Chapter 3. Tutorial

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This chapter provides a tutorial introduction to MySQL by showing how to use the `mysql` client program to create and use a simple database. `mysql` (sometimes referred to as the "terminal monitor" or just "monitor") is an interactive program that allows you to connect to a MySQL server, run queries, and view the results. `mysql` may also be used in batch mode: you place your queries in a file beforehand, then tell `mysql` to execute the contents of the file. Both ways of using `mysql` are covered here.

To see a list of options provided by `mysql`, invoke it with the `--help` option:

```
shell> mysql --help
```

This chapter assumes that `mysql` is installed on your machine and that a MySQL server is available to which you can connect. If this is not true, contact your MySQL administrator. (If *you* are the administrator, you need to consult the relevant portions of this manual, such as Chapter 5, *Database Administration*.)

This chapter describes the entire process of setting up and using a database. If you are interested only in accessing an existing database, you may want to skip over the sections that describe how to create the database and the tables it contains.

Because this chapter is tutorial in nature, many details are necessarily omitted. Consult the

relevant sections of the manual for more information on the topics covered here.

3.1. Connecting to and Disconnecting from the Server

To connect to the server, you will usually need to provide a MySQL user name when you invoke `mysql` and, most likely, a password. If the server runs on a machine other than the one where you log in, you will also need to specify a host name. Contact your administrator to find out what connection parameters you should use to connect (that is, what host, user name, and password to use). Once you know the proper parameters, you should be able to connect like this:

```
shell> mysql -h host -u user -p
Enter password: ********
```

host and **user** represent the host name where your MySQL server is running and the user name of your MySQL account. Substitute appropriate values for your setup. The ********** represents your password; enter it when `mysql` displays the **Enter password:** prompt.

If that works, you should see some introductory information followed by a **mysql>** prompt:

```
shell> mysql -h host -u user -p
Enter password: ********
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 25338 to server version: 5.0.46-standard

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql>
```

The **mysql>** prompt tells you that `mysql` is ready for you to enter commands.

If you are logging in on the same machine that MySQL is running on, you can omit the host, and simply use the following:

```
shell> mysql -u user -p
```

If, when you attempt to log in, you get an error message such as ERROR 2002 (HY000): CAN'T CONNECT TO LOCAL MYSQL SERVER THROUGH SOCKET '/TMP/MYSQL.SOCK' (2), it means that that MySQL server daemon (Unix) or service (Windows) is not running. Consult the administrator or see the section of Chapter 2, *Installing and Upgrading MySQL* that is appropriate to your operating system.

For help with other problems often encountered when trying to log in, see Section B.1.2, "Common Errors When Using MySQL Programs".

Some MySQL installations allow users to connect as the anonymous (unnamed) user to the server running on the local host. If this is the case on your machine, you should be able to

connect to that server by invoking `mysql` without any options:

```
shell> mysql
```

After you have connected successfully, you can disconnect any time by typing **QUIT** (or **\q**) at the **mysql>** prompt:

```
mysql> QUIT
Bye
```

On Unix, you can also disconnect by pressing Control-D.

Most examples in the following sections assume that you are connected to the server. They indicate this by the **mysql>** prompt.