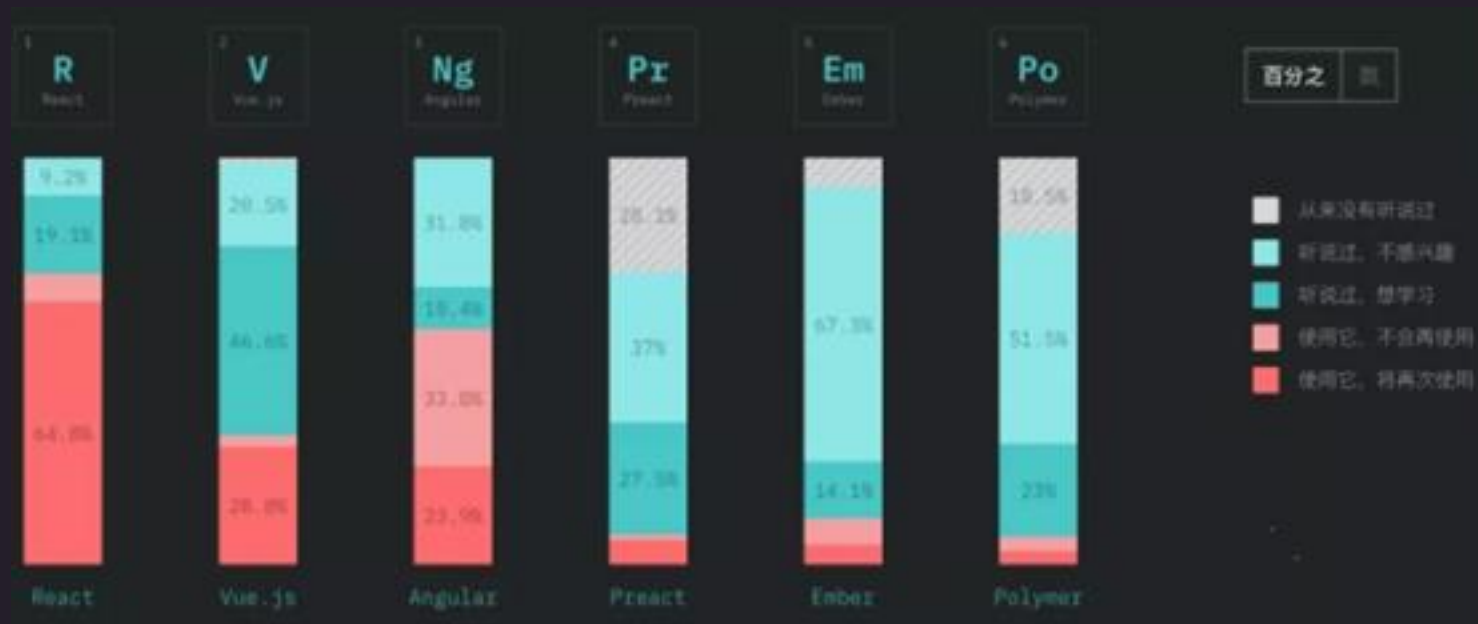


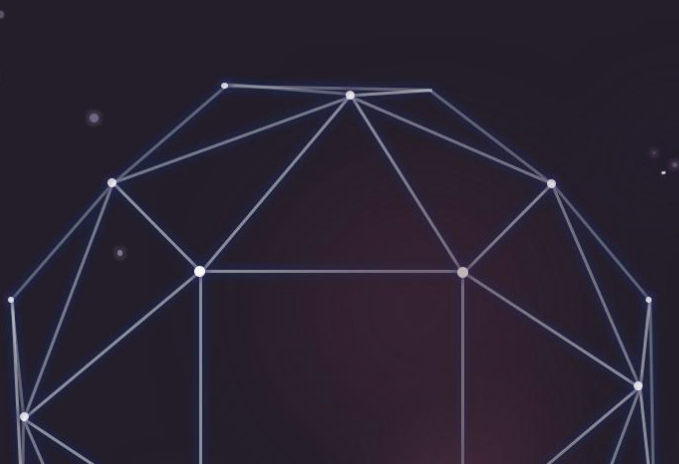
2019

React-Native

从零开发一款App



除Facebook，Instagram，Netflix，微软等众多国际知名互联网公司都是React.js的拥趸者外，国内很多主流互联网公司如腾讯、蚂蚁金服、京东、360、美团、携程等也在用React



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1-搭架开发环境之react-native

步骤1 请准备装有macOs系统的电脑

步骤2 安装Node和watchman

```
brew install node  
brew install watchman
```

注:Watchman - 用于更改的文件和目录监视工具

步骤3 安装yarn

```
npm install -g yarn
```

注:(Yarn是 Facebook 提供的替代 npm 的工具, 可以加速 node 模块的下载)

官网:<https://yarn.bootcss.com/docs/getting-started/>

步骤4 react-native-cli

```
npm install -g react-native-cli
```

注:React Native 的命令行工具用于执行创建、初始化、更新项目、运行打包服务 (packager) 等任务

步骤5 下载VSCode

下载地址:<https://code.visualstudio.com/>

步骤6 安装vs插件 React Native Snippet

快速代码补全

(rncc - 创建组件)

(rncsl - 创建组件)

(rncslwc - 创建可以传递子组件的组件)

(rnss - 快速创建样式)

步骤7 安装sdkman工具

```
curl -s "https://get.sdkman.io" | bash  
source "$HOME/.sdkman/bin/sdkman-init.sh"  
sdk version
```

1-搭架开发环境之iOS

1.在Appstore中下载Xcode

2.申请开发者账号

准备:手机号\邮箱\信用卡(Visa或者master)

参考

<https://jingyan.baidu.com/article/a501d80c671653ec630f5e07.html>

3.制作下载安装开发者证书(开发环境+产线环境)

<https://jingyan.baidu.com/article/afd8f4de8210eb34e286e9ef.html>

4.安装iOS包管理工具(cocoapods)

安装此软件需要翻墙,推荐不翻墙的方法

需要先安装ruby环境(mac 系统默认安装好的)

- 输入gem查看

- 移除默认的镜像地址

```
gem sources --remove https://rubygems.org/
```

- 安装国内的镜像

```
gem sources -a https://gems.ruby-china.com
```

- 验证是否替换成功

```
gem sources -l
```

- 安装cocoapods

```
sudo gem install cocoapods
```

1-搭架开发环境之android

1.下载android studio

下载地址:<https://developer.android.google.cn/studio/>

2.安装Java 环境

查看本地java版本 `java -version`

推荐安装方式

`sdk install java 13.0.1.j9-adpt`

3.下载包管理工具(gradle)

`sdk install gradle 5.5`

4.安装模拟器

教程地址 <https://jingyan.baidu.com/article/4f34706e088aabe387b56d3c.html>

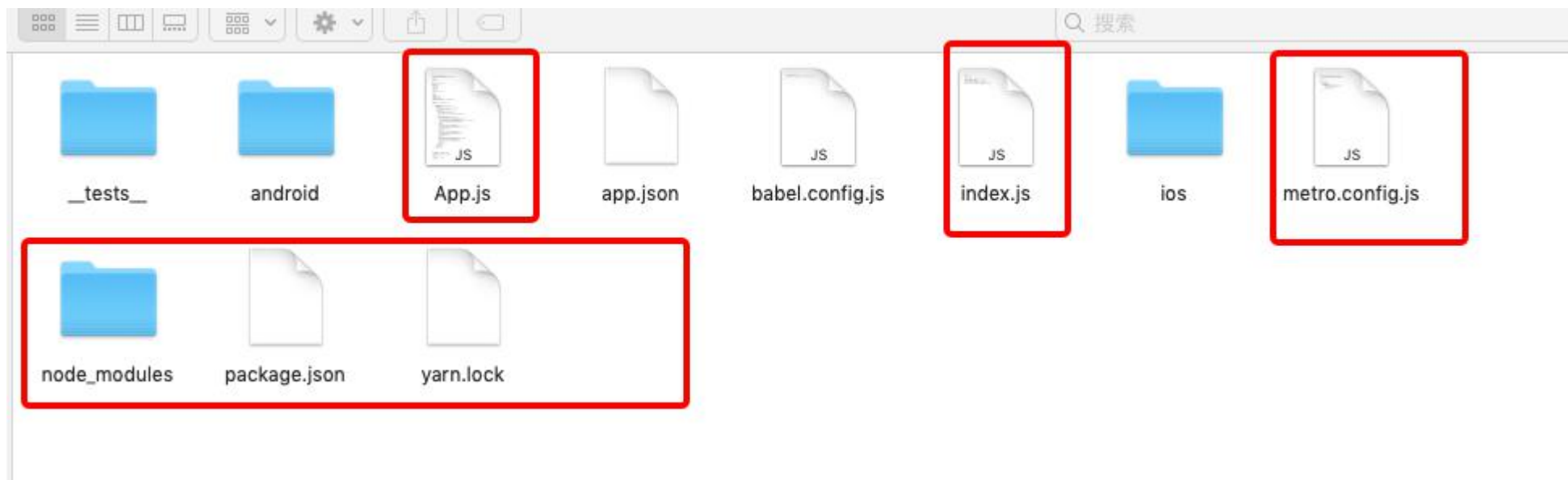
2-运行第一个demo

步骤1.使用命令行初始化项目

react-native init 项目名称

```
admin — bash — 80x24
Last login: Wed Dec 25 15:40:00 on ttys001
admins-iMac:~ admin$ react-native init
Usage: react-native init <ProjectName> [--verbose]
admins-iMac:~ admin$ react-native init xxx
```

初始化完成后的项目结构如下



2-运行第一个demo

步骤2.使用命令行进行项目里面安装依赖包

```
cd xxx & yarn
```

步骤3.运行项目

```
npm run start
```

```
admins-iMac:xxx admin$ npm run start
```

```
> xxx@0.0.1 start /Users/admin/Desktop/学习成长/xxx  
> react-native start
```

```
Running Metro Bundler on port 8081.
```

```
Keep Metro running while developing on any JS projects. Feel free to  
close this tab and run your own Metro instance if you prefer.
```

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

```
Looking for JS files in  
/Users/admin/Desktop/学习成长/xxx
```

```
Loading dependency graph, done.
```

2-运行第一个demo之iOS

1.使用命令行进入iOS项目中安装相关依赖

```
cd ./ios  
pod install
```

```
admins-iMac:ios admin$ pod install  
Analyzing dependencies  
Downloading dependencies  
Generating Pods project  
Integrating client project  
Pod installation complete! There are 28 dependencies from the Podfile and 26 total pods installed.  
admins-iMac:ios admin$
```

2.在模拟器上运行iOS工程

```
cd ../  
yarn ios(或者npm run ios)
```

```
admins-iMac:ios admin$ cd ../  
admins-iMac:xxx admin$ yarn ios  
yarn run v1.16.0  
warning ../../../../package.json: No license field  
$ react-native run-ios  
info Found Xcode workspace "xxx.xcworkspace"  
info Launching iPhone X (iOS 12.2)  
info Building (using "xcodebuild -workspace xxx.xcworkspace -configuration Debug...  
.....  
info Installing "build/xxx/Build/Products/Debug-iphonesimulator/xxx.app"  
info Launching "org.reactjs.native.example.xxx"  
success Successfully launched the app on the simulator  
+ Done in 66.91s.  
admins-iMac:xxx admin$
```

2-运行第一个demo

运行起来的效果图



修改一下App.js文件里面的代码,保存一下,模拟器的页面立即进行响应

```
App.js > [e] styles
1  /**
2   * Sample React Native App
3   * https://github.com/facebook/react-native
4   *
5   * @format
6   * @flow
7   */
8
9  import React from 'react';
10 import {
11   SafeAreaView,
12   StyleSheet,
13   Text,
14 } from 'react-native';
15
16 const App = () => {
17   return (
18     <SafeAreaView>
19       <Text style={styles.text}>Hello world</Text>
20     </SafeAreaView>
21   );
22 };
23
24 export default App;
25
26 const styles = StyleSheet.create({
27   text: {
28     backgroundColor: 'red',
29     color: 'fff'
30   },
31 });
```



2-运行第一个demo之android

步骤1 运行命令启动android

npm run android

```
info JS server already running.
info Launching emulator...
error Failed to launch emulator. Reason: No emulators found as an output of 'emulator -list-avds'.
warn Please launch an emulator manually or connect a device. Otherwise app may fail to launch.
info Installing the app...
Starting a Gradle Daemon (subsequent builds will be faster)
-----> 0% INITIALIZING [366ms]
-----> 50% CONFIGURING [2s]

FAILURE: Build failed with an exception.

* What went wrong:
A problem occurred configuring project ':app'.
> SDK location not found. Define location with an ANDROID_SDK_ROOT environment variable or by setting the sdk.dir path in your project's local.properties file.

* Try:
Run with --stacktrace option to get the stack trace. Run with --info or --debug option to get more log output. Run with --scan to get more help at https://help.gradle.org

BUILD FAILED in 5s

error Failed to install the app. Make sure you have the Android development environment set up: https://facebook.github.io/react-native/docs/getting-started.html#android-environment-setup
Error: Command failed: ./gradlew app:installDebug --PreactNativeDevServerPort=8081

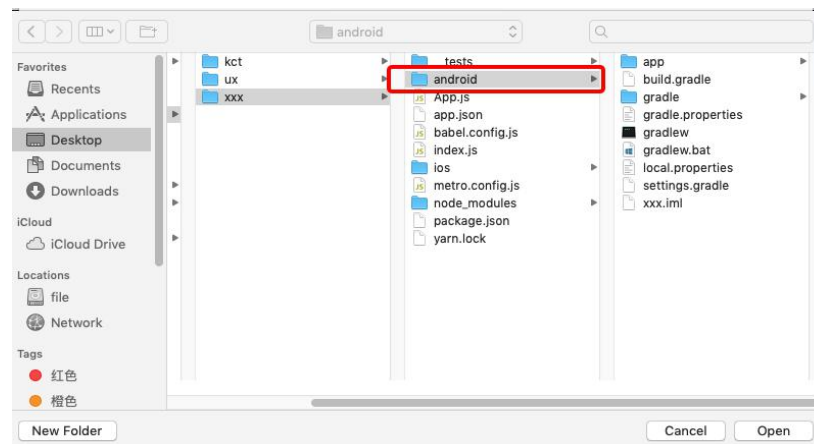
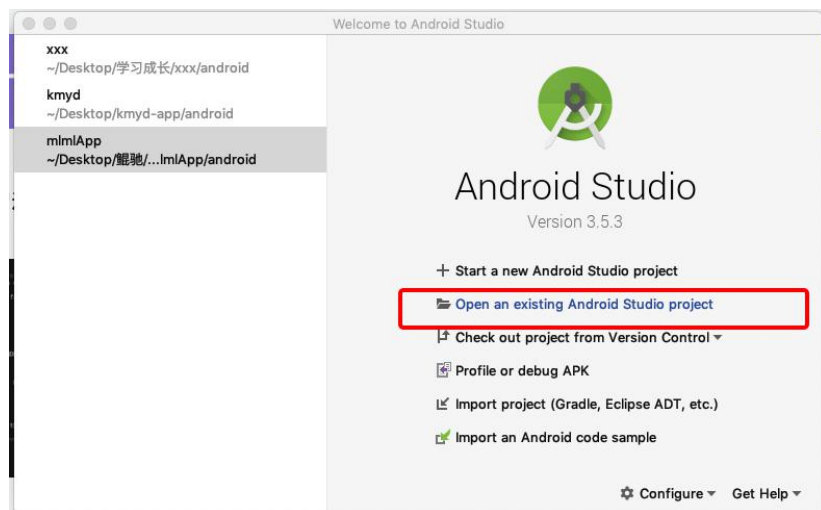
FAILURE: Build failed with an exception.

* What went wrong:
A problem occurred configuring project ':app'.
```

步骤2 使用android studio 打开android项目

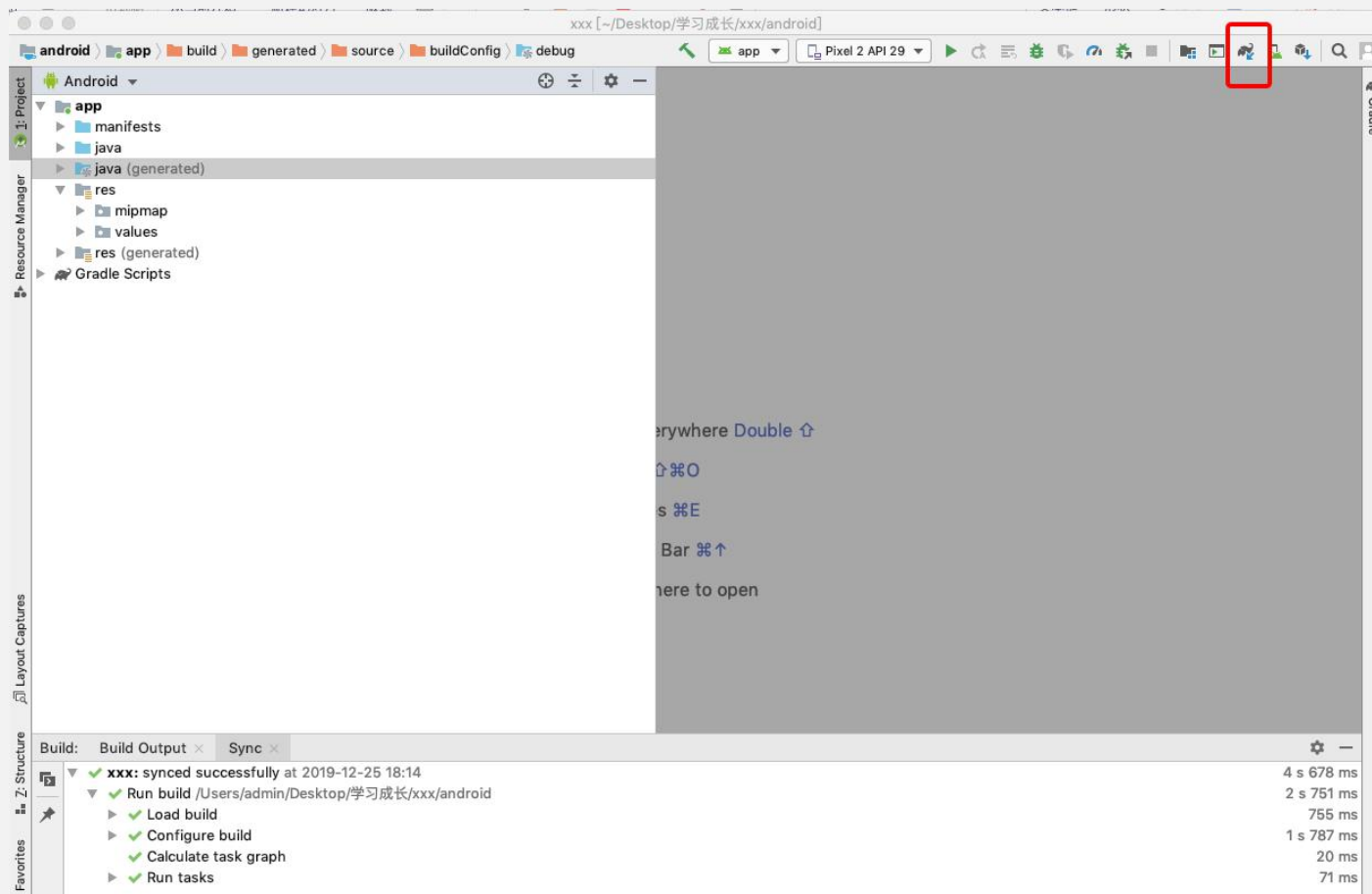
2-运行第一个demo之android

步骤2 使用android studio 打开android项目



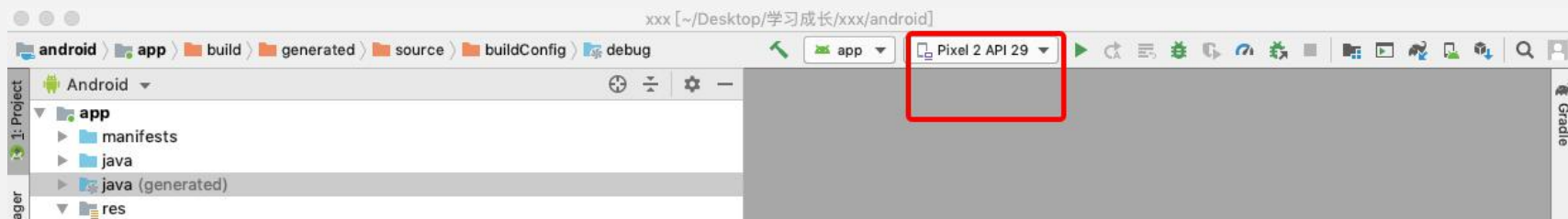
2-运行第一个demo之android

步骤3 安装依赖包

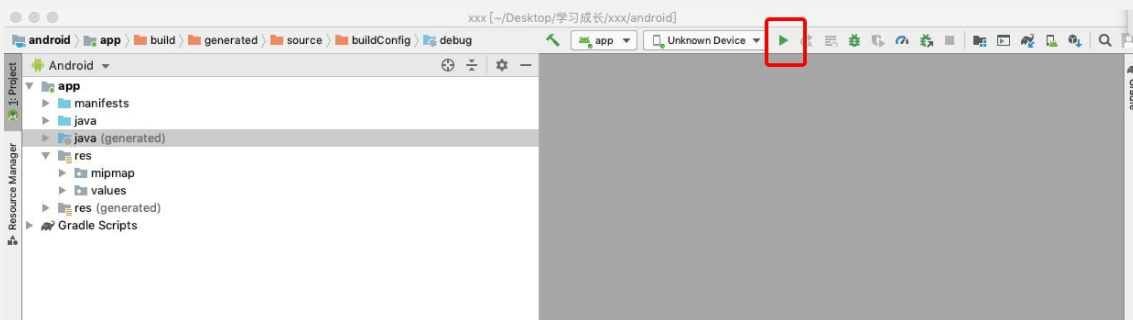


2-运行第一个demo之android

步骤4 选择模拟器或者真机

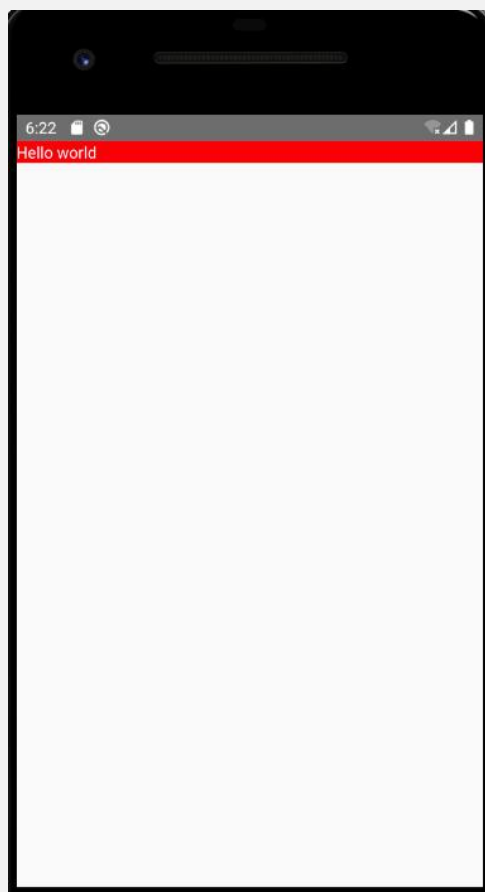


步骤5 点击运行按钮

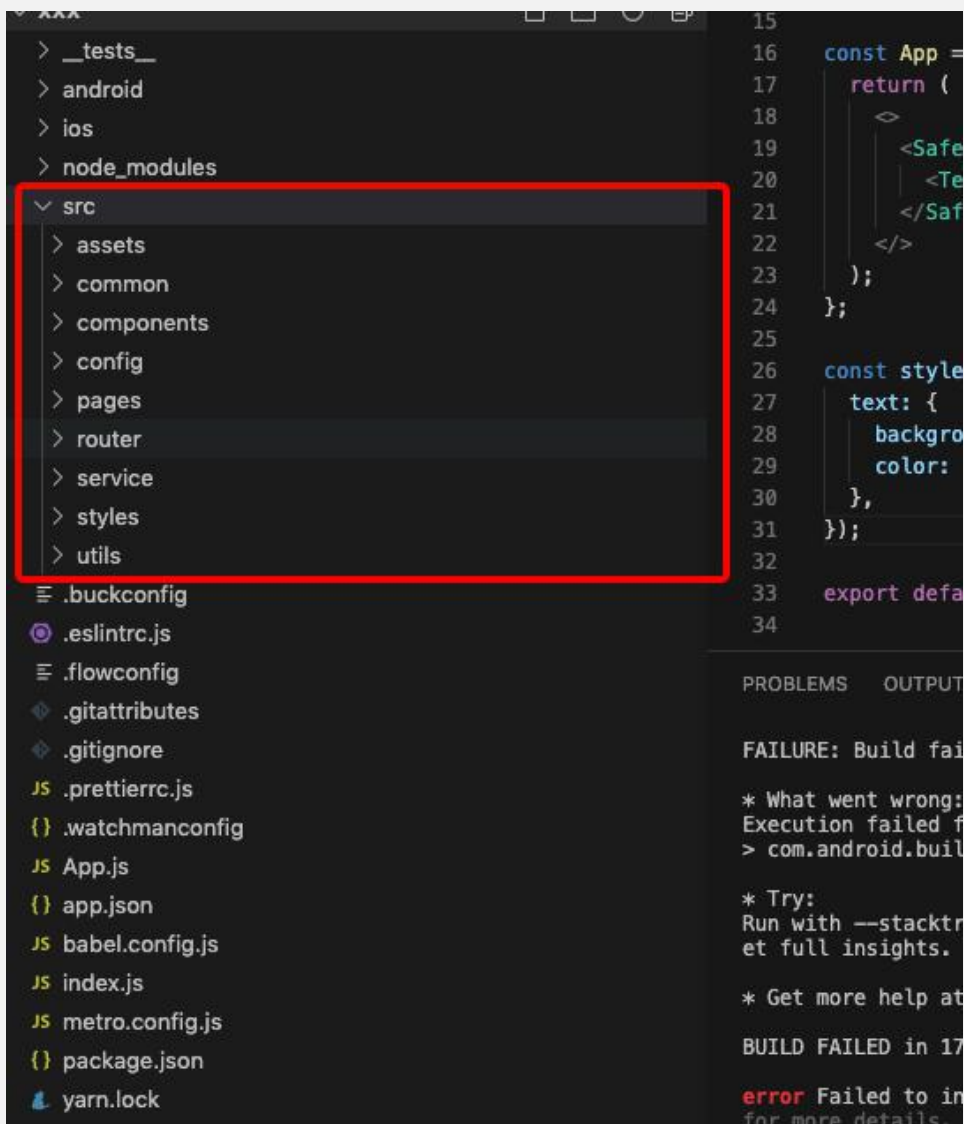


2-运行第一个demo之android

运行成功的效果图如下

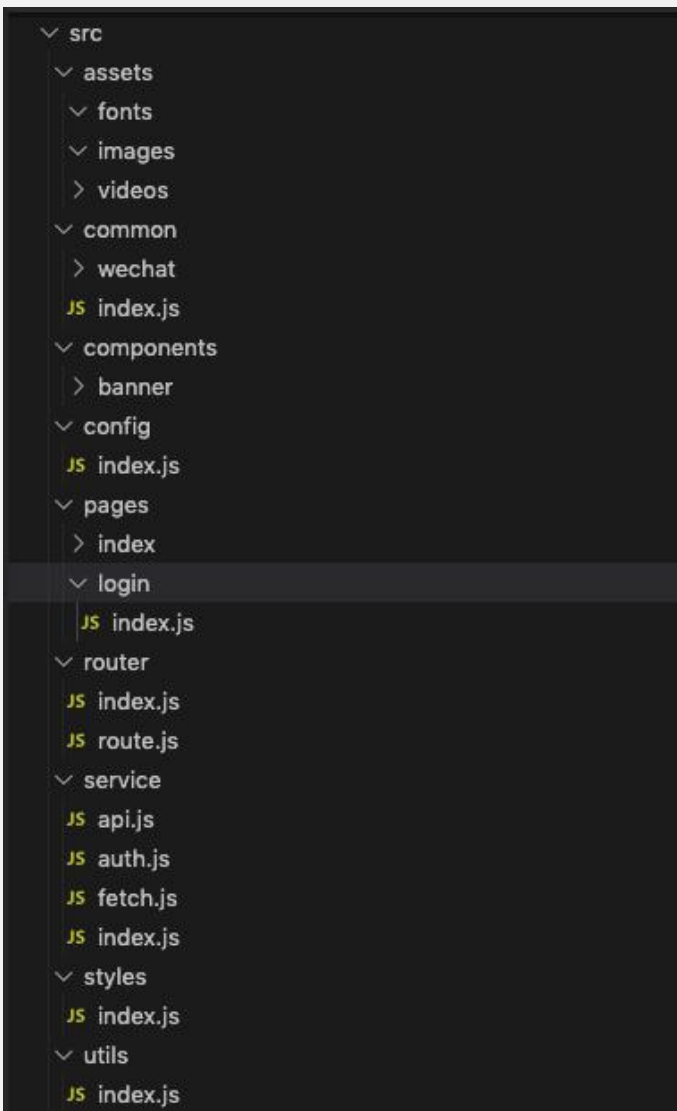


项目结构设计



assets-存放资源文件（图片,字体,音视频等）
common - 存放公共文件(wxshare.js)
components - 公共组件
config - 配置(请求主机地址,版本号等)
pages- app页面
router-路由地址
service 请求接口 (封装请求方法 处理请求异常)
styles 公共的样式 如字体颜色 字体大小等
utils 工具文件集合

项目结构设计



JSX语法

- 1.State状态机
- 2.事件处理
- 3.React 条件渲染
- 4.React 列表 & Keys
- 5.React 组件 API
- 6.React 组件生命周期
- 7.React Refs
- 8.React组件传值
- 9.React几种常用组件
- 10.组件设置默认值

```
const Hello = <Text>Hello</Text>
const App = () => {
  return (
    <SafeAreaView>
      {Hello}
    </SafeAreaView>
  );
};
```

JSX语法- State

React 把组件看成是一个状态机（State Machines）。通过与用户的交互，实现不同状态，然后渲染UI，让用户界面和数据保持一致。React 里，只需更新组件的 state，然后根据新的 state 重新渲染用户界面（不要操作 DOM）



```
import React, { Component } from 'react'
import { Text, View } from 'react-native'
export class Index extends Component {
  state = {
    name: 'KunChi',
    date: '2019-01-01'
  }

  render() {
    return (
      <View>
        <Text> {this.state.name}:{this.state.date} </Text>
      </View>
    )
  }
}

export default Index
```

JSX语法- State

```
import React, { Component } from 'react'
import { Text, View } from 'react-native'
export class Index extends Component {
  state = {
    name: 'KunChi',
    date: '2019-01-01'
  }
  componentDidMount() {
    this.state.date = new Date().toLocaleString()
  }
  render() {
    return (
      <View>
        <Text> {this.state.name}:{this.state.date} </Text>
      </View>
    )
  }
}

export default Index
```

UI同步更新数据需要使用setState函数

```
this.setState({
  date: new Date().toLocaleString()
})
```

```
// 强制让组件刷新
this.forceUpdate()
```

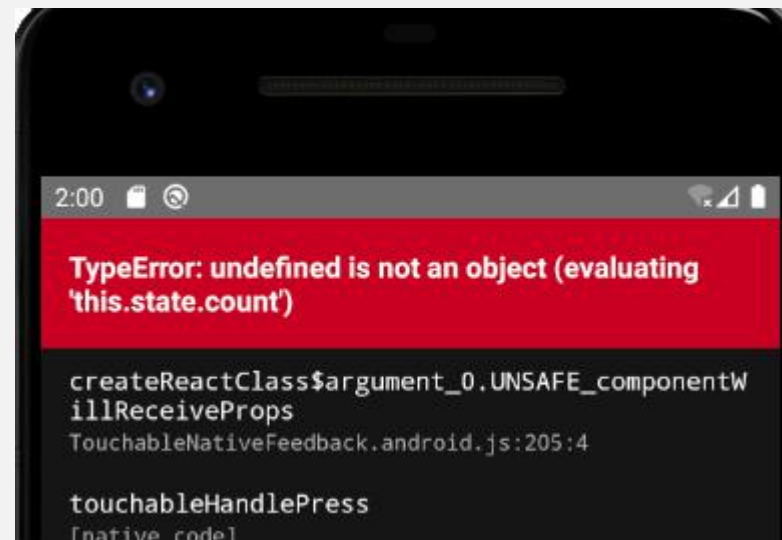
扩展

```
this.setState((prevState, props) => ({
  //do something here
}));
```

prevState 表示上一个状态值
props 表示当前props的值

JSX语法-事件处理

```
import React, { Component } from 'react'
import { Text, View, Button } from 'react-native'
export default class Index extends Component {
  state = {
    count: 1
  }
  render() {
    return (
      <View>
        <Text> {this.state.count}</Text>
        <Button title="加1" onPress={this.addOne}></Button>
      </View>
    )
  }
  addOne() {
    this.setState({
      count: ++this.state.count
    })
  }
}
```



思考:addOne中的this指的是那个对象?

JSX语法-事件处理

下面是<Button /> 组件的定义

```
export interface ButtonProps {  
  title: string;  
  onPress: (ev: NativeSyntheticEvent<NativeTouchEvent>) => void;  
  color?: string;  
  accessibilityLabel?: string;  
  disabled?: boolean;  
  
  /**  
   * Used to locate this button in end-to-end tests.  
   */  
  testID?: string;  
}  
  
export class Button extends React.Component<ButtonProps> {}
```

JSX语法-事件处理

```
import React, { Component } from 'react'
import { Text, View, Button } from 'react-native'
export default class Index extends Component {
  state = {
    count: 1
  }
  render() {
    return (
      <View>
        <Text> {this.state.count}</Text>
        <Button title="加1" onPress={this.addOne}></Button>
      </View>
    )
  }
  addOne() {
    alert(Object.keys(this))
  }
}
```

Alert

accessibilityLabel,accessibilityRole,accessibilityStates,hasTVPreferredFocus,nextFocusDown,nextFocusForward,nextFocusLeft,nextFocusRight,nextFocusUp,testID,disabled,onPress,touchSoundDisabled,children,background

OK

JSX语法-事件处理

```
import React, { Component } from 'react'
import { Text, View, Button } from 'react-native'

export default class Index extends Component {
  state = {
    count: 1
  }
  render() {
    return (
      <View>
        <Text> {this.state.count}</Text>
        <Button ref='btn' title="加1"
onPress={this.addOne}></Button>
      </View>
    )
  }
  addOne() {
    alert(this instanceof Index)
  }
}
```



通过instanceof 检测对象类型

JSX语法-事件处理

正确写法1

```
export default class Index extends Component {
  state = {
    count: 1
  }
  render() {
    return (
      <View>
        <Text> {this.state.count}</Text>
        <Button ref='btn' title="加1"
onPress={this.addOne.bind(this)}></Button>
      </View>
    )
  }
  addOne() {
    alert(this instanceof Index)
  }
}
```

JSX语法-事件处理

正确写法 2

Button组件调用方式类似如下
this.addOne.bind(Index组件)()

```
export default class Index extends Component {  
  state = {  
    count: 1  
  }  
  
  constructor() {  
    super(...arguments)  
    this.addOne = this.addOne.bind(this)  
  }  
  
  render() {  
    return (  
      <View>  
        <Text> {this.state.count}</Text>  
        <Button ref='btn' title="加1"  
onPress={this.addOne}></Button>  
      </View>  
    )  
  }  
}
```

JSX语法-事件处理

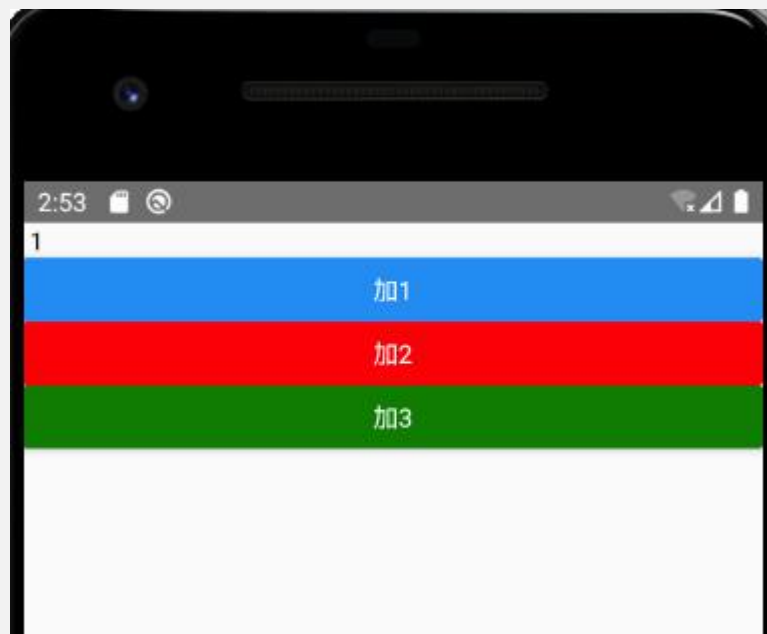
正确写法3

使用ES6语法 避免出现作用域不明确的问题

```
export default class Index extends Component {
  state = {
    count: 1
  }
  constructor() {
    super(...arguments)
  }
  render() {
    return (
      <View>
        <Text> {this.state.count}</Text>
        <Button ref='btn' title="加1"
onPress={this.addOne}></Button>
      </View>
    )
  }
  addOne = () => {
    alert(this instanceof Index)
  }
}
```

JSX语法-事件处理

思考？ 怎么实现下面的需求



JSX语法-事件处理

```
<Button ref='btn' title="加1" onPress={this.addOne}></Button>  
<Button ref='btn' title="加2" onPress={this.addTwo} color="red"></Button>
```

```
addOne = () => {  
  let { count } = this.state  
  this.setState({  
    count: count + 1  
  })  
}  
addTwo = () => {  
  let { count } = this.state  
  this.setState({  
    count: count + 2  
  })  
}
```

JSX语法-事件处理

闭包函数实现数据传递

```
<Button ref='btn' title="加1" onPress={() => {  
    this.add(1)  
}}></Button>  
<Button ref='btn' title="加2" onPress={() => {  
    this.add(2)  
}} color="red"></Button>  
<Button ref='btn' title="加3" onPress={() => {  
    this.add(3)  
}} color="green"></Button>  
add = (num) => {  
    let { count } = this.state  
    this.setState({  
        count: count + num  
    })  
}
```

JSX语法-React 条件渲染

A,B用户看到不同的内容？

JSX语法-React 条件渲染

```
import React, { Component } from 'react'
import { Text, View, Button } from 'react-native'

export default class Index extends Component {
  state = {
    username: "B"
  }
  render() {
    const A = <Text>A用户看到的内容</Text>
    const B = <Text>B用户看到的内容</Text>
    return (
      <View>
        {this.state.username === 'A' ? A : B}
      </View>
    )
  }
}
```

如果是C用户怎么显示？

JSX语法-React 条件渲染

注意:ShowUserInfo首字母必须大写 如果要使用标签写法的话<ShowUserInfo username="A" />

```
import React, { Component } from 'react'
import { Text, View, Button } from 'react-native'
const ShowUserInfo = ()=>{
  const A = <Text>A用户看到的内容</Text>
  const B = <Text>B用户看到的内容</Text>
  if (props.username == 'A') {
    return A
  }
  if (props.username == 'B') {
    return B
  }
  return null
}
```

```
export default class Index extends Component {
  state = {
    username: "B"
  }
  render() {
    return (
      <View>
        {ShowUserInfo({ username: 'A' })}
        <ShowUserInfo username="A" />
      </View>
    )
  }
}
```

JSX语法-React 条件渲染

```
const ShowUserInfo = (props) => {  
  const A = <Text>A用户看到的内容</Text>  
  const B = <TouchableOpacity  
onPress={props.onPress}><Text>B用户看到的内容  
</Text></TouchableOpacity>  
  if (props.username === 'A') {  
    return A  
  }  
  if (props.username === 'B') {  
    return B  
  }  
  return null  
}
```

```
<ShowUserInfo username="B"  
onPress={this.greet} />
```

如果条件不满足,则返回null即可

JSX语法-React 列表 & Keys

如何将一组数据渲染到页面上？

```
const List = (props) => {  
  return props.list.map(item => {  
    return <Text>{item}</Text>  
  })  
}
```

// 简写

```
const List = (props) => {  
  return props.list.map(item => (<Text>{item}</Text>))  
}
```

```
export default class Index extends Component {  
  state = {  
    list: [1, 2, 3, 4, 5]  
  }  
  render() {  
    return (  
      <View>  
        <List list={this.state.list} />  
      </View>  
    )  
  }  
}
```


JSX语法-React 列表 & Keys

为什么要为列表中每一个元素指定key值？

- Keys 可以在 DOM 中的某些元素被增加或删除的时候帮助 React 识别哪些元素发生了变化。因此应当给数组中的每一个元素赋予一个确定的标识。
- 一个元素的 key 最好是这个元素在列表中拥有的一个独一无二的字符串。通常，我们使用来自数据的 id 作为元素的 key。
- 当元素没有确定的 id 时，可以使用他的序列号索引 index 作为 key。
如果列表可以重新排序，不建议使用索引来进行排序，因为这会导致渲染变得很慢

(2) Warning: Each child in a list should have a unique "key" prop. See <https://fb.me/react-warning-keys> for more info...

JSX语法-React 列表 & Keys

请注意Key添加的位置

```
const List = (props) => {  
  return props.list.map((item, index) => (<Item key={item.name}  
title={item.name}></Item>))  
}  
  
const Item = (props) => {  
  return <Text>{props.name}</Text>  
}
```

JSX语法-React 组件 API

设置状态: `setState`

强制更新: `forceUpdate`

JSX语法-React 组件 API

设置状态: `setState`

`setState(object nextState[, function callback])`

callback 回调函数

`setState()`并不会立即改变`this.state`，而是创建一个即将处理的`state`。`setState()`并不一定是同步的，为了提升性能React会批量执行`state`和DOM渲染

如果想要立即更新如何处理？

执行 `this.forceUpdate()`

JSX语法-React 组件 API

思考下面的代码页面会不会更新数据为aaaa?

```
this.state.username = 'aaaa'  
  this.setState({  
  })
```

JSX语法-React 组件 API

setState()总是会触发一次组件重绘，除非在shouldComponentUpdate()中实现了一些条件渲染逻辑。

```
export default class Index extends Component {
  state = {
    username: 'xxxx'
  }
  componentDidUpdate() {
    alert("更新了")
  }
  render() {
    return (
      <View>
        <Button title="修改" onPress={() => {
          this.setState({
            username: 'xxxx'
          })
        }}></Button>
        <Text>{this.state.username}</Text>
      </View>
    )
  }
}
```



JSX语法-React 组件 API

如何避免数据没有更新，页面刷新？

方法1 如图

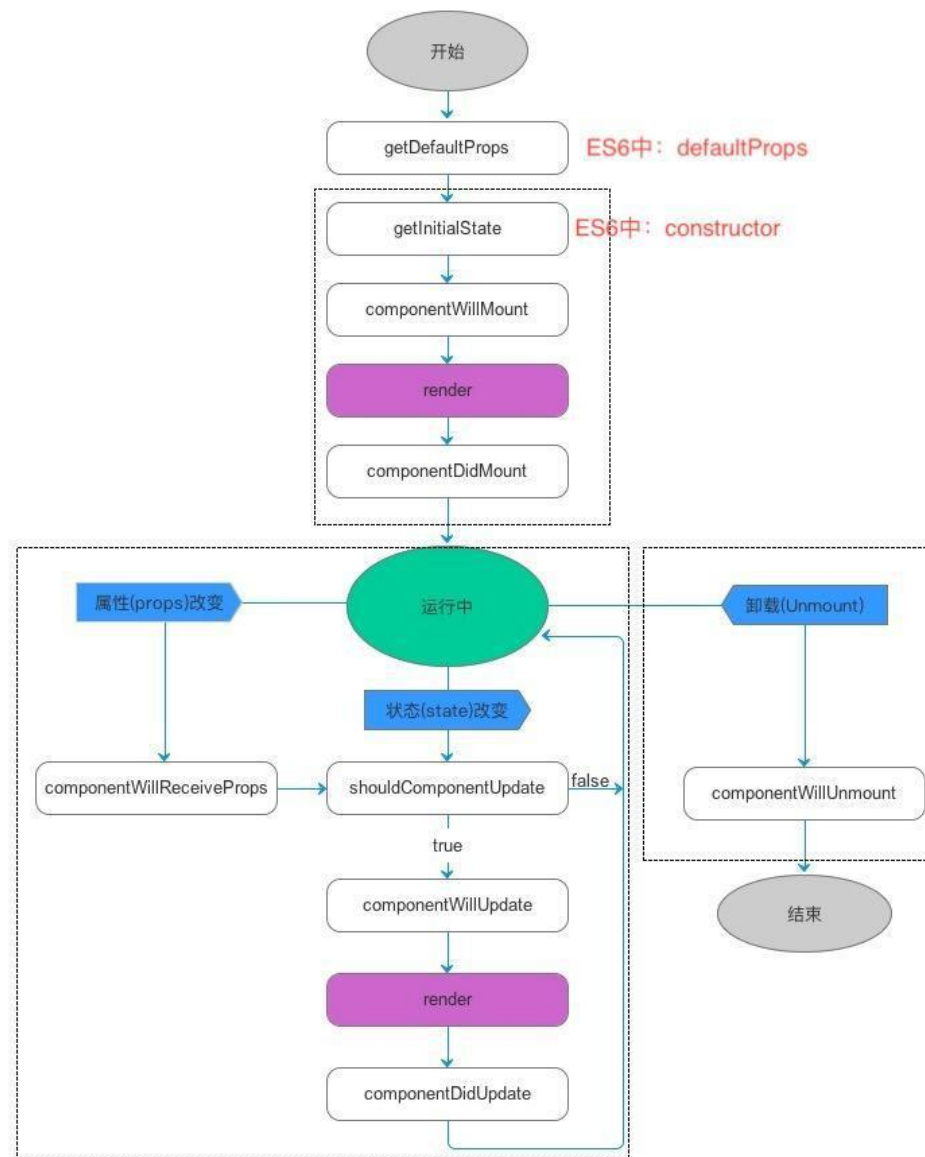
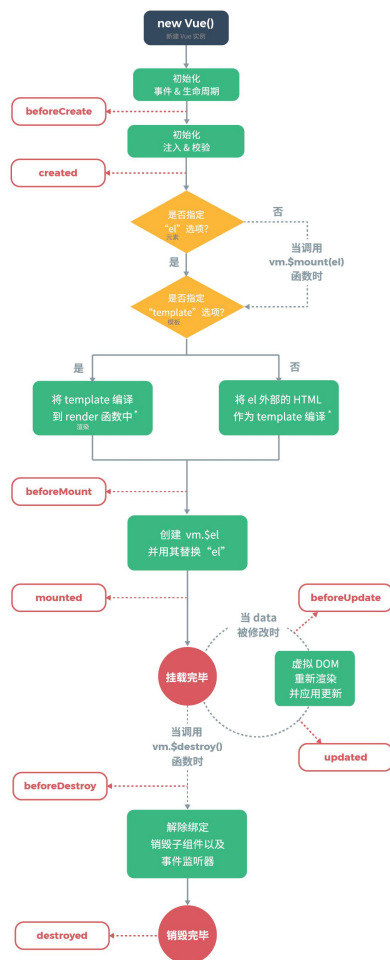
```
export default class Index extends PureComponent {
  state = {
    username: 'xxxx'
  }
  componentDidUpdate() {
    alert("更新了")
  }
  render() {
    return (
      <View>
        <Button title="修改" onPress={() => {
          this.setState({
            username: 'xxxx'
          })
        }}></Button>
        <Text>{this.state.username}</Text>
      </View>
    )
  }
}
```

JSX语法-React 组件 API

方法2 重写 shouldComponentUpdate 方法

```
shouldComponentUpdate(nextProps, nextState) {  
  if (nextState.username && this.state.username !== nextState.username) {  
    return true  
  }  
  return false  
}
```


JSX语法-React 组件生命周期



JSX语法-React 组件生命周期

`componentWillMount` 在渲染前调用,在客户端也在服务端。

`componentDidMount` : 在第一次渲染后调用, 只在客户端。之后组件已经生成了对应的DOM结构, 可以通过`this.getDOMNode()`来进行访问。如果你想和其他JavaScript框架一起使用, 可以在这个方法中调用`setTimeout`, `setInterval`或者发送AJAX请求等操作(防止异步操作阻塞UI)。

`componentWillReceiveProps` 在组件接收到一个新的 prop (更新后)时被调用。这个方法在初始化render时不会被调用。

`shouldComponentUpdate` 返回一个布尔值。在组件接收到新的props或者state时被调用。在初始化时或者使用`forceUpdate`时不被调用。可以在你确认不需要更新组件时使用。

`componentWillUpdate`在组件接收到新的props或者state但还没有render时被调用。在初始化时不会被调用。

`componentDidUpdate` 在组件完成更新后立即调用。在初始化时不会被调用。

`componentWillUnmount`在组件从 DOM 中移除之前立刻被调用。

JSX语法-React 组件生命周期

1.思考下面代码页面输出是什么？

```
import React, { Component, PureComponent } from 'react'
import { Text, View, Button, TouchableOpacity } from 'react-native'
export default class Index extends Component {
  state = {
    username: ''
  }
  constructor() {
    super(...arguments)
    this.state.username = 'A'
  }

  render() {
    return (
      <View>
        <Text>{this.state.username}</Text>
      </View>
    )
  }
}
```

JSX语法-React 组件生命周期

2.思考下面代码页面输出的结果是什么？

```
import React, { Component, PureComponent } from 'react'
import { Text, View, Button, TouchableOpacity } from 'react-native'
export default class Index extends Component {
  state = {
    username: ''
  }
  constructor() {
    super(...arguments)
    this.state.username = 'A'
  }
  componentWillMount() {
    this.state.username = 'B'
  }
  render() {
    return (
      <View>
        <Text>{this.state.username}</Text>
      </View>
    )
  }
}
```

JSX语法-React 组件生命周期

3.思考下面代码页面输出的是什么？

```
import React, { Component, PureComponent } from 'react'
import { Text, View, Button, TouchableOpacity } from 'react-native'
export default class Index extends Component {
  state = {
    username: ''
  }
  constructor() {
    super(...arguments)
    this.state.username = 'A'
  }
  componentDidMount() {
    this.state.username = 'C'
  }
  render() {
    return (
      <View>
        <Text>{this.state.username}</Text>
      </View>
    )
  }
}
```

JSX语法-React Refs

React 支持一种非常特殊的属性 Ref ，你可以用来绑定到 render() 输出的任何组件上

有什么用？

可以获取组件实例对象,及其对应的属性

JSX语法-React Refs

```
<TextInput ref="text"></TextInput>
```

```
let keys = Object.keys(this.refs.text)  
console.log(JSON.stringify(keys))
```

```
["measure","measureInWindow","measureLayout","setNativeProps","focus","blur","isFocused","clear","_getText","_setNativeRef","_renderIOSLegacy","_renderIOS","_renderAndroid","_onFocus","_onPress","_onChange","_onSelectionChange","_onBlur","_onTextInput","_onScroll","props","context","refs","updater","state","_reactInternalFiber","_reactInternalInstance","_inputRef","__isMounted","_lastNativeText"]
```

JSX语法-React Refs

如何获取元素的位置信息和宽高信息？

```
import React, { Component, PureComponent } from 'react'
import { Text, View, TextInput, UIManager, findNodeHandle } from 'react-native'
export default class Index extends Component {
  componentDidMount() {
    // 直接在componentDidMount 需要在下一次检测循环中获取
    setTimeout(() => {
      // 方法1
      const handle = findNodeHandle(this.refs.text)
      UIManager.measure(handle, (x, y, width, height, pageX, pageY) => {
        console.log(width)
        console.log(height)
      })
    }, 0);
  }
  render() {
    return (
      <View>
        <TextInput ref="text"></TextInput>
      </View>
    )
  }
}
```


JSX语法-React Refs

```
import React, { Component, PureComponent } from 'react'
import { Text, View, TextInput } from 'react-native'

export default class Index extends Component {

  componentDidMount() {
    // 直接在componentDidMount 需要在下一次检测循环中获取
    setTimeout(() => {
      // 方法2
      this.refs.text.measure((x, y, width, height, pageX, pageY) => {
        console.log(width)
        console.log(height)
      })
    }, 0);
  }

  render() {
    return (
      <View>
        <TextInput ref="text"></TextInput>
      </View>
    )
  }
}
```

通过this.refs.text.measure方法直接主动获取布局信息

JSX语法-React Refs

```
render() {  
  return (  
    <View>  
      <TextInput ref="text"  
onLayout={this.getTextInputLayout}></TextInput>  
    </View>  
  )  
}  
getTextInputLayout = (e) => {  
  console.log(e.nativeEvent.layout)  
}
```

布局完成回调函数中获取布局信息

JSX语法- React组件传值

A.父组件向子组件传值

B.子组件向父组件传值

JSX语法- 组件间传值

问题1.父组件需要向A组件传递什么值？

JSX语法- 组件间传值

- A.数据 - 需要将父组件的数据传递给子组件(渲染数据,网络请求参数,逻辑计算等)
- B.函数 - (组件间通讯,传递执行逻辑)
- C.组件 - (让子组件将传递的子组件作为其子组件渲染)

组件间传值



JSX语法- 组件间传值

```
class Alert extends Component{
  render(){
    return <Modal
visible={this.props.visible}>
      <View>
        <Text>{this.props.title}</Text>
        <TouchableHighlight
onPress={this.props.onClose}>
          <Text>关闭</Text>
        </TouchableHighlight>
      </View>
    </Modal>
  }
}
```

```
class index extends Component {
  state = {
    showAlert:true
  }
  render() {
    return (
      <SafeAreaView>
        <Alert visible={this.state.showAlert}
title="提醒弹窗" onClose={this.onClose}/>
      </SafeAreaView>
    );
  }
  onClose={()=>{
    this.setState({
      showAlert:false
    })
  }}
}
```

JSX语法- 组件间传值



JSX语法- 组件间传值

父组件

```
<SafeAreaView>
  <List footerComponent={<Text>{this.state.noMore?'没有更多了':'加载更多...'}}/>
</SafeAreaView>
```

子组件

```
class List extends Component{
  render(){
    return <View style={{alignItems:'center'}}>
      {/* 省略渲染列表代码.... */}
      {this.props.footerComponent}
    </View>
  }
}
```

JSX语法-常用的几种组件

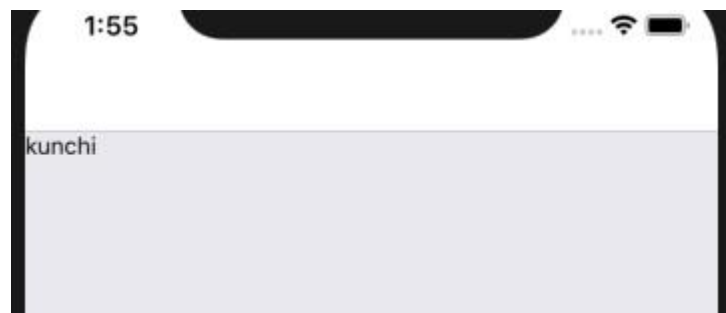
1. 继承自Component组件
2. 没有继承关系的组件
3. 高阶组件
4. 子组件是函数的组件

JSX语法-常用的几种组件

1.有继承关系的组件

```
class UserInfo extends Component{  
  render(){  
    return <View>  
      <Text>{this.props.username}</Text>  
    </View>  
  }  
}
```

```
<UserInfo username={'kunchi'} />
```



JSX语法-常用的几种组件

2. 没有继承关系的组件

```
//1
function UserInfo(props) {
  return(<View>
    <Text>{props.username}</Text>
  </View>)
}

// 2
const UserInfo = (props)=>{
  return(<View>
    <Text>{props.username}</Text>
  </View>)
}
```

```
<UserInfo username={'kunchi'} />
```

注意首字母必须大小

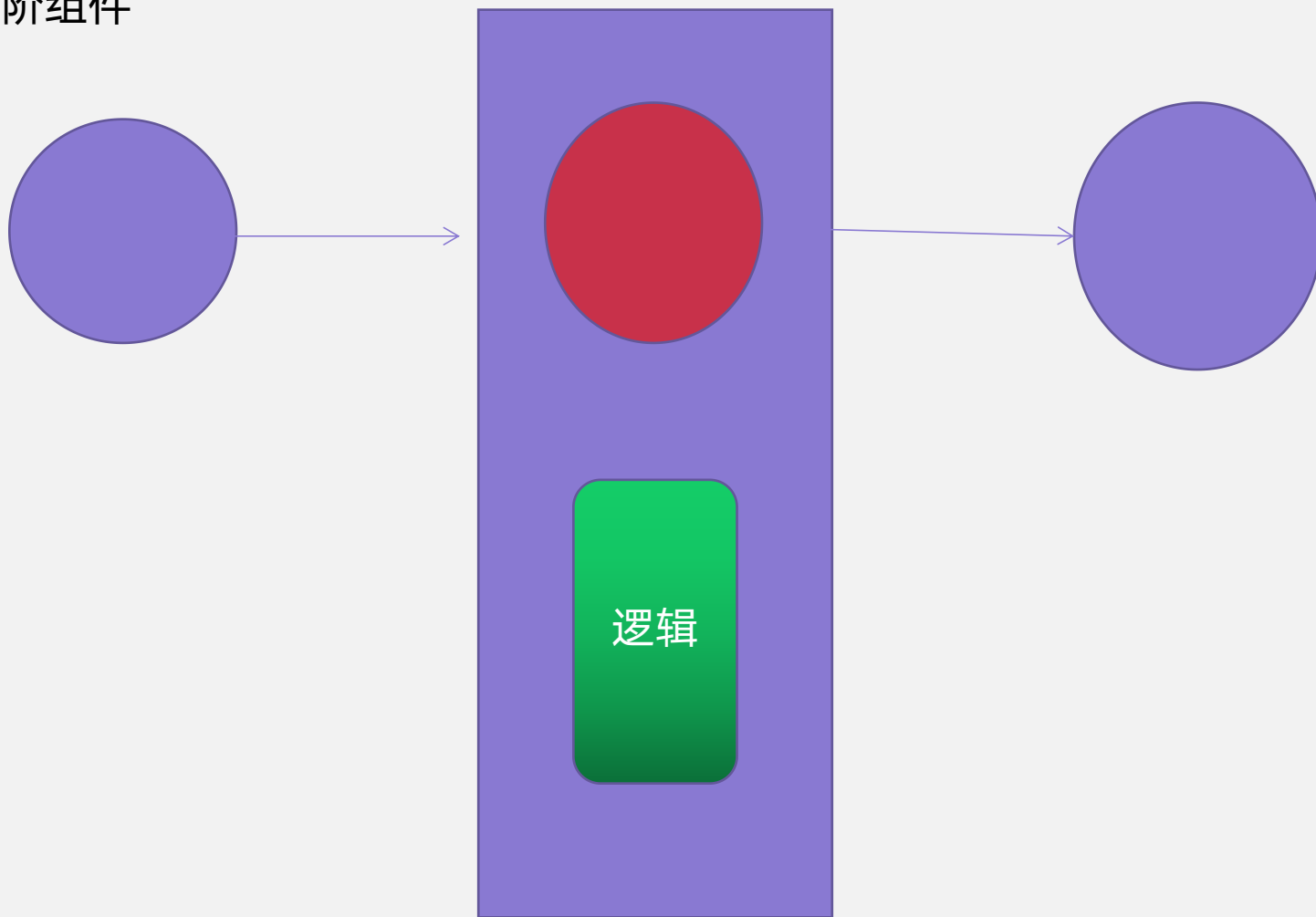
JSX语法-常用的几种组件

高阶组件

抽离出逻辑代码,实现逻辑的重用,和UI布局进行隔离,少写重复代码,早点下班

JSX语法-常用的几种组件

3. 高阶组件

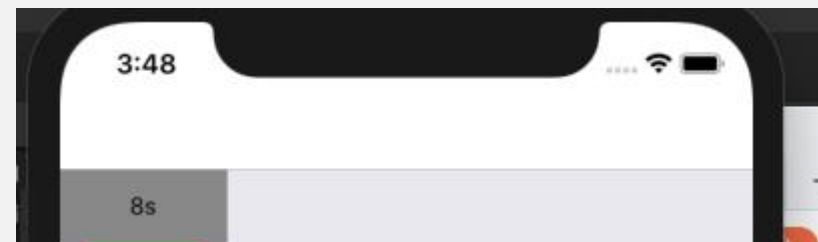


JSX语法-常用的几种组件

写一个高阶组件实现定时器逻辑

```
import CountdownBtn1 from './CountDownBtn1'

<CountDownBtn1
  maxDuration={10}
  status={this.state.status1} onPress={()=>{
    this.setState({
      status1:'going'
    })
  }}
  onChange={(status)=>{
    this.setState({
      status1:status
    })
  }}
  >
```



JSX语法-常用的几种组件

CountDownBtn1 代码如下

```
import React, { PureComponent } from 'react';
import { Text,TouchableOpacity,StyleSheet } from 'react-native';
import countdown from './countdown.js'

class Index extends PureComponent {
  render() {
    return (
      <TouchableOpacity
        style={[styles.btn,this.props.status=='going'?styles.btnInvalid:null]}
        onPress={()=>{
          this.props.status=='going'?null:this.props.onPress()
        }}>
        <Text>{this.props.status=='going'?this.props.duration+'s':'发送验证码'}</Text>
      </TouchableOpacity>
    );
  }
}

export default countdown(Index);
```


JSX语法-常用的几种组件

```
import React, { PureComponent } from 'react';

export default Countdown = (WrapComponent) => {
  return class extends PureComponent {
    state = {
      duration: 60,
      timer: null
    }
    componentDidMount() {
      if (this.props.status === 'going') {
        this.tick()
      }
    }
  }
}
```

```
tick() {
  if (this.props.maxDuration) {
    this.setState({
      duration: this.props.maxDuration
    })
  }
  if (this.state.timer) {
    clearInterval(this.state.timer)
    this.setState({
      timer: null
    })
  } else {
    this.state.timer = setInterval(() => {
      let duration = this.state.duration
      this.setState({
        duration: --duration
      })

      if (this.state.duration === 0) {
        this.props.onChange && this.props.onChange('stop')
        this.stopTick()
      }
    }, 1000);
  }
}
```

JSX语法-常用的几种组件

```
stopTick(){
  if(this.state.timer){
    clearInterval(this.state.timer)
    this.setState({
      timer:null
    })
  }
}

// 接收到的参数发生变化时
componentWillReceiveProps(nextProps){
  if(nextProps.status==='going'){
    this.tick()
  }
}

render(){
  return <WrapComponent duration={this.state.duration} {...this.props}/>
}
}
```

JSX语法-常用的几种组件

4.子组件是函数的组件

写一个的倒计时组件



JSX语法-常用的几种组件

封装父组件实现业务逻辑

渲染部分交给子组件

```
import React, { Component } from 'react';
class Index extends Component {
  state = {
    date: new Date(),
    timer:null
  };
  componentDidMount(){
    this.tick()
  }
  tick(){
    this.state.timer = setInterval(() => {
      this.setState({
        date:new Date()
      })
    }, 1000);
  }

  render() {
    return (
      <>
        {this.props.children(this.state.date)}
      </>
    );
  }
}

export default Index;
```

JSX语法-常用的几种组件

Clock子组件是一个函数,将数据渲染到组件上

```
class Index extends Component {
  render() {
    return (
      <Clock>
        {(date) => <View style={styles.clock}>
          <Text
            style={styles.clockText}>{this.formateTime(date)}</Text>
          </View>
        </Clock>

      );
    }
    formateTime(date = {}) {
      const toTwoUnit = (num) => {
        return num > 10 ? " " + num : '0' + num
      }
      let components = [date.getHours(), date.getMinutes(),
date.getSeconds()]
      components = components.map(item => toTwoUnit(item))
      return components.join(":")
    }
  }
}
```

JSX语法 - 给组件添加默认值

```
class SearchBar extends Component {  
  static defaultProps = {  
    defaultValue: '默认值',  
  }  
  
  constructor(props) {  
    super(props);  
    this.state = {  
    };  
  }  
  
  render() {  
    return (  
      <View>  
        <TextInput defaultValue={this.props.defaultValue} onChange={this.onChange}/>  
        <Button title="搜索" onPress={()=>{  
          this.props.onSearch()  
        }}/>  
      </View>  
    );  
  }  
}  
  
export default SearchBar;
```

- 给组件添加默认值

```
componentDidMount(){  
  alert(SearchBar.defaultProps.defaultValue)  
}
```

如果不设置这个默认,点击搜索按钮会如何?

```
TypeError: _this2.onSearch is not a function. (In  
'_this2.onSearch()', '_this2.onSearch' is  
undefined)
```

SearchBar
SearchBar.js:7:6

createClass\$argument_0.touchableHandleP

```
class SearchBar extends Component {  
  static defaultProps = {  
    defaultValue: '默认值',  
    onSearch: () => {}  
  }  
  
  constructor(props) {  
    super(props);  
    this.state = {  
    };  
  }  
}
```


- 1.为什么要进行对路由进行管理？
- 2.如何定义路由？
- 3.如何使用路由进行页面跳转和传值？
- 4.路由的可配置参数有哪些？

路由管理


官方推荐: react-navigation
(<https://reactnavigation.org/>)

社区推荐: react-native-router-flux
<https://github.com/aksonov/react-native-router-flux>

 [aksonov / react-native-router-flux](#)

 Used by ▾

20.1k

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219

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布局形式(同时支持iOS和android)
stack(类似聊天列表进入聊天页面)
bottomTabs(底部导航页面)
sideMenu(从左右两个滑出来导航)

路由管理-安装

```
yarn add react-navigation  
yarn add react-navigation-stack  
yarn add react-navigation-tabs  
yarn add react-native-gesture-  
handler  
yarn add react-native-reanimated  
  
npm install --save react-navigation
```

```
yarn add react-navigation-router-flux
```

路由管理-注册-stack

```
import routes,{Login,Me,Index} from './routes'
import {createAppContainer} from 'react-navigation';
import {createStackNavigator} from 'react-navigation-stack'
const StackNavigation = createStackNavigator({
  Login: {
    screen:Login,
    navigationOptions:{
      title:"登录",
      headerTitleStyle:{
        color:'red'
      }
    }
  },
  Index: routes.Index // 路由配置简写
},
{
  initialRouteName:'Login' // 程序首次进入的页面
})
const App = createAppContainer(StackNavigation)

export default App
```

```
import React from 'react'; //不能缺省
import routes,{Login,Me,Index} from './routes'
import {Router,Scene,Modal,Stack} from 'react-native-router-flux'

// 创建一个根组件
const App = ()=>{
  return <Router>
    <Stack key="root">
      <Scene key="Login" component={Login} title="登录"
titleStyle={{color:'red'}}/>
      <Scene key="Index" component={Index} title="首页"/>
    </Stack>
  </Router>
}
export default App
```

路由管理-注册-stack

```
//routes.js
```

```
import Login from  
'../pages/login/index';  
import Index from  
'../pages/index/index';  
import Me from '../pages/me';
```

```
export default {  
  Login,  
  Index,  
  Me  
}
```

```
export {  
  Login,  
  Index,  
  Me  
}
```

```
//index.js
```

```
import {AppRegistry} from 'react-  
native';  
import {name as appName} from  
'./app.json';  
import App from './src/router/index'
```

```
AppRegistry.registerComponent(app  
Name, () => App);
```



路由管理-注册-stack

```
import routes,{Login,Me,Index} from './routes'
import {createAppContainer} from 'react-navigation';
import {createStackNavigator} from 'react-navigation-stack'
import { createBottomTabNavigator } from 'react-navigation-tabs';
import React from 'react';
import {Image} from 'react-native';
const tabNavigation = createBottomTabNavigator({
  Index:{
    screen:Index,
    navigationOptions:{
      tabBarLabel:'首页',
      tabBarIcon:({focused,tintColor})=>{
        return <Image resizeMode="contain" style={{width:20,height:20}}
source={focused?require("../assets/images/index_press.png"):require("../assets/images/index.png")}/>
      }
    },
  },
  Me:{
    screen:Me,
    navigationOptions:{
      tabBarLabel:'我的',
      tabBarIcon:({focused,tintColor})=>{
        return <Image resizeMode="contain" style={{width:20,height:20}}
source={focused?require("../assets/images/me_press.png"):require("../assets/images/me.png")}/>
      }
    },
  },
},
{
  initialRouteName: "Index",
  lazy: true,
  tabBarOptions: {
    inactiveTintColor: "#8F8F8F",
    activeTintColor: "#ED5601",
    labelStyle: {
      fontSize: 11
    }
  }
});
const App = createAppContainer(tabNavigation)
export default App
```

```
import {Image} from 'react-native';
import React from 'react'; //不能缺省
import routes,{Login,Me,Index} from './routes'
import {Router,Scene,Modal,Stack,Tabs} from 'react-native-router-flux'

// // 创建一个根组件
const App = ()=>{
  return <Router>
    <Tabs key="root" activeTintColor="#ED5601" inactiveTintColor="#8F8F8F"
labelStyle={{fontSize:11}}>
      <Scene key="Index" component={Index} title="首页" icon={tabIcon}/>
      <Scene key="Me" component={Me} title="我的" icon={tabIcon}/>
    </Tabs>
  </Router>
}
export default App

const tabIcon = ({ focused, title }) => {
  let list = {
    '首页': {
      icon: require('../assets/images/index.png'),
      activelcon: require('../assets/images/index_press.png')
    },
    '我的': {
      icon: require('../assets/images/me.png'),
      activelcon: require('../assets/images/me_press.png')
    }
  }
  let item = list[title]
  if (!focused) {
    return (
      <Image resizeMode="contain" style={{ width: 20, height: 20 }} source={item.icon} />
    );
  } else {
    return (
      <Image resizeMode="contain" style={{ width: 20, height: 20 }} source={item.activelcon}
/>>
    );
  }
}
```

路由管理-注册-bottomTabs



路由管理-注册-sideMenu

```
import routes,{Login,Me,Index} from './routes'
import {createAppContainer} from 'react-navigation';
import { createDrawerNavigator } from 'react-navigation-drawer';
import React from 'react';
import {Image} from 'react-native';
const drawerNavigator = createDrawerNavigator({
  Index:{
    screen:Index,
    navigationOptions:{
      drawerLabel:'首页',
      drawerIcon:({focused})=>{
        return <Image style={{width:20,height:20}}
source={focused?require("../assets/images/index_press.png"):require("../assets/images/index.png")}/>
      }
    },
  },
  Me:{
    screen:Me,
    navigationOptions:{
      drawerLabel:'我的页面',
      drawerIcon:({focused})=>{
        return <Image style={{width:20,height:20}}
source={focused?require("../assets/images/me_press.png"):require("../assets/images/me.png")}/>
      }
    },
  },
},
{
  initialRouteName: 'Index',
  drawerBackgroundColor:'black',
  drawerType:'front',
  contentOptions: {
    activeTintColor: 'red',
    inactiveTintColor:'white'
  },
})
const App = createAppContainer(drawerNavigator)

export default App
```

```
import {Image,Text,SafeAreaView,ScrollView} from 'react-native';
import React from 'react'; //不能缺省
import routes,{Login,Me,Index} from './routes'
import {Router,Scene,Modal,Stack,Tabs,Drawer} from 'react-native-router-flux'
import { DrawerItems } from 'react-navigation-drawer';
const App = ()=>{
  return <Router>
  <Drawer key="root" contentComponent={({props})=>{
    return <ScrollView>
    <SafeAreaView>
    >
    <DrawerItems activeTintColor="red" {...props} renderIcon={({t})=>{
      return tabIcon({focused:t.focused,title:t.route.routes[0].params.title})
    }}/>
    </SafeAreaView>
    </ScrollView>
  }}>
    <Scene key="Index" drawer={true} component={Index} title="首页" drawerIcon={tabIcon}
drawerLabel="首页" />
    <Scene key="Me" drawer={true} component={Me} title="我的" drawerIcon={tabIcon}
drawerLabel="我的" />
  </Drawer>
</Router>
}
const tabIcon = ({ focused, title }) => {
  let list = [
    '首页': {
      icon: require('../assets/images/index.png'),
      activelcon: require('../assets/images/index_press.png')
    },
    '我的': {
      icon: require('../assets/images/me.png'),
      activelcon: require('../assets/images/me_press.png')
    }
  ]
  let item = list[title]
  if (!focused) {
    return (
      <Image resizeMode="contain" style={{ width: 20, height: 20 }} source={item.icon} />
    );
  } else {
    return (
      <Image resizeMode="contain" style={{ width: 20, height: 20 }} source={item.activelcon}
/>
    );
  }
}
export default App
```


路由管理-Stack页面跳转和传值

Reset - 用新状态替换当前状态

Replace - 用给定的 key 替换另一条路由

Push - 在堆栈顶部添加一条路由，并向前导航至该路由

Pop - 导航回到之前的路由

PopToTop - 导航到堆栈的顶部路由，销毁所有其他路线

```
import { StackActions } from 'react-navigation';
```

```
const pushAction = StackActions.push({  
  routeName: 'Profile',  
  params: {  
    myUserId: 9,  
  },  
});
```

```
this.props.navigation.dispatch(pushAction);
```

```
pop: () => void;
```

```
popAndPush
```

```
popTo
```

```
push
```

```
refresh: (props?: any) => void;
```

```
replace
```

```
reset
```

```
// 刷新当前页面
```

```
Actions.refresh({name:'xxx'})
```

```
// props参数改变时触发
```

```
componentWillReceiveProps(nextProps){
```

```
  alert(JSON.stringify(nextProps.navigation.state.params.name))  
}
```

路由管理-注册-bottomTabs

```
import { SwitchActions } from 'react-  
navigation';
```

// 切换tab页面

```
this.props.navigation.dispatch(SwitchAc  
tions.jumpTo({routeName:'Me' }));
```

// 获取参数

```
this.props.navigation.state.params.nam  
e
```

```
import {Actions} from 'react-native-router-  
flux';
```

// 跳转页面

```
Actions.jump('Me',{name:'xxx',age:'xxx'})
```

路由管理-打开关闭-Drawer

```
import { DrawerActions } from 'react-navigation-drawer';
```

```
// 打开
```

```
this.props.navigation.dispatch(DrawerActions.openDrawer())
```

```
// 关闭
```

```
this.props.navigation.dispatch(DrawerActions.closeDrawer())
```

```
import {Actions} from 'react-native-router-flux'
```

```
// 打开
```

```
Actions.drawerOpen()
```

```
// 关闭
```

```
Actions.drawerClose()
```

路由管理-注册-SwitchNavigator

SwitchNavigator 的用途是一次只显示一个页面。默认情况下，它不处理返回操作，并在你切换时将路由重置为默认状态

```
export default
createAppContainer(createSwitchNavigator(
  r(
    {
      AuthLoading: AuthLoadingScreen,
      App: AppStack,
      Auth: AuthStack,
    },
    {
      initialRouteName: 'AuthLoading',
    }
  ));
```

路由切换

```
import { SwitchActions } from 'react-
navigation';
```

```
this.props.navigation.dispatch(SwitchAction
s.jumpTo({ routeName }));
```

常用功能介绍

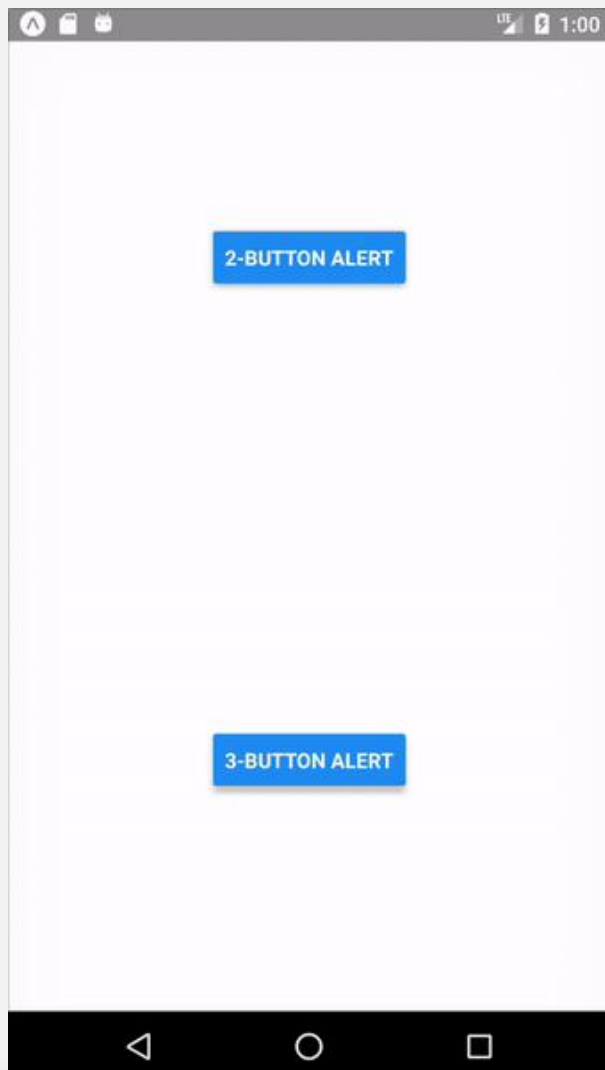
<https://facebook.github.io/react-native/docs/getting-started.html>

- 1.网络请求
- 2.弹窗
- 3.数据存储
- 4.复制粘贴功能
- 5.获取屏幕尺寸信息
- 6.获取平台信息

常用功能介绍-网络请求

```
fetch('http://chenxiaoping.com/demo', {  
  //请求方式, GET或POST  
  method: 'POST',  
  
  //请求头定义  
  headers: {  
    'Accept': 'application/json',  
    'Content-Type': 'application/json',  
  },  
  
  //body: JSON.stringify({  
    // firstParam: 'value1',  
    // secondParam: 'value1',  
    // }),  
}).then((response) => response.json()).then(  
  //响应体, response.json拿到的就已经是转化好的jsonObject了, 使用起来就非常简便  
  (responseJson) => {  
    //输出打印current_user_url字段, 输出的内容可以直接在androidStudio日志输出里面看到  
    console.log("请求回调: " + responseJson.current_user_url);  
  }  
)
```

常用功能介绍-弹窗



```
// Works on both Android and iOS
Alert.alert(
  'Alert Title',
  'My Alert Msg',
  [
    {
      text: 'Ask me later',
      onPress: () => console.log('Ask me later pressed')},
    {
      text: 'Cancel',
      onPress: () => console.log('Cancel Pressed'),
      style: 'cancel',
    },
    {text: 'OK', onPress: () => console.log('OK Pressed')},
  ],
  {cancelable: false},
);
```

常用功能介绍-数据存储

业务场景 缓存用户token

仓库地址

<https://github.com/react-native-community/async-storage>

安装

```
yarn add @react-native-community/async-storage
```

react-native link

```
cd ios && pod install
```


常用功能介绍-数据存储

使用

```
import AsyncStorage from '@react-native-community/async-storage';
```

// 存储数据

```
storeData = async () => {  
  try {  
    await AsyncStorage.setItem('@storage_Key', 'stored value')  
  } catch (e) {  
    // saving error  
  }  
}
```

// 读取数据

```
getData = async () => {  
  try {  
    const value = await AsyncStorage.getItem('@storage_Key')  
    if(value !== null) {  
      // value previously stored  
    }  
  } catch(e) {  
    // error reading value  
  }  
}
```

常用功能介绍 - 复制粘贴功能

```
import { Clipboard } from 'react-native';

// 写入数据
Clipboard.setString("手机号码")

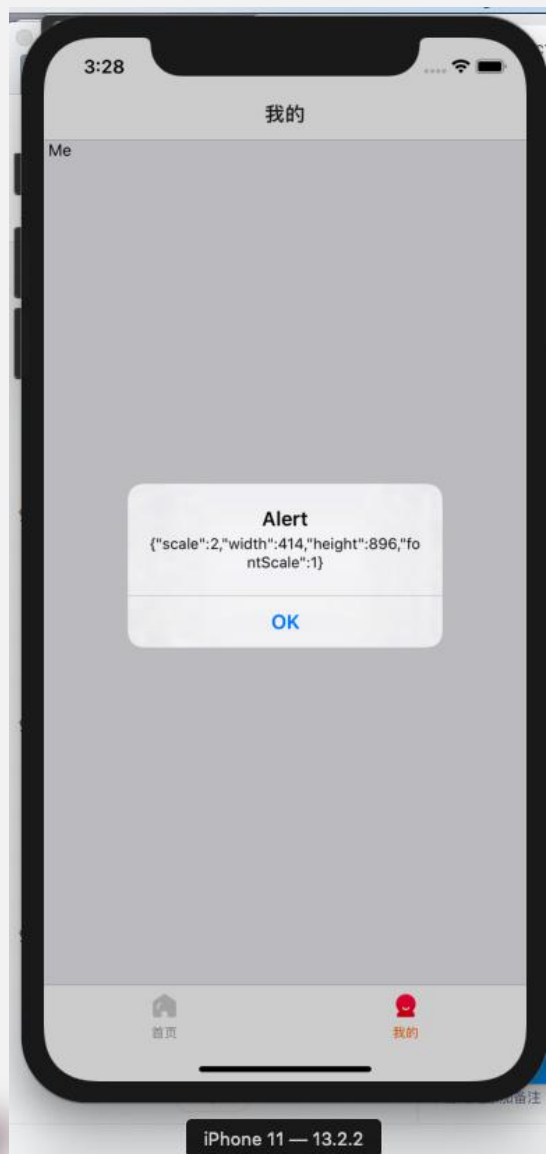
// 读取数据
Clipboard.getString().then(res=>{
  alert(res)
})
```

```
readData= async ()=>{
  try{
    const data = await Clipboard.getString()
    alert(data)
  }catch(e){
  }
}

this.readData()
```

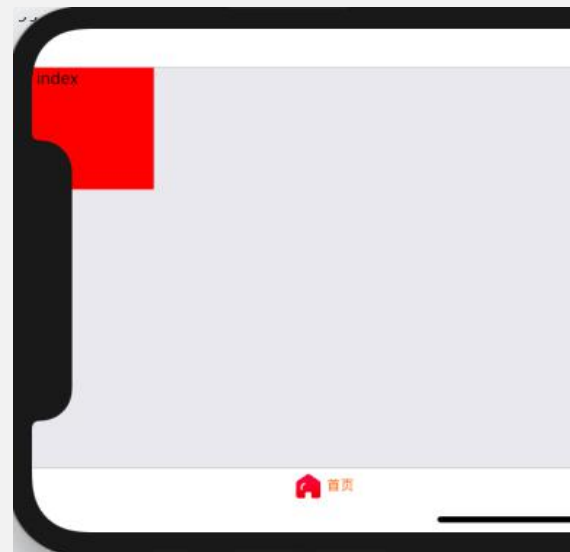


常用功能介绍 - 获取屏幕尺寸信息



```
import {Dimensions } from 'react-native';  
alert(JSON.stringify(Dimensions.get('window')))  
const {width,height,scale,fontScale} = Dimensions.get('screen')
```

常用功能介绍-处理屏幕旋转问题

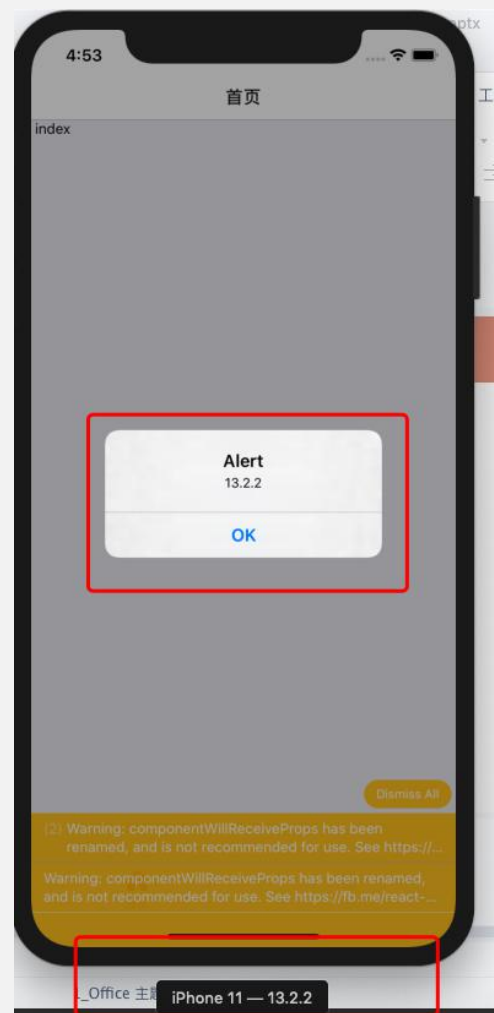


```
Dimensions.addListener('change',({window,screen})=>{
    alert(window)
})
```

```
Dimensions.removeListener('change')
```

常用功能介绍-获取平台信息

```
import { Platform } from 'react-native';  
Platform.OS      // ios android  
Platform.Version // 13.2.2
```



屏幕适配

设备名称	屏幕尺寸	PPI	Asset	竖屏点 (point)	竖屏分辨率 (px)
iPhone XS MAX	6.5 in	458	@3x	414 x 896	1242 x 2688
iPhone XS	5.8 in	458	@3x	375 x 812	1125 x 2436
iPhone XR	6.1 in	326	@2x	414 x 896	828 x 1792
iPhone X	5.8 in	458	@3x	375 x 812	1125 x 2436
iPhone 8+ , 7+ , 6s+ , 6+	5.5 in	401	@3x	414 x 736	1242 x 2208
iPhone 8, 7, 6s, 6	4.7 in	326	@2x	375 x 667	750 x 1334
iPhone SE, 5, 5S, 5C	4.0 in	326	@2x	320 x 568	640 x 1136
iPhone 4, 4S	3.5 in	326	@2x	320 x 480	640 x 960
iPhone 1, 3G, 3GS	3.5 in	163	@1x	320 x 480	320 x 480
iPad Pro 12.9	12.9 in	264	@2x	1024 x 1366	2048 x 2732
iPad Pro 10.5	10.5 in	264	@2x	834 x 1112	1668 x 2224
iPad Pro, iPad Air 2, Retina iPad	9.7 in	264	@2x	768 x 1024	1536 x 2048
iPad Mini 4, iPad Mini 2	7.9 in	326	@2x	768 x 1024	1536 x 2048
iPad 1, 2	9.7 in	132	@1x	768 x 1024	768 x 1024



屏幕适配

pt: iOS开发单位, 即point, 绝对长度, 约等于0.16毫米



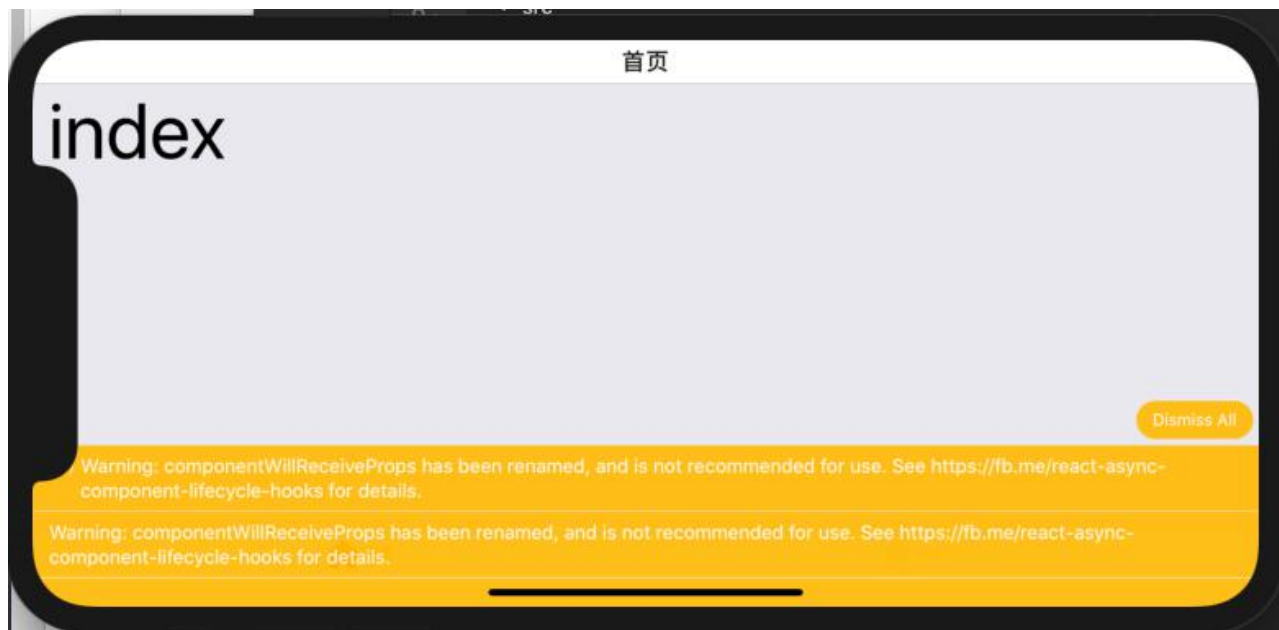
屏幕适配

原理 根据设计稿尺寸 动态计算其它屏幕的对应的pt

设计稿尺寸 \times (实际屏幕宽度尺寸/设计稿宽度)

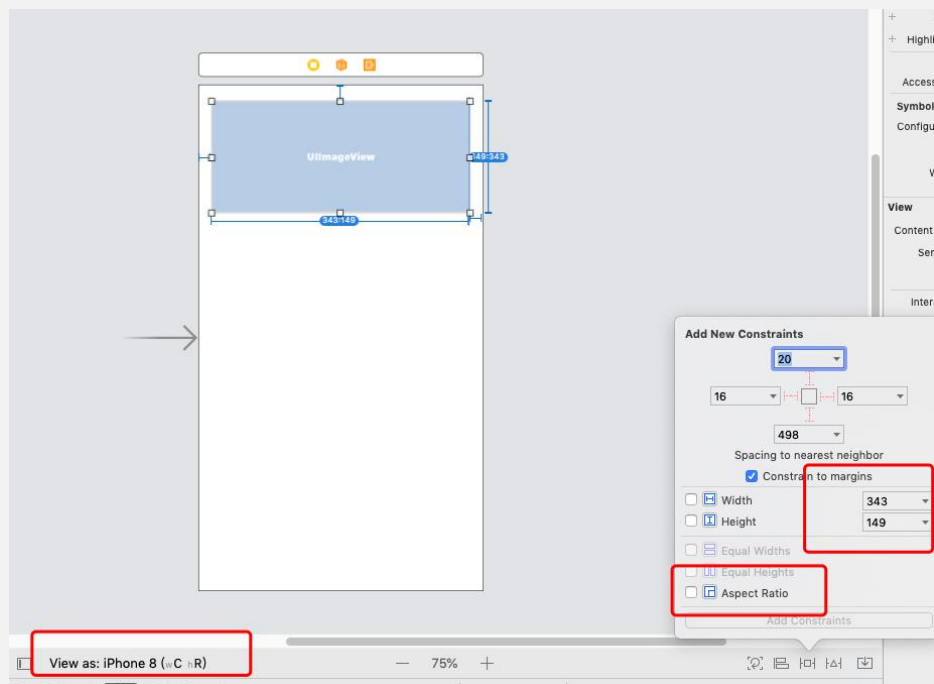
```
const sw = (width)=>{  
  return parseInt(width * Dimensions.get('window').width/375.0)  
}  
  
const style1 =StyleSheet.create({  
  text:{  
    marginLeft:sw(40),  
    width:sw(355),  
    height:sw(100),  
    backgroundColor:'red'  
  }  
})
```


屏幕适配

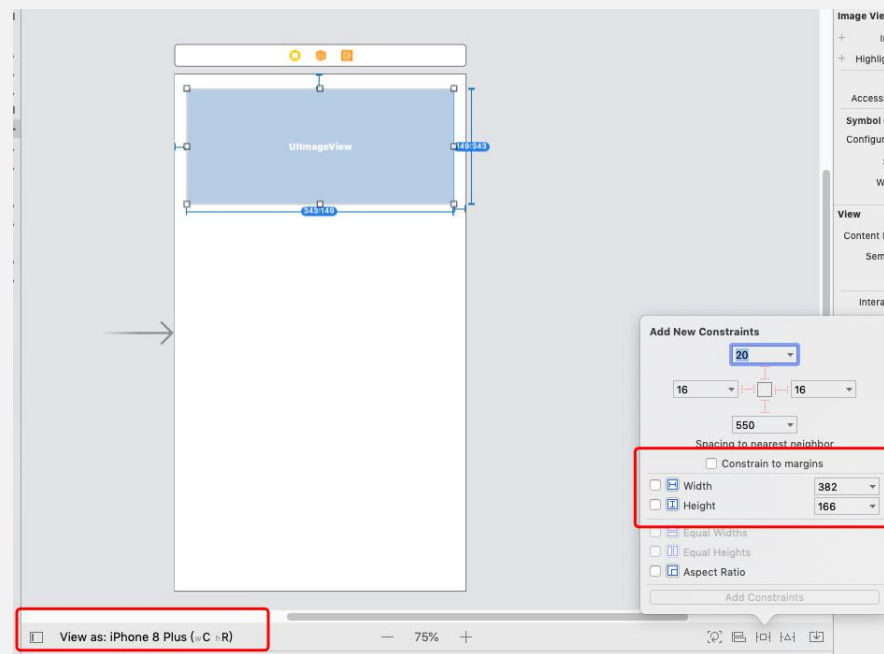


大屏的目的是显示更多的内容,而不仅仅是把内容放大

屏幕适配



ipone8显示尺寸



iphone 8P 显示尺寸

屏幕适配

- 1.字体使用设计稿上的pt单位
- 2.如果是按照比例显示使用 `aspectRatio`(宽/高的值)

```
text:{  
  marginLeft:sw(40),  
  width:100,  
  aspectRatio:1.5,  
  backgroundColor:'red'  
}
```

- 3.特殊布局使用sw 进行适配
- 4.如果是非绝对布局(position),请全部使用flex布局

打包发布

ios 打包发布详情流程

<https://www.jianshu.com/p/d3dc262cffa4>

android 打包发布详细流程

<https://www.jianshu.com/p/3acba4233bc6>

结束

欢迎上船,稳住 我们能赢!