MySQL client MySQL shell and dump

CONCEPTS

A statement runs only at its terminator: ; or \G. Backslash commands like \q and \s take effect at once and need no semicolon.

Server host:3306
Database USE <db>
Table rows, columns, indexes

Passing -p<password> leaks it to ps and shell history. Use bare -p to be prompted, or a login path from mysql_config_editor.

CONNECT

mysql -u *<user>* **-p**
Connect to localhost, prompt for password

mysql -u *<user>* **-p -h** *<host>* **-P** *<port>* *<db>*
Connect to a remote server and database

mysql -e "*<sql>***"** *<db>*
Run a statement and exit

mysql -S *<socket>*
Connect through a Unix socket

mysql --protocol=TCP -h 127.0.0.1
Force TCP instead of the socket

mysql_config_editor set --login-path=*<name>* **-u** *<user>* **-h** *<host>* **-p**
Store credentials in ~/.mylogin.cnf

mysql --login-path=*<name>*
Connect with a stored login path

mysql --safe-updates
Refuse UPDATE/DELETE without key or LIMIT

SHELL COMMANDS

\s
Show connection and server status

\u *<db>*
Switch database

\G
Run and print vertically

SHELL COMMANDS (cont.)

\c
Cancel the statement being typed

\q
Quit

\. *<file.sql>*
Run SQL from a file

\e
Edit the statement in $EDITOR

\P *<pager>*
Pipe output through a pager

DELIMITER //
Change the statement terminator

INSPECT

SHOW DATABASES;
List databases

SHOW TABLES;
List tables in the current database

DESCRIBE *<table>*;
Show columns, types and keys

SHOW CREATE TABLE *<table>***\G**
Show the full DDL

SHOW INDEX FROM *<table>*;
List indexes

SHOW FULL PROCESSLIST;
See running queries

SHOW VARIABLES LIKE '*<pattern>***';**
Look up server variables

SELECT VERSION(), DATABASE(), CURRENT_USER();
Server version, schema, account

QUERY

SELECT * FROM *<table>* **LIMIT 10;**
Peek at rows

SELECT COUNT(*) FROM *<table>*;
Count rows

EXPLAIN SELECT ...;
Show the query plan

EXPLAIN ANALYZE SELECT ...;
Run and time each plan step

START TRANSACTION;
Begin a transaction

QUERY (cont.)

ROLLBACK;
Undo the open transaction

COMMIT;
Make the transaction permanent

CREATE INDEX *<idx>* **ON** *<table>* **(***<col>***);**
Add an index

EXPLAIN type column, best first

type	Meaning
`const`	one row via key
`ref`	index lookup
`range`	index range scan
`index`	full index scan
`ALL`	full table scan

USERS & GRANTS

CREATE USER '*<user>***'@'***<host>***' IDENTIFIED BY '***<pw>***';**
Create an account

GRANT ALL ON *<db>***.* TO '***<user>***'@'***<host>***';**
Grant on one database

SHOW GRANTS FOR '*<user>***'@'***<host>***';**
List an account's privileges

OUTPUT

mysql -B -N -e "*<sql>***"**
Tab-separated rows, no header

DUMP & RESTORE

mysqldump *<db>* **>** *<file.sql>*
Dump one database

mysqldump --single-transaction *<db>* **>** *<file.sql>*
Consistent InnoDB dump without locks

mysqldump --no-data *<db>*
Schema only

mysqldump --routines --triggers --events *<db>*
Include stored code

mysql *<db>* **<** *<file.sql>*
Restore a dump

mysqldump *<db>* **| gzip >** *<file.sql.gz>*
Compressed dump

gunzip -c *<file.sql.gz>* **| mysql** *<db>*
Restore a compressed dump