

React

ReactJS - Version: 3

 **4 days Course**

Description:

React is a JavaScript library for creating user interfaces. React is intended to help developers build large applications with data that changes over time.

In this course we will learn how to use ReactJS and the Redux library to create next gen web applications. The course covers all the practical aspects of developing with React and managing data and server communication with Redux. After the course, students will be able to join existing React project or start developing new projects and features.

Intended audience:

JavaScript and Frontend developers

Prerequisites:

Basic knowledge of JavaScript and Frontend development

Objectives:

Topics:

Module 1 - Introduction

- React Overview
- React Development Environment
- Setting up a React Project
- Create-React-App
- High level architecture

Module 2 - Components Basics

- Components Overview
- Class Components
- Functional Components
- Bootstrapping
- Understanding JSX
- Embedding Expressions in JSX
- Component Styling

Module 3 – Components Props, State & Lifecycle

- Understanding Props
- Understanding State
- Using State Correctly
- Handling events
- Component Lifecycle

Module 4 – Conditionals And Lists

- Conditionals
- Lists
- List Keys
- Lists & State

Module 5 - Reaching out to the Web (HTTP/Fetch)

- Async Javascript
- Promises
- Async/Await
- Fetch API
- Fetch in React
- Fetch error handling
- Using environments variables

Module 6 - Components Deep Dive

- Component's Children
- Lifecycle in depth
- Pure Components
- Fragments
- Higher Order Components
- Refs and DOM
- Context API

Module 7 - Hooks

- Introduction to hooks
- Basic hooks
- Rules of hooks
- Custom hooks
- Additional hooks

Module 8 - Routing

- Routing
- Setting up React-Router
- Routes
- Links
- Parametrized Routes
- Route Props
- Navigating Programmatically
- Switch

Module 9 - Forms

- Forms in React
- Uncontrolled components
- Controlled components

- Controlled Input
- Controlled Checkboxes & Radio buttons
- Controlled Select

Module 10 - Introduction to Redux

- What is redux
- Motivation
- Redux Three Principles
- Immutable state updates
- Splitting Reducers
- Redux devtools

Module 11 - React Redux

- React with Redux
- Implementing Actions
- Implementing Reducers
- Connecting the Store
- Presentational and Container Components
- Implementing Container Components
- Connect
- Async Actions (Redux thunk)

Module 12 - Testing Jest

- Testing overview
- JEST
- React components testing