Updated on 05/12/2023

Sign up

KubeDB training: master your databases in Kubernetes

3 days (21 hours)

Presentation

Our KubeDB training course will enable you to efficiently configure databases in your Kubernetes environment. KubeDB helps to drastically reduce the workload associated with managing your databases in Kubernetes, such as monitoring and improving performance.

The course will familiarize you with configuring KubeDB for your Kubernetes environment. You'll learn the basics, as well as advanced features such as performance monitoring and automation of daily maintenance tasks.

In this course, you'll learn how to scale your databases, back up and recover from disasters, and set up security processes.

Like all our training courses, it will enable you to master the latest advances in this technology, ensuring that you are up to date with the tool's new features.

Objectives

- Configuring KubeDB
- Integrate Kube DB into your Kubernetes environment
- Securing your database
- Automate database-related tasks

Target audience

- **DevOps engineers**
- Cloud engineers

Prerequisites

- Basic knowledge of Kubernetes and Kubelect
- Basic knowledge of Helm

KubeDB training program

Introduction to KubeDB

- KubeDB's role in Kubernetes
- Benefits of KubeDB
- KubeDB architecture
- KubeDB vs. traditional database management

KubeDB basic concepts

- **Environment configuration**
- Operator installation
- Configuring Kubernetes for KubeDB

Supplying a database

- Basic principles
- Persistent volume claims
- Storage classes
- Database engine options

Database management

- Updates
- Vertical and horizontal scaling
- Volume expansion techniques
- Monitor performance

Backup and recovery

- Implementing backups
- Configuring backup schedules
- Restoring databases

- Using Stash for backup operations

Advanced management

- **Cluster management**
- High Availability configuration
- Disaster recovery strategies
- Automation of maintenance tasks

Monitoring

- **Integration with Prometheus**
- Grafana dashboard configuration
- Alert management
- Analyze metrics to optimize performance

Security

- Securing databases
- TLS configuration
- Encrypted storage solutions
- Secret management

Putting KubeDB to work

- Case study
- Database analysis in a production environment
- Solving common problems
- Best practices
- Using the Kubernetes community

Extensions

- Kube DB Enterprise
- Customized resources
- Custom operators
- Kube DB: development roadmap for the future

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.