

# Angular & Ionic Introduction

Client-side uses of Javascript

# Agenda

- Introduce Angular framework
  - Develop code to demo Applications, Controllers, directives using Javascript.
  - Build a small web app from scratch
- Introduce Ionic Framework
  - Uses Cordova (Phonegap) and Angular for hybrid mobile app development.
  - Show the same app deployed to an iPad.

# Angular.js

- Angular is a Javascript framework developed by Google for web clients. Version 1.0 - 6/2012.
- Now is an open source project available at [www.angularjs.org](http://www.angularjs.org)
- Primary features:
  - Single Page Application using client side css and javascript.
  - Simplify development and testing
  - Provide client side MVC architecture.

# Philosophy

- Use declarative programming for UI, imperative programming for business logic
- Decouple DOM manipulation from application logic
- Regard application testing as important as application logic
- Decouple client side development from server sided development
- Provide consistent structure to support development



# Application

- Initializes angular services
- Provides a context to build other objects onto
- Provides injection of control mechanism
- Provides root services like \$scope

# Controller

- Named function that is associated with a DOM Element
- Provides scope for binding view variables to.
- Support the development of view oriented business logic

# \$http

- Service that enables ajax calls to the server in order to retrieve data
- Supports restful methods (GET, POST, PUT, DELETE)
- Implemented as an asynchronous service using promises.

# Github api

- Available from Javascript in the Browser
- Returns JSON objects
- No authentication or client key required



# Ionic Framework

- Uses Cordova/PhoneGap to build hybrid mobile applications
- Cordova provides a platform for deploying html/css/javascript in device web views
- Ionic adds angular directives to allow users to build more native like interfaces.

# Ionic Toolset

- Ionic Website
- Ionic CLI provides the mechanisms to build a base line project
- CLI can add target platforms (IOS, Android, ...)
- CLI can add plugins to interface with the hardware.

# Conclusion

- Angular framework provides a well defined approach to building single page application
  - Good separation of concerns.
  - Hides most details of DOM manipulation
  - IOC/modularization enables code reuse.
- Ionic leverages Angular to build platform independent hybrid mobile applications.

# Credits

- Pluralsight.com AngularJS: Get Started by Scott Allen
- Solution: <http://plnkr.co/edit/fopYC9QQY1Pyff7OUweU?p=preview>