

INTRODUCTION TO REACT NATIVE

BY QCC - TECH WORKS

GOAL

- ▶ Understand what React Native is
- ▶ 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.










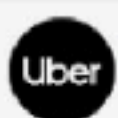
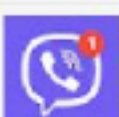

WHY REACT NATIVE

- ▶ 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 compiled 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?

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

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](#)

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](#)