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# Apache Echarts training

2 days (14 hours)

## Presentation

Apache Echarts is a JavaScript data visualization library offering a wide range of features for creating interactive and dynamic charts.

In this Apache Echarts training course, you'll explore in depth the capabilities of Apache ECharts to create impactful and informative data visualizations. From discovering basic functionality to advanced customization, this course will provide you with the skills you need to get the most out of this library.

You can present financial data, analyze weather trends or display performance statistics.

Our training will enable you to explore large-scale, real-time data visualization techniques.

Our training course will introduce the latest version of the tool, [Apache Echarts 5.5](#).

## Objectives

- Understanding the fundamentals of Apache ECharts and its use cases
- Master the different types of graphics available and know how to combine them effectively
- Know how to manipulate and format data to make it compatible with ECharts
- Customize graphics to suit your specific needs and brand identity

## Target audience

- Web Developer
- Data engineers

- UX designers

## Prerequisites

- Knowledge of HTML5/CSS3, JavaScript
- A JavaScript-compatible code editor is required for practical exercises.

# APACHE ECHARTS TRAINING PROGRAM

## INTRODUCTION TO APACHE ECHARTS

- Discover Apache ECharts and its features
- Benefits and uses of interactive graphics
- Browser and mobile device compatibility
- Overview of ECharts architecture and dependencies
- Installation and initial configuration of ECharts

## AVAILABLE CHART TYPES

- Introduction to different types of graphs: linear, bar graphs, scatter graphs, etc.
- Explore advanced charts: candlesticks, maps, treemap
- Techniques for combining different types of graphics in a single display
- Customized series for specific needs
- Practical exercises to create a variety of graphics

## DATA FORMATS AND VISUAL MAPPING

- Data handling and formatting for ECharts
- Using TypedArray for optimum performance
- Understanding data encoding and graphic mapping
- Workshop: data transformation and use with ECharts
- Best practices in dataset management

## LARGE-SCALE DATA VISUALIZATION

- Incremental rendering techniques for large data volumes
- Real-time data management with WebSocket
- Exploring performance: case studies with big data
- Strategies for optimizing visualization on mobile devices
- Interactive workshop: handling large-scale data

## INTERACTIVE EXPLORATION AND CUSTOMIZATION

- Use of ECharts interactive components: legend, visualMap, dataZoom, etc.
- Customize graphics: styles, animations and interactions
- Support for multidimensional data and use of visual coding
- Techniques for creating special effects and dynamic animations
- Customization workshop: adapting graphics to a brand's visual identity

## BEST PRACTICES AND OPTIMIZATION

- Methods for optimizing the performance of ECharts charts
- Accessibility and Aria integration for graphics
- Advanced customization and extension of ECharts functionalities
- Troubleshooting and debugging
- Case study: optimizing a graphic for different environments (browser, mobile, server)

## CONCLUSION AND ADDITIONAL RESOURCES

- Summary of key concepts and skills acquired
- Introducing additional resources and the ECharts community
- Tips for keeping up to date with ECharts developments
- Open discussion on participants' projects and use cases
- Final evaluation and awarding of training certificates

## 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.