

Updated 03/15/2024

Sign up

# ScyllaDB Open-source training

3 days (21 hours)

## Presentation

Discover our ScyllaDB training course, the ultra-fast, scalable NOSQL database management system. Get a head start on distributed data management.

First, our program will teach you how to install and configure this famous database. We'll show you how you can use this service to combine performance, efficiency and high availability.

You'll gain an understanding of its inner workings, as well as its query language. You'll discover [CQL](#) for manipulating unstructured data and ScyllaDB tools for a variety of uses.

At the end of this training course, you'll know the best administration and troubleshooting practices for maintaining ScyllaDB at a high level of performance.

Our training will be based on the latest version of the tool: [ScyllaDB 5.2](#).

## Objectives

- Installing and configuring ScyllaDB
- Mastering CQL
- Monitor and optimize performance on ScyllaDB

## Target audience

- Project managers
- Developers
- Database manager
- Data engineers

# Prerequisites

Knowledge of databases.

# Hardware requirements

Have a machine that meets ScyllaDB's [minimum configuration requirements](#).

# SCYLLADB TRAINING PROGRAM

## INTRODUCTION TO SCYLLADB

- Introducing ScyllaDB and its main features
- The differences between ScyllaDB and other traditional database management systems
- Why use ScyllaDB?
- Understanding distributed data
- Use cases

## INSTALLATION

- System and hardware prerequisites
- Installing ScyllaDB on different platforms
  - Linux
  - Docker
- Initial configuration
- Installation validation with nodetool
- Exploring the user interface

## ARCHITECTURE

- Understanding the ScyllaDB data model
- Presentation of internal architecture
- Data flows
- The concepts
  - Nodes
  - Clusters
  - Data centers
- Data distribution
- Replication strategies
- Fault tolerance
- High availability

## CQL (CASSANDRA QUERY LANGUAGE)

- Introduction to the CQL language
- CQL vs SQL
- Creating keyspaces
- Table creation
- Data handling
  - Insertion
  - Update
  - Delete
- Selection queries
- Using indexes
- CQL best practices

## CLUSTER CONFIGURATION

- Advanced node configuration
- Setting up the cluster
- Node management
  - Add
  - Delete
  - Replacement
- Configuring consistency and replication levels
- Security
  - Authentication
  - Access control
- Backup

## SCYLLADB TOOLS

- Overview of administration and monitoring tools
- Using ScyllaDB Manager for cluster management
- Introduction to Scylla Monitoring Stack for performance monitoring
- Using ScyllaDB Repair
- Automation with ScyllaDB Operator

## ADMINISTRATION

- Daily maintenance techniques
- Performance monitoring and query optimization
- Upgrade and update management
- SSTables management
- Optimizing performance

## TROUBLESHOOTING

- Common mistakes
- Analysis of logs and metrics
- Solving performance and stability problems

## Further information

### 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.