

Course : Angular - Web application development

Practical course - 3d - 21h00 - Ref. LNF

Price : 2150 CHF E.T.

NEW

Angular is Google's benchmark JavaScript framework. It offers enhanced performance with a modular, mobile-friendly design, as well as improved productivity for your development teams. Angular immediately benefits from a rich ecosystem and an ever-growing community. During this training course, you'll build a complete and robust Angular application, enabling you to experience all the subtleties of the framework. This training program is intended for employees of professional branches covered by the OPCO Atlas.

Teaching objectives

At the end of the training, the participant will be able to:

- Understand the key concepts of Angular and its latest developments
- Developing an Angular web application with JavaScript and TypeScript
- Test and secure your development
- Create reusable, modular components
- Good development practices

Intended audience

For OPCO Atlas members.

Prerequisites

Avoir des connaissances pratiques sur les technologies du web, les outils actuels de développement front end et JavaScript.

Practical details

Hands-on work

Discussions, practical work.

Teaching methods

To optimize the learning experience, e-learning modules can be provided before and after the classroom session or virtual class, at the participant's request.

PARTICIPANTS

For OPCO Atlas members.

PREREQUISITES

Avoir des connaissances pratiques sur les technologies du web, les outils actuels de développement front end et JavaScript.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more. Participants also complete a placement test before and after the course to measure the skills they've developed.

Course schedule

1 JavaScript, learning the basics - Pre-training digital learning content

- Introduction.
- Basic language.
- Script execution.
- JavaScript objects and callbacks.
- DOM manipulation.

Digital activities

This online training course introduces the essential basics of JavaScript, such as functions, conditions and loops, so you can develop your first applications independently. Participants will put their knowledge into practice by creating a task management application (ToDoList), and will be ready to tackle frameworks such as AngularJS or Node.js.

2 Evolving standards

- ECMAScript 2019-2023.
- Native modules.
- Web components.

Hands-on work

Implement the development environment.

3 Angular fundamentals

- Application structure.
- The components.
- Angular modules, "core" and main modules.
- Templates and styles.
- Using Angular CLI.
- The different types of binding.
- Encapsulating views and styles.
- Filters, custom filters.
- Directives, personalized directives.
- Template variables.
- Decorators and their properties in detail.
- The events.
- Forms: Reactive Forms, FormControl and FormGroup.
- Form validation.

Hands-on work

Building an interactive application with Angular.

4 The components

- Templates and their syntax.
- Different forms of data binding.
- Change detection.
- Component life cycle.
- Communication between components.

Hands-on work

Test each of the component points in the interactive application.

TEACHING AIDS AND TECHNICAL RESOURCES

- The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
- At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
- A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

5 Dependency injection

- Principles of the injection mechanism.
- Annotations and decorators.
- Injector configuration.

Hands-on work

Implement and configure the interactive project.

6 "Routing" and HTTP requests

- Declare your routes.
- Parameter management.
- Data resolution.
- Named, protected roads.
- The Promises.
- Observables.
- Angular http client.
- Query authentication.

Hands-on work

Rework the application, integrating the points detailed in the chapter. REST API consumption.

7 Unit testing

- The Karma test engine.
- The Jasmine framework.
- Component testing.
- Service testing.
- Routing tests.

Hands-on work

Resume the interactive application, integrating the points detailed in the chapter.

8 End-to-end testing

- The Protractor test engine.
- Test framework.
- User events.

Hands-on work

Set up Protractor on the interactive application.

9 Angular 16, building dynamic, interactive applications - Post-training

digital learning content

- Initiating a web application project with Angular.
- Getting to grips with Angular.
- Data management via services.

Digital activities

This 1h34 online training course teaches how to use Angular 16 to develop dynamic and interactive web applications. After an introduction to the development of Single Page Applications and the use of the Angular command line, participants will create a threaded project to master components, the display of dynamic data and the structuring of code with services. They will also discover how to use RxJs to manage asynchronous data flows and adopt Angular development best practices.

Dates and locations

REMOTE CLASS

2026: 17 Mar., 9 June, 22 Sep., 1 Dec.