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Sign up

Performance Web and Core Web Vitals training
4 days (28 hours)

Presentation

Our Web Performance and Core Web Vitals training course is designed to help you optimize the speed and user experience of your website.

Our webperf training course is designed to be practical, with numerous JavaScript programming exercises. You'll discover how to maximize the performance of both your frontend and your backend.

We'll start with an introduction to the importance of a fast site. We'll go into detail on the bad practices to avoid and the most widespread optimization techniques, such as the use of CDN, jobs, asynchronous or lazy loading.

You'll learn how to set up an appropriate caching strategy, and understand and improve the 3 Core Web Vitals (FCP, INP and CLS). This is the ideal course if you want to boost your retention rate and your SEO.

Objectives

- Understanding the basics and importance of web performance
- Identify and correct bad page loading practices
- Use analysis tools to optimize page loading
- Integrate advanced programming techniques to reduce server response time

Target audience

- Frontend developers
- Web developers
- Web analysts
- Digital project managers

- Backend developers

Prerequisites

- Knowledge of JavaScript
- Knowledge of how the web works

Our web performance training program

Introduction

- What is web performance?
- Why is webperf important?
- Core Web Vitals
    - INP
    - LCP
    - CLS

How does a web page load?

- A reminder of how the web works
- What is the DOM?
- What is the critical path?
- What is rendering?
- The main analysis tools
- How do you analyze your timeline?

Bad practices

- Too many HTTP requests
- Video loading
- Images that are too large
- Synchronous programming
- A dense code
- Font loading
- A server in need of resources

Caching

- What is a CDN?
- The best CDNs on the market

- The different types of caches
  - The client cache
  - Network cache
  - The server cache
- Which caching strategy to use?

Programming

- Frontend
  - Preload essential queries
  - async and defer
  - Chasing unnecessary code
  - Compressing and minifying code and files
  - Lazy loading
  - Speculative loading
  - font-display swap
  - Functions to avoid
  - Use server side rendering?
- CMS
  - Reduce content inside nodes
  - Do not load the entire content in a single request
  - Avoid using nested blocks
  - Avoid creating logs
  - Testing plugins
- Backend
  - Methods for minimizing queries
  - Avoid locks
  - Enable load balancing
  - Using IHttpClientFactory
  - Lighten cookies
  - Create scheduled jobs for costly operations
  - Avoid microservices
  - Use streams instead of bytes[].

Optimizing the CLS

- Apply dimensions to files
- Apply a reserved space to elements
- Avoid top-of-page ads
- Display new content above old content

Case study

- Presentation of a non-performing website
- Load analysis
- Implementing recommendations
- Final test

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.