



Building Mobile Applications: Strategies and Technologies

INTEROP®

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About Me:

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T-Mobile

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Education

Kodak Gallery

NASDAQ

ORACLE

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interwise

intuit



Johnson & Johnson

Jonas

JWT

Agenda:

Mobile App Development



4
WAYS



Agenda:



A quick tour of 4 different mobile development technologies. Strategies for getting started in each.

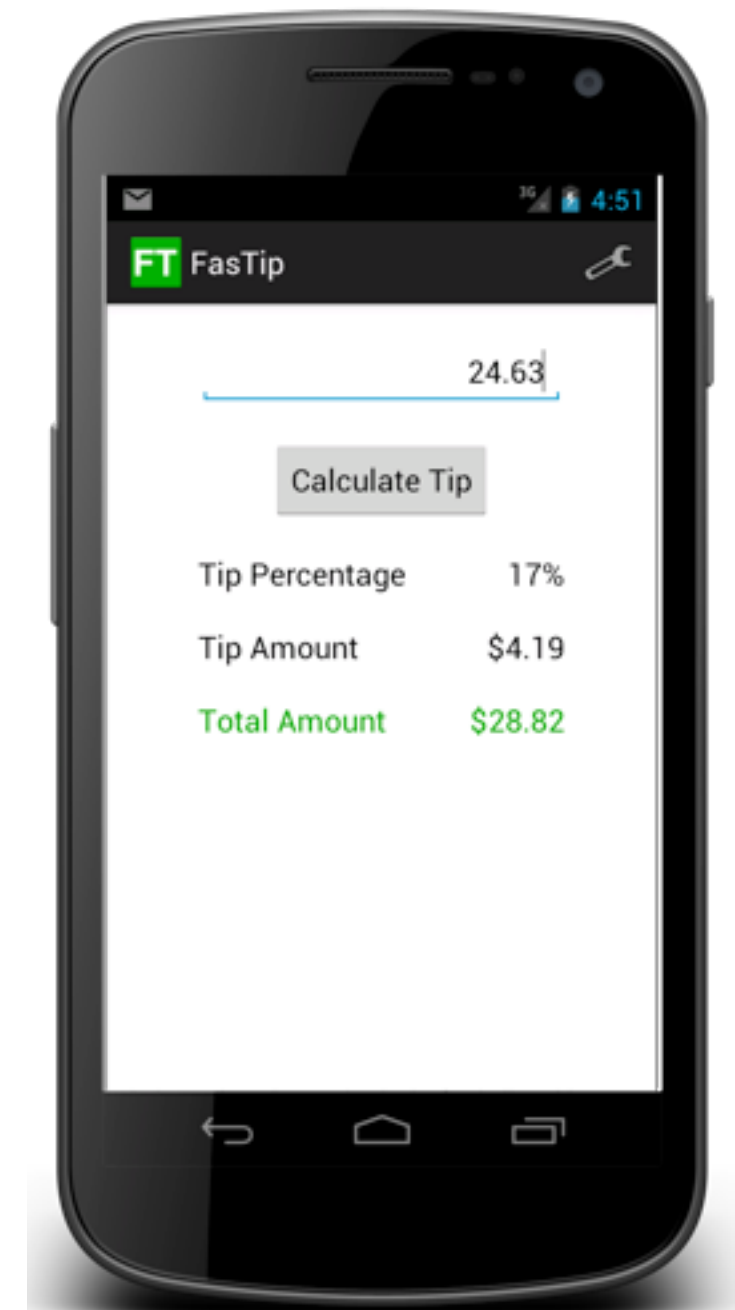
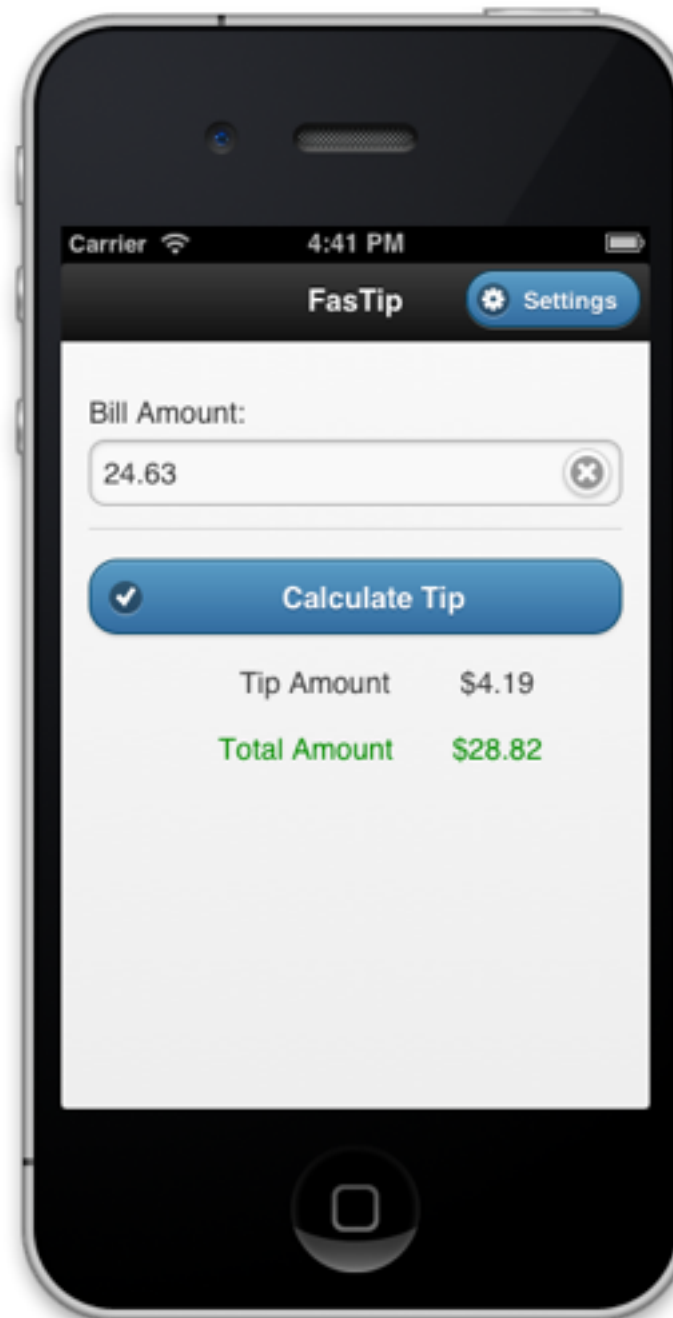
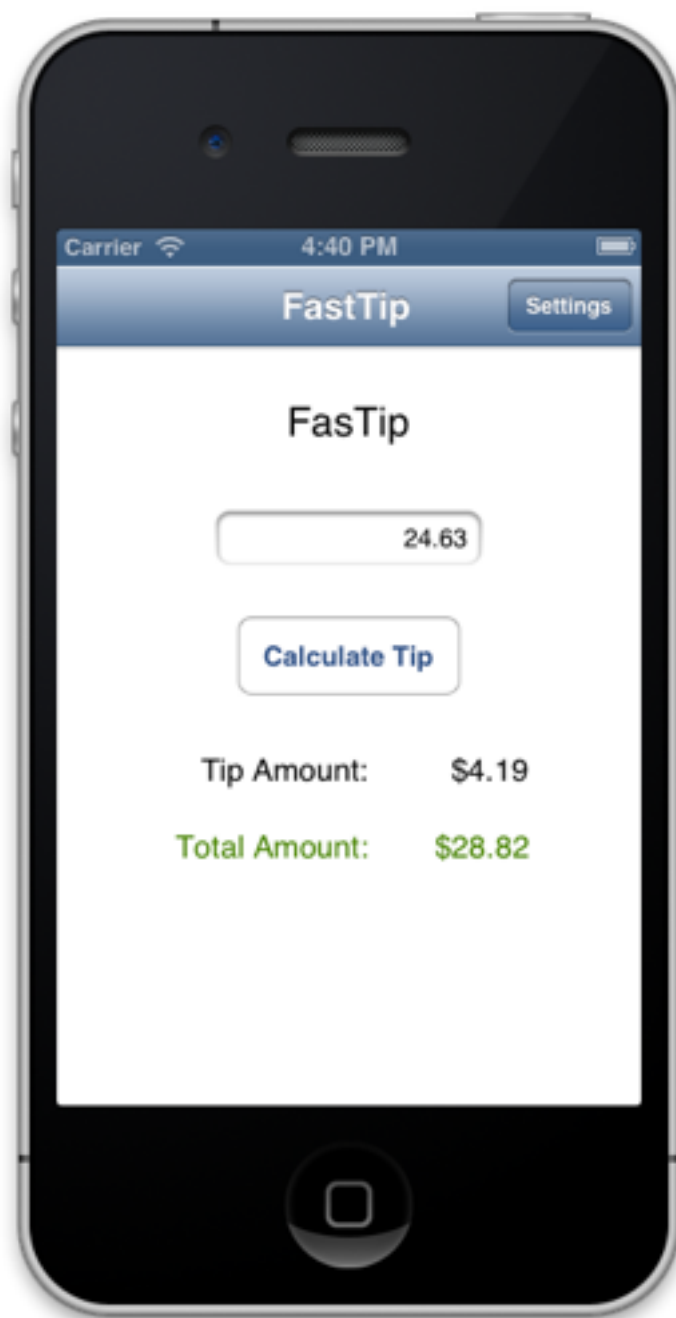
- iOS Native Development
- Android Native Development
- PhoneGap
- Appcelerator Titanium



Let's try to make sense of it all....

Intent
Eclipse
HTML5
Objective-C
Java
Native
Storyboard
Javascript
Activity
X-Code
CSS
Hybrid
Titanium Studio
Build in the cloud

Demonstration App ...



iOS Native Development



Language: Objective-C

Dev Tools:

- X-Code
- iOS SDK



- Requires Mac OSX
- Dev Tools are free of charge
- \$99/yr developer fee to test on devices and submit to the Apple AppStore

Tour of iOS Native Development



- X-Code
- ViewController
- UINavigationController
- Storyboards

iOS Learning Resources



- iOS Programming: The Big Nerd Ranch Guide - Conway/Hillegass
- Objective-C Programming: The Big Nerd Ranch Guide - Hillegass
- Stanford University iOS Course on iTunes
- WWDC Videos
- Ray Wenderlich.com - iOS Tutorials



Android Native Development

Language: Java

Dev Tools:

- Eclipse
- Eclipse ADT Plug-In
- Android SDK



- Works on Mac, Windows, or Linux
- One time \$25 fee to distribute apps on Google Play.

Tour of Android Native Development



- Eclipse
- Android Development Tools
- Activities / Intents
- Android Support Library
- XML Based layouts
- Android resource system

Android Learning Resources



- Busy Coder's Guide To Android Development - Mark Murphy, CommonsWare
- Beginning Android 4 Application Development - Lee
- Vogella.com - Android Tutorials

PhoneGap Development

- Cross Device Support
- User interface written in HTML / CSS / JS
- Supports:
 - iOS
 - Android
 - Windows 8
 - Windows Phone 7 & 8
 - Blackberry 5.x+
 - WebOS
 - Symbian
 - Samsung Bada



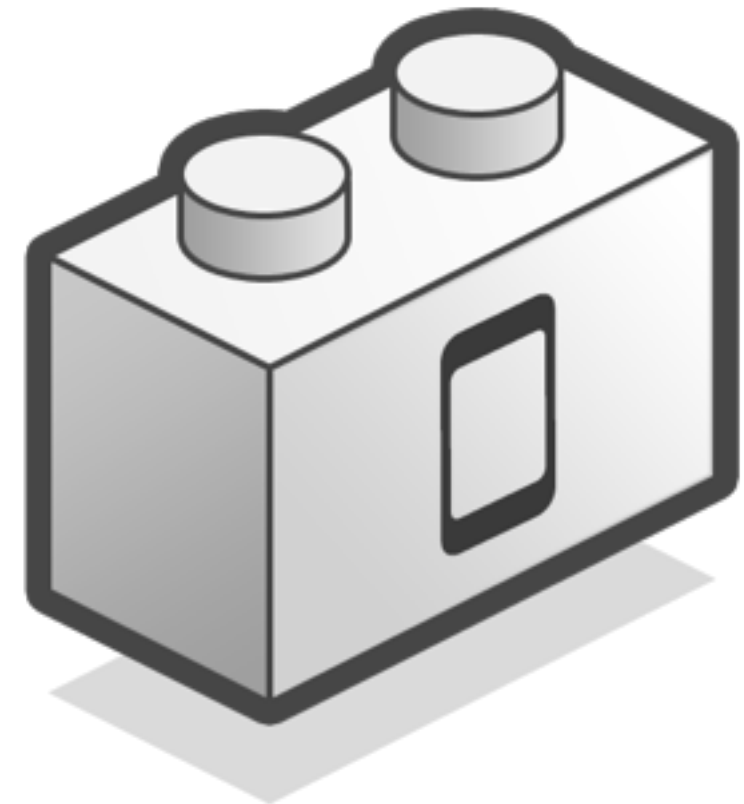
Adobe PhoneGap / Apache Cordova

- Apache Cordova: The open source platform
- Adobe PhoneGap: An Adobe branded product of Cordova
- PhoneGap core capabilities:
 - Accelerometer
 - Camera
 - Contacts
 - File System
 - Media playback & recording
 - Network availability
- Think of PhoneGap as non-visual components. You still need visual components created in HTML/CSS as any mobile web application would.



PhoneGap Plugins

- Extending your solution when Javascript and the base PhoneGap functionality don't meet your needs.
- Large repository of existing plugins:
 - Barcode Scanning
 - Bluetooth
 - Push Notifications
 - Text to Speech
 - Calendars
 - Facebook Connect
- You can write your own



UX Frameworks for PhoneGap Applications

- jQuery Mobile



- Sencha Touch



- Kendo UI



- Enyo



PhoneGap Development

Language: Javascript

Dev Tools:

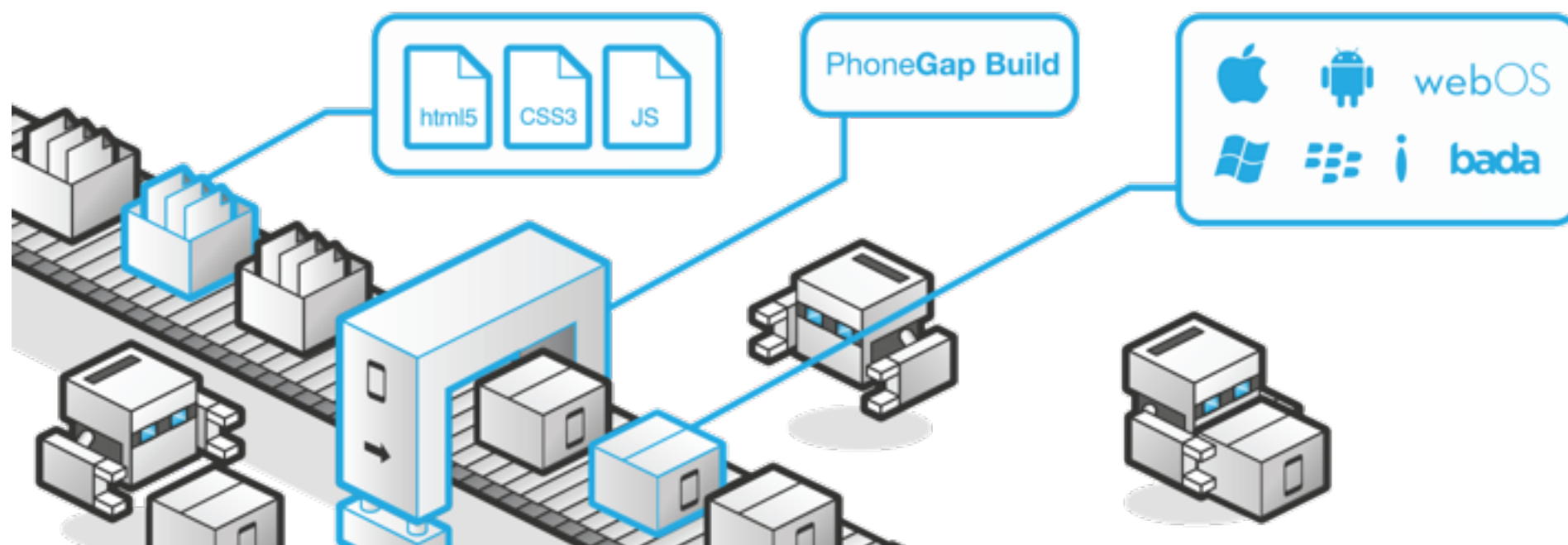
- HTML/JS editor (eg: WebStorm)
- SDKs for platforms you want to support
- Debugging tools (eg: Ripple, Weinre, Safari - see PhoneGap Wiki)



- Works on Mac, Windows, or Linux
- Free of charge
- Still must pay platform AppStore fees and follow processes to submit to the platform's AppStore just like with native development.

PhoneGap In The Cloud

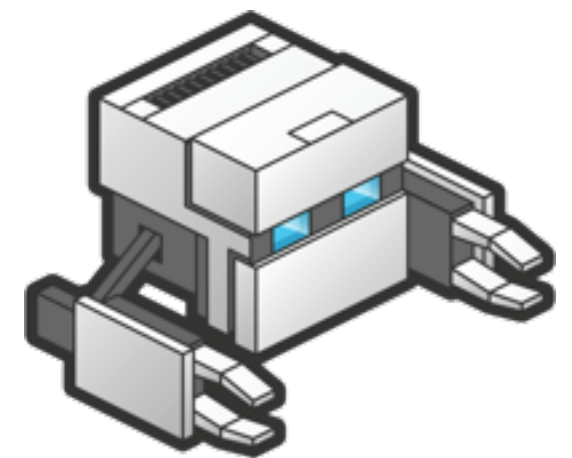
- Build applications in the cloud
- Doesn't require SDKs installed on the development machine
- App under development can pull new Javascript/HTML/CSS from the build server without directly updating the app - Hydration.



PhoneGap In The Cloud

- **PhoneGap Build**

- Free for one app, \$9.99/mo for up to 25 apps
- Push code to PhoneGap either by uploading it or via GIT integration.



- **ICENIUM**

- Cloud hosted IDE with cloud build as well
- Just hit 'save' in the IDE and your app is rebuilt on the server.
- Cost \$19.99/mo



ICENIUM™

PhoneGap Learning Resources



- Requires a good foundation in HTML, CSS, and Javascript
- Getting Started Guides
- Appliness - free monthly digital magazine
- Blogs - Andrew Trice, Christophe Conraets, Ray Camden

Appcelerator Development

- Cross device development:
 - iOS
 - Android
- Coming soon:
 - Blackberry
 - Windows Phone
- Uses native controls instead of HTML5



Appcelerator Development

Language: Javascript

Dev Tools:

- Titanium Studio
- Platform SDKs



- Works on Mac, Windows, or Linux
- Tools are free. Support packages are available at additional cost.

Tour of Appcelerator Development

- Titanium Studio
- Alloy Framework
- May need to handle iOS and Android views differently
- Deployed .IPA and .APK files will be larger than most PhoneGap or native apps.



Appcelerator Learning Resources



- Video and Tutorials on the Appcelerator Site
- Many of the books available offer little more than can be found with the above resources.

Conclusion:

Mobile App Development



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WAYS



Thank You !

