appcelerator®

titanium

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Who am I?

Nic Jansma

Spent 6 years as a dev at Microsoft - Win 7 & IE 9/10 Perf Teams

Recently founded Wolverine Digital

Developing high-performance websites and apps

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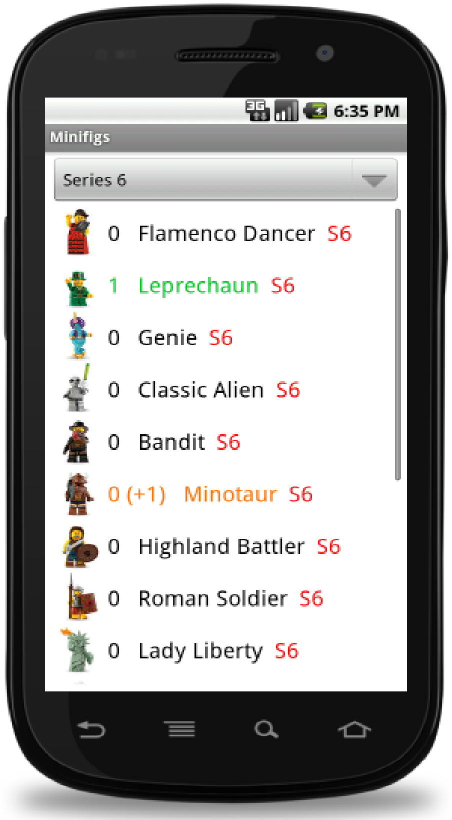
http://github.com/nicjansma

First Two Apps (Native Android)



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Minifigs

Series 6

0 Flamenco Dancer S6

1 Leprechaun S6

0 Genie S6

0 Classic Alien S6

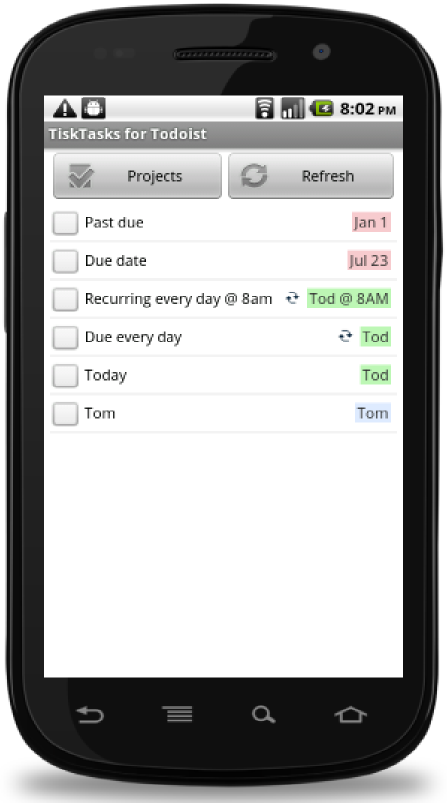
0 Bandit S6

0 (+1) Minotaur S6

0 Highland Battler S6

0 Roman Soldier S6

0 Lady Liberty S6



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TiskTasks for Todoist

Projects Refresh

- ☐ Past due Jan 1
- ☐ Due date Jul 23
- ☐ Recurring every day @ 8am Tod @ 8AM
- ☐ Due every day Tod
- ☐ Today Tod
- ☐ Tom Tom

Minifig Collector (free)

http://minifigcollector.com

TiskTasks for Todoist ($0.99)

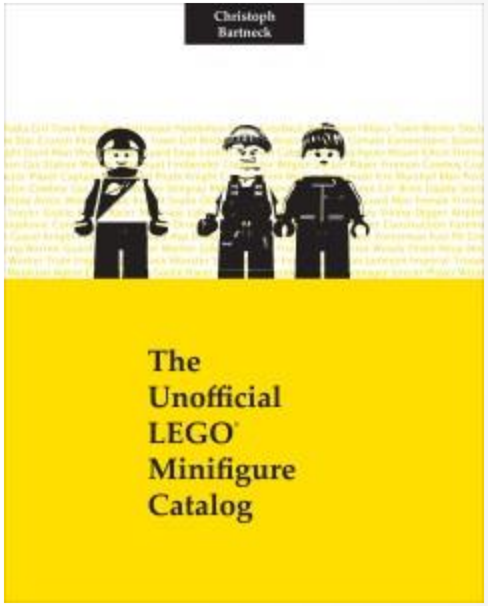
http://tisktasks.com

3rd App

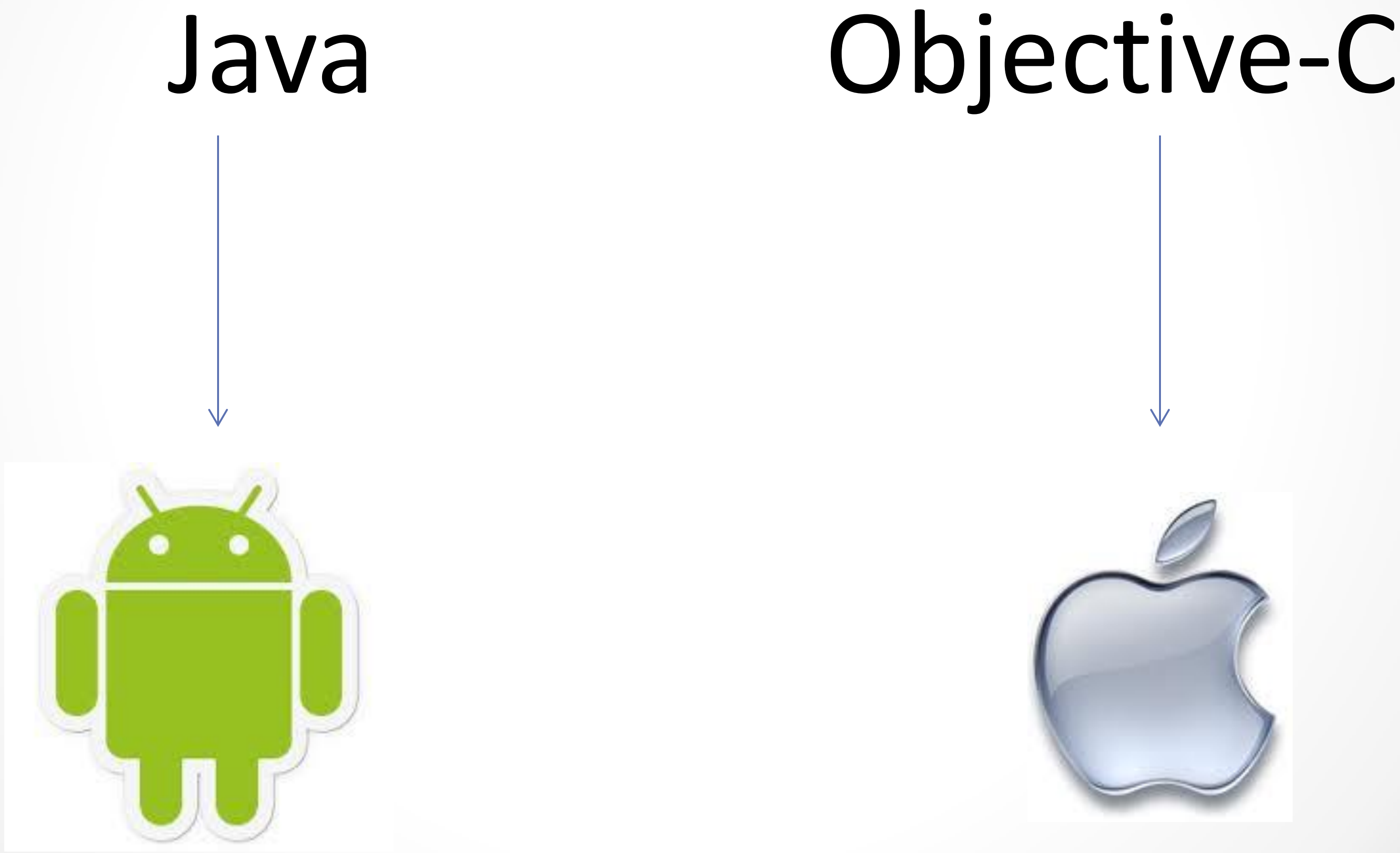
- October 2011: Partnered with the author of the Unofficial LEGO Minifigure Catalog to create an interactive version of his book

- Wanted to release on iOS and Android

- Native? PhoneGap? Appcelerator?



Native Development



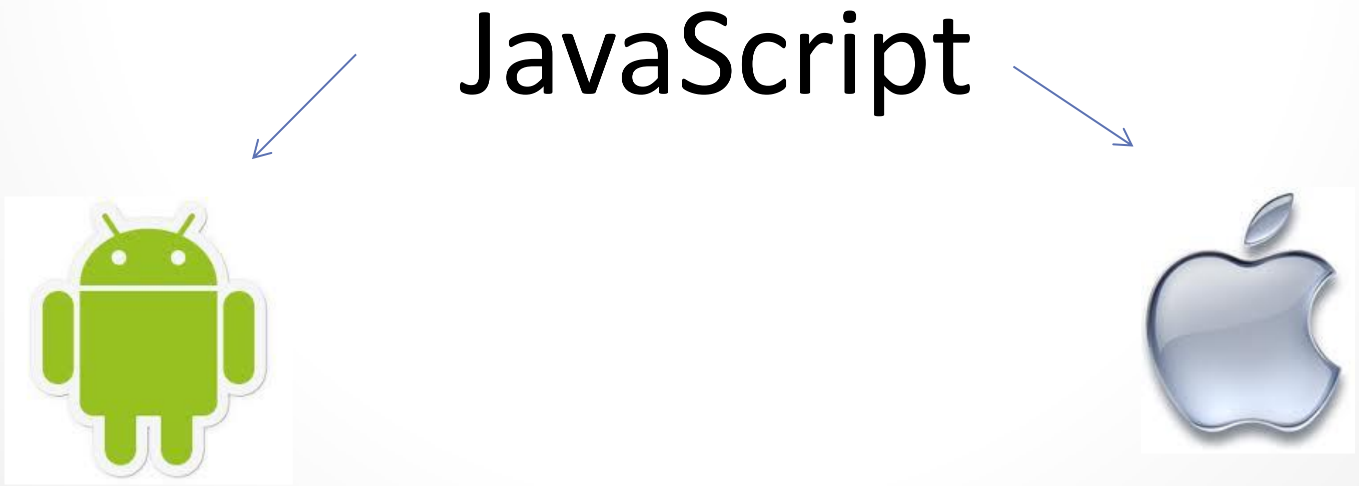
Java

Objective-C

Appcelerator Titanium Mobile

- Titanium is a JavaScript runtime that gives you **native** access to the platform’s controls

- You are **not** building a app via html/css/js (i.e. PhoneGap)



JavaScript

How Titanium Mobile Works

- You write code in JavaScript

- At runtime, your application has 3 major components:
  - JavaScript source code (minified and inlined, but not compiled, into Java/Obj-C strings)
  - Titanium API implementation in the native OS
  - JavaScript interpreter (V8/Rhino for Android, JavaScriptCore for iOS)

- The JavaScript interpreter runs your JavaScript code in an environment with proxies for the native objects (windows, controls, etc)

Getting Titanium Mobile

Step 1: Sign up for Appcelerator

- https://my.appcelerator.com/auth/signup
- “App EXPLORE” plan = Free: Build, test, ship, sell for free
- Additional plans available (more analytics, cloud, support): http://www.appcelerator.com/plans-pricing

Step 2: Download Titanium Studio

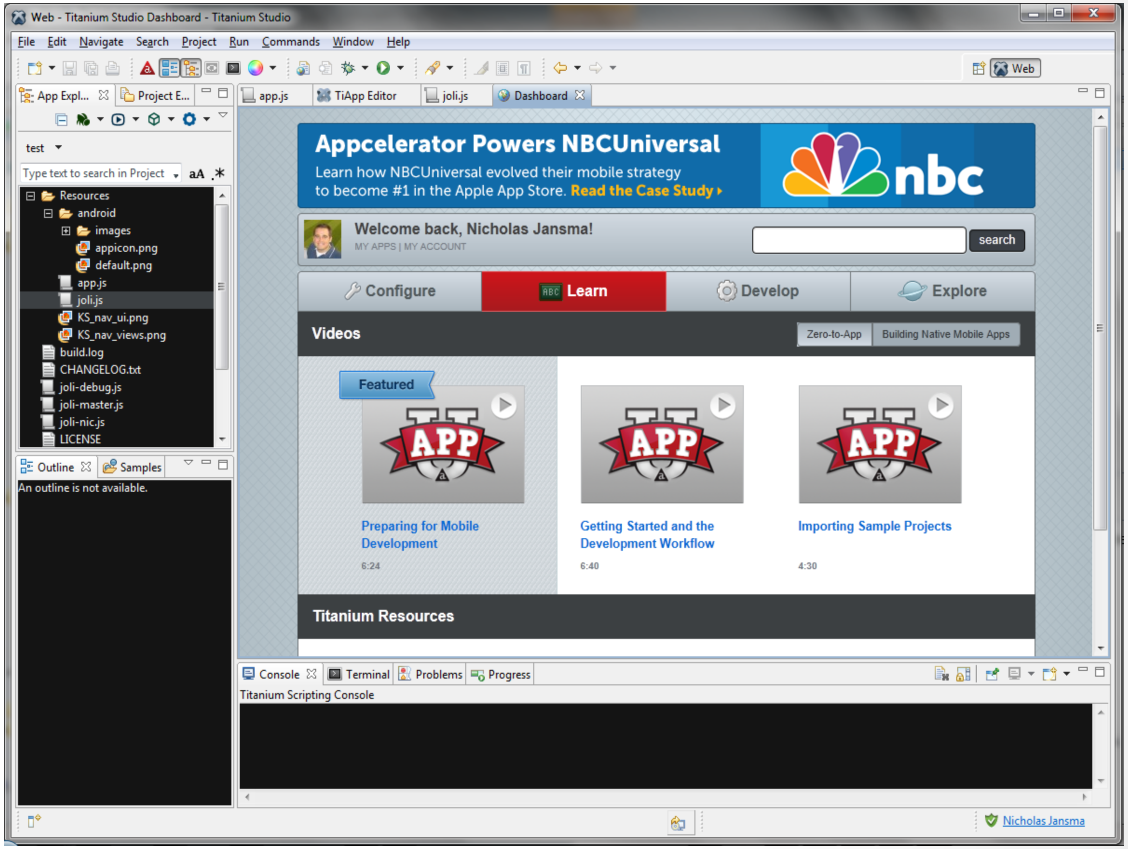
- http://www.appcelerator.com/platform/titanium-studio

Step 3:

- Profit ???

Titanium Studio

- Eclipse-- (was Aptana Studio)
- Editor
- Formatting
- Code-completion
- Build
- Debug
- Release



An outline is not available.

Appcelerator Powers NBCUniversal

Learn how NBCUniversal evolved their mobile strategy to become #1 in the Apple App Store. Read the Case Study ›

Welcome back, Nicholas Jansma!

Titanium Scripting Console

App File Structure

- I18n\ - Internationalization files
- modules\ - Third-Party (or Appcelerator) native modules
- Resources\
    - app.js – Startup file
    - images\ - Generic Images
    - android\ - Android-specific images
        - images\high / etc – Android density/screen-size dirs
    - iphone\ - iOS-specific images
        - @2x files
    - lib\, ui\, whatever\ - your source file dirs

Hello World

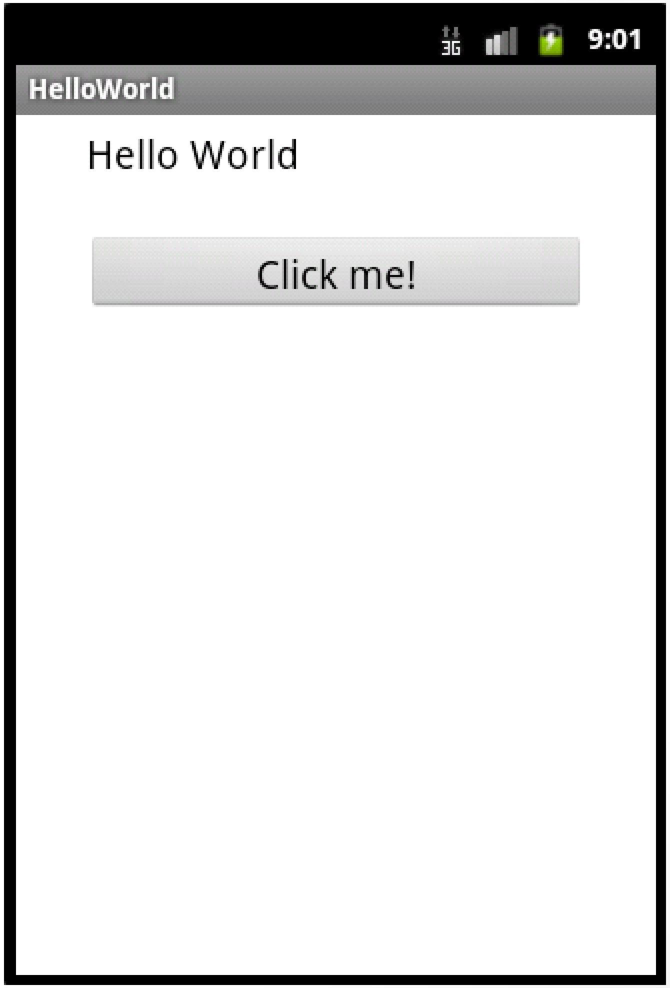
```
var win = Ti.UI.createWindow({
    title: 'Hello, World!',
    layout: 'vertical',
    backgroundColor: 'white'
});

var helloLabel = Ti.UI.createLabel({
    text: 'Hello World',
    color: 'black',
    font: {
        fontSize: '20sp'
    },
    height: '40dp',
    width: '250dp'
});
win.add(helloLabel);

var helloButton = Ti.UI.createButton({
    title: 'Click me!',
    font: {
        fontSize: '20sp'
    },
    top: '20dp',
    height: '40dp',
    width: '250dp'
});

helloButton.addEventListener('click', function() {
    alert('you clicked me!');
});
win.add(helloButton);

win.open();
```



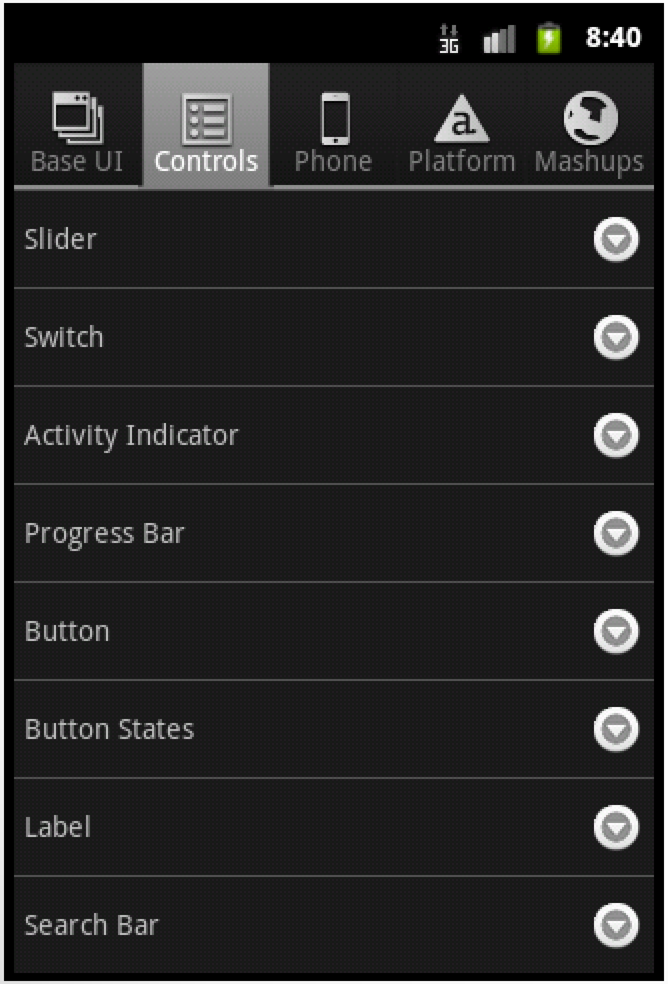
Titanium Mobile APIs

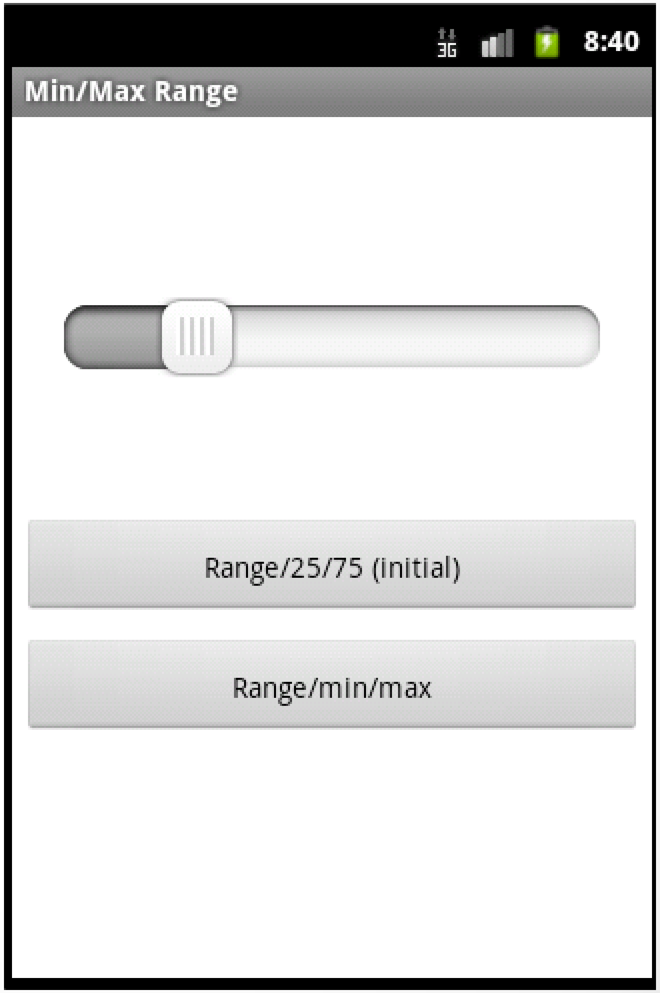
- AJAX / Web services
- In-App Purchases
- Geolocation
- Camera
- Media / Photo Gallery
- Accelerometer
- Maps
- Analytics
- Social Sharing (Facebook, etc)

- Extensible with your own native iOS/Android packages

KitchenSink

- https://github.com/appcelerator/KitchenSink/





Cloud Services

- http://www.appcelerator.com/cloud

Future Platform Support

- Blackberry
- WinPhone7

Pros

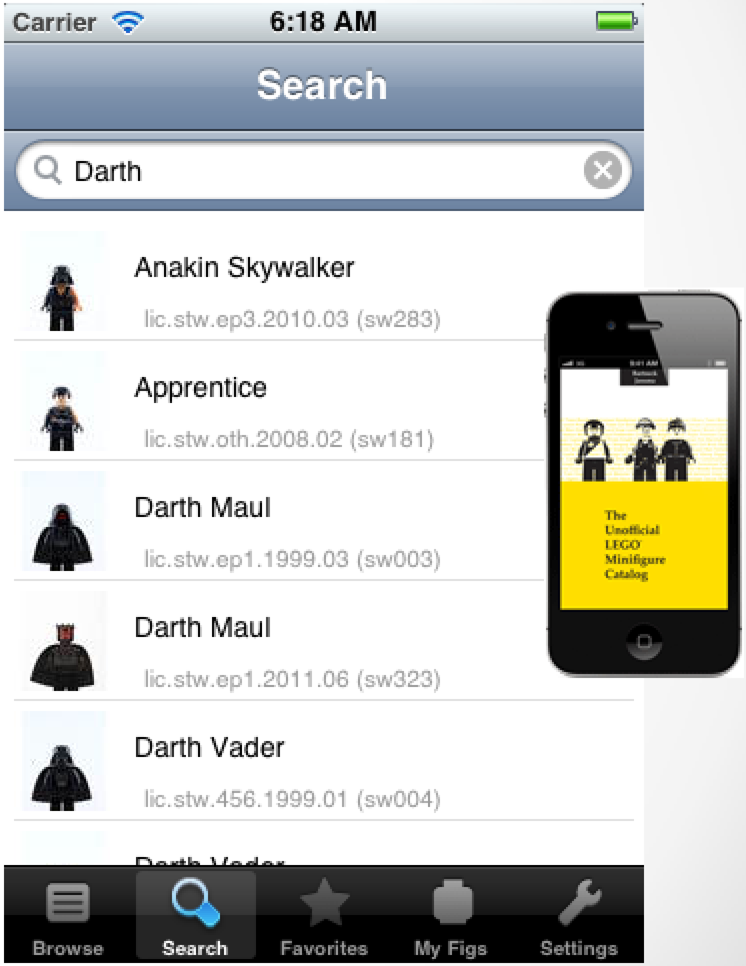
- One codebase for two platforms
  - You’ll (theoretically) spend less time than writing two native apps
  - Maintenance on one codebase should be easier in the long run
- Native interface controls
  - Your apps can look just like native ones
- Might be able to reuse your JavaScript in other parts of your project
  - eg., Web front-end, Node.js backend
- Platform is open-source
  - https://github.com/appcelerator/titanium_mobile
- JavaScript is fun!

Cons

- Platform is young and still changing
- Need to learn a new platform / SDK / quirks
    - Knowing the ins & outs of native iOS / Android will help
- You’ll still have lots of `if(iOS){}` and `if(android){}`
    - LEGO Minifig Collector has 24 blocks of code that are Android or iOS specific
- Performance isn’t 100% of a native app
- SDK/API Documentation is weak (but getting better)
- Q&A support forum is a mess (use SO instead)

Unofficial LEGO Minifigure Catalog

- Took ~1 month to develop
- http://minifigure.org/application
- Releasing content updates via IAP
- Got featured in iTunes Catalogs category for a week
- Looking back, Titanium was the right choice for our product's needs



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Search

Darth

Anakin Skywalker
lic.stw.ep3.2010.03 (sw283)

Apprentice
lic.stw.oth.2008.02 (sw181)

Darth Maul
lic.stw.ep1.1999.03 (sw003)

Darth Maul
lic.stw.ep1.2011.06 (sw323)

Darth Vader
lic.stw.456.1999.01 (sw004)

Darth Vader

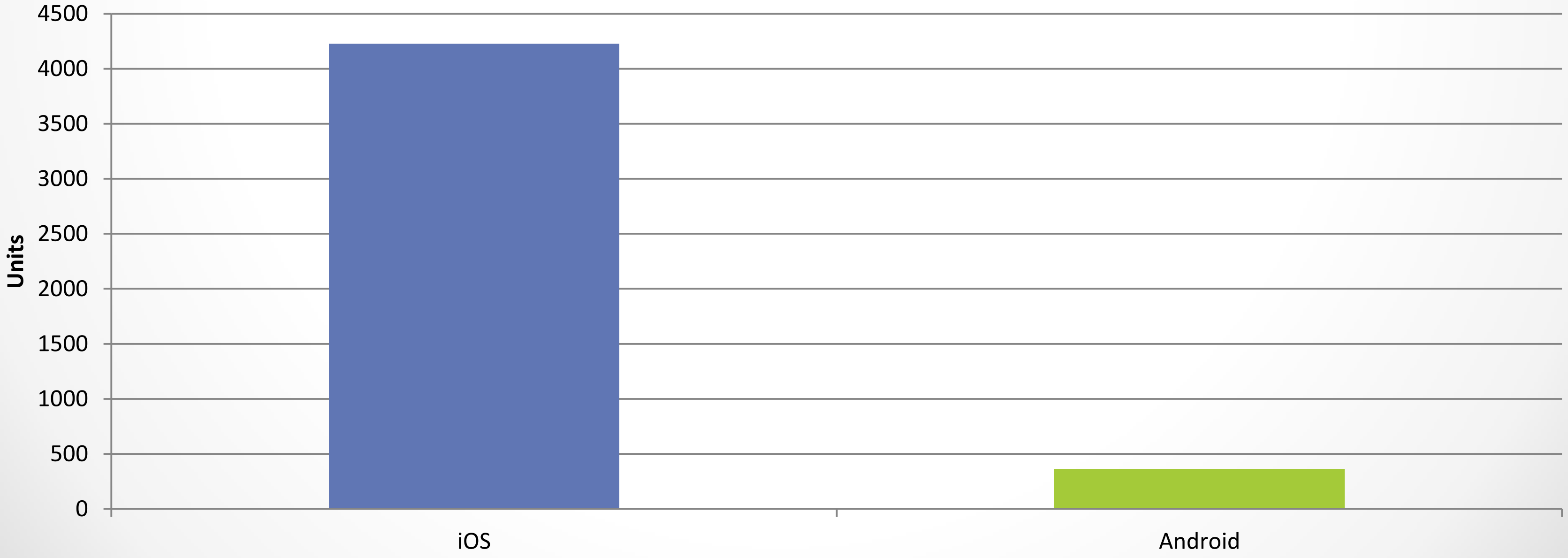
Lessons Learned

- I probably spent as much time learning Titanium and building my first app as I would have spent learning native iOS
  - Now I can build apps in Titanium quickly, but still need to learn native iOS
  - 2nd+ Titanium app will be a lot easier to build
- It takes time to ramp-up on good JavaScript patterns
  - CommonJS modules, Crockford-isms, http://shichuan.github.com/javascript-patterns/
- I like JavaScript
  - Now I'm developing a game where JavaScript is the whole stack: Node.js websockets and HTTP server, frontend in HTML/CSS/JS, mobile version via Titanium
- iOS simulator is a **lot** faster to test on. Android emulator is slow!
- For community support, you'll need to use a combination of the Appcelerator API Docs, Q&A site, videos and StackOverflow

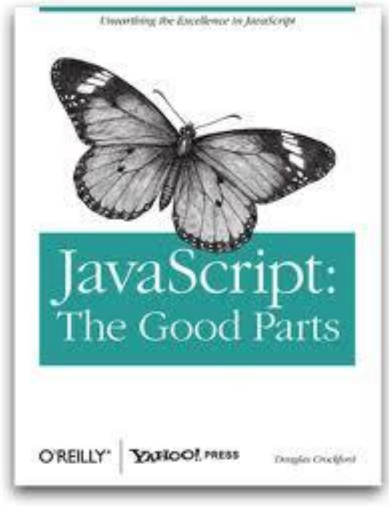
Lessons Learned, continued

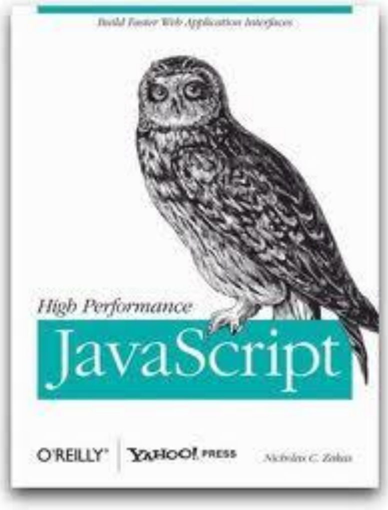
- You’ll spend time adapting when they release SDK updates
  - 1.7.x => 1.8.x: Took me 2 days to find and fix bugs from SDK changes

- You won’t double your sales just by releasing on both platforms



Good Reads


Unearthing the Excellence in JavaScript
JavaScript: The Good Parts
O'REILLY
YAHOO! PRESS
Douglas Crockford


Build Faster Web Application Interfaces
High Performance
JavaScript
O'REILLY
YAHOO! PRESS
Nicholas C. Zakas

Build Better Applications with Coding and Design Patterns
JavaScript Patterns
O'REILLY
YAHOO! PRESS
Stoyan Stefanov

Links

Appcelerator

- http://appcelerator.com
- http://docs.appcelerator.com/titanium/2.1/index.html
- http://developer.appcelerator.com/questions/newest
- http://stackoverflow.com/questions/tagged/titanium
- http://vimeo.com/appcelerator

Community Projects

- Joli https://github.com/xavierlacot/joli.js/