

MIEOS04

MYSQL Performance Tuning

Durata: 4 gg

Descrizione

Al termine di questo corso gli studenti saranno in grado di:

- Develop a tuning strategy
- Display knowledge of MySQL architecture
- Display knowledge and ability to use diagnostic tools
- Display knowledge and ability to use tuning tools
- Write queries against the INFORMATION_SCHEMA database and be able to decipher the metadata

obtained

- Understand the relational database model and both the positive and negative implications on performance
- Display, decipher and edit server configuration variables to improve performance of your applications
- Display and analyze status variables to ensure that their applications are utilizing the settings in the most

effective manner

- Write queries that take advantage of the MySQL 5.0 performance enhancements dealing with queries and

indexing

- Decide which of the storage engines could be used in their specific application needs
- Evaluate the application architecture for efficient design, structure, caching, number of connections and

other factors affecting performance

- Evaluate hardware and OS for effects on performance
- Evaluate techniques for loading data into the database and effects on performance

A chi è rivolto?

Database Administrators and System Administrators che attualmente mantengono MySQL server (s), sviluppatori di database e programmatori che attualmente progettano e/o interagiscono con il database MySQL

Contenuti

Introduction

- MySQL Overview, Products, Services and Enterprise Services
- Supported Operating Services
- MySQL Certification Program
- Training Curriculum Paths
- MySQL Website
- Installing MySQL
- Installing the world Database

MySQL Architecture •MySQL Architecture Overview (High Level)

- Client/Server Architecture
- Storage Engine Concept

- Data Directory
- Data Storage
- Locks
- MySQL Performance Tools •Overview
 - Benchmarking Tools
 - Administration Tools
 - Specific SHOW commands
- Schema Design •Data Modeling
 - Normalization
 - Denormalization
 - Data Types
 - Partitioning
- Indexing •Indexes
 - MySQL Index Types
 - Index Optimizations
- Statement Tuning •General SQL Tuning
 - EXPLAIN
 - MySQL Optimizer
 - Finding Problematic Queries
 - Caching and MySQL
 - Choose an Architecture
- Caching •Caching Benefits
 - Non-MySQL Caches
 - Query Cache
 - MEMORY/MyISAM Tables as Cache
- MySQL Server Configuration •Server Connection Parameters
 - Table Cache and Multi-threading Issues
 - Individual Thread Parameters
 - General Monitoring
 - Table Handlers
- MyISAM •Where to use
 - Row Storage Format
 - Indexing
 - Locking
 - Key Cache
 - MyISAM Tuning
 - Other optimization tools for MyISAM
 - MERGE Storage Engine
- InnoDB •Transactions
 - Internal Buffers
 - Indexes
 - Crash Recovery
 - Best Practices
 - Tuning
 - Comparing InnoDB and MyISAM

Alternate Storage Engines •MEMORY, FEDERATED, ARCHIVE, CSV, BLACKHOLE, Falcon

- Performance Issues with Multiple Storage Engines

- Creating a Custom Storage Engine

- MySQL Cluster

Conclusion •Course Overview

- Training and Certification Website

- Course Evaluation

- Thank You!

- QA Session