



- CYU – Check Your Understanding
- LOTW – Learning On The Walls
- PPR – Participant Progress Report
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MYSQL ADMINISTRATION

Durations: 5 Days

INTRODUCTION

MYSQL ARCHITECTURE

INSTALLING & CONFIGURING MYSQL

- ❖ MySQL Installation for Windows
- ❖ MySQL Installation for Linux/Unix
- ❖ Compiling MySQL Server
- ❖ Upgrading MySQL Servers
- ❖ OS & Hardware Optimization

UNDERSTANDING & USING MYSQL CLIENT SOFTWARE

UNDERSTANDING MYSQL STORAGE

- ❖ Choosing a storage engine

MANAGING MYSQL CONFIGURATION

MYSQL SERVER SECURITY

- ❖ MySQL security-related configuration
- ❖ Understanding the MySQL privilege system
- ❖ Managing users in MySQL
- ❖ Installing & using OpenSSL

OPTIMIZING QUERIES

- ❖ Using Explain to analyze queries
- ❖ Optimizing Indexes
- ❖ Optimizing updates

UNDERSTANDING MYISAM TABLES

- ❖ MyISAM storage engine features
- ❖ MyISAM table locking mechanisms
- ❖ MyISAM table relocation
- ❖ Backup up & restoring MyISAM tables

UNDERSTANDING & MANAGING INNODB TABLES

- ❖ Managing InnoDB tablespaces
- ❖ Configuring InnoDB buffers and logs
- ❖ Utilizing multiple InnoDB tablespace
- ❖ Using Raw devices for InnoDB tablespaces
- ❖ Determining InnoDB engine status
- ❖ InnoDB table restrictions

TABLE BACKUP & MAINTENANCE

- ❖ Using myisamcheck and mysqlcheck to perform table maintenance.
- ❖ Using mysqldump to perform server backups
- ❖ Performing MyISAM file-level backups
- ❖ Performing InnoDB tablespace backups
- ❖ Using & managing MySQL binary logs
- ❖ Other backup methods



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ADVANCED MYSQL SERVER FEATURES

- ❖ Measuring & managing server load
- ❖ Understanding the MySQL query cache
- ❖ Performance tuning the MyISAM engine
- ❖ Performance tuning the InnoDB engine
- ❖ Configuring MySQL replication
- ❖ Multiple servers and replication
- ❖ Configuring MySQL 4.x replication
- ❖ Configuring MySQL 5.x replication
- ❖ Circular replication
- ❖ Querying replication status

HIGH AVAILABILITY

UNDERSTAND HIGH AVAILABILITY CONCEPTS

METHODS OF :

- ❖ MySQL replication
- ❖ Basic master-slave replication environment
- ❖ master-master or circular replication
- ❖ Monitor a MySQL replication setup
- ❖ Use MySQL replication for advanced tasks such as software upgrades to increase availability
- ❖ Analyze the design and limitations of MySQL cluster
- ❖ Setup a basic MySQL cluster instance
- ❖ Discuss how to integrate MySQL cluster and replication
- ❖ Analyze how it is possible to setup MySQL with a shared-disk cluster solution
- ❖ active-active and active-passive shared-disk setups
- ❖ Impact of different backup solutions on highly available solutions
- ❖ Identify the effects of different maintenance tasks and how to maintain high availability while
- ❖ Analyze the performance impact of a high availability decision

INFRASTRUCTURE REQUIREMENTS:

- ❖ OS : RHEL 5.x / Oracle Enterprise Linux 5.x
- ❖ Memory: 4GB
- ❖ NICs: 2 Per Server
- ❖ No. of Servers : 2
- ❖ External Shared Storage
- ❖ MySQL software and patches/RPMs