
AngularJS技术 开发混合式移动应用

@hygkui
2016.3.4

Hybrid App

- ❖ 介于原生应用开发和网页开发之间
- ❖ 目前主要的形式是以JS+Native两者相互调用为主，在开发层面实现“一次开发，多处运行”的机制，成为真正的跨平台的开发。
- ❖ 开发与迭代速度快，无需学习复杂的原生开发，用自己擅长的web开发，就可以开发移动应用了。
- ❖ 当然也有缺点，比如和原生相比的性能问题，图形和动画等渲染效果等。

为什么使用框架

- ❖ 设计良好的项目组织方式
- ❖ 内建的强大功能
- ❖ 标准的编码规范



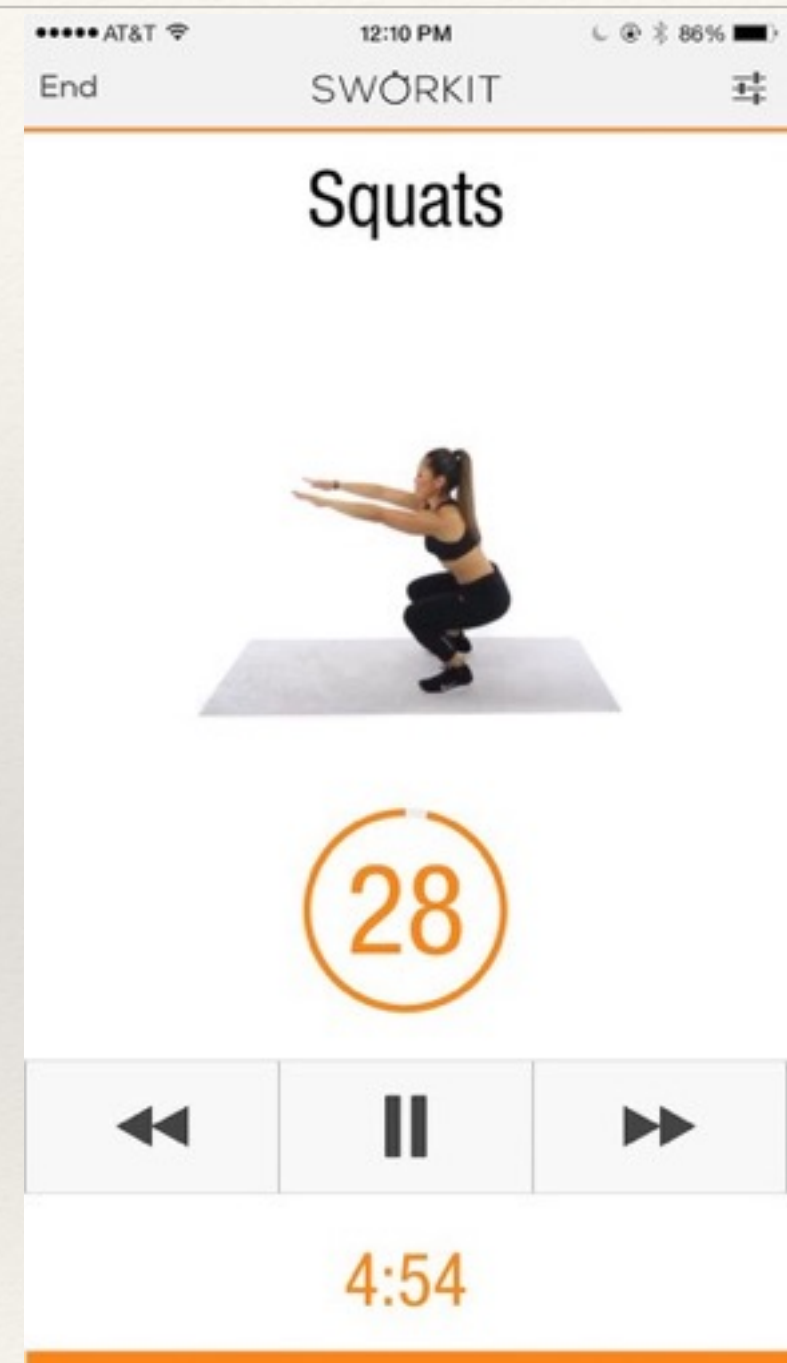
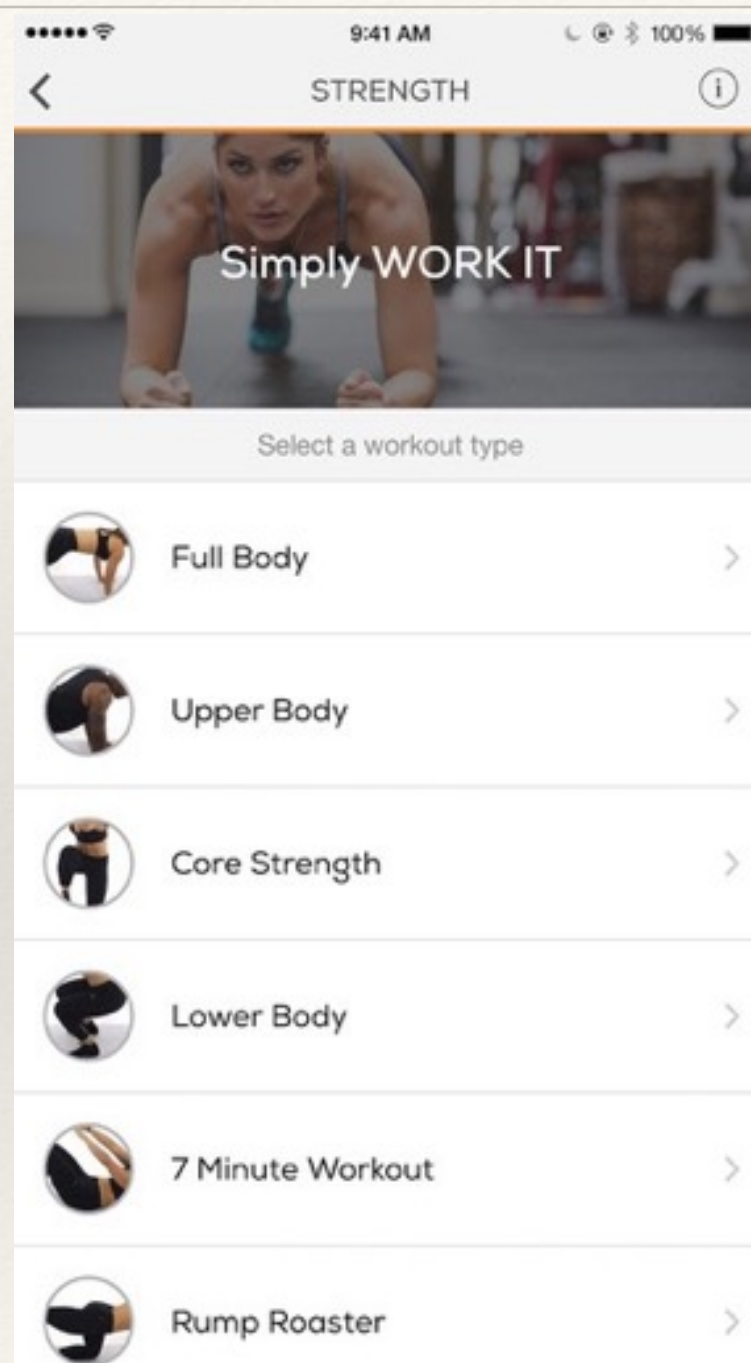
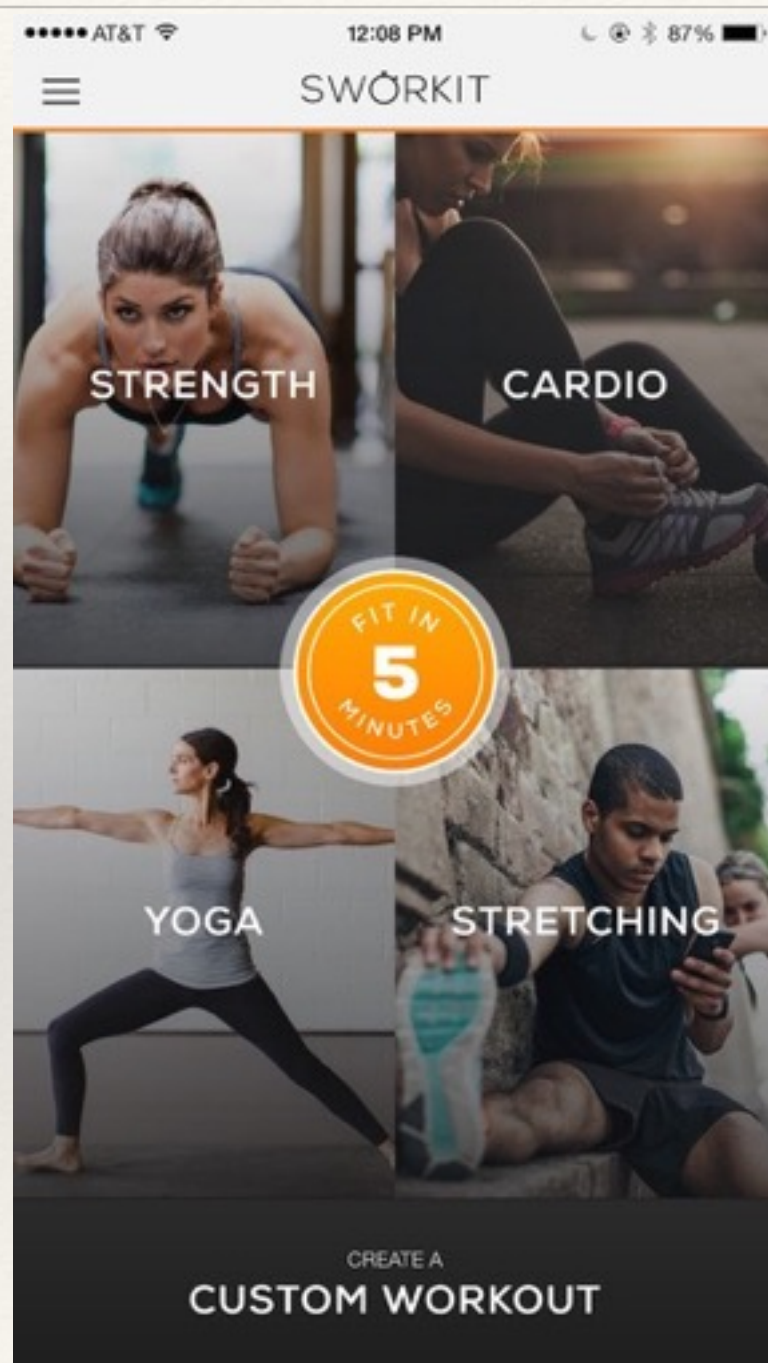
❖ Ionic 框架简介

- ❖ 建立原生App的SDK
- ❖ 使用现代web技术进行开发
- ❖ 是多种最佳实践的框架技术的超级框架
 - ❖ Ionic通过AngularJS创建和使用UI组件、视图、控制器和跳转(routing)
 - ❖ 通过Cordova(PhoneGap)来调用设备的原生api

几个Ionic开发的案例



私人教练



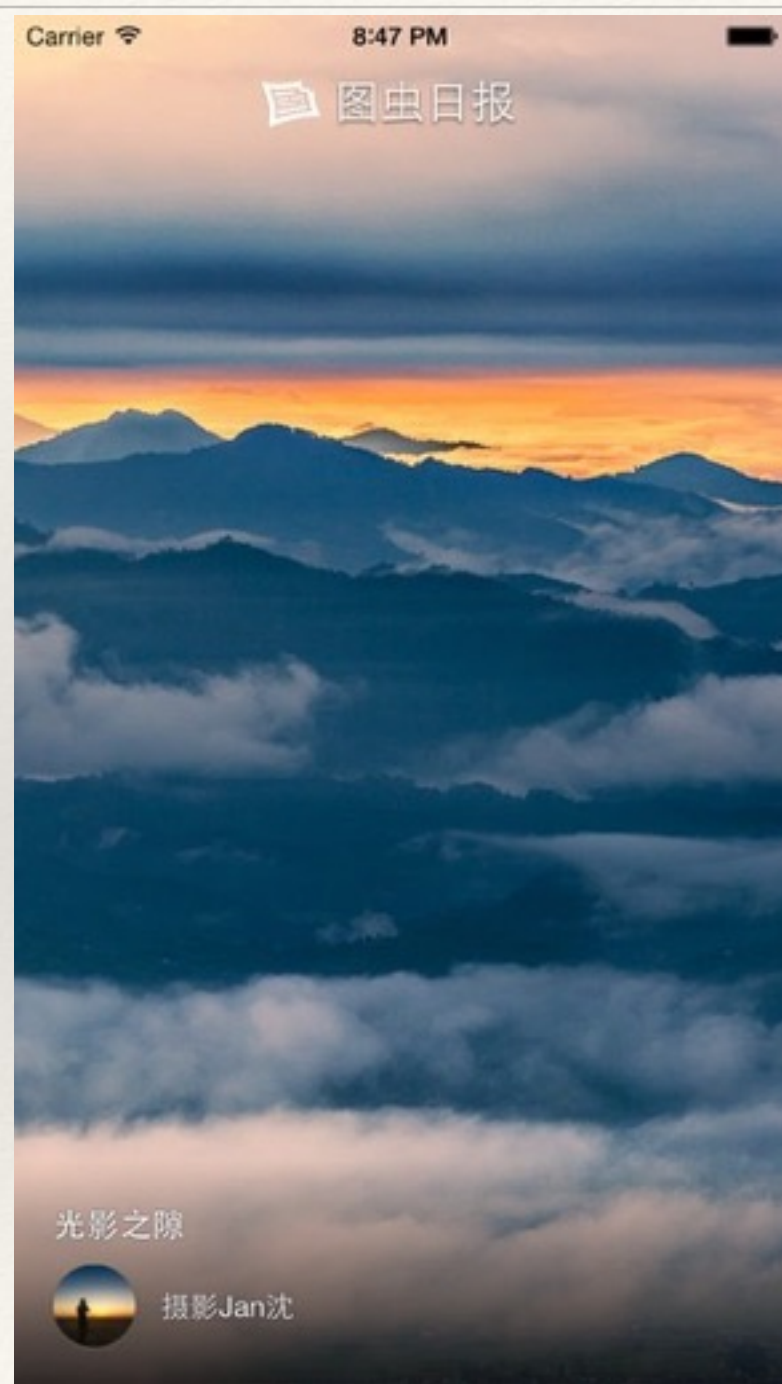



CNodeJs中文社区






图虫日报



 22,589 stars

 4,162 forks

 Twitter

- ❖ Latest Version: 1.2.0 “copenhagen”
- ❖ Released: 2015-12-10
- ❖ AngularJS v1.4.3
- ❖ cordova-android/4.0.2 cordova-ios/3.8.0
- ❖ Ionic 2.0 beta (AngularJS 2.0)
 - ❖ stable version will release soon in 2016



Ionic 技术栈

Ionic Stack



AngularJS



NodeJS



Sass



Bower



Cordova



Gulp



Travis CI




整合了众多开发最佳实践



HTML enhanced for web apps!

[View on GitHub](#)[Download](#) (1.3.15 / 1.4.0)[Design Docs & Notes](#)

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Learn Angular in your browser for free!



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Apache Cordova is a platform
for building native mobile
applications using **HTML, CSS**
and **JavaScript**

DOWNLOAD

Cordova version 5.0.0



About Apache Cordova™

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Node.js® is a platform built on **Chrome's JavaScript runtime** for easily building fast, scalable network applications. Node.js uses an event-driven, non-blocking I/O model that makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

Current Version: v0.12.4

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NODE.JS ON THE ROAD

PRODUCTION NODE HITS THE PAVEMENT
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CSS with superpowers



Sass is the most mature, stable, and powerful professional grade CSS extension language in the world.

[Current Release: Selective Steve \(3.4.14\)](#)

[Release Notes](#)

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Bower

A package manager for the web

[Home](#)[Install Bower](#)[Getting started](#)[@bower](#)[Creating packages](#)[API](#)[Configuration](#)[Tools](#)[About](#)

Web sites are made of lots of things — frameworks, libraries, assets, utilities, and rainbows. Bower manages all these things for you.

Bower works by fetching and installing packages from all over, taking care of hunting, finding, downloading, and saving the stuff you're looking for. Bower keeps track of these packages in a manifest file, `bower.json`. How you use packages is up to you. Bower provides hooks to facilitate using packages in your [tools and workflows](#).

Bower is optimized for the front-end. Bower uses a flat dependency tree, requiring only one version for each package, reducing page load to a minimum.

[Docs](#) | [Plugins](#) | [Twitter](#)

Gulp

Automate and enhance your workflow

Try it now

OVERVIEW

CSS

Header

Content

Footer

Buttons

Block

Full Width

Different Sizes

Outlined

Clear

Icons

Headers/Footers

Clear Buttons in
Headers

Button Bar

List

Cards

Forms

Toggle

Checkbox

Radio Buttons

Range

Select

Tabs

```
<button>  
</div>
```

Buttons

Ah, the Button, an essential part of any mobile experience. Like the [Header](#), they come in the full spectrum of Ionic's [default colors](#).

By default a button has `display: inline-block` applied. Other options include `block` buttons for a full width.

```
<button class="button">  
  Default  
</button>  
  
<button class="button button-light">  
  button-light  
</button>  
  
<button class="button button-stable">  
  button-stable  
</button>  
  
<button class="button button-positive">  
  button-positive  
</button>  
  
<button class="button button-calm">  
  button-calm  
</button>
```

Buttons

button-light

button-stable

button-positive

button-calm

button-balanced

button-energized

button-assertive

button-royal

button-dark

OVERVIEW

CSS

JAVASCRIPT

Action Sheet

Backdrop

Content

Form Inputs

Gestures and Events

Headers/Footers

Keyboard

Lists

Loading

Modal

Navigation

Platform

Popover

Popup

Scroll

Side Menus

Slide Box

Spinner

Tabs

Tap & Click

ion-list

Delegate: `$ionicListDelegate`

[View Source](#)[Improve this doc](#)

The List is a widely used interface element in almost any mobile app, and can include content ranging from basic text all the way to buttons, toggles, icons, and thumbnails.

Both the list, which contains items, and the list items themselves can be any HTML element. The containing element requires the `list` class and each list item requires the `item` class.

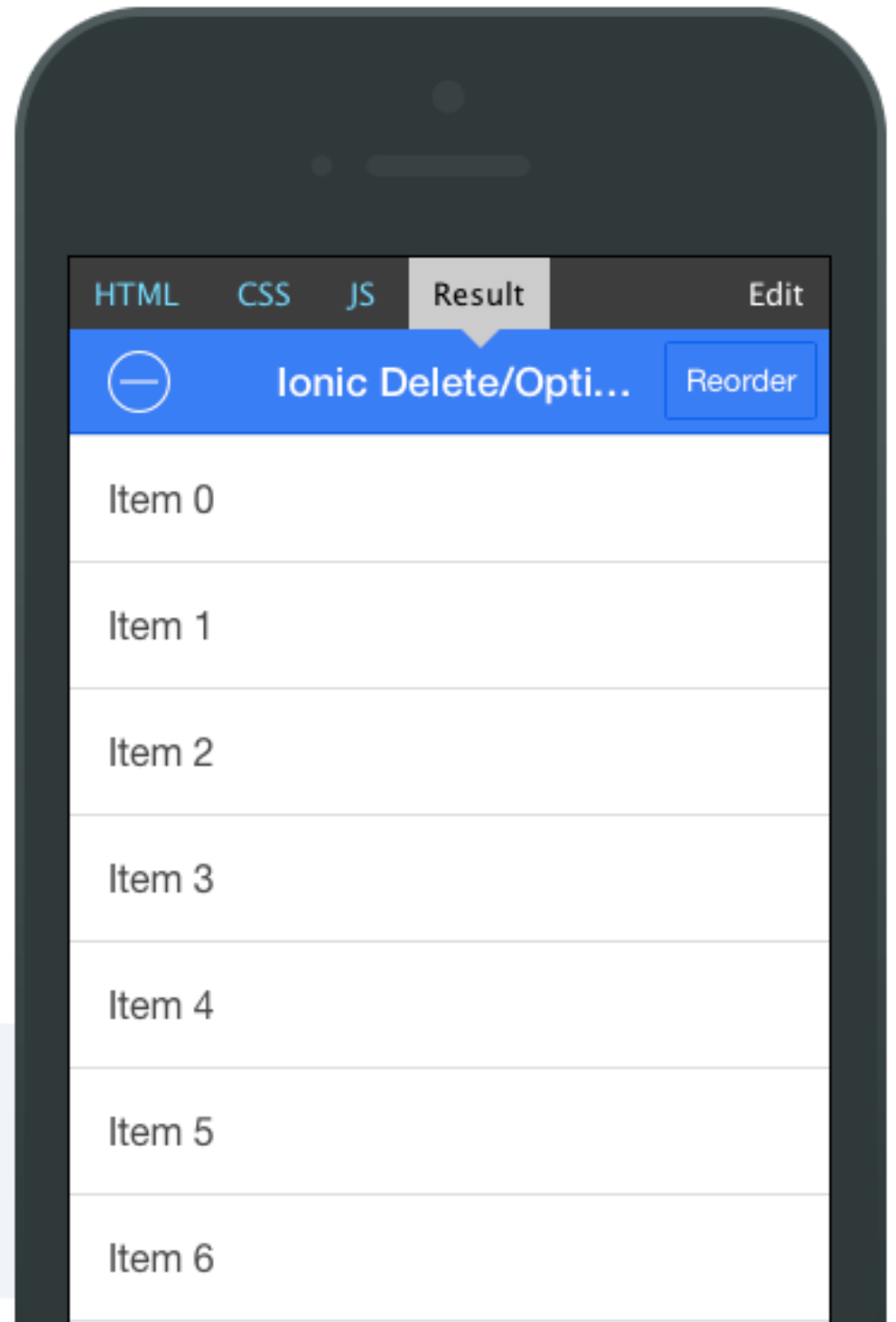
However, using the `ionList` and `ionItem` directives make it easy to support various interaction modes such as swipe to edit, drag to reorder, and removing items.

Related: `ionItem`, `ionOptionButton`, `ionReorderButton`, `ionDeleteButton`, [list CSS documentation](#).

Usage

Basic Usage:

```
<ion-list>
  <ion-item ng-repeat="item in items">
    Hello, {{item}}!
  </ion-item>
</ion-list>
```



准备工作

<code>\$npm install -g cordova ionic</code>	安装必备
<code>\$ionic start myIonicApp tabs</code>	使用tabs模版创建项目
<code>\$cd myIonicApp</code>	
<code>\$ionic platform add ios</code>	添加iOS平台
<code>\$ionic build ios</code>	构建iOS应用
<code>\$ionic emulate ios</code>	运行模拟器执行
<code>\$ionic serve</code>	通过浏览器模拟

- ❖ 详细请参考网页链接
 - ❖ 开启ionicframework之旅
 - ❖ 使用ionic+angular+phonegap开发APP入门
 - ❖ 命令行CheetSheet

Ionic creator

- ❖ 通过拖拽就可以创建应用的原型
- ❖ 可以直接作为项目的模板启动开发项目

lanister

EDITTEST

PAGES

form

云豆绘本馆，连接绘本世界

批准还书

申请还书

还书结果

申请借书

批准借书

借书结果

COMPONENTS

Button Bar

Button

Card

Heading

绘本馆自助借阅应用

还书

借书

书名，Tag等关键字

云豆绘本馆，连接绘本世界

www.cloud-bean.com

TITLE

绘本馆自助借阅应用

ROUTING URL

/home

SCROLLING

HEADER MARGIN

FOOTER MARGIN

Delete Page

Find a bug?

Tweet

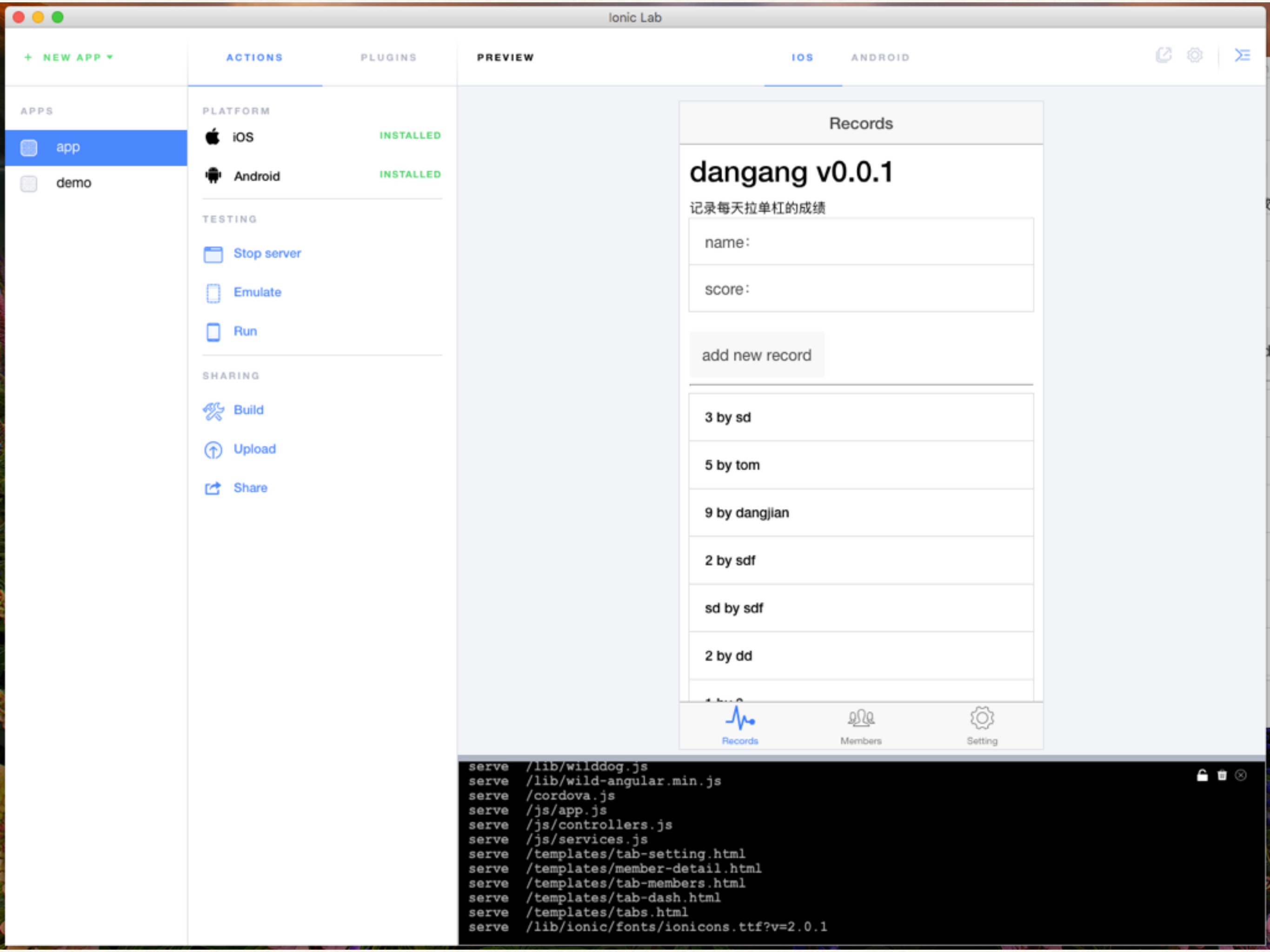
Plus

Star

<https://creator.ionic.io/app/dashboard/projects>

Ionic lab 集成开发界面

- ❖ 提供新建项目模板，预览效果，调用模拟器，日志，自动刷新，编译，上传，分享等工具



+ NEW APP ▾

ACTIONS

PLUGINS

PREVIEW

IOS

ANDROID



APPS



app



demo

PLATFORM



iOS

INSTALLED



Android

INSTALLED

TESTING



Stop server



Emulate



Run

SHARING



Build



Upload



Share

Records

dangang v0.0.1

记录每天拉单杠的成绩

name:

score:

add new record

3 by sd

5 by tom

9 by dangjlan

2 by sdf

sd by sdf

2 by dd



Records



Members



Setting

```
serve /lib/wilddog.js
serve /lib/wild-angular.min.js
serve /cordova.js
serve /js/app.js
serve /js/controllers.js
serve /js/services.js
serve /templates/tab-setting.html
serve /templates/member-detail.html
serve /templates/tab-members.html
serve /templates/tab-dash.html
serve /templates/tabs.html
serve /lib/ionic/fonts/ionicons.ttf?v=2.0.1
```





Ionic

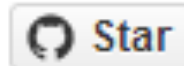
Over 500 custom designed font icons MIT
licensed & ready to use with ionic.

icon font



The premium icon font for [Ionic Framework](#).
100% free and open source. MIT Licensed.

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6,902

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Version 2.0.1 - [GitHub](#) - [CDN](#)

left



Ionic resources

- ❖ **ionic resources** 命令会为项目里的每一个平台生成图标和启动页，把他们交给Ionic的缩放剪切服务器
- ❖ 生成图片之后会更新config.xml来包含图标和启动页

Ionic view

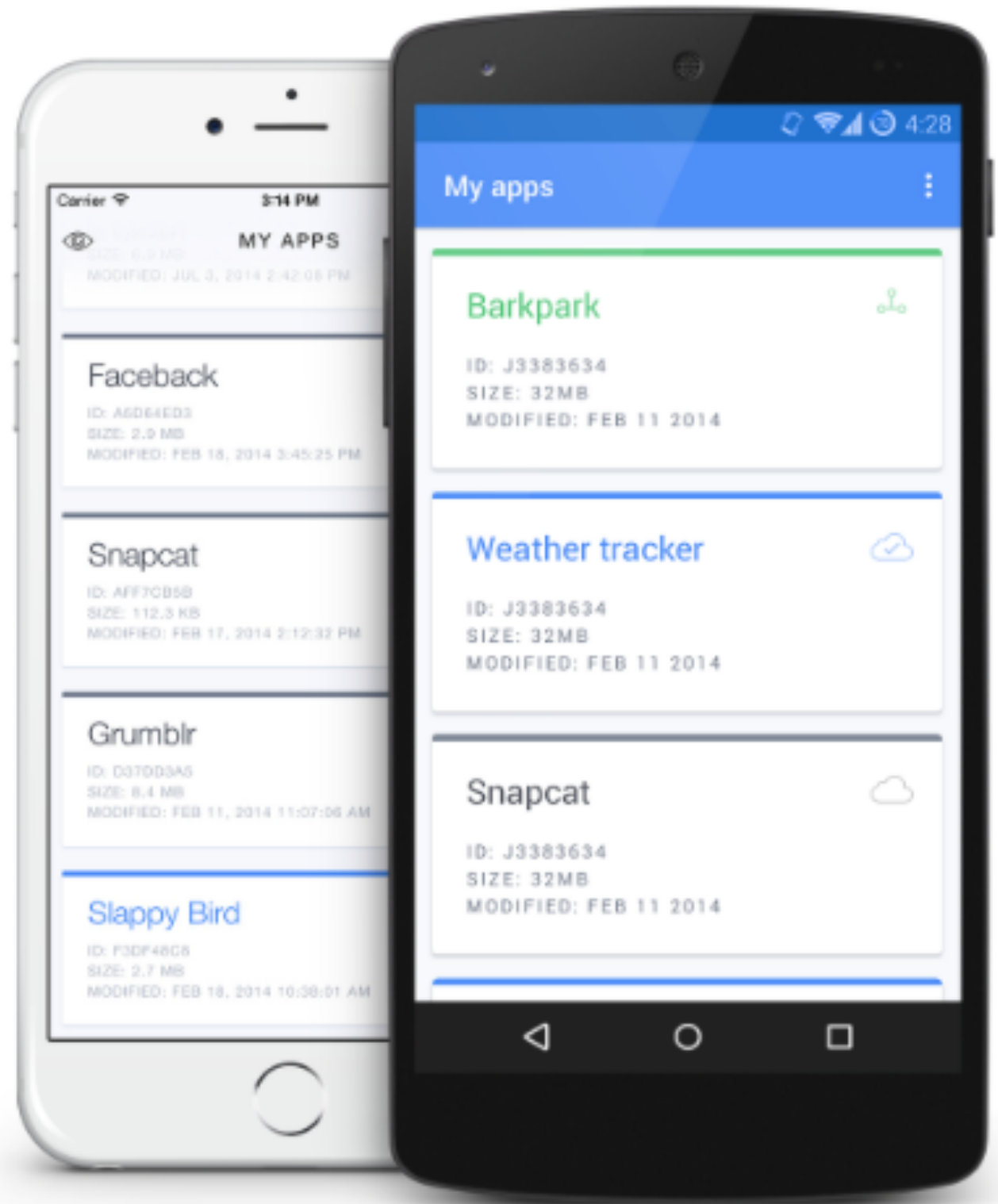
- ❖ 不需要上传到应用商店就可以和其他人分享你的应用
- ❖ 可以在客户端非常完美的展示应用



ionicview

Share your apps with the world

Ionic View makes it easy to share your [Ionic](#) and Cordova apps with clients and testers around the world, all without ever going through the App Store.





MY APPS



lanister

ID: 23C8DFC0

SIZE: 1.9 MB

MODIFIED: MAY 15, 2015 12:58:27 AM



webApp

ID: 273C3684

SIZE: 2.3 MB

MODIFIED: MAY 25, 2015 3:40:21 PM



clientApp

ID: A1172018

SIZE: 1.9 MB

MODIFIED: MAY 14, 2015 6:46:19 PM



lanister

ID: A1E5FD93

SIZE: NAN UNDEFINED

MODIFIED: MAY 20, 2015 2:36:42 PM





MY APPS



lanister



ID: 23C8DFC0

SIZE: 1.9 MB

MODIFIED: MAY 15, 2015 12:58:27 AM

WEBAPP

ID: 273C3684

MAY 25, 2015 3:40:21 PM

VIEW APP

CLEAR APP DATA

SYNC TO LATEST

DELETE APP

DONE

SIZE: NAN UNDEFINED

MODIFIED: MAY 20, 2015 2:36:42 PM

ionic io

[DOCS](#)[SUPPORT](#)[LOGOUT](#)

Search your apps

 NEW APP



App

ID 48c9fb6b
Modified March 4, 2016








webApp

ID 273c3684
Modified July 22, 2015



<https://apps.ionic.io>

-  General
-  API Keys
-  Certificates
-  User Auth
-  Collaborators

General Information

Configure the basics of your app.

App Icon

Upload your own app icon to replace the default ionic icon



[选择文件](#) 未选择任何文件

Transfer Ownership

Careful! You will no longer be the owner of this app if you transfer ownership.

If you transfer ownership of this app to another account, you will no longer be the owner of the app, which means they can remove your access to the app.

To transfer ownership, enter the e-mail of the account you wish to transfer ownership to

Change Owner

Delete App

Careful! Deleting your app cannot be undone

If you delete this app, you will no longer be able to view or edit it.

Delete App

Save

Ionic 2.0将与AngularJS 2.0同时发布

“With Angular 2, we want to make Ionic faster, easier to use, and more powerful. The new component model makes building components and extending Ionic much easier. Angular 2 apps are easier to write and interact with your data in a more expected way.”

<http://blog.ionic.io/angular-2-ionic/>

Q & A