PERCONA

Percona Training For MySQL

Why Take MySQL Training?

Featuring actionable advice and hands-on exercises, Percona Training for MySQL is intended for professionals of every skill level. The course offers an in-depth look at the features and caveats of the latest version of MySQL and shows you industry best practices you can instantly apply to your environment.

Regardless of your current expertise, by the end of our training, you'll have the confidence and knowledge to get the most out of your MySQL, MariaDB, and Percona software installations and, more importantly, ensure that your data is always available for your business and customers.

No matter where you're in your career, Percona will help you master every aspect of MySQL.

START LEARNING NOW

MySQL Training for Database Operations Specialists

DURATION: Two days

WHAT YOU GET: The Database Operations Specialist is responsible for standing up new MySQL instances and for performing backups, recovery, monitoring and troubleshooting. This course fully equips you for the Database Operations Specialist

✓ Basics and tools
- Storage engines
- Versions and flavors
- Built-in tools
- Percona Toolkit

✓ Backup and recovery
- Strategies
- Logical vs. physical
- Incremental backups
- Point-in-time recovery
- Delayed replication
- Validating backups

✓ Replication
- Setting up replication
- Internals
- Topologies
- Administration and maintenance
- GTIDs
- Common problems
- Ensuring data consistency

✓ Server troubleshooting
- Understanding server components
- Diagnostic tools
- Understanding MySQL global status

✓ Monitoring
- Using Percona Monitoring and Management

✓ Security
- OS/Network Security/SSL/TLS
- MySQL privileges
- Resource controls

✓ InnoDB Basics
- History
- MySQL pluggable architecture
- Basic operations
- Redo log
- Undo operations
- Checkpoints

✓ InnoDB internals, locking and diagnostics
- Tablespaces, row formats
- Memory information
- Clustered indexes
- Adaptive hash index
- Change buffer
- Double write buffer
- Common tuning parameters
- MVCC/Row locking

START LEARNING NOW

MySQL Training for Developers

DURATION: Two days

WHAT YOU GET: This course prepares you for programming, designing and writing queries on MySQL. It covers the following topics:

✔ Query optimization
- Query planning
- Explaining EXPLAIN
- Composite indexes
- Finding unoptimized queries
- JOIN and subquery optimizations
- Beyond EXPLAIN

✔ Application architecture
- Topologies
- Query optimizations
- Hardware solutions
- Caching reads
- Read/write splitting
- Functional partitioning/sharding
- Connection management

✔ Instrumentation
- Available tools

✔ Schema design
- Database, and table design
- SQL data types
- Normalization
- Index design
- SQL constraints
- Extensible schemas

✔ SQL Modes
- Understanding usage
- Traditional modes
- ANSI mode
- Alternate modes

✔ Partitioning
- Overview, caveats, restrictions, limitations
- Partitioning types
- Partition management
- Partition pruning
- Tools

✔ SQL injection
- Overview
- Avoiding, filtering
- Stored procedures
- Prepared statements
- Proxies, firewalls

START LEARNING NOW

ProxySQL Tutorial

DURATION: One day

WHAT YOU GET: This course will introduce you to ProxySQL. By the end of this training, you'll feel confident performing:

- Installation
- Use with replication, Percona XtraDB Cluster, or Group Replication
- Monitoring

- Advanced query rules(rewriting, blocking, firewalling)
- High-Availability

*You can choose either of these two if one does not apply to you.

Percona Operator for MySQL based on Percona XtraDB Cluster

DURATION: One day

WHAT YOU GET: This course covers the basics of Percona XtraDB Cluster usage and teaches you how to create and manage highly available MySQL clusters on Kubernetes. Topics include:

- What is Kubernetes?
- Installing the PXC operator
- Adding resources/namespaces/roles to K8S
- Creating a Percona XtraDB Cluster
- Connecting to PXC via ProxySQL/HAProxy

- Taking and restoring backups
- Managing scheduled backups
- Modifying the running configuration
- Scaling up/down the number of nodes
- Monitoring PXC with PMM

Percona XtraDB Cluster Tutorial

DURATION: Two days

WHAT YOU GET: This course teaches you how to migrate from a standard source/replica setup to a 3-node Percona XtraDB Cluster, complete with ProxySQL (for load balancing and failover). This session covers many topics detailing PXC behavior, including:

- Migrating to PXC
- Application considerations
- Galera replication and behavior
- Online schema changes
- Application High Availability

- Monitoring Galera
- State transfers
- Node failures, arbitration, and bootstrapping
- Avoiding SST
- Tuning replication

Fundamental MySQL Courses

DBA Hands-On (MySQL 101)

DURATION: Two days

WHAT YOU GET: Designed for novices, this course walks you through MySQL basics, including installation, configuration, master/slave setup, backups, and troubleshooting. Go to the next level by mastering in practice every aspect of MySQL DBA.

MySQL Group Replication 101

DURATION: Two days

WHAT YOU GET: This course covers the fundamentals of Group Replication as well as many configuration parameters. By the end, you'll be able to perform a standard source/replica setup and migrate it to a 3-member Group Replication cluster. You'll also understand how to:

- Migrate to Group Replication
- Basic Configuration Options
- Secure Group Replication
- Monitor Group Replication
- AchieveHigh Availability with ProxySQL and MySQL Router
- Disaster Scenarios, Node Failures, Network Partitioning

MySQL for Oracle DBA's

DURATION: Two days

WHAT YOU GET: This course will transform you from an Oracle DBA into a MySQL DBA. You'll understand the similarities between the two RDBMS and discover how easy is to get up to speed with the basic administration, replication, backup and recovery strategies of MySQL, including:

- Key differences in schema/index management
- MySQL security model
- Major differences in stored routines, triggers and views
- Differences in the SQL dialects
- Basic administration
- Replication
- Backups and recovery

Manage your MySQL environments like a pro.

Contact Percona to arrange your training.

Percona Training for MySQL

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