



Table of Contents

MySQL Administration.....	1	MySQL Clients.....	55
Introduction.....	7	The mysqladmin Client.....	56
What this course is about.....	8	The mysql client.....	59
Where to Get Information.....	10	Other Clients & Utilities.....	60
MySQL Architecture.....	11	Attaching Clients.....	61
The Client/Server Model.....	12	Using Command-Line Clients.....	62
Installing & Configuring a MySQL Server.....	14	Specifying Connection Parameters.....	64
MySQL Installation for Windows.....	15	Connection Examples.....	69
The MySQL Server Instance Configuration Wizard.....	17	Using Client Option files.....	71
Starting and Stopping MySQL under Windows.....	30	Exercises.....	72
MySQL Installation for Linux/Unix.....	31	MySQL & The File System.....	75
Starting and Stopping the MySQL Server.....	34	MySQL Disk Space Utilization.....	76
Compiling your own MySQL server.....	36	Exercises.....	81
Upgrading MySQL Servers.....	37	Understanding MySQL Storage.....	82
OS Optimization for MySQL.....	40	Choosing a Storage Engine.....	83
Hardware Optimization for MySQL.....	44	Transactional vs. Non-transaction-safe Tables.....	85
Exercises.....	45	MyISAM Tables.....	87
MySQL Configuration Files.....	46	InnoDB Tables.....	89
Setting SQL_MODE Variables.....	52	MEMORY Tables.....	91
Exercises.....	54	General MySQL Limits.....	92



MySQL Server Security.....	93	Enabling SSL in MySQL.....	137
MySQL Security.....	94	Connecting Using SSL.....	139
The LOAD DATA LOCAL Statement.....	97	Optimizing Queries.....	140
The MySQL Privilege System.....	99	Index Types.....	141
MySQL Default Users.....	102	The FULLTEXT Index.....	146
Exercises.....	104	FULLTEXT Index Notes.....	147
GRANT and REVOKE Statements.....	105	FULLTEXT Boolean Searches.....	149
Adding Users to MySQL.....	113	FULLTEXT Query Expansion.....	152
Exercises.....	117	FULLTEXT Engine Characteristics.....	153
Changing User Passwords.....	118	Exercises.....	155
Old Versus New Passwords.....	119	Index Usage.....	156
Specifying Resource Limits.....	121	Analyzing Queries.....	158
Determining Access Rules.....	123	Using EXPLAIN to Analyze Queries.....	160
Client Access Control.....	124	Optimizing Queries.....	163
Disabling Client Access Control.....	125	Optimizing Updates.....	165
The HOST Table.....	126	Using Summary Tables.....	166
Exercises.....	127	Exercises.....	167
Controlling Row-Level Access with Views.....	129	Retrieving Table Status Information.....	168
Exercises.....	131	Understanding MyISAM Tables.....	173
OpenSSL Benefits.....	132	MyISAM Storage Engine Features.....	174
Compiling MySQL with OpenSSL.....	133	MyISAM Table Locking.....	178
Issuing Certificates.....	134	Relocating MyISAM Tables.....	182

Exercises.....	183	Table Backup & Maintenance.....	221
Understanding InnoDB Tables.....	185	Using mysqlcheck and myisamchk.....	222
InnoDB Table Characteristics.....	186	Using mysqlcheck.....	224
The InnoDB Tablespace.....	188	Using myisamchk.....	225
InnoDB Transaction Support.....	190	Options for mysqlcheck and myisamchk.....	227
Transaction Isolation.....	192	Using mysqldump.....	230
InnoDB Locking.....	195	Exercises.....	236
InnoDB Optimizations.....	196	MyISAM File Backups.....	237
Adaptive Hash Index.....	197	Using the Binary Log.....	239
Committing Transactions.....	198	Managing Binary Logs.....	242
Using SAVEPOINTS in Transactions.....	199	Other Backup Methods.....	244
Exercises.....	200	Exercises.....	245
Managing InnoDB Tablespaces.....	202	Using Advanced MySQL Server Features.....	246
Understanding InnoDB Structure.....	203	Server Information.....	247
Understanding Data Storage.....	206	Measuring Server Load.....	248
Configuring the Tablespace.....	207	Server Error Messages.....	249
Configuring InnoDB Buffers and Logs.....	210	Performance Tuning.....	250
Multiple InnoDB Tablespaces.....	213	Query Cache Notes.....	258
Using Raw Devices for InnoDB Tablespace.....	215	The Information_Schema.....	259
InnoDB Engine Status.....	217	About Information_Schema.....	260
InnoDB Table Restrictions.....	218	Using the MySQL Event Scheduler.....	264
Exercises.....	220	About the Event Scheduler.....	265

Enabling the Scheduler.....	267	Partition Maintenance & Information.....	299
Scheduling an Event.....	269	Partitioning Caveats.....	301
Modifying Events.....	273	Exercises.....	303
Viewing Event Status.....	275	Implementing MySQL Replication.....	304
Replicated Events.....	276	Replication Overview.....	305
Exercises.....	278	Uses for Replication.....	306
Event Scheduler Notes.....	280	Replication Options.....	307
Implementing Table Partitioning.....	281	Replication Options.....	308
Table Partitioning Overview.....	282	Configuring MySQL Replication.....	312
Range Partitioning.....	283	Circular Replication.....	316
List Partitioning.....	285	Querying Replication Status.....	318
Hash Partitioning.....	287	Changing Replication Types.....	322
Linear Hash Partitioning.....	288	Exercises.....	325
Key Partitioning.....	289	Controlling Log Output.....	326
Sub Partitioning.....	290	MySQL 5.1 Logging Options.....	327
Spreading Disk I/O.....	292	General Log Table Format.....	329
Storage Engine Mix & Match.....	293	Slow Log Table Format.....	331
Managing Partitions.....	294	Managing Log Tables.....	335
Removing Partitioning.....	295	Exercises.....	337
Modifying Range & List Partitions.....	296	Questions?.....	338
Reorganizing List & Range Partitions.....	297	How to Get Help.....	339
Reorganizing Hash and Key Partitions.....	298		