

Course : ReactJS, advanced programming

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

Price : 2120 CHF E.T.



4,6 / 5

BEST

Originally a simple internal tool for Facebook, React has become one of the leading open source JavaScript libraries. With this training course, you'll deepen your mastery of React, discover its latest features and the ecosystem you need to design even more advanced web applications.



Teaching objectives

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

- ✓ Understanding advanced ReactJS concepts
- ✓ Optimizing the performance of ReactJS applications
- ✓ Improve product code quality
- ✓ Integrate the various essential external libraries
- ✓ Enhance the user experience with Redux's advanced features

Intended audience

Web developers, architects.

Prerequisites

A first concrete experience with React and Redux and/or have followed the training course "ReactJS, mastering Facebook's JavaScript framework" (Ref. TJS).

Course schedule

1 Introduction

- ES6+ and modules.
- Key React principles: VirtualDOM, JSX, One-way Data Flow.
- Discover the ecosystem of ReactJS tools.

Hands-on work

Set up a development environment optimized for React and a first web application that will serve as a common thread for subsequent chapters.

PARTICIPANTS

Web developers, architects.

PREREQUISITES

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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.

2 Good development practices

- Productivity reminders: prop-types and DefaultProps, component sheet with StoryBook.
- Code typing with flow or TypeScript.
- Rapid component prototyping, solutions.
- Set up unit and functional tests.

Hands-on work

Improved application quality thanks to automated typing and testing.

3 Advanced techniques and design patterns

- The pattern of higher order components (HOC).
- Rendering in remote DOM elements with portals.
- Dependency injection with contexts.
- "React hooks" functional programming: useEffect, useState.
- React: creation of "customHooks" to distribute custom logic.

Hands-on work

Implementing contexts and portals in the fil rouge application. Creating functional components and using hooks.

4 Advanced Redux

- Redux reminder: the different entities, basic syntax and integration with React.
- Simplify and optimize form creation with Redux Form.
- Enhance user experience with Redux Persist and local state storage.
- Create Redux Custom middleware.

Hands-on work

Convert form to Redux Form and save navigation.

5 Performance optimization

- API for React.Suspense optimization React.Lazy, concurrent mode and React.Cache.
- Server side rendering with NextJS.
- How to optimize component life cycles?
- Use immutability to speed up and simplify processing.
- Pure components.

Hands-on work

Implementing splitting code with React.Lazy and Suspense.

6 Animations/transitions

- Animate components "by hand" using CSS animations and transitions.
- Simplify your work with React Transition Group.
- Going further with the main animation libraries: comparison and examples of implementation.

Hands-on work

Added transition for the appearance/disappearance of different screens.

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.

7 Internationalization

- Internationalization versus localization: differences and usage scenarios.
- The main internationalization bookshops.
- Integration with React and Redux.

Hands-on work

Translation of the "fil rouge" application and management of the language change.

Dates and locations

REMOTE CLASS

2026 : 27 May, 8 July, 16 Sep., 30 Nov.