

## React

**Duration: 4 Days**    **Course Code: REACT**    **Delivery Method: Company Event**

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### Overview:

#### React Course Overview

The React course comprises sessions dealing with setting up for and creating a React app, JSX and element rendering, components and props, state and lifecycle, hooks, event handling, lists and keys, forms, composition and inheritance, React Router, Flux, and Redux. React Native is not covered on this course.

Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.

#### Company Events

These events can be delivered exclusively for your company at our locations or yours, specifically for your delegates and your needs. The Company Events can be tailored or standard course deliveries.

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### Target Audience:

#### Who will the Course Benefit?

The React course is designed for JavaScript developers who are interested in using React to build fast, single page, client-side web applications.

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### Objectives:

#### ■ Course Objectives

■ This course aims to provide the delegate with the knowledge to be able to build a Single Page Application (SPA) composed of React components and incorporating React Router. The delegate will also be exposed to application state containers including Flux and Redux and local state management via Hooks.

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### Prerequisites:



Delegates should be able to:

- Build and style simple web pages using HTML & CSS
  - Build JavaScript applications that exploit all fundamental elements of the language including variables and expressions, conditions and loops, functions, objects, arrays, the DOM, and event handling
- This knowledge can be gained by attendance on the pre-requisite Modern, Responsive Websites with HTML & CSS and JavaScript Developer courses.
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### Follow-on-Courses:

#### Further Learning

- PHP Developer
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## Content:

### React Training Course Course Contents - DAY 1

#### Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

#### Session 1: INTRODUCTION

- Understanding React
- Using Babel
- Create-React-App
- Setup ; Project Structure

#### Session 2: MODERN JAVASCRIPT

- Single Page Applications
- Transpilers ; Polyfills
- ES6 Features
- Primitive ; Reference Types
- Template Literals
- Destructuring
- Let,Const ; Var
- Arrow Functions
- Understanding Classes
- Decorators
- Spread and Rest Operators
- Default Parameters and Values
- Exports and Imports
- Modules
- Array Functions
- Promises
- Generator Functions
- Sets and Maps
- Functional JavaScript
- Typescript

#### Session 3: JSX ; ELEMENT RENDERING

- Virtual DOM
- JSX
- Lists and Keys

#### Session 4: COMPONENTS ; PROPS

- What is a Component
- Functional vs. Class Components
- React Props
- State in Brief
- Typechecking
- Composition ; Inheritance React Training Course Course Contents - DAY 2

#### Session 5: STATE ; LIFECYCLE

- State vs. Props
- Adding State
- Lifting State Up
- Component Lifecycle
- Component Lifecycle Methods
- Immutability

#### Session 6: EVENT HANDLING

- Handler Assignment
- Binding to *this*
- Passing Arguments to Event Handlers
- Custom Components ; Events
- Synthetic Event

#### Session 7: FORMS

- Controlled Components
- Uncontrolled Components
- Using Refs
- Forms JSX Summary
- Validation
- Form Libraries

#### Session 8: REACT ROUTER

- Using react-router
- Core Components React Training Course Course Contents - DAY 3

#### Session 9: HOOKS

- Motivation: Stateful Logic Re-Use
- Functional Vs Class Components Refactored
- Local State Without A Class: Internals
- Standard Hooks
- Custom Hooks: The Anticipated Future
- The (Only) Rules of Hooks

#### Session 10: FURTHER REACT

- Testing React
- React Performance
- Production Build/Deploy
- Refs ; DOM
- React Patterns
- Authentication
- JSON Web Token
- Third Party Components React Training Course Course Contents - DAY 4

#### Session 11: FLUX

- Flux vs MVC
- Flux Main Components
- Flux Flow in Action
- Flux Utils
- Flux Implementations

#### Session 12: INTRODUCING REDUX

- Redux: Inspired by Flux
- Core Redux: Actions,Action Creators,Reducers,Store
- Redux Data Flow

#### Session 13: REDUX ; REACT

- Introduction and Setup Environment
- Components of React Redux
- React Data Flow
- Redux Recipes
- Redux DevTools

#### Session 14: FURTHER REDUX

- Middleware
- Redux Thunk
- Redux Saga

## Further Information:

For More information, or to book your course, please call us on 0800/84.009

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[www.globalknowledge.com/en-be/](http://www.globalknowledge.com/en-be/)