IN REACT NATIVE

- ▶ React Native uses Flexbox for layout.
- ▶ You create a StyleSheet - that contains CSS (well almost exactly like CSS values) in each component. Then you use the style prop on each component to apply the correct style.

```
32 const styles = StyleSheet.create({
33   container: {
34     flex: 1,
35     justifyContent: 'center',
36     alignItems: 'center',
37     backgroundColor: '#F5FCFF',
38   },
39   welcome: {
40     fontSize: 20,
41     textAlign: 'center',
42     margin: 10,
43   },
44   instructions: {
45     textAlign: 'center',
46     color: '#333333',
47     marginBottom: 5,
48   },
49 })
```

```
return (
  <View style={styles.container}>
    <Text style={styles.welcome}>Welcome to React Native!</Text>
    <Text style={styles.instructions}>To get started, edit App.js</Text>
    <Text style={styles.instructions}>{instructions}</Text>
  </View>
);
```

INTRODUCTION TO REACT NATIVE

- ▶ Time for some flex box froggy! Or Zombies!



LINKS

- ▶ [Flex box Froggy](#)
- ▶ [Flex box Zombies](#)
- ▶ [React Documentation on API Components](#)
- ▶ [React Documentation on setting up your computer](#)