React Native介绍

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React

1. FB & Instagram 针对UI的一个JavaScript库（不是框架）

2. 专注View(MVC -> View)

3. UI：模块化、可维护性、复用性

4. 虚拟DOM(Virtual DOM)：高效、状态局部更新

5. 同构(isomorphic)：SEO、 复用组件、Client & Server
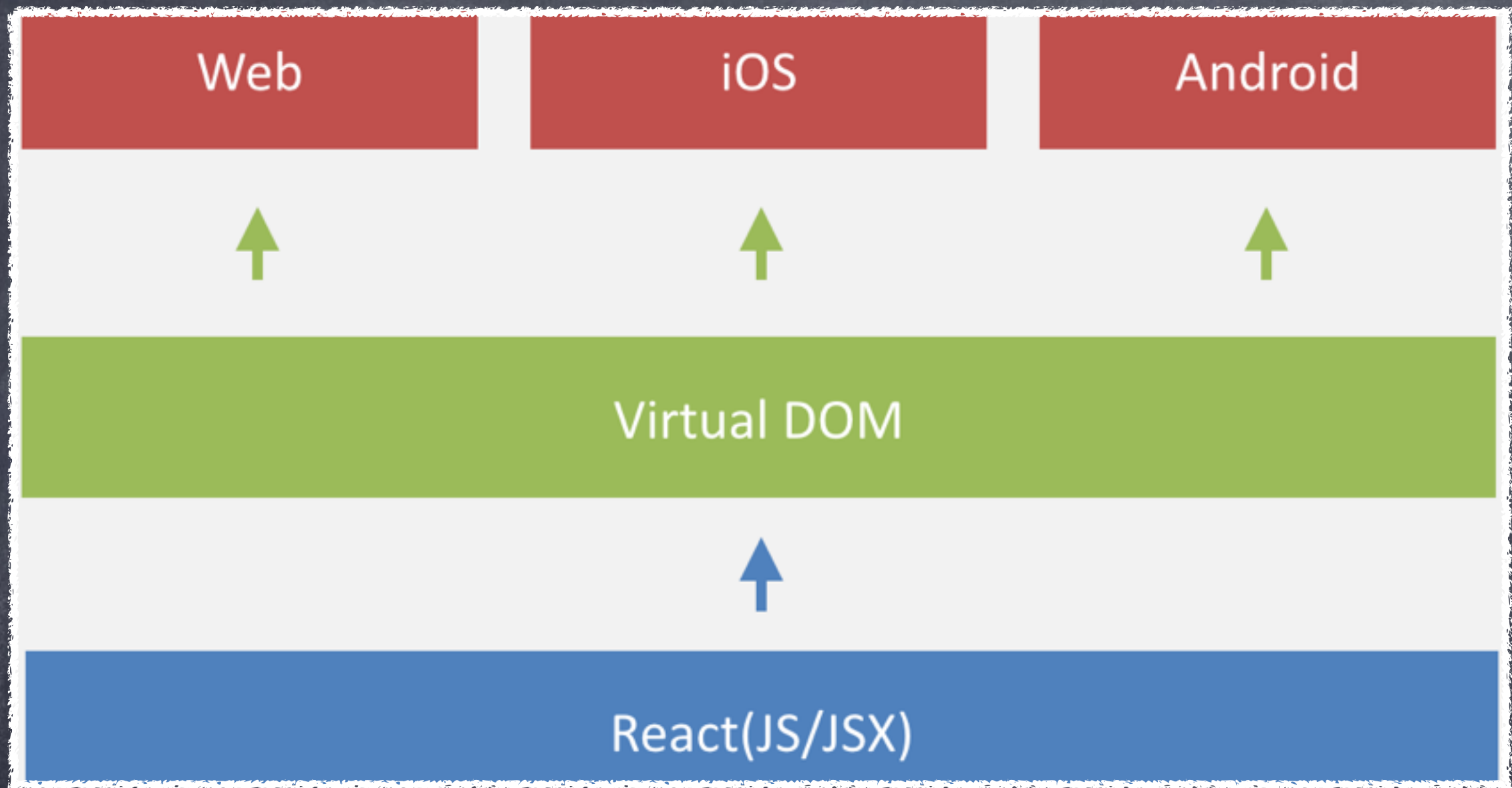
6. JSX(模版语言)

7. 活跃社区

8. https://github.com/facebook/react

React Native

1. JavaScript + React => Hybrid App

2. 开发效率与运行效率兼顾

3. 基于本地UI控件，无违和感

4. 对于Web开发人员具有亲和力

5. https://github.com/facebook/react-native

"Learn once, write anywhere"

JSX -> JavaScript -> JavaScriptCore(iOS) -> Objective-C"

安装Xcode（iOS）

mac平台安装xcode 7.0或以上

安装Homebrew（iOS）

安装Homebrew(http://brew.sh/)

```
djh:~ mac$ brew install watchman flow
Warning: watchman-3.3.0 already installed
Warning: flow-0.13.1 already installed
```

安装Node（iOS）

```
$ curl -o- https://raw.githubusercontent.com/creationix/nvm/
                   v0.29.0/install.sh | bash

$ nvm install 5.0

$ nvm use default 5.0

$ sudo chown -R $USER ~/.npm
```

安装React Native（iOS）

```
$ npm install  -g react-native
```

创建TapTime工程

```
$ react-native init TapTime
$ cd TapTime && npm start
$ open ios/TapTime.xcodeproj
```

Build运行项目

1396

开始

第1次:		862
第2次:		601
第3次:		602
第4次:		890
第5次:		1076
第6次:		1047
第7次:		1035
第8次:		831
第9次:		1396

```
djh:TapTime mac$ npm start


> TapTime@0.0.1 start /Users/mac/React/workspace/react-native/TapTime

> react-native start


Looks like you installed react-native globally, maybe you meant react-native-cli?
To fix the issue, run:
npm uninstall -g react-native
npm install -g react-native-cli
djh:TapTime mac$ react-native start
 ┌──────────────────────────────────────────────────────────────┐
 │                                                                │
 │   Running packager on port 8081.                               │
 │                                                                │
 │   Keep this packager running while developing on any JS projects. Feel │
 │   free to close this tab and run your own packager instance if you │
 │   prefer.                                                       │
 │                                                                │
 │   https://github.com/facebook/react-native                     │
 │                                                                │
 └──────────────────────────────────────────────────────────────┘

Looking for JS files in

   /Users/mac/React/workspace/react-native/TapTime


[11:26:16] <START> Building Dependency Graph

[11:26:16] <START> Crawling File System
```

Welcome to React Native!

To get started, edit index.ios.js

Press Cmd+R to reload,
Cmd+Control+Z for dev menu

```javascript
'use strict';

var React = require('react-native');
var {
  AppRegistry,
  StyleSheet,
  Text,
  View,
} = React;

var TapTime = React.createClass({
  render: function() {
    return (
      <View style={styles.container}>
        <Text style={styles.welcome}>
          Welcome to React Native!
        </Text>
        <Text style={styles.instructions}>
          To get started, edit index.ios.js
        </Text>
        <Text style={styles.instructions}>
          Press Cmd+R to reload,{'\n'}
          Cmd+D or shake for dev menu
        </Text>
      </View>
    );
  }
});

var styles = StyleSheet.create({
  container: {
    flex: 1,
    justifyContent: 'center',
    alignItems: 'center',
    backgroundColor: '#F5FCFF',
  },
  welcome: {
    fontSize: 20,
    textAlign: 'center',
    margin: 10,
  },
  instructions: {
    textAlign: 'center',
    color: '#333333',
    marginBottom: 5,
  },
});

AppRegistry.registerComponent('TapTime', () => TapTime);
```

引入需要的库(包含第三方npm)

```
/**
 * TapTime App
 */
'use strict';

//引入需要的库
import React from 'react-native';
//import parseMs from 'parse-ms';
import {TimeList} from './time_list';
```

定义需要用到的变量

```
//定义使用到的变量或者常量
let {
    AppRegistry,
    StyleSheet,
    View,
    Component,
    TouchableHighlight,
    Text,
} = React;
// => 等价
//let AppRegistry   = React.AppRegistry;
//...
```

定义样式

```
//定义样式
let styles = StyleSheet.create({
    container: {
        flex: 1
    },
    topView: {
        flex: 1,
        justifyContent: 'center',
        alignItems: 'center'
    },
    bottomView: {
        flex: 1
    },
    timeTxt: {
        justifyContent: 'center',
        alignItems: 'center',
        fontSize: 20
    },
    touchBtn: {
        borderWidth: 1,
        height: 100,
        width: 100,
        borderRadius: 50,
        justifyContent: 'center',
        alignItems: 'center'
    },
```

定义组件类

```javascript
//定义组件类
let TapTime = React.createClass({
    getInitialState: function() {
        return {
            running: false,
            currTime: null,
            timeRecords: [],
            tapTimes: 0
        };
    },

    render: function() {
      return (
        <View style={styles.container}>
            <View style={styles.topView}>
                <View>
                    <Text style={styles.timeTxt}>{this.state.currTime}</Text>
                </View>
                <View>
                    <TouchableHighlight onPress={this.handleTouchBtn.bind(this)} underlayColor='#51b351' st
                        <Text style={styles.btnTxt}>{this.getBtnTxt()}</Text>
                    </TouchableHighlight>
                </View>
            </View>
            <View style={styles.bottomView}>
                <TimeList timeRecords={this.state.timeRecords}/>
            </View>
        </View>
```
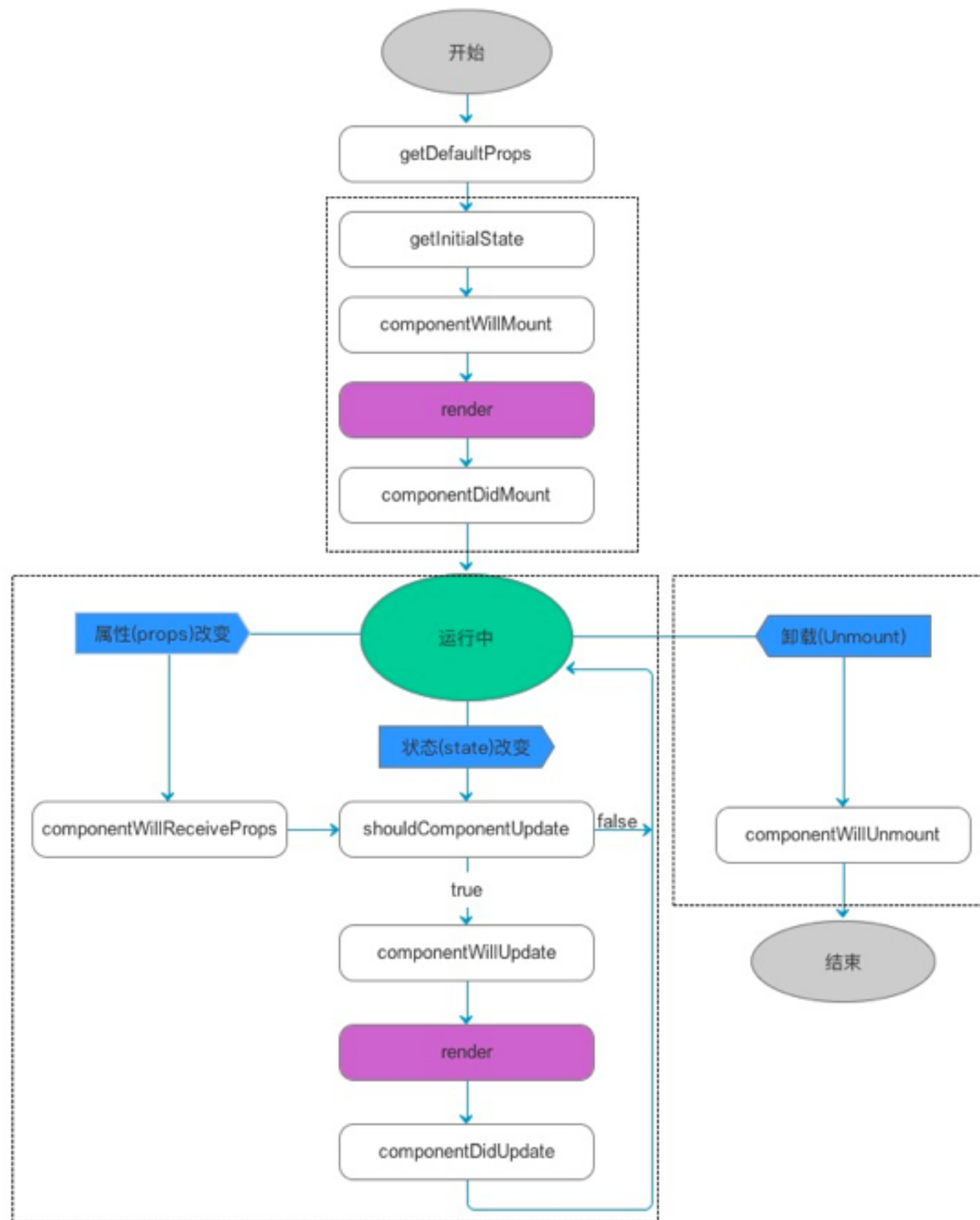
导出组件类

```
export {TapTime};
```

组件生命周期

Flex布局

控制子节点，使其根据设备，
设置布局方向最大化
填充可用空间
https://css-tricks.com/snippets/css/a-guide-to-flexbox/

```
flex
flexDirection
flexWrap
justifyContent
alignItems -> Container
alignSelf  -> Children
```

坑

React Native flexbox与CSS flexbox有差异

lwansbrough commented on 13 Apr

It appears `flex: 1` offers a very different behaviour than what's offered by `flexDirection: 'row'` + `flexWrap: 'wrap'` . This bug has already been resolved upstream in https://github.com/facebook/css-layout/blob/master/src/Layout.js -- the React Native team just has to pull down those changes.

lwansbrough referenced this issue from a commit in lwansbrough/react-native-markdown on 13 Apr

Actually resolves facebook/react-native#824 however still waiting on … …   4734049

React Native CSS Layout
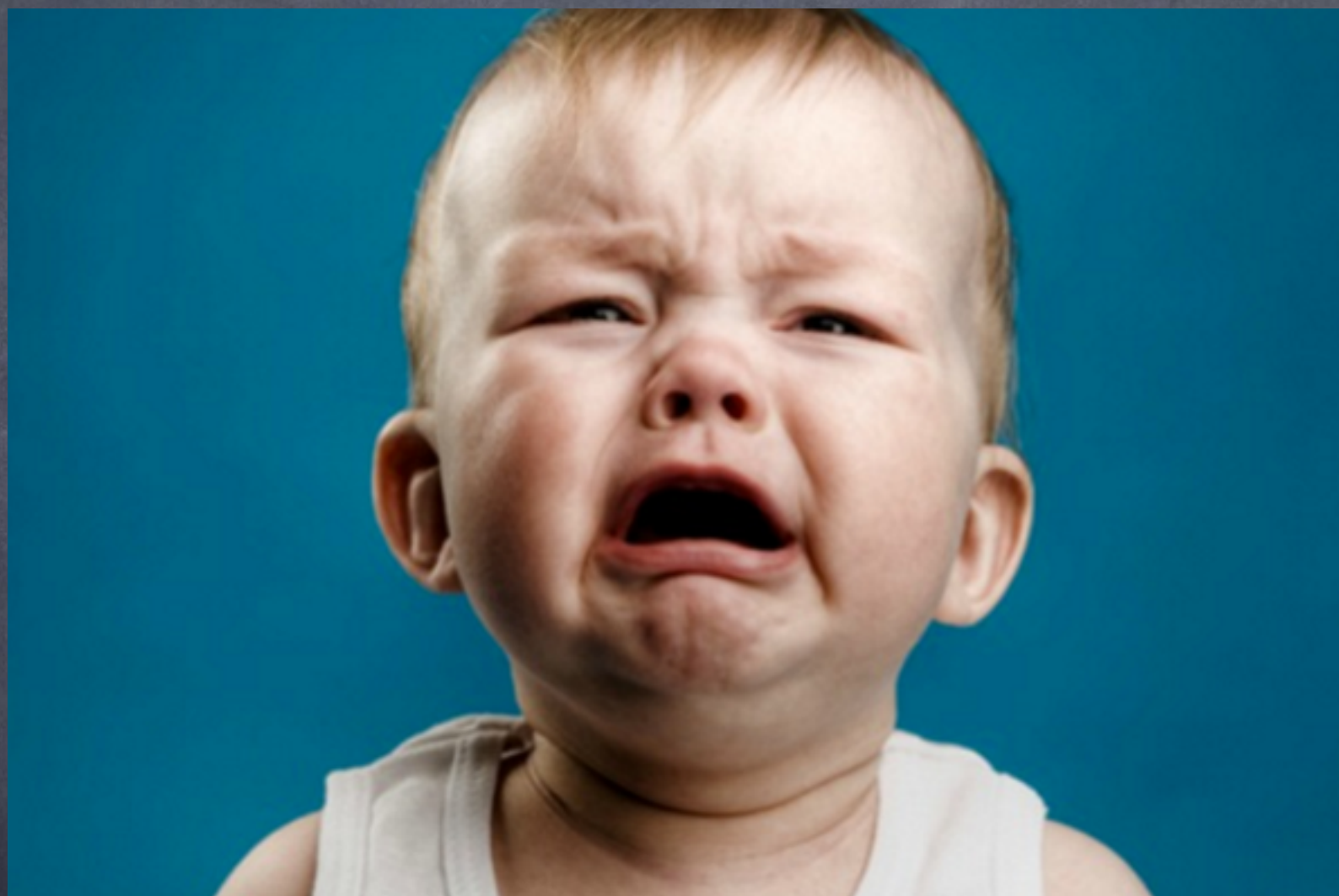比Web CSS样式少

https://github.com/facebook/css-layout

Animation

padding -> px -> No! -> number(pt)

Thank U

https://github.com/ele828/react-native-guide