

Advanced Angular 10

FT104

40 hours

Course Outline:

We already worked with Angular 2+ for more than a year, now it's time to take it to the next level... How do I create a professional web application using Angular 10 ? How do I optimize the performance of the app and improve the initial load time? How to properly structure my angular projects for better code reuse, and better team work on the projects?

In this course we will dig deep into the more complex topics that you need to know in order to create a professional app using angular, those topics are hard to understand, hard to find information online and are not covered in the basic angular courses. Our goal is to truly become a professional angular developer.

On completion, students will be able to:

Build a professional web application using Angular

Who should attend the course:

Software developers with 1+ years of experience in Angular 2+

Prerequisites:

- Typescript and JavaScript
- HTML
- CSS
- Basic Angular 2+



Course Contents:

Module 1 - Advanced async js with RXJS and Promise

- recap promises
- promise chaining
- async await functions
- comparing promises to observables
- observables
- observers
- subscription
- common operators
- dealing with async errors
- from promises to observables and vica versa

Module 2 - Advanced @angular/cli

- New @angular/cli features
- Monorepository
- Working in workspace mode
- Infrastructure and creating angular libraries
- Ivy renderer
- AOT / JIT
- Deployment

Module 3 - Styling best practices

- global styling and local styling
- scss
- encapsulation
- arranging your styling project

Module 4 - Platform agnostic and Server Side Rendering

- Does angular work only for web?
- What is Server side rendering (SSR) and why do I need it?
- Universal code
- PLATFORM_ID, isPlatformBrowser
- Routing and lazy loading with SSR
- SSR difficult use cases:
- Dynamic import for one of the platforms
- Dynamic component for one of the platforms



Module 5 - Advanced forms

- How angular wants us to look at forms
- AbstractControl, FormControl, FormArray, FormGroup
- ControlValueAccessor
- Custom form components
- Custom validation directives
- Material design introduction

Module 6 - Change Detection

- when does angular trigger change detection?
- how does angular detect change detection
- zone.js
- change detection strategy onpush
- optimizing our app performance
- what triggers onpush change detection

Module 7 - Dependency Injection

- How DI works in angular
- providers in component metadata
- Injector service
- InjectionToken

Module 8 - Authentication

- JWT
- Interceptors
- JWT interceptors
- routing guards for authenticated users
- advanced routing

Module 9 - Animation

- @angular/animations
- animation state machine
- ex simple animation
- animation on list
- screen transitions



Module 10 - Redux

- ngx
- What is Redux
- Advantage of using Redux and ngx
- Store, Actions, Reducers
- Effects
- Entities
- @ngrx/data
- Best practices

