Mastering Angular (TT4168)

Category: Software Development & Programming | **Vendor:** Trivera Tech

Duration: 40.00 hours (5 days) **32.5 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format: Instructor Led - Online

Course Overview

Mastering Angular is a five-day, hands-on course that thoroughly explores the latest Angular features and advances, demonstrating how to solve the traditional challenges of JavaScript web application development. Throughout the course students will build custom components using application routes, form validation, and unit-testing. The course starts with an introduction of Angular CLI and TypeScript, and then delves into component-driven development with Angular components, covering data-binding, directives, services, routing, HTTP, the RxJS library, forms unit testing, and REST. Students will also learn how to add authentication, use the Material library, learn the NgRX design pattern to implement the NgRX store, make custom directives, enhance their application with animations, write an E2E test, and increase their application's efficiency by lazy loading modules and creating their own Angular library

About This Course

Mastering Angular is a five-day, hands-on course that thoroughly explores the latest Angular features and advances, demonstrating how to solve the traditional challenges of JavaScript web application development. Throughout the course students will build custom components using application routes, form validation, and unit-testing. The course starts with an introduction of Angular CLI and TypeScript, and then delves into component-driven development with Angular components, covering data-binding, directives, services, routing, HTTP, the RxJS library, forms unit testing, and REST. Students will also learn how to add authentication, use the Material library, learn the NgRX design pattern to implement the NgRX store, make custom directives, enhance their application with animations, write an E2E test, and increase their application's efficiency by lazy loading modules and creating their own Angular library

Who Should Attend

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 intermediate level web development class, designed for experienced web developers, new to Angular, that need to further extend their skills in modern web development.

Learning Outcomes

Upon successful completion of this course, participants will be able to:

At the end of this five-day course, students will have an application up and running that incorporates components, directives, custom pipes, reactive forms, routes, services, unit testing, and the REST API. They will add authentication, implement the Material library, and learn how to maintain state with NgRX. They will then take a deeper dive including making their own custom directives, lazy loading modules, and E2E testing. They will learn how to enhance their application with animations and create their own Angular library.

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

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

Working with the Ahead of Time compiler including its impact of developers and the development process

How to defend against DOM-based XSS

How to manage routing decisions based on pre-defined criteria such as a successful authentication

How to meet huge data requirements by processing asynchronous data streams with RxJS

Simplify server-side rendering

How to facilitate unit testing

Enhance an Angular user interface with animations and other advanced features

Optimize Angular applications with various tools and techniques

Maintain state within an Angular application

What Angular 9 brings to the table and its relationship to Angular 8

Detailed Course Outline

Angular Overview

- Overview of Angular Architecture

Getting Started with Angular

- Getting Started with TypeScript
- Bootstrapping with Angular CLI
- Angular Project Structure

Working with Angular

- Components and Events
- Third Party Libraries
- Dynamic Views
- Pipes

Angular Forms

- Forms and the Forms API

Single Page Applications and Routes

- Single Page Applications
- Services and Dependency Injection
- Modules

Using RESTful Services

- Overview of REST
- Angular and REST

Angular Best Practices

- Angular Style Guide
- What is New in Angular 9

Reactive Programming in Angular

- Working with RxJS

Security and Authentication

- DomSanitizer
- JSON Web Tokens
- Route Guards

Enhancing the Angular App

- Angular Animations
- Angular Material
- Angular Elements

Deep Dive into Angular

- Testing and Angular
- Deep Dive into Components and Directives
- Deep Dive into Services and Dependency Injection

Optimizing for the Enterprise

- Lazy Loading
- Optimizing with Universal
- Creating Your Own Angular Library

Maintain State with NgRX

- NgRX Store
- Lesson: ES6+
- Sass and SCSS for Angular and Material

, Overview of Angular Architecture

Angular Versioning

Data Binding

Components and Dependency Injection

Services and Events

Common Component Lifecycles and Hooks

TypeScript

Angular, ES6 and TypeScript

Typing and Classes

Abstract Classes and Interfaces

Annotations

Generics

Optional Chaining

Nullish coalescing

Decorators

Partial, Record, Union types

Lab: Angular and TypeScript

Bootstrapping with Angular CLI

Angular CLI Overview

New Projects with CLI

Testing and Generating with CLI

Angular Console €œ NX Console

Angular Basics

Configuration Files

Working with angular.json

Top-Level Directories

Contents of app folder

Angular DevTools

Lab: Creating Projects with Angular CLI

Working with Angular

Components and Events

Data Binding and Components

Event Binding

Custom Events

Parent/Child Events

EventEmitter/emit()

Lab: Nested Components

Third Party Libraries

Angular and the Need for Libraries

Options for adding Libraries

Working with npm install

Lab: Third-Party Libraries

Dynamic Views - Directives

View Encapsulation

Structural/Attribute Directives

Conditional Styling

Lab: Working with Directives

Pipes

Overview of Pipes

Built-in Pipes

Formatting and Conversions

Parameterizing Pipes

Pure vs. Impure Pipes

Customizing Pipes

Lab: Built-in and Custom Pipes

Angular Forms

Forms and the Forms API

Forms and NgModel

NG Form Groups

NG Form Validation

Model-Driven Reactive Forms

FormBuilder API

Reactive Form Validation

Lab: Template-Driven Forms

Lab: Reactive Forms

Single Page Applications and Routes

SPA - Routing

Overview of the SPA Concept

Routing for Page Display

Working with ActivatedRoute

Location Strategies

Nested Routes

Lab: Routing

Services (Dependency Injection)

Angular's DI Framework

Components and Injectables

Tree-shakeable providers

Service Interfaces and DI

Constructor Injection

Lab: Services

Modules

Overview of Modules

Feature Modules

Feature Module Routing

Shared Modules

Lab: Modules

Using RESTful Services

Angular and REST

REST in Angular

Promises, Observables, Subject

HttpClient and Observables

async Pipes and HttpClient Interceptors

Reactive Programming in Angular

In depth - Working with RxJS

Working with RxJS in Angular

RxJS Operators

Creation Operators

Pipeable Operators

Filtering, Combining, and Mathematical Operators

Lab: Working with a REST API and RxJS

Testing and Angular

Testing Dependencies

Options for Testing in Angular

Karma

Jasmine

Lab: Unit Testing

Enhancing the Angular App

Advanced Routing - Route Guards €œOverview of Route Guards

Route Guard CanActivate

Using in a Service

Lab: Route Protection

Angular Material (Design)

Gesture Support

Material Icons and Components

Materials Themes

Custom Themes

Lab: Angular Material

Deployment, Errors, and Debugging

Angular Deployment

Deployment options

Server Configurations

Production Optimizations

Angular Error Handling and Debugging

With Chrome DevTools

With VS Code

Http client request errors

Lab: Debugging Angular

Bonus Content / Time Permitting

Angular Style Guide

Recent Angular Improvements

Upgrading Angular

Single Responsibility Principle

Naming Conventions

Coding Conventions

Application Structure

Routing

Additional Course Details

Nexus Humans Mastering Angular (TT4168) training program is a workshop that presents an invigorating mix of sessions, lessons, and masterclasses meticulously crafted to propel your learning expedition forward.

This immersive bootcamp-style experience boasts interactive lectures, hands-on labs, and collaborative hackathons, all strategically designed to fortify fundamental concepts.

Guided by seasoned coaches, each session offers priceless insights and practical skills crucial for honing your expertise. Whether you're stepping into the realm of professional skills or a seasoned professional, this comprehensive course ensures you're equipped with the knowledge and prowess necessary for success.

While we feel this is the best course for the Mastering Angular (TT4168) course and one of our Top 10 we encourage you to read the course outline to make sure it is the right content for you.

Additionally, private sessions, closed classes or dedicated events are available both live online and at our training centres in Dublin and London, as well as at your offices anywhere in the UK, Ireland or across EMEA.

Frequently Asked Questions

Q: What delivery options are available for Mastering Angular (TT4168)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: How many CPD hours does this course provide?

The 5-day Mastering Angular (TT4168) course provides up to 32.5 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Mastering Angular (TT4168) training?

The training takes place over 5 day(s), with each day lasting approximately 40.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Mastering Angular (TT4168)?

Yes, we provide corporate training, dedicated training, and closed classes for Mastering Angular (TT4168). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: What related terms do people search for?

Popular related searches include: JavaScript; React

Q: Why choose Nexus Human for Mastering Angular (TT4168)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Mastering Angular (TT4168) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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