

# APPMOB - The Ionic Framework

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# Which OS should I support?

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palm webOS™

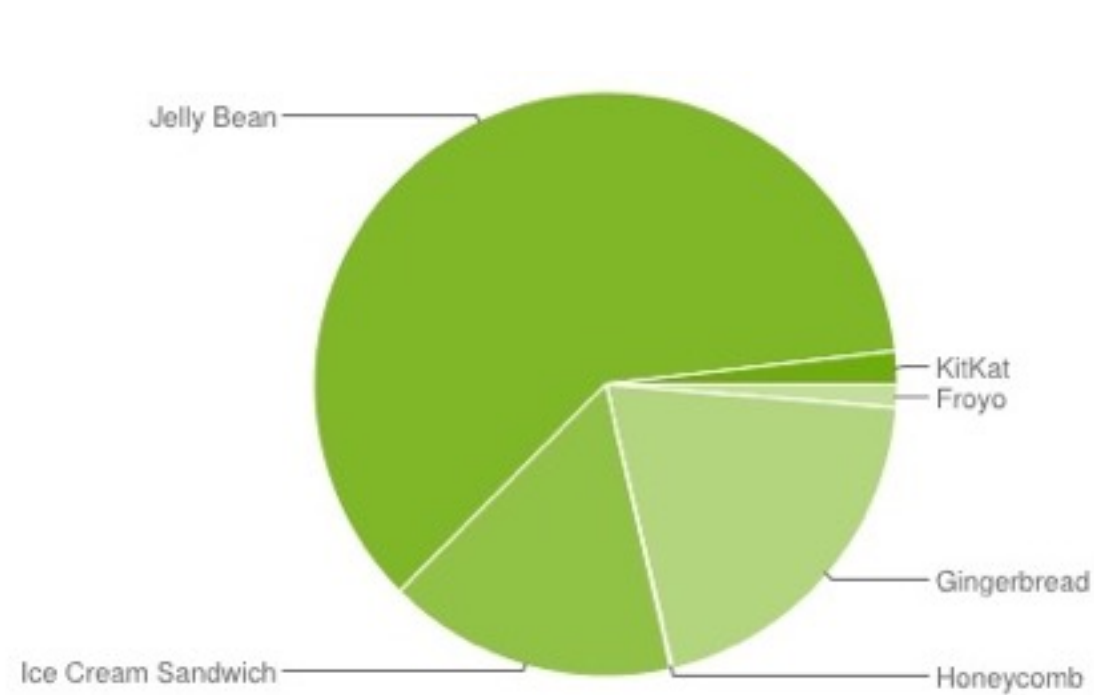


symbian

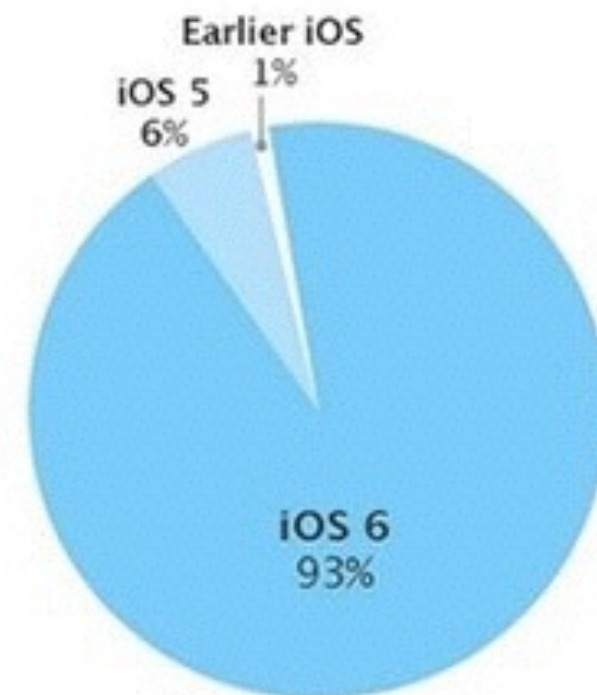


*lolwut?*

# How do I deal with OS fragmentation?



Android  
fragmentation



iOS  
fragmentation

# A solution: Apache Cordova

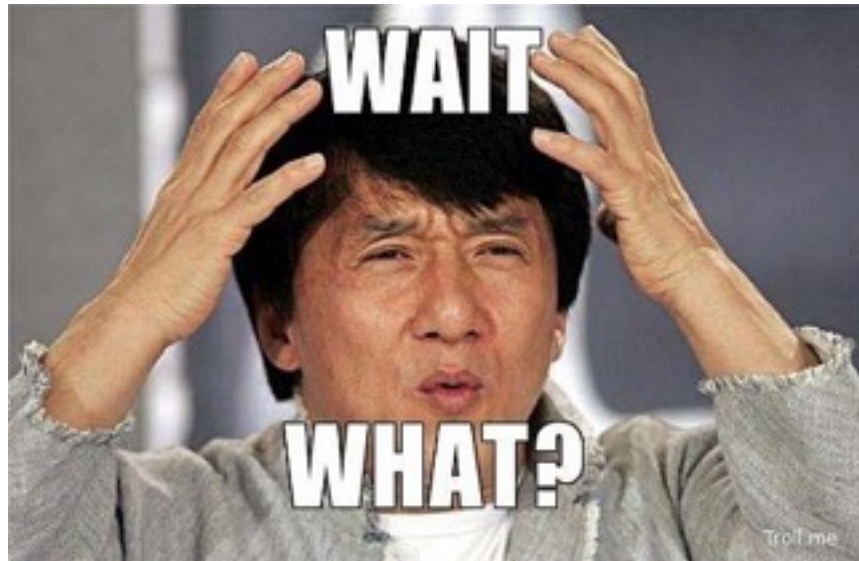
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Apache Cordova is a set of device APIs that allow a mobile app developer to access native device function such as the camera or accelerometer from JavaScript. Combined with a UI framework such as jQuery Mobile or Dojo Mobile or Sencha Touch, this allows a smartphone app to be developed with just HTML, CSS, and JavaScript.

<http://cordova.apache.org/>

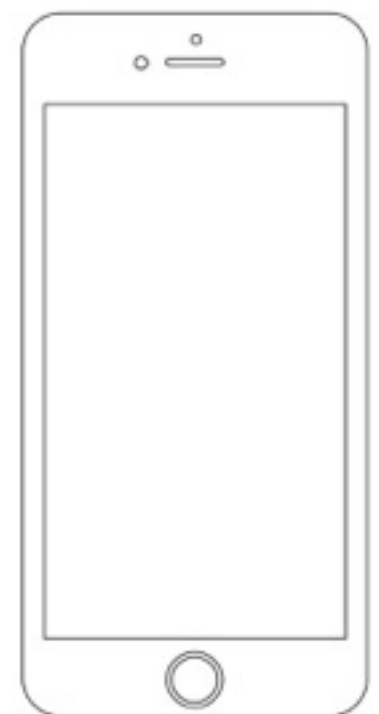
# Apache Cordova: what is it?



Code your app with HTML,  
CSS and JS, **like a website**

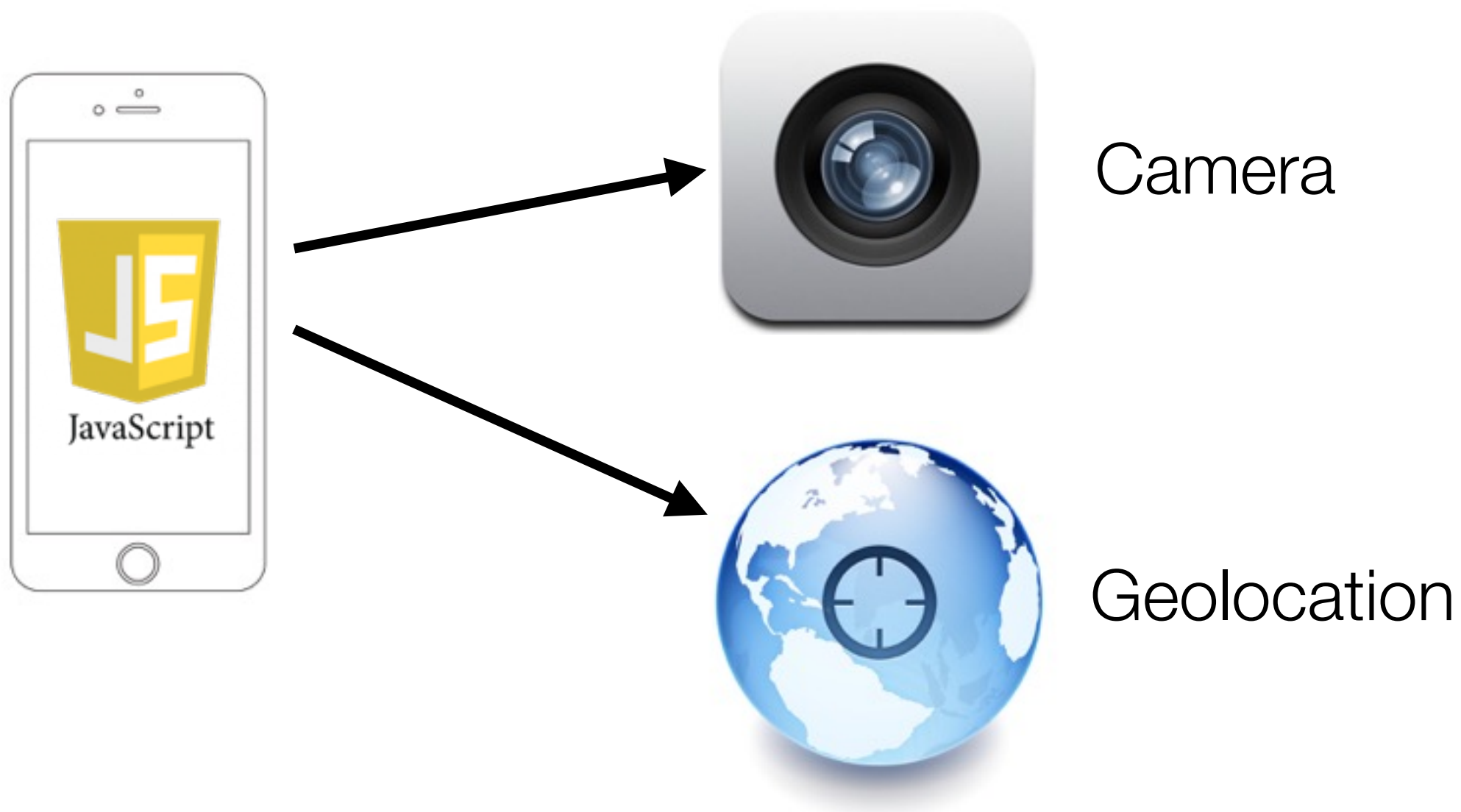


Embed it as a  
**native mobile app**



# Apache Cordova: what is it?

Access **native** device  
functionality from Javascript.





# What else? The Ionic Framework

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**Create hybrid mobile apps with the web technologies you love.**

Free and open source, Ionic offers a library of mobile-optimized HTML, CSS and JS components, gestures, and tools for building highly interactive apps. Built with Sass and optimized for AngularJS.

<http://ionicframework.com/>

# Ionic: a combination

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+







HTML enhanced for web apps!

A match made in heaven. Ionic utilizes **AngularJS** in order to create a framework most suited to develop rich and robust applications. Ionic not only looks nice, but its core architecture is for **serious app development**, and AngularJS ties in perfectly.

<https://angularjs.org/>

# Ionic: designed for mobile

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Build apps that **look like native apps** with HTML, CSS and JS.



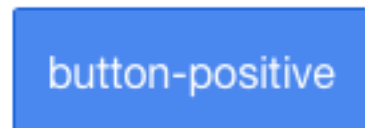
# Ionic: The Basics

# Ionic: CSS

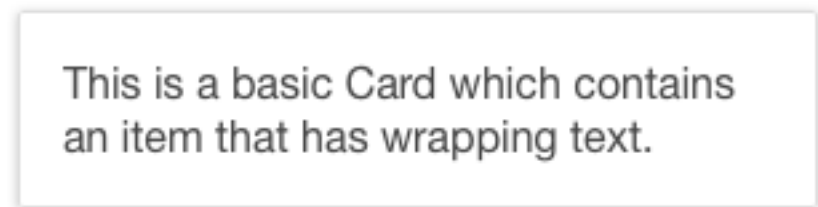
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```
<button class="button button-positive">  
  button-positive  
</button>
```



```
<div class="card">  
  <div class="item item-text-wrap">  
    This is a basic Card which contains an item that has wrapping text.  
  </div>  
</div>
```



```
<div class="list">  
  <label class="item item-input">  
    <input type="text" placeholder="First Name">  
  </label>  
  <label class="item item-input">  
    <input type="text" placeholder="Last Name">  
  </label>  
  <label class="item item-input">  
    <textarea placeholder="Comments"></textarea>  
  </label>  
</div>  
<button class="button button-block button-positive">  
  Submit  
</button>
```

First Name

Last Name

Comments

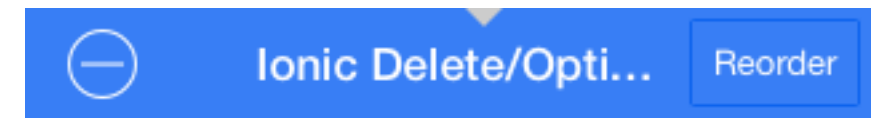
Submit

# Ionic: AngularJS extensions

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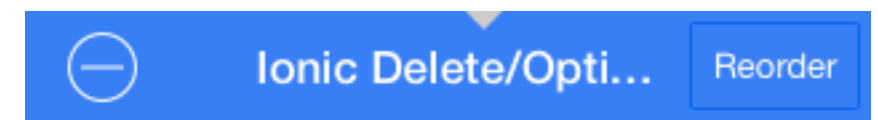
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```
<ion-list ng-controller="MyCtrl"
  show-delete="true"
  show-reorder="true"
  can-swipe="true">
  <ion-item ng-repeat="item in items" class="item-thumbnail-left">
    <p>Item 0</p>
    <ion-option-button class="button-positive"
      ng-click="share(item)">
      Share
    </ion-option-button>
    <ion-option-button class="button-info"
      ng-click="edit(item)">
      Edit
    </ion-option-button>
    <ion-delete-button class="ion-minus-circled"
      ng-click="items.splice($index, 1)">
    </ion-delete-button>
    <ion-reorder-button class="ion-navicon"
      on-reorder="reorderItem(item, $fromIndex, $toIndex)">
    </ion-reorder-button>
  </ion-item>
</ion-list>
```



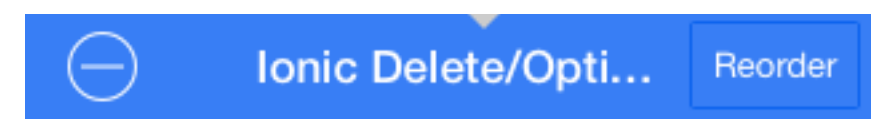
Item 0

Edit Share



Item 0

Item 1



Item 0

Item 1



# Ionic: Installation

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<https://nodejs.org/>

# Ionic: Installation

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`$> npm install -g cordova ionic`

You might need to use **sudo** for the correct access rights:

`$> sudo npm install -g cordova ionic`



# Ionic: Starter App

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Let's see what an app looks like...

```
$> cd /where/you/want/your/projects  
$> ionic start myApp tabs
```

# Ionic: Serving Apps Locally

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With Ionic, you can run your mobile app in your browser. This is very useful for quick development and testing.

```
$> cd myApp  
$> ionic serve
```

Check out <http://localhost:8100/> in your browser.



Install Xcode from the App Store.

Then:

```
$> sudo npm install -g ios-sim  
$> sudo npm install -g ios-deploy  
$> cd myApp  
$> ionic platform add ios  
$> ionic build ios
```

# Ionic: iOS emulator



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Simply:

```
$> cd myApp
```

```
$> ionic emulate ios
```



To run an app on an iOS device, it must be signed with a valid developer certificate. You must join the **iOS Developer Program** for \$99/year.

```
$> ionic run ios
```

# Ionic: iOS View App



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For a free alternative, install the Ionic View App from the App Store, and register an Ionic Apps account:

<https://apps.ionic.io/>

You can then upload your app to your Ionic account:

```
$> ionic upload
```

You should then see your app in the Ionic View App and be able to run it.



If you don't have the Android SDK already, install  
Android Studio:

<http://developer.android.com/sdk/index.html>

Open it and in the Welcome window, click Configure > Project  
Defaults > Project Structure. Copy the Android SDK location.

Add the SDK location to your PATH as described in the  
**Requirements and Support** section of the following article:

[http://cordova.apache.org/docs/en/3.3.0/  
guide\\_platforms\\_android\\_index.md.html](http://cordova.apache.org/docs/en/3.3.0/guide_platforms_android_index.md.html)





On OS X, if Android Studio cannot find your Java SDK, run the following command:

```
$> launchctl setenv STUDIO_JDK /path/to/jdk
```



You also need Apache Ant.  
Install it if you don't have it:

<http://ant.apache.org/bindownload.cgi>

Add it to your PATH like the Android SDK tools.



Check that your terminal can find the commands of the Android SDK tools and Apache Ant:

```
$> which android  
/path/to/android/sdk/tools/android  
$> which ant  
/path/to/ant
```

If `which` doesn't show you the path to the command, your `PATH` is not set up correctly. (Don't forget to restart your terminal.)



Open the SDK:

```
$> android
```

Check and install the following:

- Latest Android SDK Tools
- Latest Android SDK Platform Tools
- Latest Android SDK Build Tools
- Android 4.4.2 (API 19)



Finally, add the Android platform to your app:

```
$> cd myApp  
$> ionic platform add android  
$> ionic build android
```

Run your app in the emulator:

```
$> ionic emulate android
```

Deploy your app to a connected device:

```
$> ionic run android
```