MySQL Database Administration

Cursusduur: 5 Dagen   Cursuscode: MYSDBA   Trainingsmethode: Maatwerk

Beschrijving:

MySQL Database Administration Course Overview

This MySQL Database Administration course is designed for MySQL Database Administrators who have a basic understanding of a MySQL database and a good working knowledge of SQL commands.
The course provides an understanding of MySQL Architecture and provides practical experience in the routine maintenance,administration,and backup and recovery of data in a MySQL server. Experience will be gained in the installation,configuration,and maintenance of a MySQL server
This MySQL Database Administration course also covers MySQL replication and its role in high availability and scalability.
Similarly,the course is targeted to closely follow the official Oracle MySQL curriculum for certification.
Exercises and examples are used throughout the course to give practical hands-on experience with the techniques covered.
Versions supported 8.

Maatwerk

Global Knowledge biedt zowel standaard- als maatwerkcursussen die zijn afgestemd op uw wensen en die als besloten cursus op uw eigen locatie of onze locatie gevolgd kunnen worden.

Doelgroep:

Who will the Course Benefit?

Database Administrators,Database Developers and Technical Consultants who need to setup,administer,monitor and support MySQL databases and servers.

Doelstelling:

■ Course Objectives

■ At the end of the MySQL Database Administration course,delegates will have the knowledge to use the features available to administer,monitor and support MySQL databases and servers.

Vereiste kennis en vaardigheden:

■

A working knowledge of MySQL is required. Delegates should have knowledge of relational database concepts; have knowledge of MySQL data types; be able run Queries using SQL; join tables and run basic DDL and DML statements. This knowledge can be gained by attendance on the Introduction to MySQL course.

This course is run on a Linux operating system platform,therefore,a good working knowledge of Linux/UNIX is strongly recommended. This knowledge can be gained by attendance on the Linux Introduction course.

Vervolgcursussen:

Further Learning

- MySQL Performance & Tuning
- MySQL for Developers
- Apache Web Server

Cursusinhoud:

MySQL Database Administration Training Course Course Contents - DAY 1

Course Introduction

- Administration and Course Materials
- Course Structure and Agenda
- Delegate and Trainer Introductions

Session 1: THE SERVER,CLIENTS AND TOOLS

- Introduction to MySQL
- The versions of MySQL
- MySQL Database Server Releases
- MySQL Database Versions
- The MySQL Server
- MySQL Client Connections
- MySQL Client Programs
- MySQL Client Libraries
- The mysql Command Line Tool
- The mysqladmin Program

Session 2: MYSQL WORKBENCH

- Installation of MySQL Workbench
- Connecting to MySQL Workbench
- MySQL Workbench Screens

Session 3: OBTAIN METADATA

- What is Metadata?
- The mysqlshow Client Program
- The SHOW and DESCRIBE Commands
- Obtaining data from the INFORMATION_SCHEMA
- MySQL 8 INFORMATION_SCHEMA Changes
- Generate Statements using the INFORMATION_SCHEMA

Session 4: CONFIGURE THE SERVER

- Start and Stop the MySQL Server
- Status Files
- An Overview of MySQL Storage Engines
- MySQL Server Options and Variables
- MySQL Status Variables
- Configure the MySQL Enterprise Edition Auditing Plugin

Session 5: SQL MODES,LOG FILES AND BINARY LOGGING

- SQL Modes
- The General Log
- The Error Log
- The Slow Query Log
- The Binary Logs MySQL Database Administration Training Course Course Contents - DAY 2

Session 6: MYSQL ARCHITECTURE

- Communication Protocols used to connect a Client to the Server
- The SQL Parser and Storage Engine Tiers
- Installing and Uninstalling Plugins
- How MySQL Uses Disk Space
- How MYSQL Uses Memory

Session 7: THE INNODB STORAGE ENGINE

- Features of the Innodb Engine
- The System Tablespace
- Transactions and Referential Integrity
- Physical Characteristics of Innodb Tables
- System Tablespace Configuration
- File per Table Tablespace
- Log File and Buffer Configuration
- Undo Logs and Undo Tablespaces
- General Tablespaces
- Buffer and Lof File Configuration
- Temporary Table Tablespaces
- Innodb Status
- InnoDB Shutdown Options

Session 8: OTHER STORAGE ENGINES

- Check Engine Usage
- The MYISAM Engine
- The Merge Engine
- Other Engines: Archive,Memory,Blackhole,CSV,Spider,MyRocks
- Mixing Storage Engines

Session 9: TABLE MAINTENANCE

- Table Maintenance Operations
- Check Table
- Repair Table
- Analyze Table
- Optimize Table
- MySQL Check
- Repair InnoDB Tables
- MyISAM Table Maintenance and Repair Utilities MySQL Database Administration Training Course Course Contents - DAY 3

Session 10: BACKUP AND RECOVERY

- The Advantages and Disadvantages of Different Backup Methods
- Backup Tool Overview
- What Should be Backed up?
- Binary Backups of MYISAM Tables
- Binary Backups of Innodb Tables
- Performing Hot Backups
- Performing Recovery
- Import and Export Operations
- Export and Import using SQL
- Export from the Command Line using

Session 13: TRANSACTIONS AND LOCKING

- Locking Concepts
- Levels of Locking
- Implicit Table Locking with MyISAM and InnoDB
- Explicit Table Locking
- Advisory Locking
- Monitoring Locks
- Turning Autocommit on and off
- Using Transaction Blocks
- Possible Causes of Lock Contention
- Handling Concurrency Problems and Deadlocks

Session 14: TUNING THE SERVER

- Status Configuration Variables
- Status Variables
- System Variables
- Per Client Variables
- Performance Schema Overview

Session 15: THE EVENT SCHEDULER

- Event scheduler concepts
- Event scheduler configuration
- Creating,altering and dropping events
- Event scheduler monitoring
- Events and privileges   MySQL Database Administration Training Course Course Contents - DAY 5

Session 16: OVERVIEW OF HIGH AVAILABILITY

- High Availability Goals
- High Availability Concepts
- Design for High Availability
- Definition of Availability
- High Availability Terminology

Session 17: CONFIGURE MASTER SLAVE REPLICATION

- Replication Overview
- When to Use Replication
- Disadvantages of Replication
- Replication Factors
- Replication Architecture
- Complex Replication Topologies
- Replicating from InnoDB to MyISAM Tables
- Testing Replication
- Monitoring Replication Threads
- Excluding Databases or Tables from Replication
- Example: Setting Up a Master Slave Replication
- Replication Using GTIDs
- Run Replication from a Remote Host
- Controlled Switchover

mysqldump
- Import from the Command Line using mysqlimport
- Additional Backup Tools

Session 11: USER MANAGEMENT

- Introduction
- User Accounts
- Creating Users
- Renaming Users
- Change a User Password
- Dropping Users
- Granting Privileges
- The User Table
- Connection Validation
- Password Validation Plugins

Session 12: PRIVILEGES

- Types of Privileges
- Granting and Revoking Privileges
- Setting Resource Limits
- Resource Management
- Role Management
- The MySQL Database
- The Show Grants Command   MySQL Database Administration Training Course Course Contents - DAY 4

Session 18: ADMINISTER A REPLICATION TOPOLOGY

- MySQL Replication and Failover Utilities
- Replication Files and Threads
- Configure a Lagging Slave
- Monitoring Replication
- Troubleshooting Replication
- Semi-synchronous Replication
- Configure MySQL Failover

Session 19: MYSQL SERVER INSTALLATION,UPGRADE DEPLOYMENT SECURITY

- MySQL Distributions
- Installing MySQL on Linux and UNIX
- The Installation Directories
- Set a Password for the mysql root user
- Upgrade the MySQL Server
- Deployment Security

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

info@globalknowledge.nl

www.globalknowledge.com/nl-nl/

Iepenhoeve 5, 3438 MR Nieuwegein