

Sela.

AdvancedAngular

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Advanced Angular

AdvancedAngular - Version: 1

 4 days Course

Description:

This training is specifically designed for experienced Angular developers who want to deepen their knowledge and skills in advanced Angular concepts and techniques. The course includes hands-on exercises, practical examples, and real-world scenarios to reinforce the learning experience.

Intended audience:

Experienced Angular developers

Prerequisites:

Basic Angular knowledge

Objectives:

Expand Angular programming skills

Topics:

Architecture Considerations

- Implementing BL & DAL Layers
- Async Flow



- Architecture Best Practices
- Performance Considerations

Authentication & Authorization

- Authentication & Authorization Basics
- JSON Web Token (JWT)
- Ent-2-End Authentication with JWT
- Access Express Bases Server
- Authentication in MEAN Stack Application

Angular Http Interceptors

- Interceptors Basics
- Implement Interceptors
- Logging & Caching Interceptors
- Authentication Interceptors

Angular Reactive Programming

- Reactive Programming paradigm
- Observer Design Pattern
- Promise vs. Observable
- Streams with Observables & Subjects
- Observables build-in implementations
- Observables Operators
- Reactive Architecture Considerations
- Best Practices
- Preventing memory leaks



Redux

- State Machine
- Flux design patterns
- Redux basics
- Reducer
- Actions
- Store
- Implement Redux with @ngrx or MobX

Routing & SPA (Single Page Application)

- What is Routing
- The need for routing
- Routing options
- Path Location
- Passing parameters
- Nested routes
- Advanced Routing Scenarios
- Guards & Async Guards
- Module Lazy Loading

Change Detection

- What is change detection
- When does change detection happen in angular
- What is zone.js
- How angular use zone.js for change detection
- NgZone
- ChangeDetectorRef



- Change detection strategies
- When will OnPush detect changes
- Observables and immutables to leverage OnPush

Providers & Injections

- Dependency Injection (DI) basics
- Providers Scope
- Injections strategies
- DI Best practices

Angular Unit Testing

- Unit Testing Basics
- Mocha
- Chai
- Karma
- Mocking
- Component Unit Testing
- Service Unit Testing
- End-To-End Unit Testing
- Automation with TestCafe

Signals

- Reactive – the new way
- Signals
- Computed Values
- Change Detection with Signals
- Integrating with rxjs



Access GraphQL Server (If time permits)

- GraphQL vs REST API
- Schemas
- Query & Mutation
- Full Stack with Angular & GraphQL (Node.JS based) server

Improving Performance

- What is change detection
- When does change detection happen in angular
- What is zone.js
- How angular use zone.js for change detection
- NgZone
- ChangeDetectorRef
- Change detection strategies
- When will OnPush detect changes
- Observables and immutables to leverage OnPush
- Lazy Loading

Selected Topics

- Pipes
- ViewChild & ViewChildren
- Composition