



## 3-DAY ANGULAR TRAINING OUTLINE

### **Chapter 1 - Introduction to Angular**

- > What is Angular?
- > Why using it?
- > What about Angular 1?
- > Why TypeScript?

#### LAB 0: Set-up

- > Introduction to Angular CLI

### **Chapter 2 - Building blocks of an Angular application**

- > Modules and ngModule
- > Components, pipes, directives and services
- > main.ts
- > Importance of using angular CLI to keep project structure updated
- > Build modes and environments

### **Chapter 3: Components**

- > What are components?
- > Example of Angular 2 component

#### LAB 1: Hello World

- > Template and expressions
- > Practicing with Angular CLI

#### LAB 2: Angular CLI

### **Chapter 4: Data bindings**

- > One-way data bindings
  - > Expressions
  - > Two-way data bindings with ngModel
  - > Template syntax
- LAB 3: Bindings

### **Chapter 5: Directives**

- > What are directives for?
- > Different kinds of directives
- > ngFor

LAB 4: ngFor

- > ngIf

LAB 5: Hiding things

- > ngSwitch

LAB 6: ngSwitch

- > How to create a custom directive?

LAB 7: Custom directive

### **Chapter 6: Pipes**

- > What are pipes for?
- > Examples of common Angular 2 pipes

LAB 8: Date pipe

- > How to create our own pipes?

LAB 9: Custom Pipe

### **Chapter 7: Services and dependency injection**

- > Difference between components and services
- > Dependency injection in Angular 2
- > Example of common service: Location
- > How to create a service?

LAB 10: Services

### **Chapter 8: HTTP service and asynchronous data**

- > How to use the HTTP service?
- > What is a promise?
- > What is an observable?

LAB 11: Observables and Promises

LAB 12: Using the HTTP client

- > Using the async pipe

LAB 13: Using the async pipe

### **Chapter 9: Component communication and lifecycle**

- > How do components share data?

LAB 14: Component communication

- > Introduction to the component lifecycle
- > Lifecycle hooks

### **Chapter 10: Component router**

- > What is the component router?
- > Example of component router in action
- > Child routes and route parameters

LAB 15: Component router

- > Lazy-loading
- > Guards for authentication and user rights

LAB 16: Authentication

### **Chapter 11: Forms**

- > How to handle forms with Angular?
- > Template driven forms and event driven forms
- > Form validation and submission

LAB 17: Template driven forms

LAB 18: Model driven forms

### **Chapter 12: Advanced tools**

- > Angular Mobile toolkit for progressive web apps
- > Angular Universal or how to pre-compile on the server
- > Angular Augury: Chrome Debugger

LAB 19: Angular Augury

### **Chapter 13: Testing Angular Applications**

- > How to test Angular 2 applications?
- > Karma and Jasmine
- > End to end tests with Protractor

LAB 20: Writing Unit tests

- > Angular Test Bed

LAB 21: Writing Component Tests

LAB 22: Mocking and stubbing

### **Chapter 14: Resources and best practices**

- > How to use angular.io (cheatsheet, etc.)
- > Style guide and best practices
- > Official Angular blog