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Sign up

Apache Superset Training: Open-Source Data Visualization

2 days (14 hours)

Presentation

Our Apache Superset training course will teach you complete mastery of this open-source data visualization tool.

Our program will introduce you to this technology, starting with its installation and configuration in a Business Intelligence context. You'll learn about the different installation methods, including Docker Compose and Kubernetes.

You'll learn how to administer your users, connect various SQL database sources and CSV files. You'll also learn how to design [customized](#), high-performance [dashboards](#). You'll also learn how to apply best security practices.

As always, our Apache Superset training course will be based on the latest version of the tool: [Apache Superset 3.1](#).

Objectives

- Understanding the role of Apache Superset in a Big Data ecosystem
- Installing and configuring Apache Superset
- Configure and secure connections to various SQL data sources
- Create customized dashboards
- Explore Superset's extension, integration and security features

Target audience

- Data Scientists

- Data Analysts
- Business Intelligence Analysts

PREREQUISITES

- Knowledge of data visualization and analysis
- Knowledge of SQL

Technical requirements

- Latest version of Python installed
- A local or virtual machine for installation
- One or more databases

Apache Superset training program

INTRODUCTION TO APACHE SUPERSET

- Discover Apache Superset
- Superset's role in business intelligence
- Overview of the user interface
- Introduction to the integrated SQL editor and its functions

SUPERSET INSTALLATION AND CONFIGURATION

- Installation methods :
 - source
 - Docker Compose
 - Kubernetes
 - Docker Hub
- Initial configuration
 - Creating an admin user
 - Loading examples
- Update management
- Advanced Superset configurations

CONNECTION TO DATA SOURCES

- Understanding how to connect Superset to various SQL data sources
- Installing the necessary drivers
- Connection string configuration
- Best practices for secure database connections

DATA MINING AND VISUALIZATION

- Graphical interface
- Create dashboards via the interface
- Advanced analysis functions for data transformation
- Loading and viewing data from CSV files

CONSTRUCTION OF DASHBOARDS

- Creating and customizing dashboards
- Add visualizations and apply filters
- Using pivot tables
- Best practices for designing effective dashboards

INTEGRATION AND EXTENSIONS

- Extend Superset's capabilities with visualization plug-ins
- Using the public REST API
- Explore integration possibilities with other tools and platforms

SECURITY AND ADMINISTRATION

- Configuring the Superset security model
- Integration with authentication systems
- Managing user roles and permissions
- Audit and compliance

PERFORMANCE AND SCALING

- Performance optimization
 - Caching
 - Asynchronous requests
- Cloud-native architecture for scalability
- Strategies for monitoring and improving production performance
- Troubleshooting

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 on entry to training complies with Qualiopi quality criteria. As soon as enrolment is confirmed, the learner receives a self-assessment questionnaire enabling us to

assess their estimated level of proficiency in different types of technology, and their 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 internal security difficulties within the company (intra-company or virtual classroom) that 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.