
Introduction to Angular (TT4165)

Overview

Angular is one of the most popular JavaScript frameworks for creating web and native mobile applications. This introductory course thoroughly explores the latest Angular features and advances, demonstrating how to solve the traditional challenges of JavaScript web application development. You will build custom components, using application routes, form validation, and unit-testing and delve into component-driven development with Angular components.

Prerequisite Comments

TT4650 Web Essentials: HTML5 / CSS3 & JavaScript

Target Audience

In order to be successful in this class, incoming attendees are required to have current, hands-on experience in developing basic web applications, and be versed in HTML5, CSS3 and JavaScript. This is an introductory level Angular development course but an intermediate level web development class, designed for experienced web developers that need to further extend their skills in web development

Course Objectives

Working within in an engaging, hands-on learning environment, guided by our expert team, attendees will learn to:

- What Angular is and why should you use it
- How Angular reduces the amount of code that you must write to add rich functionality to both existing and new web pages
- What TypeScript is, why it is useful, and how to use it with Angular
- How to facilitate development and deployment using Angular CLI
- How to work with the various aspects of the Angular architecture to implement clean, responsive web interfaces
- How Routers can support navigation within a Single Page Application
- What the best practices are for using Angular so that it works unobtrusively and performs well
- How to use Angular with HTTP to support JSON, REST, and other services
- Best practices for Angular so that it works unobtrusively and performs well

Course Outline

1 - Angular Overview

Overview of Angular Architecture

2 - Getting Started with Angular

Getting Started with TypeScript
Bootstrapping with Angular CLI
Angular Project Structure

3 - Unit Testing with Angular

Testing and Angular

4 - Working with Angular

Components and Events
Third Party Libraries
Dynamic Views
Pipes

5 - Angular Forms

Forms and the Forms API

6 - Single Page Applications and Routes

Single Page Applications
Services and Dependency Injection
Modules

7 - Using RESTful Services

Overview of REST
Angular and REST

8 - Angular Best Practices

Angular Style Guide
What is New in Angular 9
Additional Topics (Time Permitting)
Lesson: ES6+
Sass and SCSS for Angular and Material
