

MySQL 8.0 for Database Administrators

Course Duration: 40 Hours

Course Code: MYSQL-DBA-8.0

1. Course Overview

The *MySQL 8.0 for Database Administrators* course is designed to equip IT professionals with the skills to install, configure, maintain, and optimize MySQL databases. This course covers advanced administrative tasks such as backup and recovery, security management, replication, monitoring, and performance tuning. Participants will gain hands-on experience in managing large-scale databases and ensuring high availability in real-world environments.

2. What You'll Learn?

By the end of this course, you will be able to:

- Install and configure MySQL 8.0 database server.
- Perform user and security management tasks.
- Monitor and optimize database performance.
- Implement backup, recovery, and replication strategies.
- Manage database availability and troubleshoot common issues.
- Use MySQL tools and utilities effectively for administrative tasks.

3. Target Audience

This course is ideal for:

- Database Administrators (DBAs).

- System Administrators managing MySQL databases.
- IT professionals responsible for database performance and security.
- Developers interested in learning MySQL administration.

4. Pre-Requisites

Participants are expected to have:

- Basic knowledge of SQL.
- Familiarity with database concepts and relational models.
- Experience working with Linux or Windows operating systems (basic level).

5. Course Content

Module 1: Introduction to MySQL 8.0

- Overview of MySQL architecture
- MySQL 8.0 new features
- Installation and configuration

Module 2: MySQL Server Management

- Starting and stopping MySQL server
- Configuration files and server logs
- Managing clients and connections

Module 3: User and Security Management

- Creating and managing user accounts
- Assigning privileges and roles
- Implementing security best practices

Module 4: Backup and Recovery

- Backup strategies and tools
- Recovery methods
- Point-in-time recovery

Module 5: Replication and High Availability

- Configuring replication in MySQL 8.0
- Monitoring and managing replication
- High availability solutions

Module 6: Performance Monitoring and Tuning

- Using performance schema and sys schema
- Query optimization and indexing
- Troubleshooting performance bottlenecks

Module 7: Advanced Administration Tools

- MySQL Enterprise Monitor
- Utilities and plugins
- Upgrading and patching strategies