

Telerik Academy



PhoneGap

Apache Cordova Overview



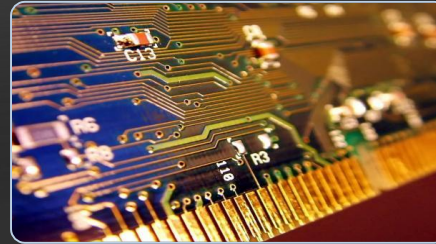
The way of hybrid mobile development

Hybrid Mobile Applications

Telerik Software Academy

<http://academy.telerik.com>

 **BlackBerry®**



What is Apache Cordova?

Multiplatform Development Framework



- ◆ Apache Cordova is an open-source mobile development framework
 - ◆ Created by Nitobi Software
 - ◆ Acquired by Adobe Systems
- ◆ Enables building of hybrid mobile applications using JavaScript, HTML and CSS
 - ◆ Ruby can be used as well
 - ◆ Instead of often less-known languages such as Objective-C and Java

PhoneGap Applications

- ◆ The Cordova applications are hybrid
 - ◆ All layout rendering is done via the web view instead of Objective-C or Java
 - ◆ Most of the HTML5 features are supported
- ◆ Yet, as any hybrid app, Cordova apps do not have full access to the device API
 - ◆ Camera, compass, accelerometer, etc.

- ◆ Apache Cordova currently supports development for the following operating systems
 - ◆ iOS, Android, webOS, Windows Mobile, Symbian OS, BlackBerry, Windows Phone 7/8

- ◆ Build your app once with web-standards
 - ◆ Based on HTML5
- ◆ Wrap it up with Apache Cordova
 - ◆ Using the free open source framework or PhoneGap build cloud
 - ◆ You can access the native APIs
- ◆ Deploy to multiple platforms
 - ◆ Standards-based web technologies to bridge web applications and mobile devices



Means of Development



Means of PhoneGap Development

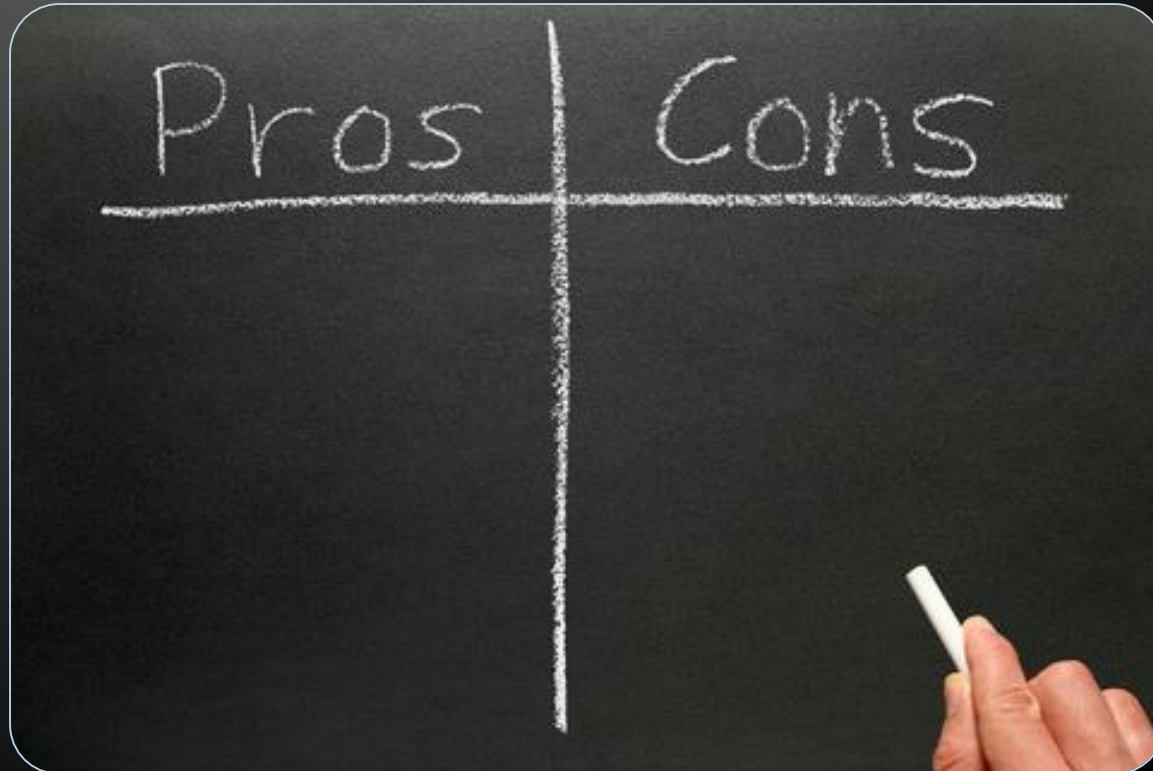
- ◆ Apache Cordova is just a library that you must include in your app
 - ◆ Couple of JavaScript and xml files
 - ◆ Some native packages for each platform
- ◆ What is Cordova doing?
 - ◆ Generates a out-of-the-browser window that executes the HTML and JavaScript locally
 - ◆ Due to a couple of xml and jar/dll files it enables the usage of native APIs

Where Can we Develop?

- ◆ Native IDE for the corresponding OS
 - ◆ Eclipse, Xcode, Visual Studio, etc.
 - ◆ Adobe launched a new version of Dreamweaver that integrates with PhoneGap
 - ◆ Build the web site
 - ◆ Add the mobile SDKs
 - ◆ Say it is mobile app
 - ◆ Build and deploy
- ◆ In both the concrete OS SDK must be present

Pros and Cons

Of PhoneGap Development



- ◆ HTML5, CSS and JavaScript skills vs. Objective-C, Java and C#
- ◆ Single, reusable code base for all platforms
 - ◆ iOS, Android, WP 7, WP 8, mobile web
- ◆ You can take advantage of distribution and integrated payment
 - ◆ Via the App Store, Google Play, etc...

◆ Poor performance

- ◆ If your app is graphically intense, i.e. a game.
- ◆ Caching or leveraging some 3rd party solutions may be implemented with native graphics
- ◆ For the most part a native app is much faster/smoothier than hybrid mobile app

Cons of PhoneGap Development (2)

- ◆ Lack of pre-built UI widgets, transitions, standard controls, etc.
 - ◆ Your development time can take longer
 - ◆ Especially if you want a polished-looking app with a native look and feel
 - ◆ Yet many third-party component libraries exist
 - ◆ Kendo UI Mobile, jQuery Mobile, Sencha Touch

Questions?