

# **MySQL Performance Tuning**

This course provides experienced MySQL DBAs with knowledge of how and why server settings affect performance, and when and how to tune them. It teaches students how to monitor their MySQL server and identify areas that impact performance, such as slow queries and replication lag, and how to diagnose and fix these issues.

#### Learn To:

- Troubleshoot common performance problems.
- Benchmark your MySQL server.
- Tune MySQL server settings.
- Investigate performance metrics with a range of system databases, command-line utilities, and graphical tools.
- Design your databases and queries for optimal performance.
- Diagnose and fix replication lag.

### **Benefits To You**

MySQL is the world's most popular open source database, and the leading database for web applications. Many of the largest web properties rely on MySQL to cope with huge numbers of concurrent transactions, while maintaining the integrity of their data. As users continue to demand better performance and more functionality from web applications, you need to make sure that your database can keep up. The MySQL Performance Tuning course will teach you how to use the vast array of configuration options, monitoring tools, and techniques employed by MySQL database professionals to keep your applications fast, efficient, and safe.

After attending this course you will understand performance tuning concepts; be able to benchmark and tune your server; investigate performance metrics with a range of system databases, command-line, and graphical tools; design your schema for optimal performance; identify and optimize slow queries, and troubleshoot common performance problems.

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## **Prerequisites**

## **Suggested Prerequisite**

- Familiarity with the Performance Schema
- Experience of MySQL Enterprise Monitor

## **Required Prerequisite**

- MySQL for Database Administrators Ed 4
- DBA experience
- Knowledge of Linux
- Familiarity with the mysql command-line client and tools

### **Audience**

- Administrator
- Architect
- Database Administrator
- Developer
- Systems Administrator

# **Objectives**

Identify and fix replication lag, Understand performance tuning concepts, List factors that affect performance, Use a range of performance tuning tools, Configure and use the Performance Schema, Tune the MySQL server instance, Design a schema for optimal performance, Understand how MySQL optimizes queries, Identify and fix slow queries, Diagnose and resolve common performance issues

# **Topics**

Introduction, Performance Tuning Concepts, Performance Tuning Tools, Performance Schema, General Server Tuning, Tuning Tables, Files, and Logs, Tuning InnoDB, Optimizing Your Schema, Monitoring Queries, Query Optimization, Optimizing Locking Operations, Tuning Replication, Conclusion