[sf≡ir] Institute

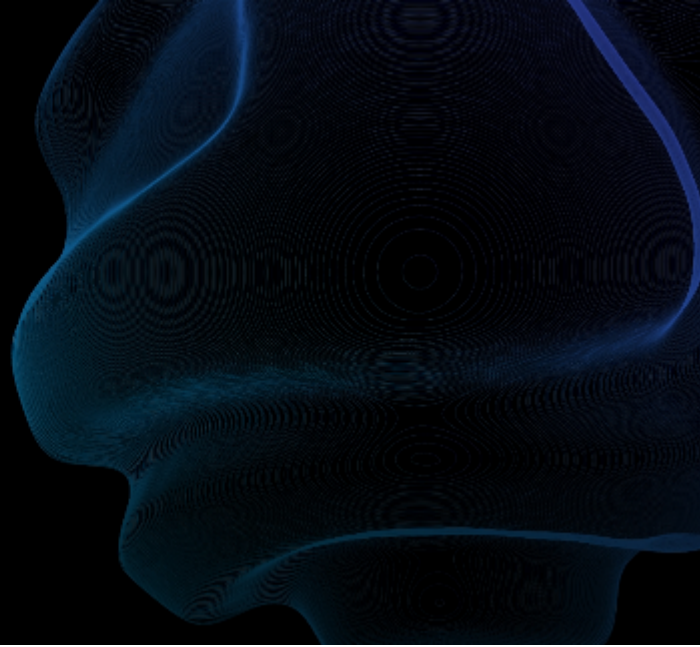SFEIR Institute, SFEIR Institute │ ANGULAR

Angular

5jours / 35h

Learning outcomes

- Develop (single page) applications with Angular
- Understand the orientations of the Angular framework (components, server calls, forms, dependency injection, etc.)

Target audience

Developers, integrators, software architects, technical project managers

Prerequisites

- Knowledge of HTML and CSS.

Having followed or have knowledge equivalent to the courses:

- JavaScript: language fundamentals
- JavaScript: Developing web applications
- TypeScript: language fundamentals

Course Outline

1 Getting started with Angular

- Angular installation
- Getting started with a component
- Starting an application
- Presentation of modules

Workshops:

- Creating a component
- Running an application

2 Databinding

- Getting started with the Angular databinding mechanism: variables, properties, events

Workshops:

- Creation of binding variables and properties
- Creation of an event

3 Observables

- Angular choice to use RxJS
- Basic principles of an observable
- Presentation of some operators

Workshops:

- Basic handling of observables

4 Components

- Analysis of the attributes of a component
- Presentation of the directives
- Presentation of annotations
- Presentation of classes
- Presentation of communication between components
- Presentation of the life cycle of a component

Workshops:

- Creation of a component and a subcomponent to test nesting and communication
- Event management on a component

5 Server communication

- Presentation of the http module
- Handling observables

Workshops:

- Handling a server call
- Handling observables

6 Routing

- Setting up the router
- Router configuration

Workshops:

- Setting up a navigation mechanism

7 Services

- Getting started with Angular services
- Presentation of dependency injection

Workshops:

- Creation of a service

8 Forms & validation

- Presentation of the different form elements
- Template-driven form
- Model-driven form
- Manipulation of validators

Workshops:

- Template driven, model driven form creation
- Creation of a validator

9 Pipes

- Presentation of pipes
- How to create your own pipes

Workshops:

- Use of Angular pipes
- Creation of a custom pipe

10 Advanced use of directives

- Reminders on directives
- How to create your directive

Workshops:

- Creation of a directive

11 Advanced communication

- Presentation of the Flux pattern
- Presentation of NgRX and NgXs tools

Workshops:

- Handling NgRX or NgXs

12 Module: Deployment

- Presentation of the deployment of Angular applications
- Jit, AoT
- Introduction to diagrams

Workshops:

- Generating an Angular application

13 Testing an application

- Presentation of tests on Angular
- Karma & Jasmine
- Asynchronous tests
- Mocking mechanism

Workshops:

- Unit testing of a service, a component and a directive

14 Advanced concepts

- Angular and lazy loading
- Using guard
- Presentation of zones and the OnPush strategy
- Advanced routing

Workshops:

- Breakdown of the application into module to lazyload
- Use of advanced routing