

MYSQL Server DBA

No Coding, No Programing,

1.Open Source Introduction

- Overview of MySQL
- History of MySQL
- The Main Features of MySQL
- Basics of Linux Commands

2.MySQL Installation

- Ubuntu Operating System Installation
- **Installing MySQL from apt repository on Ubuntu**
- How to start, stop and restart the server
- How to check the MySQL status and Configuration file
- INFORMATION_SCHEMA Tables
- System Catalog Views
- Red Hat Linux / Centos Operating System Installation
- **Installing MySQL from yum repository on RHEL Or Centos**
- **Installing Enterprise Edition MySQL**

3.Storage Engines with Simple Examples

- Setting the Storage Engine
- The MyISAM Storage Engine
- The INNODB Storage Engine
- The MEMORY Storage Engine
- The CSV Storage Engine
- The ARCHIVE Storage Engine
- The BLACKHOLE Storage Engine
- The MERGE Storage Engine
- The FEDERATED Storage Engine
- Tablespace Management

4.MySQL user management.

- How to maintain the user privileges using DDL & DCL Commands
- How to maintain the user privileges using DML Commands
- MySQL Architecture
- **Installation on Windows on MySQL**
- Installation of Workbench
- Configure SSL in MySQL Server

5. MySQL Server logs

- **Error Log**
- General Log
- Slow Log
- Binary Log
- Relay Log

6. MySQL Programs

- innochecksum — Offline InnoDB File Checksum Utility
- myisamchk — MyISAM Table-Maintenance Utility
- myisamlog — Display MyISAM Log File Contents
- mysqldump — Generate Backups
- mysqlbinlog — Utility for Processing Binary Log Files
- mysqldumpslow — Summarize Slow Query Log Files
- mysqladmin – administrative tasks
- mysql – client mysql connectivity

7. Configuring InnoDB

- InnoDB Table and Index Structures.
- Managing InnoDB Data and Redo Log Files.
 - ✓ Change the location of ibdata file
 - ✓ Adding 2 ibdata files
 - ✓ Change the location of log files
 - ✓ increase the redo log files with 4 or 6
- Memory allocation for Innodb
- Turnoff Innodb

8. Database Backup Methods

- Using mysqldump for Backups
- Dumping Data in SQL Format.
- Full Backup & Recovery
- Percona XtraBackup Installation on MySQL Server

9. Percona Server

- Percona Overview
- Percona Server Installation
- Percona XtraBackup Installation
- Percona Features
- Configuration of XtraBackup

- Taking Full Backup
- Taking Incremental Backups
- Restoring / Recovering Full Backups and Incremental
- Partial Backups
- XtraBackup Installation on MySQL Server

10. Performance Tuning - Partitioning

- Overview of Partitioning in MySQL
- Partitioning Types
- RANGE Partitioning
- LIST Partitioning
- HASH Partitioning
- KEY Partitioning

11. Managing Multiple instances

- Installing MySQL Server from Generic Binaries
- Setting Up Multiple Data Directories
- Running Multiple MySQL Instances on Linux
- Managing Multiple MySQL Servers

12. Upgrading MySQL

MySQL Server 5.7 to MySQL Server 8

13. Uninstalling MySQL Server 5.7

14. Installing MySQL Server 8.0 on Ubuntu Operating System

- New Features

15. Replication

- Overview Replication
- Master-Slave Configuration
- Master-Master Configuration
- Replication trouble shooting / errors

16. Performance Tuning

- MyISAM Key Cache
- InnoDB PT Parameters
- InnoDB Startup Options.
- Restrictions on InnoDB Tables
- The InnoDB Buffer Pool

- Optimization [About Constraints]
- Index Management
- About Locking & Issues
 - Locking Methods
 - Table Locks
 - Deadlock
- Events
 - Creating Events
 - Altering Events
 - Monitoring Events
 - Dropping Events

17. MariaDB Server Installation [1 Hour]

- Features of MariaDB
- Differences of MariaDB and MySQL
- System databases

18. AZURE Cloud for DBA's [1 Hour]

- Introduction of Cloud Computing
- What is IAAS, PAAS & SAAS
- Installing MySQL Server in Azure
- Accessing MySQL from Azure Cloud
- MySQL Connecting from On-premises to Azure Cloud

19. Cluster Overview [1 Hour]

- Galleria Cluster Overview
- Percona Cluster Overview
- MySQL Innodb Cluster Overview