REACT NATIVE

Introduction

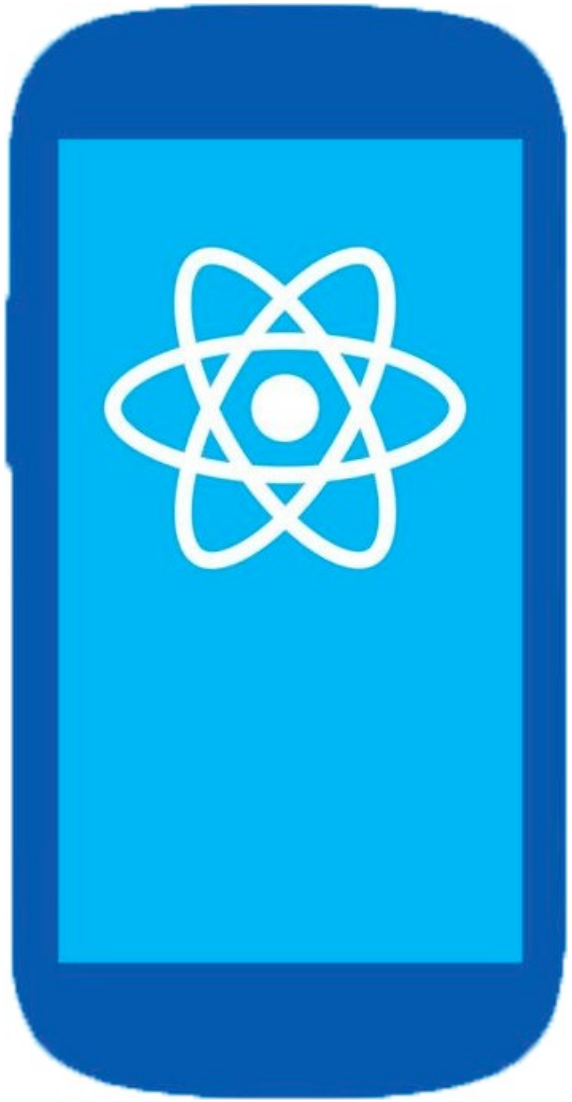
React Native

Hybrid and Native Application

- Hybrid
  - Is written base on web platform (html, css, javascript)
  - Is purely web application
  - Added features to manipulate operating system like access file, camera, GPS, using PhoneGap/Cordova
- Native
  - Is developed directly in the language of operating system provided (Objective C, Swift, Java, C++, C#)
  - Have all the features that the operating system provides
  - The speed is fastest

What Is React Native?

- JavaScript framework for building iOS and Android mobile apps.
- Based on popular JavaScript Web framework called React.
- Created by Facebook. Firstly release iOS version on March 2015 and Android version on September 2015
- Writing the app by using JavaScript and XML-esque markup (JSX)
- React-Native bridges and invokes the Native rendering API in Objective-C (iOS) and Java (Android)



Approach of Mobile App Dev

Approach	Platform	Logic	UI	UX	Dev Time*
Native	Object C, Swift (iOS), Java (Android)	Native	Native	Smooth	6-24 weeks
HTML5 Hybrid	PhoneGap, Cordova, Ionic	JS	HTML, CSS	Laggy	2-8 weeks
Native Hybrid	React Native, NativeScript	JS	Native	Smooth	2-8 weeks

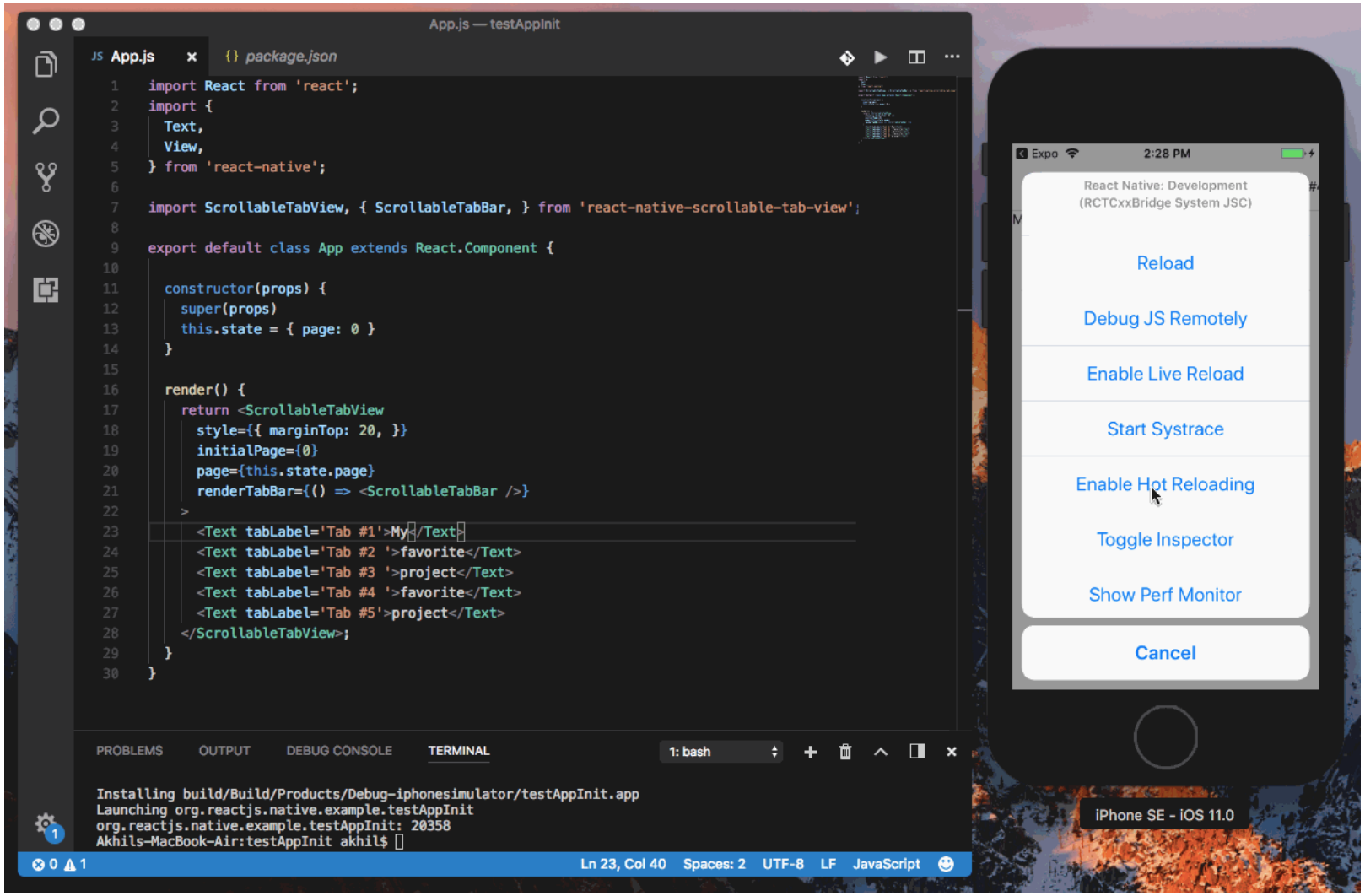
- * 20-30 screens mobile apps approximated based on instructor experiences

Why React Native?

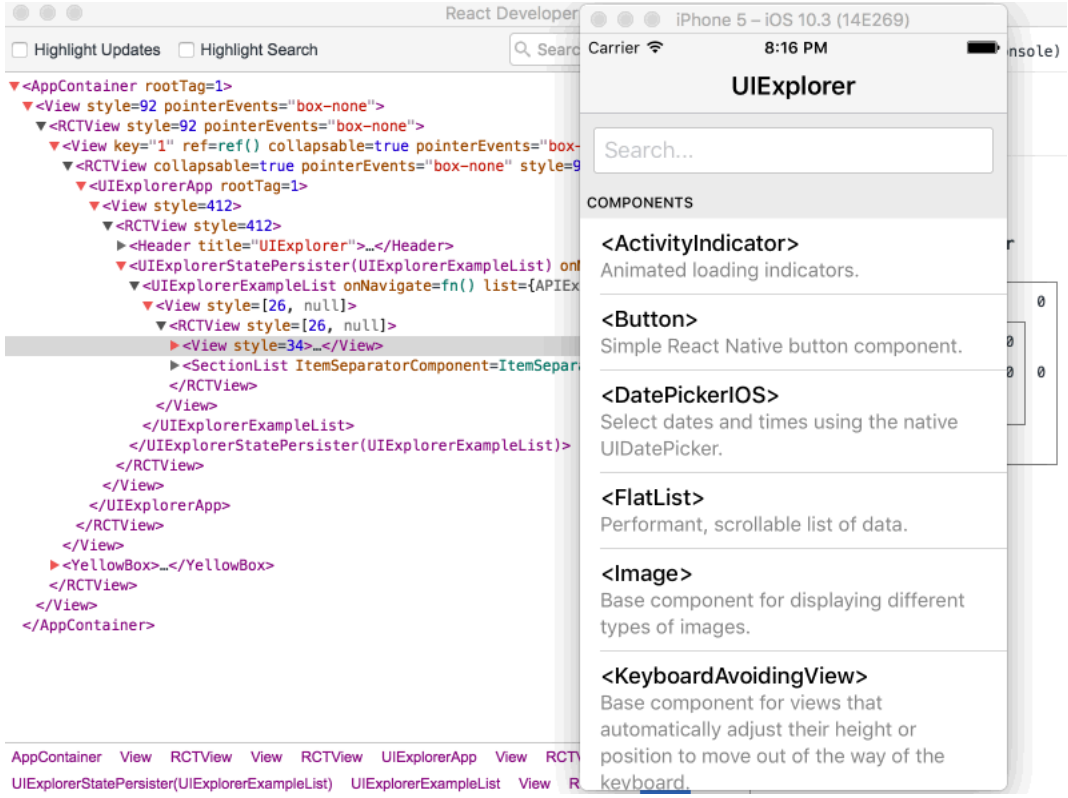
- Native Experience
- One language rules them all, JavaScript.
- Fast & Great Development Experience
  - Don’t Waste Time Recompiling (Hot Reloading)
  - 80% Share code between Android & iOS
  - Great Debugging Tool using Chrome Developer Tools
- Be able to bridge with Native Code when we need to.

Native Experience

Hot Reloading



Debugging With Chrome Developer Tools



Why not React Native?

- React-Native is still relatively young compared with Native iOS and Android Communities (Released on 2015)
- Some of Native API still are not supported. (But you can use the native libraries through)
- Add one additional layer to mobile app project

What Is React?

- Declarative, Efficient, and Flexible JavaScript Library that Building User Interface on Website
- React Native is rooted from React
- React treats every thing as a Component

```
class ShoppingList extends React.Component {
    render() {
        return (
            <div className="shopping-list">
                <h1>Shopping List for {this.props.name}</h1>
                <ul>
                    <li>Instagram</li>
                    <li>WhatsApp</li>
                    <li>Oculus</li>
                </ul>
            </div>
        );
    }
}
```

- A React Component

Thank you!