



# React JavaScript

## Description

### Master application development with ReactJS

ReactJS is currently one of the most popular JavaScript libraries for single-page application development. With our ReactJS training, you will learn how to build dynamic interfaces, manage states, and understand the importance of components. This course covers the essentials of ES6 and React, from the basics of modern JavaScript to the creation of robust web applications. You will discover how to use JSX, manage props and state, and set up efficient routing. It is ideal for developers looking to expand their front-end skills with ReactJS.

## Course Content

### Module 1: ES6 Primer

- History of Javascript
- What is ES6
- A word on bable
- Block scope, let & const
- Template literals
- Arrow functions
- Spread and Rest operators
- Object literal improvements
- Destructuring
- Classes
- Inheritance
- Static properties and methods
- Promises
- Iterators and Iterables
- Generators
- Modules
- Set and Map

### Module 2: Introduction to React

- What is React?

- Why React?
- React version history
- React 16 vs React 15
- Just React - Hello World
- Using create-react-app
- Anatomy of react project
- Running the app
- Debugging first react app

### **Module 3: Templating using JSX**

- Working with React.createElement
- Expressions
- Using logical operators
- Specifying attributes
- Specifying children

### **Module 4: It's all about components**

- Significance of component architecture
- Types of components
- Functional
- Class based
- Pure
- Component Composition

### **Module 5: Working with state and props**

- What is state and its significance
- Read state and set state
- Passing data to component using props
- Validating props using propTypes
- Supplying default values to props using defaultProps

### **Module 6: Rendering lists**

- Using React key prop
- Using map function to iterate on arrays to generate elements

### **Module 7: Event handling in React**

- Understanding React event system
- Understanding Synthetic event
- Passing arguments to event handlers

### **Module 8: Understand component lifecycle**

- Understand component lifecycle

### **Module 9: Working with forms**

- Controlled components
- Uncontrolled components

- Understand the significance to defaultValue prop
- Using react ref prop to get access to DOM element

### **Module 10: Routing with react router**

- Setting up react router
- Understand routing in single page applications
- Working with BrowserRouter and HashRouter components
- Configuring route with Route component
- Using Switch component to define routing rules
- Making routes dynamic using route params
- Working with nested routes
- Navigating to pages using Link and NavLink component
- Redirect routes using RedirectComponent
- Using Prompt component to get consent of user for navigation
- Path less Route to handle failed matches

### **Module 11: Just Redux**

- What is redux
- Why redux
- Redux principles
- Install and setup redux
- Creating actions, reducer and store

### **Module 12: Immutable.js for immutable datastructures**

- What is Immutable.js?
- Immutable collections
- Lists
- Maps
- Sets

### **Module 13: React Redux**

- What is React Redux
- Why React Redux
- Install and setup
- Presentational vs Container components
- Understand high order component
- Understanding mapStateToProps and mapDispatchToProps usage

### **Module 14: Unit testing in react**

- Understand the significance of unit testing
- Understand unit testing jargon and tools

### **Lab / Exercises**

- Lab 1: ES6 Primer
- Lab 2: Introduction to React
- Lab 3: Templating using JSX
- Lab 4: It's all about components
- Lab 5: Working with state and props

- Lab 6: Rendering lists
- Lab 7: Event handling in React
- Lab 8: Understand component lifecycle
- Lab 9: Working with forms
- Lab 10: Routing with react router
- Lab 11: Just Redux
- Lab 12: Immutable.js for immutable datastructures
- Lab 13: React Redux
- Lab 14: Unit testing in react

## Documentation

- Digital courseware included

## Participant profiles

- Javascript developpers and architects

## Prerequisites

- Substantial prior experience developing with JavaScript
- It is recommended to have attended to the following course: [Introduction to JavaScript](#)

## Objectives

- Code using new ES6 language features
- Develop an application from scratch using React 16
- Understand the benefits of unidirectional data flow
- Understand and use React, React Router, Redux, Redux Saga
- Use styled-components to create presentational components (CSS in JS)
- Taking the advantage of React and Redux dev tools for better debugging
- Taking the advantage of immutable.js library to follow the immutable state principle
- Unit test React components, redux using Jest, Enzyme and sinon

## Description

ReactJS Training

## Niveau

Fondamental

## Classroom Registration Price (CHF)

2300

## Virtual Classroom Registration Price (CHF)

2150

## Duration (in Days)

3

## Reference

REACTJS