ORSYS TRAINING

ReactJS: Mastering the Facebook JavaScript framework

Hands-on course of 3 days - 21h
Ref.: TJS - Price 2025: 2 100 (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: 02/2024

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.

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

REMOTE CLASS
2025 : 18 août, 19 nov.