

# ReactJS: Mastering the Facebook JavaScript framework

Hands-on course of 3 days - 21h

Ref.: TJS - Price 2024: €2 070 (excl. taxes)

## EDUCATIONAL OBJECTIVES

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

Developing with ReactJS

Design an SPA with ReactJS and Flux

Understand the JSX JavaScript subset

Optimize the performance of the RIAs

## TEACHING METHODS

Guided development. 50% theory illustrated by 50% practice.

## HANDS-ON WORK

You'll build a complete application based on the ReactJS framework.

## THE PROGRAMME

last updated: 07/2021

### 1) Refreshers on the components of the RIAs

- Fundamentals. HTML, CSS, Javascript. The DOM.
- Conventional app design patterns. Limitations of JavaScript applications.
- Ecosystem of JavaScript frameworks.
- Data-Binding principles: dirty-checking, observable, virtual-dom.
- ReactJS, positioning and philosophy.
- JSX, presentation. Implementing "Transpilers".
- Development environment. IDE and plug-ins.

*Hands-on work* : Setting up the development environment. Introduction to JSX. Defining the app's structure.

### 2) Developing with ReactJS

- Approach: MVC and Virtual Dom, a matter of performance.
- Using JavaScript or JSX.
- Understanding JSX in detail. Pitfalls to avoid.
- Main API methods.
- Creating view components. Lifecycle.
- Initializing properties.
- Render Function: management of component states.

*Hands-on work* : Defining and producing components according to the determined specifications.

### 3) Interactivity of components

- Event management. "autobinding" and delegation.
- Design Pattern: strategy for stateful components.
- Composing in sets.
- Component Data Flow: owner, children and dynamic creation.
- Reusable components: control and transfer of properties.
- Control of form components.
- DOM manipulation.

*Hands-on work* : Creating a structured set of UI components.

## 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.

## 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.

#### 4) Single-page app with ReactJS and Flux or Redux

- Flux/Redux: presentation. Data propagation.
- Comparison of architectures.
- Creating views and controllers in Flux.
- Role of the Dispatcher in Flux for actions.
- The Stores, logical state manager in Flux.
- Definition of Functional Programming.
- Approach with Redux. The "Reducer".
- Extension for ReactJS: "hot-loader".

*Hands-on work* : Incorporate an SPA.

#### 5) Isomorphic application

- Principle and benefits of isomorphic development.
- Server-side JavaScript ecosystem.
- Introduction to NodeJS.
- Configuring NodeJs for ReactJS.
- Organizing routes.

*Hands-on work* : Server-side pre-render of an application.

#### 6) Introduction to React Native

- Positioning, differences with Cordova.
- From React to native iOS components, a project to follow.

*Demonstration* : Application using React Native.

## DATES

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REMOTE CLASS

2024 : 08 Jul, 23 Oct