

Angular2 (FT106)

32 Hours

Outline

Get up and running with Angular 2 the cutting edge development platform for building web & mobile application on both client and server. Students will gain practical knowledge of how to get start building Angular 2 applications the right way.

Target audience

JavaScript and frontend developers

Prerequisites

Basic knowledge of JavaScript and Frontend development

Contents

- NodeJS
- NPM
- Webpack
- Project structure
- Setting the IDE for Angular 2 development

TypeScript Primer

Getting familiar with TypeScript, the preferred language for Angular 2

- JavaScript 2015 module system (ES6 Import / Export)
- Classes and Interfaces
- Arrow functions and Template strings
- Working with types
- Decorators

Angular Architecture and Concepts

Understanding the concept of component composition and how it compares to the traditional MVC pattern.

- Component definition
- Breaking a design into components
- Components types
- Best practices and the design process

Components Deep Dive

The component is a core building block of an Angular application. In this module we will deep dive into the component metadata API.

- The bootstrapping process
- Building a basic component
- Shadow DOM
- Templates and Styles
- The Component class
- Data bindings and Template syntax
- Angular core directives

Component Composition

Composing multiple components into a coherent tree.

- Components types review
- Data projection, building a Wrapper component
- Component inputs - Working with properties
- Component outputs - Creating custom events
- Components communication using local variables
- Best practices

Angular Providers & Dependency Injection

Angular use dependency injection for instantiating and wiring object together.

- Understanding the role of the Provider
- Creating and using a class provider
- Other types of providers
- Understanding the dependencies injectors hierarchy
- Common patterns and best practices
- Angular built-in providers

Angular Router

Routing is a core concept in single page applications. Angular 2 introduced a new router that was built from scratch to integrate with the concepts of component compositions.

- Configuring a simple route
- Route parameters
- Defining nested routes
- Route guards

Angular Forms

The form management module.

- Configuring the forms module
- Using ngModel
- Template driven forms
- Model driven forms
- Form builder

Data Architecture

In Angular we can implements almost any architecture pattern, depends on our application type and logic.

- Layer style architecture with providers
- Stateless, event based architecture with Redux

Angular CLI

Introduction to the angular command line tool

- Overview and concept
- Project generation and basic commands
- Using the cli in practice

Unit Test

Angular 2 was designed with testability in mind as its predecessor and it provides multiple options to support Unit Testing.

- Introduction to Jasmine
- Setting up testing in Angular 2
- Unit Testing recipes (Components, Providers, Pipes, http and more)