

React with TypeScript

Course 3378 | 40 Hours



Overview

This course focus on implementing Single Page Application via React technology using Typescript. The course details the SPA architecture and details about the different roles in client MVC design. The course walks through the way of designing and constructing a fully features SPA compliant web modules with React and covers both basics and advanced features.

This course focused on the new React versions and Hooks features combine functional programing with React.

These days, react technology becomes very popular for complex and advanced front end development and becomes a popular long-run solution for web based services.

We will combine an example using open AI to bring the latest innovations from the industry.

On Completion Delegates will be able to

- SPA
- Describe React technology and application structure
- Use React basic components
- Use ECMAScript
- Typescript
- Combine Redux with React
- Use routing and asynchronous messaging
- Use some React advanced features

Who Should Attend?

Web developer that choose React as their solution for constructing Single Page Applications and implement client side.

Prerequisites

- Experience in client-side technologies based on HTML & CSS
- Experience in JavaScript programming
- Some background in REST and Web-Services

Course Contents

Introduction to SPA

- SPA Architecture
- Getting ready for future internet clients & IoT
- Overview of supporting technologies (AJAX, REST)
- Vite.js

JavaScript for react

- JavaScript latest features
- Using async await
- Functional programming
- Pure functions
- Higher order function
- Shallow copy VS Deep copy
- Modular programming

TypeScript

- Interfaces
- Type declaration
- Classes & modifiers
- Generics
- Modules
- Type narrow
- Tools

Introduction to React

- React Lib concept
- Create react App
- Folder recommendation structure
- Dynamic Imports and file loading
- Component architecture
- The virtual DOM

React components & Lifecycle

- Basic components
- State & props
- Stateless components
- Stateful components
- Class component & lifecycle
- Function components

- Writing reusable components
- Styling components (Style module vs global CSS)
- Story book
- Class vs function components
- Managing component state
- Hooks
 - useState
 - useEffect
 - useMemo
 - useCallback
 - useDeferredValue
 - useRef
 - useId
 - useTransition
- React children

Global State management

- Introduction to Redux
- Zustand Vs Redux
 - Redux Flow
 - Redux setup
 - React-redux & redux
 - Redux toolkit
 - Action creator
- React terms:
 - Store
 - Action
 - Reducer
 - Middleware
- Combined with React
 - Use store with React
 - Using reducers and actions to manage component state
 - useSelector & useDispatch
 - Dev tools support

React routing

- React router
- Single routes
- Multiple routes
- Protected routes

Error Handling

- Error boundaries
- componentDidCatch

React concurrency

- Suspense
- Lazy loading
- Better performance

If Time permits – Testing and more

- MF's
- Mocha/Jest
- UI tests – with playwright
- React query

ג'יון בריס הדרכה

מגוון הכשרות טכנולוגיות באיכות גבוהה למידה מתקדמת וחדשנית



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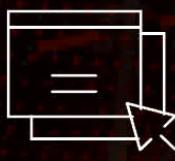
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להתקנות הטכנולוגיות בשוק
ולביקוש בתעשייה ההייטק



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