Angular 2.0 Topic Outline

Day 1

* Introduction
  + Class Objectives & Roadmap
  + Prerequisites Review
  + Student Background & Expectations
* What is a SPA? What is Angular?
  + Single Page Apps vs Conventional Web Applications
  + Where Angular Fits
* Introduction to Angular JS
* Scope, Expressions, Directives, Built-in Directives
* Data binding
* Controllers, Modules, Views
* Starting with Angular 2
  + Minimal A2 Example
* Angular 2 Flex
* Partial Component import from Share Module
* Lazy loading components
* Ahead-of-time (AOT) compilation
* Tree shaking
* Preparing for TypeScript
  + Brief Intro to TypeScript
  + The TypeScript Module System
  + Angular 2 with TypeScript and Modules
  + TypeScript decorators
  + Debugging
  + Error or exception handling
* Building with A2 Components
  + A Trivial Component
  + Nested Components
  + Deeper Nesting
* Angular 2 Binding and Events
  + Templates
  + Dynamic Template selection
  + Dynamic Forms
  + Dynamic component loader
  + Binding
  + Event Bindings
  + Two-way Binding
  + Class and Style Bindings
  + Built-in Directives
  + Component Data Binding
  + Component Events
  + Ng-model
* Forms
  + Controls
  + Control groups
  + FormBuilder

Day 2

* Pipes
  + Using Pipes
  + Creating Pipes
* CSS Styling
  + Component CSS
  + CSS Scoping
* Dependency Injection
  + Why Dependency Injection?
  + Injection API
  + Component Multi Providers
  + Injection Multi Providers
* HTTP, Promises, and Observables
  + Promises - still available, still useful
  + Calling an API via HTTP
  + Introduction to Observables
  + Observable Bindings
  + Observables Operators
  + Calling an API via Observables

Day 3

* Routing
  + Introduction and Use
  + Nested Routing
  + Auxiliary Routes
  + Route Guards
  + The Component Lifecycle - "Resolve"?
* Directives
  + Introduction and Examples
  + ng-content ("transclusion")
  + Multiple ng-content
  + Angular Material Directives
  + Tab Set Example
* Example Applications
  + Multi Screen Example Walkthrough
  + Handling Multiple Screen Resolution
  + Firebase Examples

Day 4

* Upgrading and JS Versions
  + Using Angular 2 with ES5
  + Upgrading from Angular 1.x
* The Multi Threaded Web
  + web-workers
* Building and Tools
  + JSPM
  + WebPack
  + Gulp
* Angular – Polymer Integration
* Caching and Optimization in Angular 2
* Security
* Angular 2 build and deploy