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Sign up

Micro Frontend training : Microservices architecture

2 days (14 hours)

Presentation

Micro Frontend is a front-end Web development model that can be created from disparate versions. It solves most of the problems associated with monolithic applications, dividing the back-end into several independent services.

In this training course, you'll learn how to design an application on which dozens of teams can simultaneously work to coordinate all your modifications, and structure your applications so that they can evolve towards millions of users.

Your team will be able to find out more about dividing a monolithic application into several sub-applications and coordinating the data exchanged between the different micro frontends.

Following this training course, you'll be able to deploy your micro frontends and understand its ecosystem.

Objectives

- Understanding micro frontends
- Structuring applications
- Manage interconnected applications on the same page

Target audience

- Web Developer
- Lead Developer
- Architect

- Project Manager

Prerequisites

- Knowledge of React
- Knowledge of javascript / git / nodejs / npm

Micro Frontend training program

Chapter 1: Definition, Method, Web Component

- Definition of a micro front end
- Why use MF architecture
- Monolithic VS Microservice
- Comparison of different methods for creating micro frontends (Iframe, Federation module, Web component)
- Web component overview
- Practical work: Generating my web component

Chapter 2: Interface decomposition, CICD

- Decomposing the user interface into independent components
- Continuous integration and deployment (CI/CD) in a context of micro frontends
- Unit/component test strategy
- E2E test strategy
- TP: MF CICD (build/test/deploy)

Chapter 3: Federation module

- Federation VS Web component
- Build-time sharing
- Run-time sharing
- Practical work: Configuring and sharing dependencies with vite

Chapter 4: Shell APP & Single SPA

- Shell app
- Single SPA
- Shell-app development and testing
- Communication techniques between micro frontends
- TP: Hydrating our shell app with our micro frontends
- Practical work: Creating a shell app
- Practical: Deploying the shell app

SUPPLEMENTARY MODULE: Chapter 5 & 6

- **Chapter 5: Versioning, Deployment**
- Chapter 6: What's next?

Companies concerned

This training 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 input from the trainer, supported by examples, with 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.