Advanced Angular JS Programming

Course Summary

Description

AngularJS is a powerful client-side JavaScript MVC framework from Google that supports simple, maintainable, responsive and modular Rich Internet Applications. It supports automatic bi-directional data binding to and from JavaScript model objects, form controllers, and validation. Direct support for working with REST services and customizable routing, a comprehensive set of HTML tag-driven directives for View description, and the ability create your own custom directives are among the many reasons that AngularJS is so widely used in the RIA JS developer community.

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Topics

- Review of the AngularJS basics
- Angular User Interfaces
- Angular Services

- Developing Custom Directives
- Enhanced End-to-end testing

Objectives: At the completion of this course the student will be able to:
- Understand Angular User Interfaces
- Utilize Angular services
- Develop custom directives
- Utilitize end-to-end testing

Prerequisites

Attending students should have taken these courses or should have skills equivalent to topics in these classes:
- HTML5, CSS3, and JavaScript for Java Developers or equivalent experience
- Introduction to jQuery or equivalent experience
- RESTful Web Services with JAXRS
  or
- RESTful Web Services with SpringMVC
- RESTful Web Services with ASP.NET
- Introduction to AngularJS

Audience

This course is designed for experienced web developers.

Duration

Two days

Advanced AngularJS

Course Summary

I. Brief Review of Angular Basics
   A. Controllers and Models
   B. Directives
   C. Services
   D. Routing and Single Page Applications

II. Angular User Interfaces
   A. Angular Forms
      1. Angular forms vs HTML forms
      2. Angular form controls
      3. Form events
      4. The form controller
      5. Form validation
         a) CSS classes for form data
   B. Using Angular with Angular UI and Angular Bootstrap
      1. Introduction to AngularUI
      2. Introduction to Bootstrap (and AngularUI's implementation)
      3. Page layout and organization
      4. UI Widgets

III. Angular Services
   A. Providers as a concept
   B. The Service Provider
      1. Mocking out your Service during testing
   C. The Factory Provider
      1. Testing your Factory
   D. The Provider recipe

IV. Developing Custom Directives
   A. Teaching HTML new tricks
   B. Binding text and attributes
   C. Directive processing lifecycle
      1. DOM Processing
      2. Compilation
      3. Linking
   D. A basic directive
   E. Directives and scopes
   F. Creating reusable directives
   G. Turning directives into components
   H. Transclusion
   I. Examples:
      1. Custom Elements
      2. Custom Event Handling
      3. Observing Model Changes with $observe

V. Enhanced End-to-End Testing
   A. Introduction to End-to-End testing
   B. Setting up Protractor
   C. Configuring your browser()
   D. Grabbing elements
   E. Firing events
   F. Examining data
   G. Conclusion