Updated 12/13/2024

Sign up

NextJS 15 training

3 days (21 hours)

Presentation

NextJS is a JavaScript framework built for React and based on Node.js technology. It is capable of creating applications that provide both server-generated pages on each request and static pages generated during the application build.

NextJS lets you create JavaScript applications with code shared between client and server. It has an integrated routing system that's very easy to use. Another advantage of this tool is its contribution to SEO: thanks to Next, you can optimize the referencing of your Singles Pages Apps.

Our Next training course will introduce you to the fundamental concepts of the framework. You'll learn how to develop a web application project, the Data Fetch concept and the different development modes.

These include Server Side Rendering (SSR) and static rendering.

This NextJS training course will teach you the latest version of the NextJS 15 framework.

Objectives

- Creating universal web applications
- Master SSR, SSG and ISR with the NextJS framework
- Creating search engine optimized web pages
- Creating static and dynamic sites
- Implement data fetching via a static (build) or dynamic (run time) strategy

Target audience

- JavaScript developers

- Front-end developers
- Web developers

Prerequisites

- Knowledge of JavaScript, HTML, CSS
- Basic knowledge of ReactJS or have attended our ReactJS training course

Next.JS training program

Introduction to NextJS

- What is NextJS?
- Installation
- Configuration
- Basic functions with NextJS
- Using ReactJS components in pages

Developing an application with NextJS

- Structure of a NextJS application
- Creating an application project
- Creating and using components
- Application state management through React Context
- Links and forms

Routing system

- Routing system
- Link component
- Involvement in tree routing and folder naming
- Creating dynamic routes
- Dynamic route parameters
- Querying a route using a parameter
- Parameter ID
- Route Catch-All
- Route grouping

Deployment

- NextJS deployment environment
- NextJS deployment on Vercel
- Deploying large websites with NextJS

Data Fetching

- Introduction to getServerSideProps
  - Data recovery
  - Dynamic routes with getServerSideProps
  - Introduction to getStaticProps
    - Data recovery
  - Static routes with getStaticProps
- Use of SSR, CSR and SSG
- Using middleware

TypeScript with NextJS

- Plugin overview
- Best practices

Database configuration

- Creating a database
- Database connection
- Testing the application

API

- Creating basic APIs
- Creating forms
- Changing data with the "POST" request
- req and res objects
- JWT authentication
- Adding a REST API
- Sending, retrieving and transforming data
- Action servers

Page optimization

- Using CSS
- CSS Framework
- Head optimization
- Image optimization
- Using _document.js
- The turbopack

Extension (+ 1 day): creating a PWA with Next.JS INTRODUCTION

TO RESPONSIVE DESIGN

- Media queries
- Breakpoints
- Using tailwind for a responsive layout
- Adaptive viewport
- Test a mobile rendering

INTRODUCTION TO PWA

- Features
- Comparison with other mobile approaches (react-native, native code)
- Benefits
- Lifecycle
- Used Services Worker
- The manifest.json file

CREATING A PWA WITH NEXT.JS

- Metadata generation
- Creating application icons in /public
- Using the next-pwa package
- Custom installation prompt
- Vercel deployment
- Smartphone installation

Companies concerned

This course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical inputs from the trainer supported by examples and

brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.