MYSQL DBA Course Content

1. Introduction of MySQL database system, history, features and architecture of MySQL.

- Introduction, History and describe the client/server model
- Understand communication protocols
- Understand how the server supports storage engines

2. MySQL Installation

- RPM Installation
- Generic Binaries Installation

3. MySQL installation start up programs

- How to start, stop and restart the server
- How to check the MySQL status
- How to set/update the MySQL root/user password

4. MySQL user management.

- How to maintain the user privileges using DDL & DCL Commands
- How to maintain the user privileges using DML Commands

5. Storage engines

- MYISAM
- INNODB
- MEMORY
- CSV
- ARCHIVE
- MERGE
- FEDERATED
- BLACKHOLE

6. MySQL Server performance Optimization/Tuning.

- Basic settings in configuration file
- Tuning server parameters
- Optimization techniques

7. MySQL Programs.

- Server programs
- Client programs
- Utility programs

8. Locks

- READ (Shared Locks)
- WRITE(Exclusive Locks)

9. MySQL server logs

- Error Log
- General Log
- Binary Logs
- Slow Log

10. Backup

- Physical backup
- Logical backup
- Using GUI/Backup Tools

11. Restore & Recovery.

12. General Security Issues.

13. Query Optimization.

- EXPLAIN PLAN
- Query optimization techniques

14. Partitioning

- Range
- List
- Hash
- key

15. Replication

- Master-Slave Conjuration
- Master-Master Configuration
- Replication trouble shooting

16. Upgrading MySQL.

17. MySQL Trouble Shooting Techniques

18. NDB Cluster Over view

- Management Node
- SQL Node
- Data Node

19. Managing multiple instances

- Configure multiple instances in a single server
- How to maintain multiple instances

20. Advanced Topics

A. MySQL 5.6 Futures

- GTID Replication
- Multi-threaded slave
- Crash-safe slave Configuration
- Delay Replication
- Multi-Source Replication
- No-SQL with MySQL

B. MySQL 5.7 Installation and futures