

REACTJS RENDER ANYWHERE?

STEPHEN WHITE

CADEC 2018.01.24 | CALLISTAENTERPRISE.SE

CALLISTA

— ENTERPRISE —

CADEC APP



INSTALL - EXPO

CODE



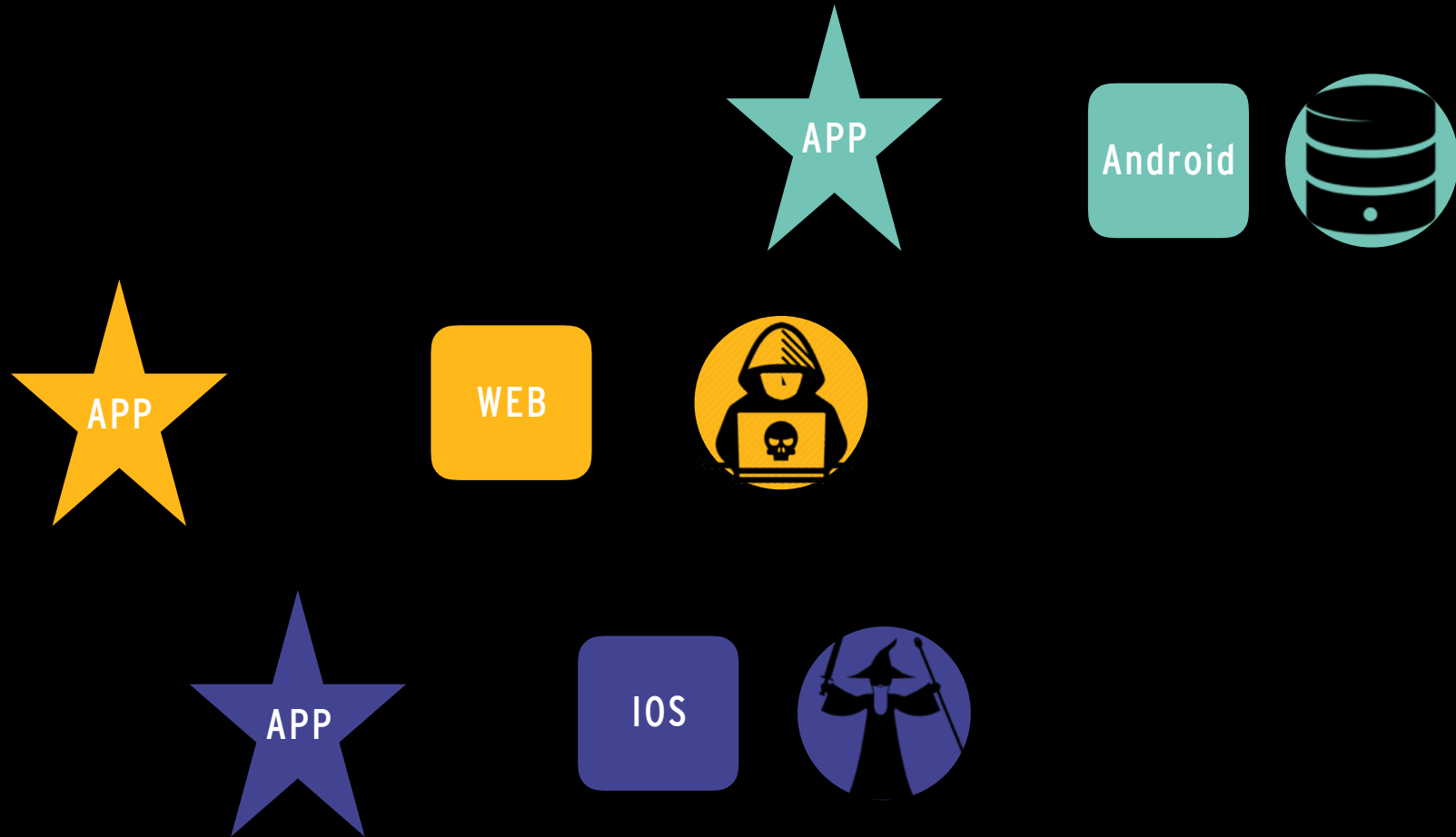
<https://github.com/callistaenterprise/cadec-2018-reactjs>

AGENDA

- Multiple platforms
- Traditional methods
- Learn once write anywhere!
- Separation of the dom - React Native
- Shared code
- Demo
- Conclusions

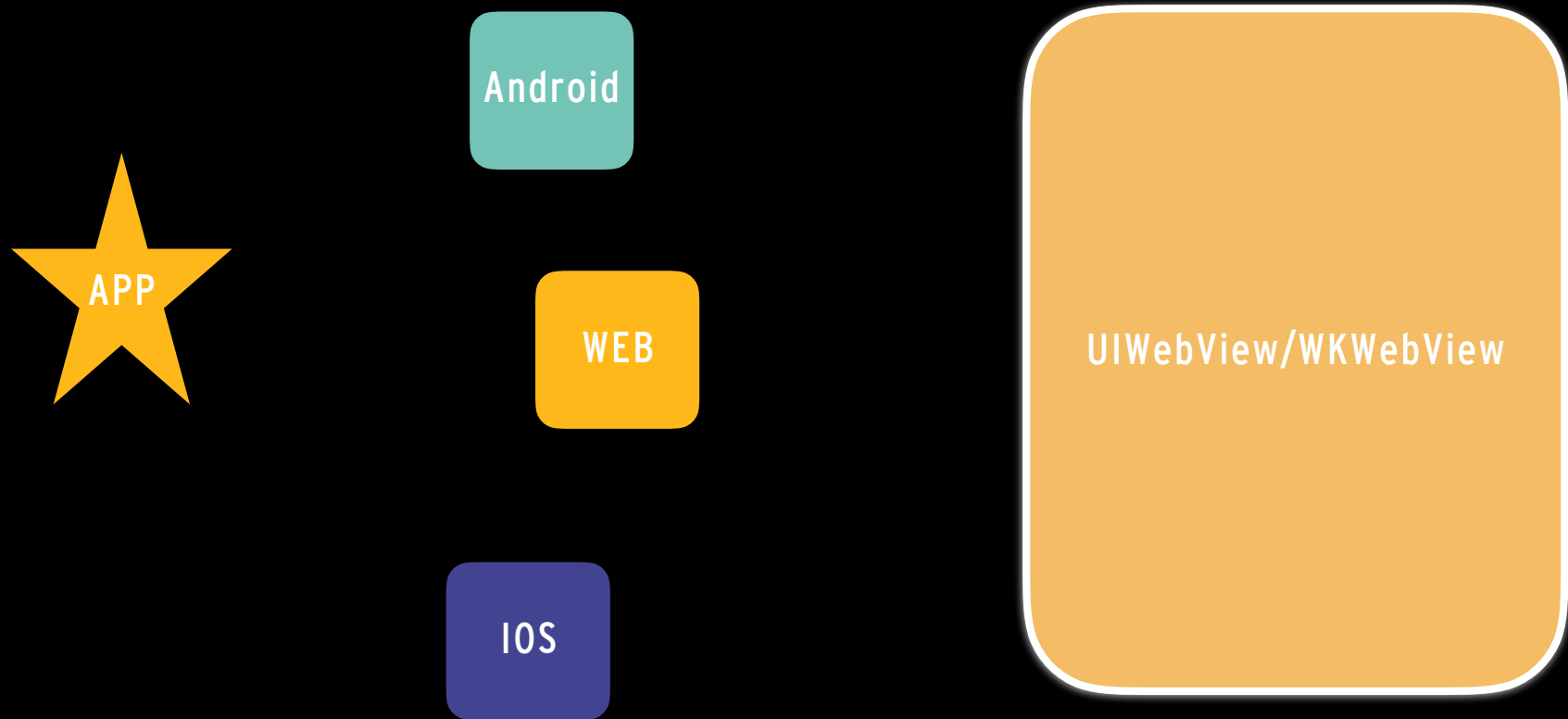
MULTIPLE PLATFORMS

- Multiple apps for each platform!



TRADITIONAL APPROACH

- One app to rule them all!



WE WANT 60FPS!!

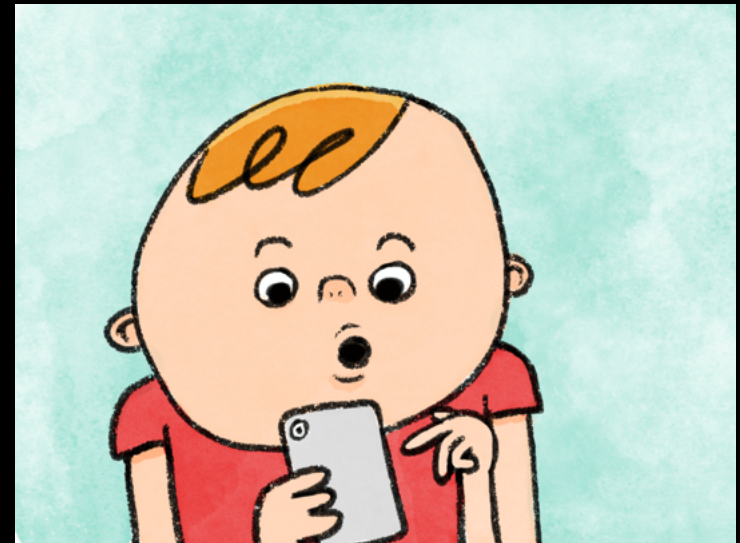
- One app to rule them all, not quite...



Android

WEB

IOS



CADEC APP



INSTALL - EXPO

LEARN ONCE WRITE ANYWHERE

- What is react?
 - Its a declarative way of visualising the state of your application.
 - When the state changes the views update.

A Component

```
export default ({ title, title2, date }) => (  
  <HeaderContainer>  
    <HeaderText>{title}</HeaderText>  
    <HeaderUnderSub>{title2}</HeaderUnderSub>  
    <HeaderUnderDate>{date}</HeaderUnderDate>  
  </HeaderContainer>  
);
```

React renderer



Android

IOS

WEB

?

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    <HeaderUnderDate>{date}</HeaderUnderDate>  
  </HeaderContainer>  
);
```

Renderers

REACT VR
REACT HARDWARE
REACT NATIVE
REACT DOM
REACT OSX
REACT WINDOWS
REACT BLESSED

Android

IOS

WEB

?

REACT NATIVE AND THE SEPARATION OF REACT-DOM



React Native



WHAT WE WANT TO ACHIEVE

80

20

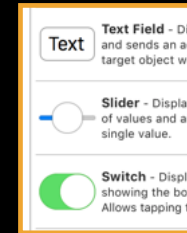
WALMART ACHIEVED

95



5

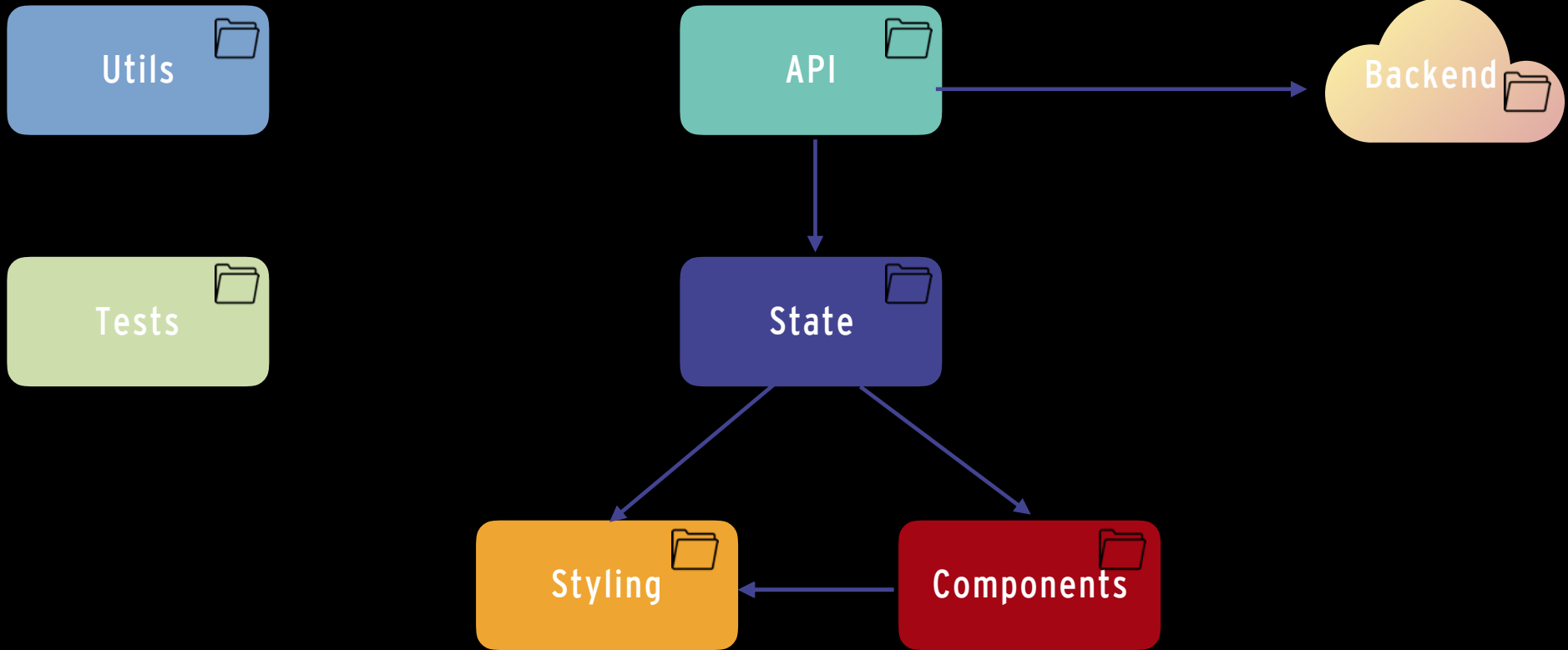
REACT NATIVE



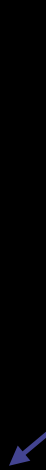
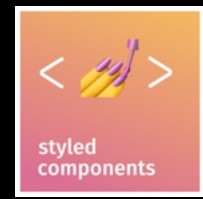
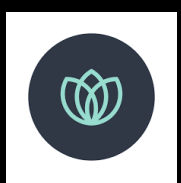
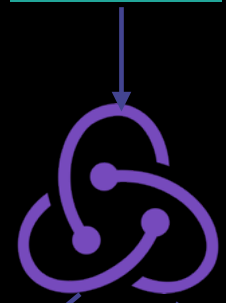
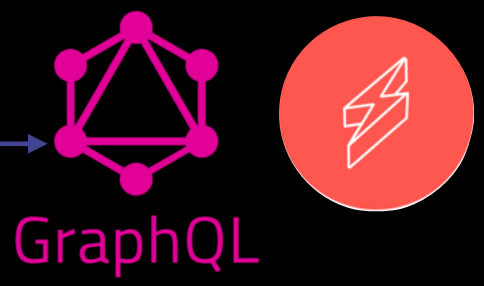
Android

iOS

SHARED CODE



SHARED CODE - REACT AND FRIENDS



APP.JS

Native

```
export default compose(  
  LoadFontsHoc,  
  ReduxProviderHoc,  
  ApolloProviderHoc(store)  
)(App);
```

Web

```
export default compose(  
  ReduxProviderHoc,  
  ApolloProviderHoc(store))  
(App);
```

STYLES

Shared

```
export const HeaderItemStyle = `  
  font-size: 35px;  
  font-family: 'SparTakus';  
  font-style: normal;  
`;
```

Native

```
export const HeaderText = styled.Text `  
  ${styles.HeaderItemStyle};  
  color: #fff;  
`;
```

Web

```
export const HeaderText = styled.span `  
  ${styles.HeaderItemStyle};`;
```

COMPONENTS - LEARN ONCE WRITE ANYWHERE - HEADER.JS

Native

```
import React from "react";
import {
  HeaderComponent,
  HeaderBackground,
  HeaderText,
  HeaderUnderSub,
  HeaderUnderDate
} from "cadec-2018-styles/native";
export default ({ title, title2, date }) => (
  <HeaderContainer>
    <HeaderBackground />
    <HeaderText>{title}</HeaderText>
    <HeaderUnderSub>{title2}</HeaderUnderSub>
    <HeaderUnderDate>{date}</HeaderUnderDate>
  </HeaderContainer>
);
```

Web

```
import React from "react";
import {
  HeaderComponent,
  HeaderText,
  HeaderUnderSub,
  HeaderUnderDate
} from "cadec-2018-styles/web";
export default ({ title, title2, date }) => (
  <HeaderContainer>
    <HeaderText>{title}</HeaderText>
    <HeaderUnderSub>{title2}</HeaderUnderSub>
    <HeaderUnderDate>{date}</HeaderUnderDate>
  </HeaderContainer>
);
```

THE DEMO

DEVELOPER EXPERIENCE

PROS CONS

PROS

- Shared code base
- Utilise your web skills
- Amazing DX!
- Live code updating
- Modular and intuitive architecture
- Huge Community

CONS

- It's not Swift
- It's not Java/Kotlin
- Still need native experts
- Great for business applications but if you need that bespoke native feeling ..
- Startup performance

CONCLUSIONS

UTILISE YOUR WEB SKILLS

DEVELOPER EXPERIENCE

CUT COSTS

GIVE THE KIDS 60FPS

OTHER REACT RENDERERS

- React Hardware - <http://iamdustan.com/react-hardware/>
- React VR - <https://facebook.github.io/react-vr/>
- React Native Windows - <https://github.com/Microsoft/react-native-windows>
- React Native OSX - <https://github.com/ptmt/react-native-macos>
- React Native - <https://facebook.github.io/react-native/>
- React Dom - <https://reactjs.org>

THE DEMO - FILE STRUCTURE - MONO REPO

- Cadec-2018-reactjs
 - API
 - Backend
 - Native
 - State
 - Styles
 - Utils
 - Web