Chapter 2

How to use MySQL Workbench and other development tools

Objectives

Applied

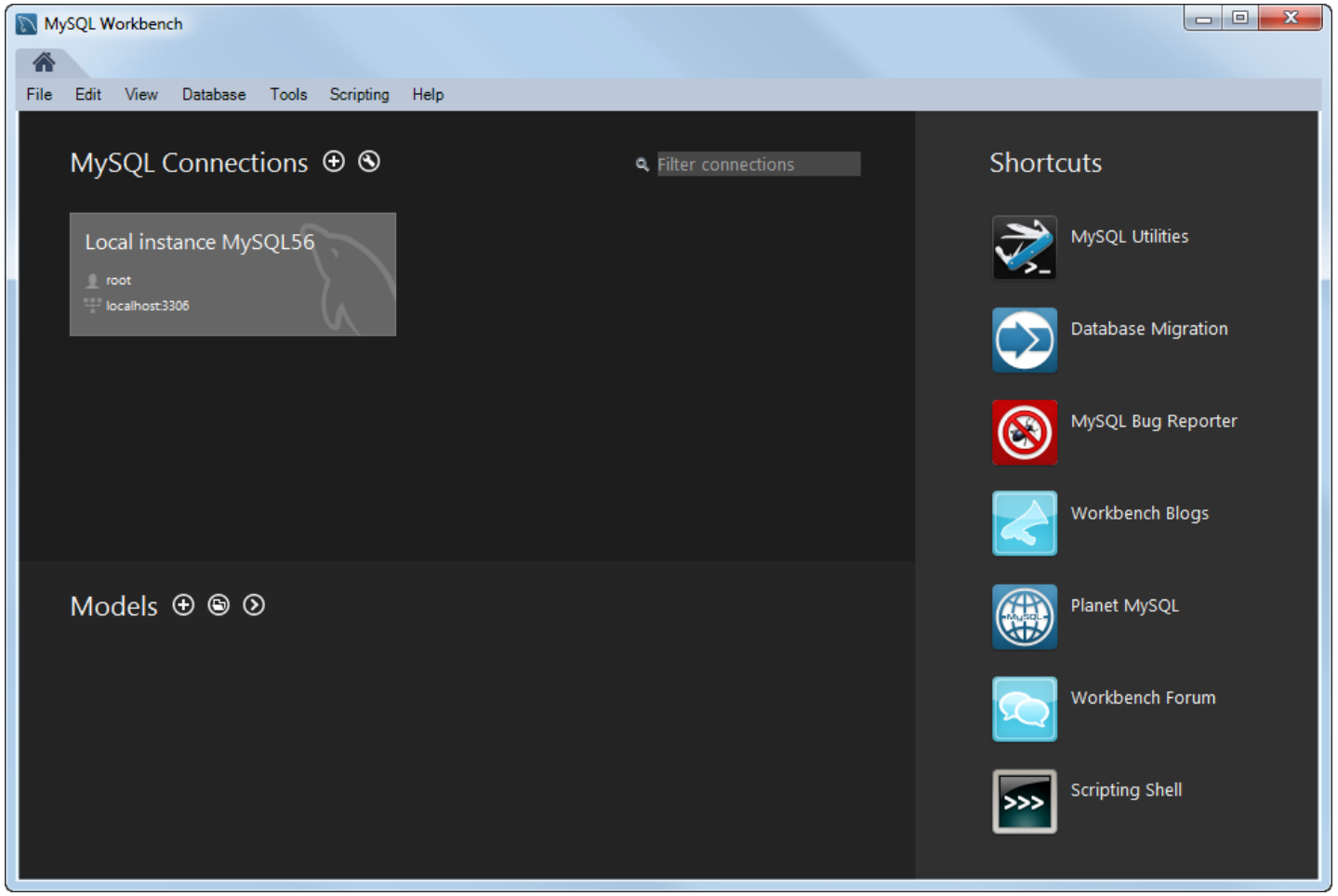
- Start or stop the MySQL database server.
- Use MySQL Workbench to do any of the following:
- Create a database connection
  Navigate through the objects of a database
  View the column definitions for a table
  View the data for a table
  Edit the column definitions for a table
- Use MySQL Workbench to enter, run, open, and save SQL statements and scripts.
- Use the MySQL Reference Manual to look up information about SQL statements.
- Use MySQL Command Line Client to run a SQL statement.

Objectives (cont.)

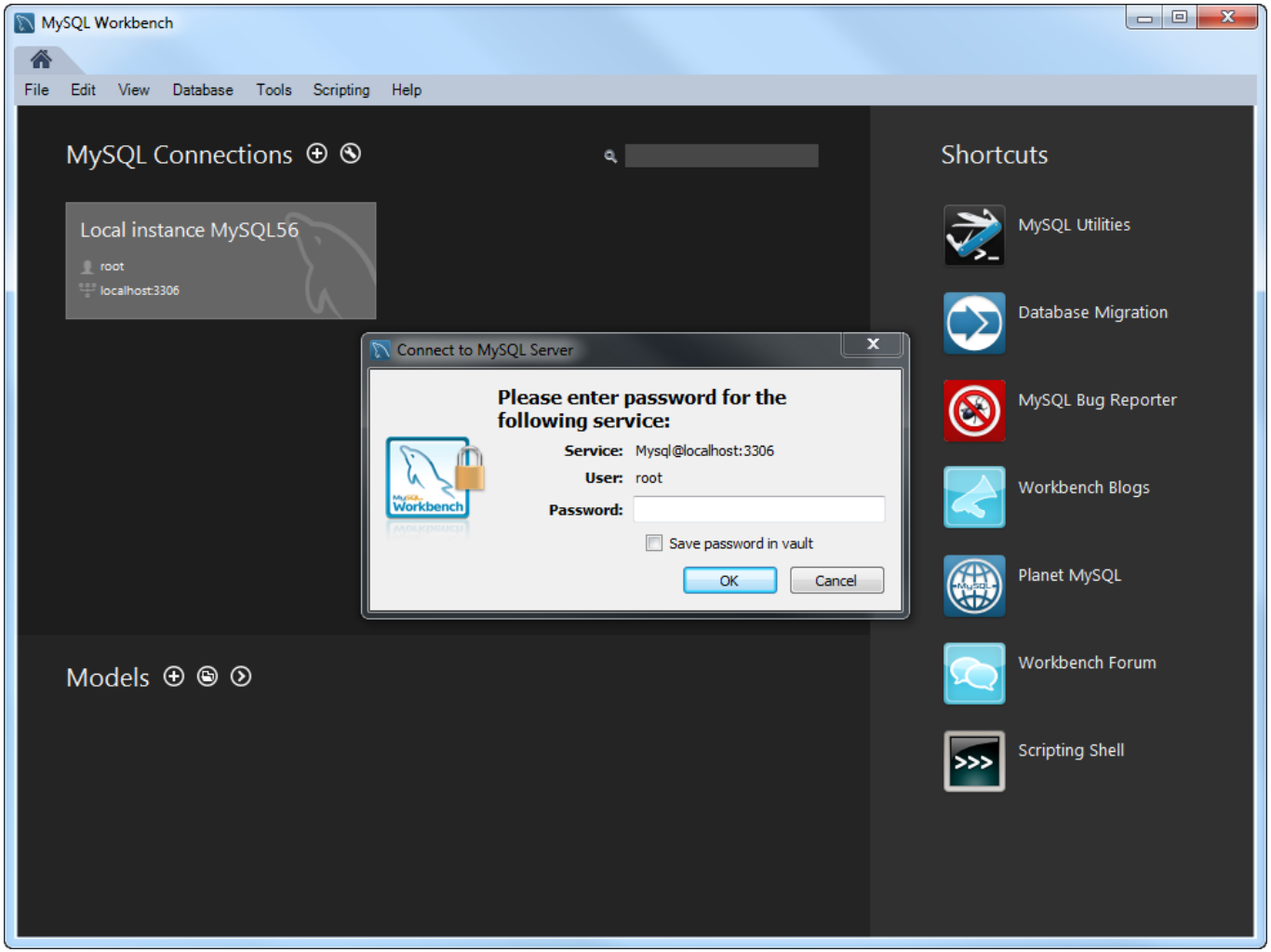
Knowledge

- Briefly describe the function of each of these client tools: the MySQL Command Line Client, MySQL Workbench, and the MySQL Reference Manual.

The Home tab of MySQL Workbench



The dialog box for opening database connections



How to connect as the root user

1. Click on a stored connection named “Local instance MySQL56”.
2. Enter a password if prompted.

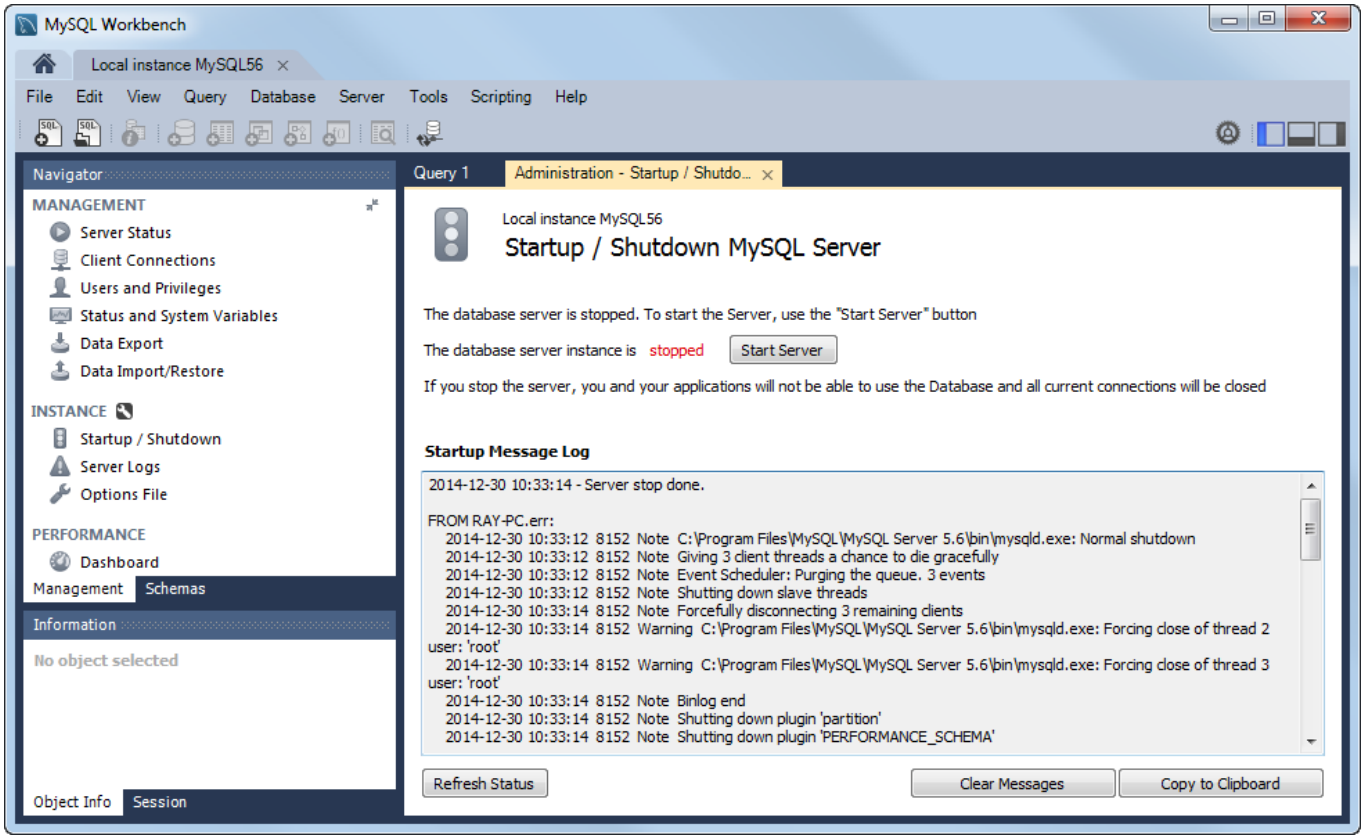
How to specify your own connection parameters

3. Right-click the connection, select the Edit Connection item.
4. Enter the connection parameters and click the Close button.
5. Enter a password if prompted.

How to create a new connection

6. Right-click the connection, select the New Connection item.
7. Enter the connection parameters and click the Close button to save the connection in the list of connections.

The Startup/Shutdown option of MySQL Workbench



How to stop and start the database server

1. Display the Home tab of MySQL Workbench.
2. Click on the Local MySQL56 item and enter a password if prompted.
3. In the Navigator window, select the Startup/Shutdown option.
4. Click on the Stop Server button to stop the database server, or click on the Start Server button to start it.

Note

- After you install the MySQL Community Server, the *database server* usually starts automatically each time you start your computer.

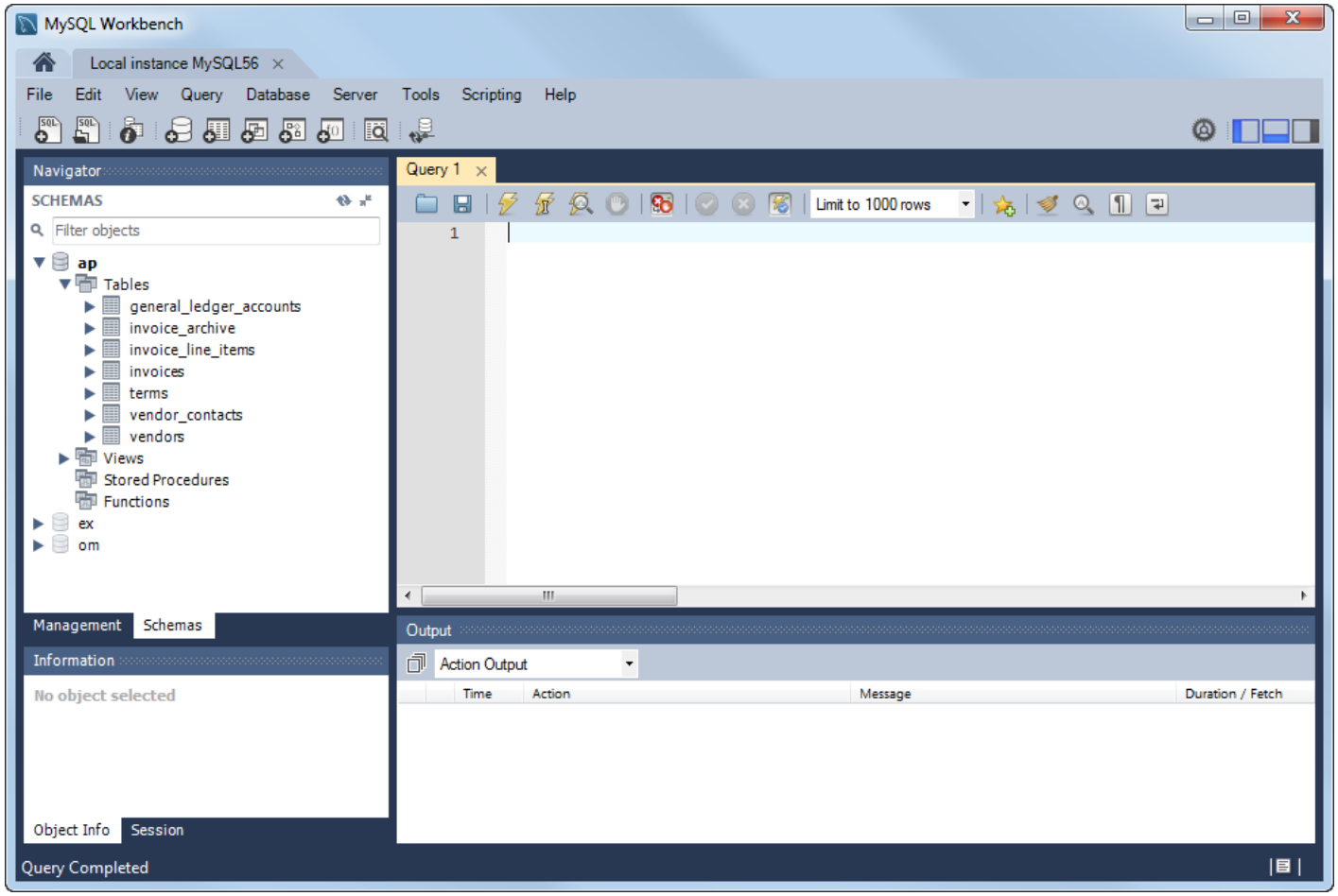
How to save a password

- Check the “Save password in vault” option when prompted for your password.

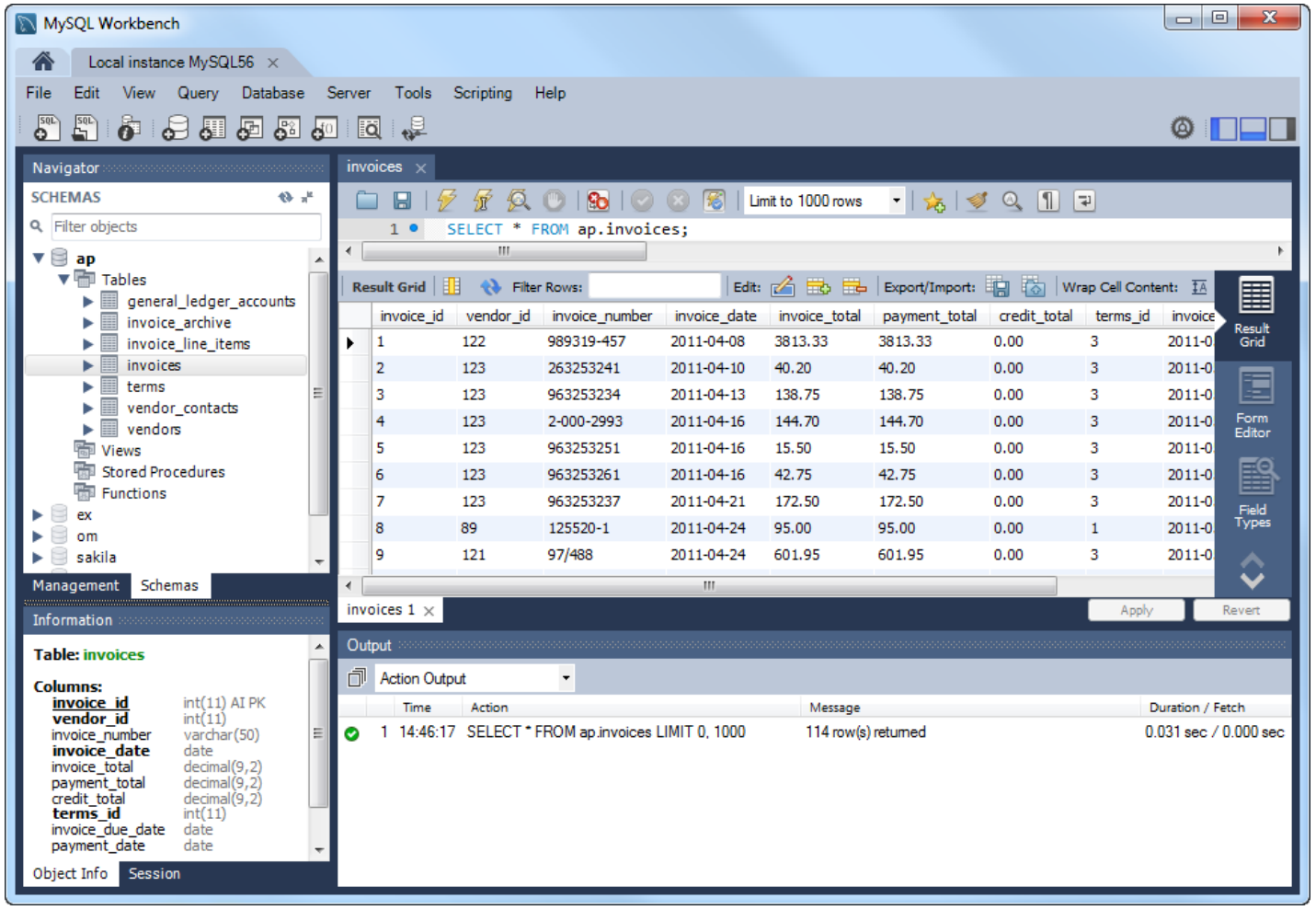
How to clear a password

1. Right-click the connection,
2. Select the Edit Connection item
3. Click the Clear button.

The tables available for the AP database



The data for the Invoices table in a Result grid



How to view the data for a table

1. Right-click on the table in the Schemas section of the Navigator window.
2. Select the Select Rows – Limit 1000 command to display it in a Result grid.

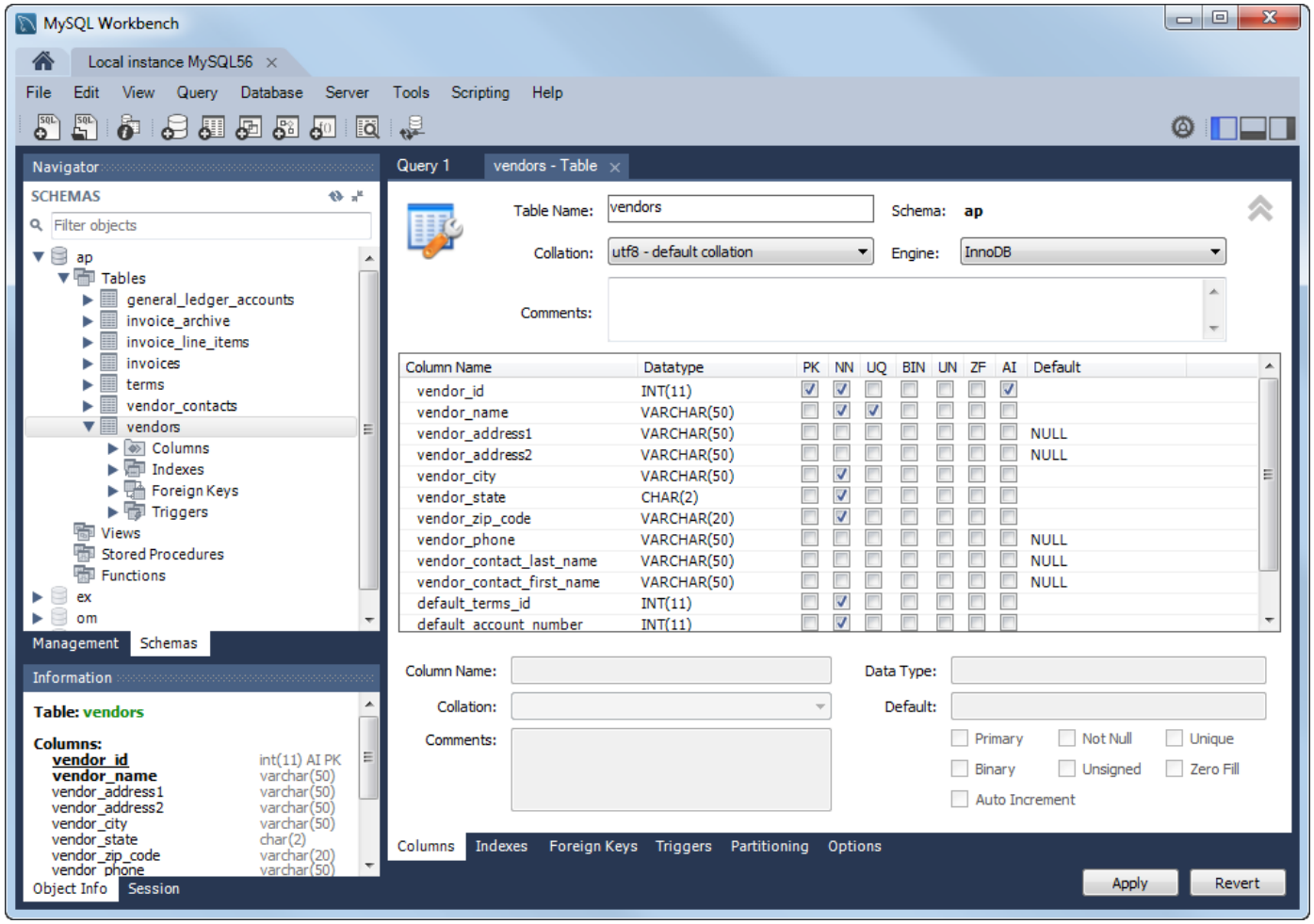
How to edit the data for a table

1. View the data.
2. Use the buttons at the top of the Result grid to insert, update, and delete rows.
3. Click the Apply button at the bottom of the tab to apply the changes.

Note

- You can also cancel the changes for a table by clicking the Revert button.

The column definitions for the Vendors table



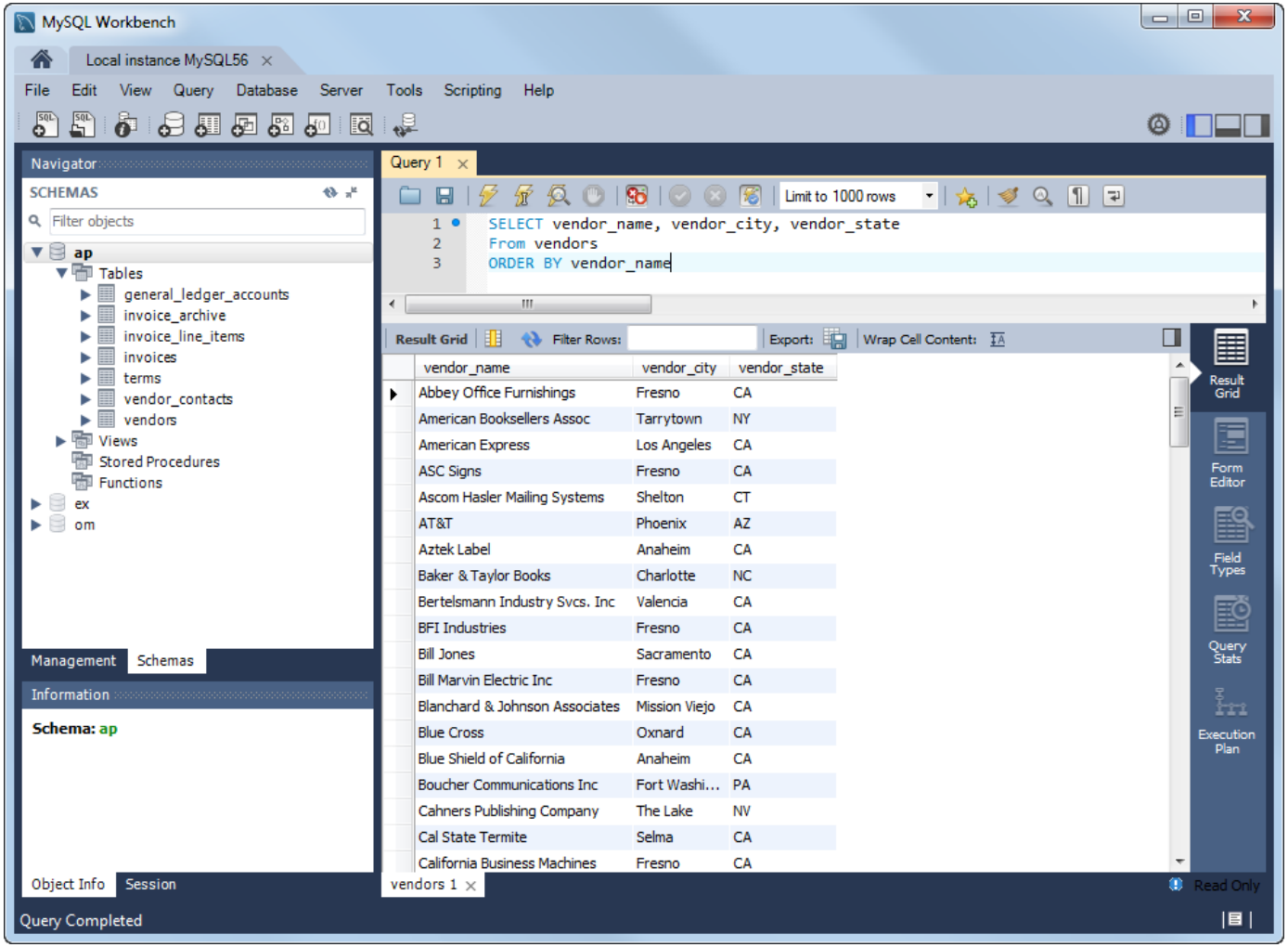
How to view the column definitions

1. Right-click on the table name in the Navigator window and select the Alter Table command.
2. Select the Columns tab at the bottom of the window that's displayed.

How to edit the column definitions

1. View the column definitions.
2. Use the resulting window to add new columns and modify and delete existing columns.

A SELECT statement and its results



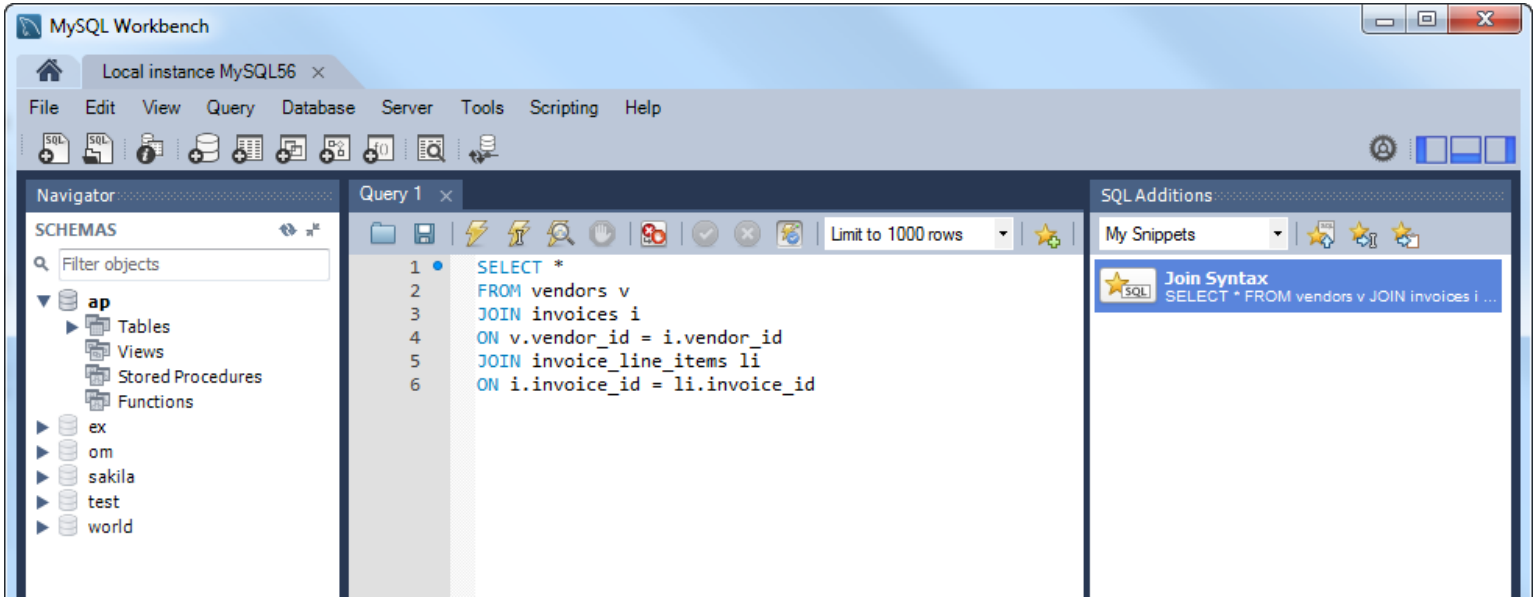
How to enter a SQL statement

1. Press the Ctrl+T keys or click the Create New SQL Tab button in the SQL Editor toolbar to open a new code editor tab.
2. Double-click a database in the Schemas tab of the Navigator window to select it.
3. Type the SQL statement into the SQL editor.

How to execute a SQL statement

- Select the Query→Execute Current Statement command, press the Ctrl+Enter keys, or click the Execute Current Statement button in the code editor toolbar.
- If a SELECT statement retrieves data, the data is displayed in a Result grid.

The SQL Additions tab with a snippet created by a user



How to use a snippet

1. To display any category of snippets, select the category from the drop-down list at the top of the SQL Additions tab.
2. Click the Insert Snippet button at the top of the SQL Additions tab.
3. Edit the snippet code so it's appropriate for your SQL statement.

How to replace code with a snippet

1. Select the code.
2. Select the snippet you want to replace the code with.
3. Click the Replace Current Text button.

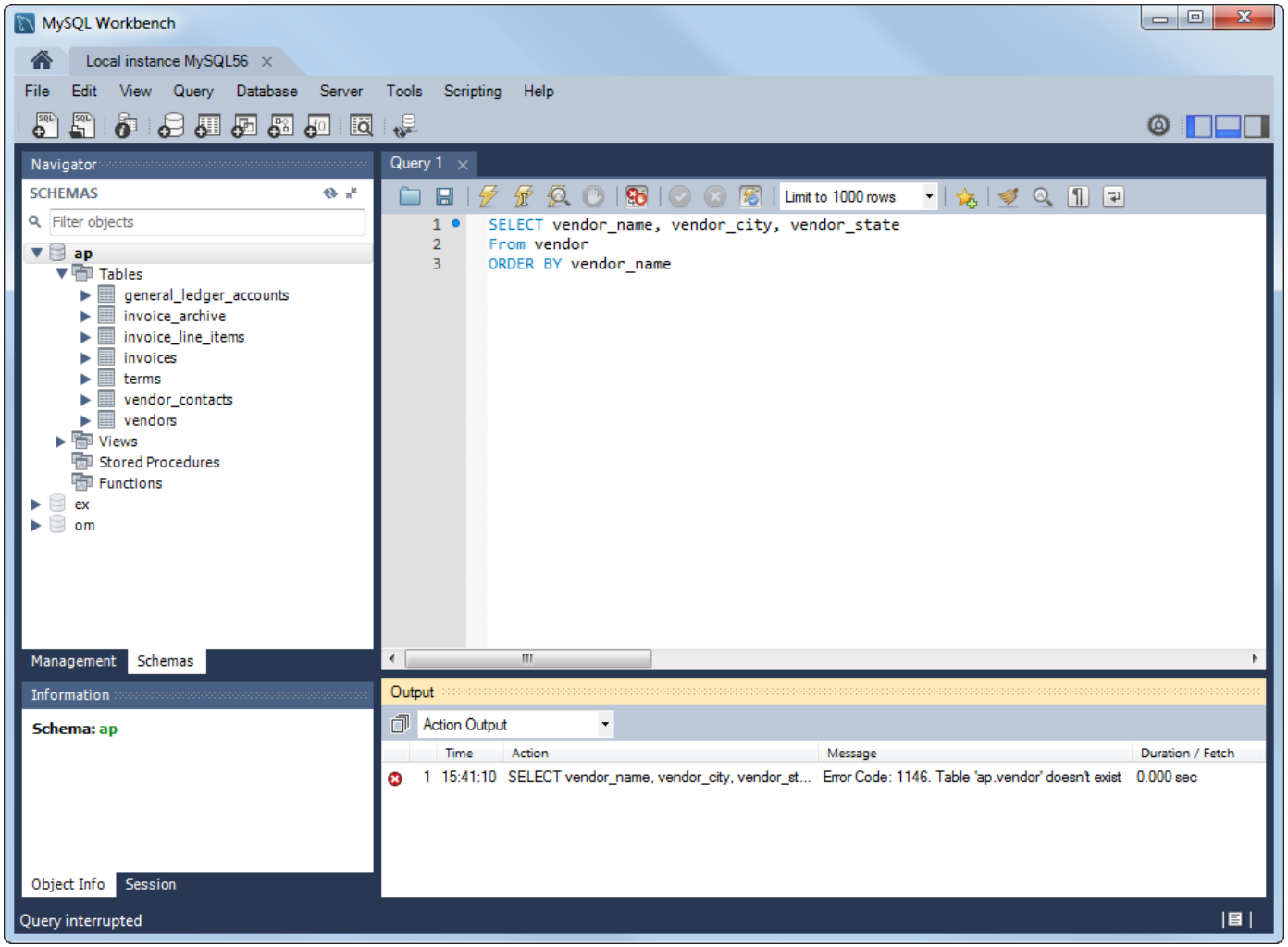
How to create your own snippet

1. Enter the code for the snippet into a SQL Editor.
2. Select the category where you want to save the snippet.
3. Click the Add New Snippet button and enter a name for the snippet.

How to delete a snippet

1. Select the snippet in the SQL Additions tab.
2. Click the Delete Snippet item.

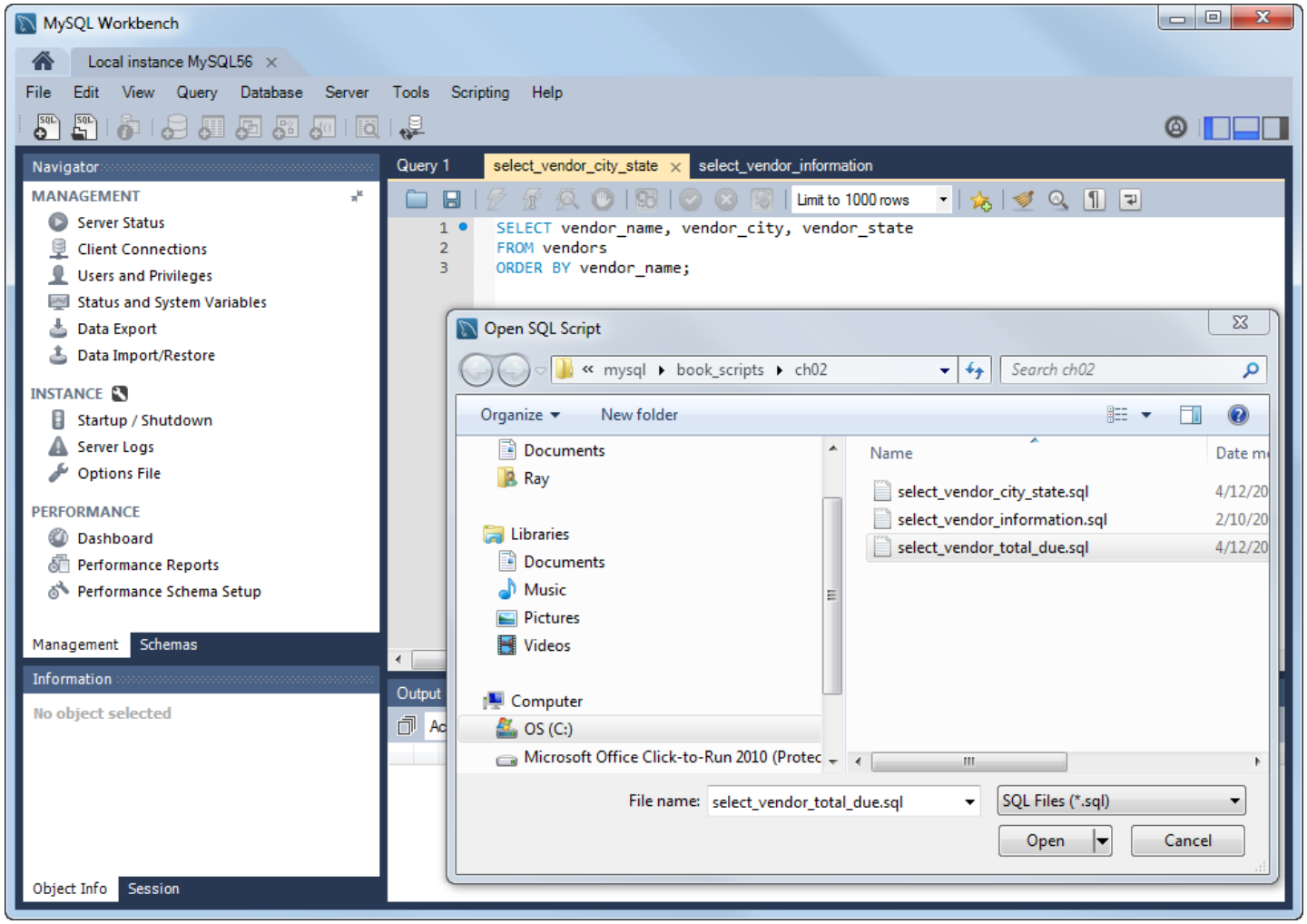
How to handle syntax errors



Common causes of errors

- Having the wrong database selected
- Misspelling the name of a table or column
- Misspelling a keyword
- Omitting the closing quotation mark for a character string

The Open SQL Script dialog box



How to open a SQL script

1. Click the Open SQL Script File button in the SQL Editor toolbar, or press the Ctrl+Shift+O keys.
2. Use the Open SQL Script dialog box to locate and open the SQL script.

How to switch between open files

- Select the appropriate tab.

How to cut, copy, and past code

- Use standard techniques.

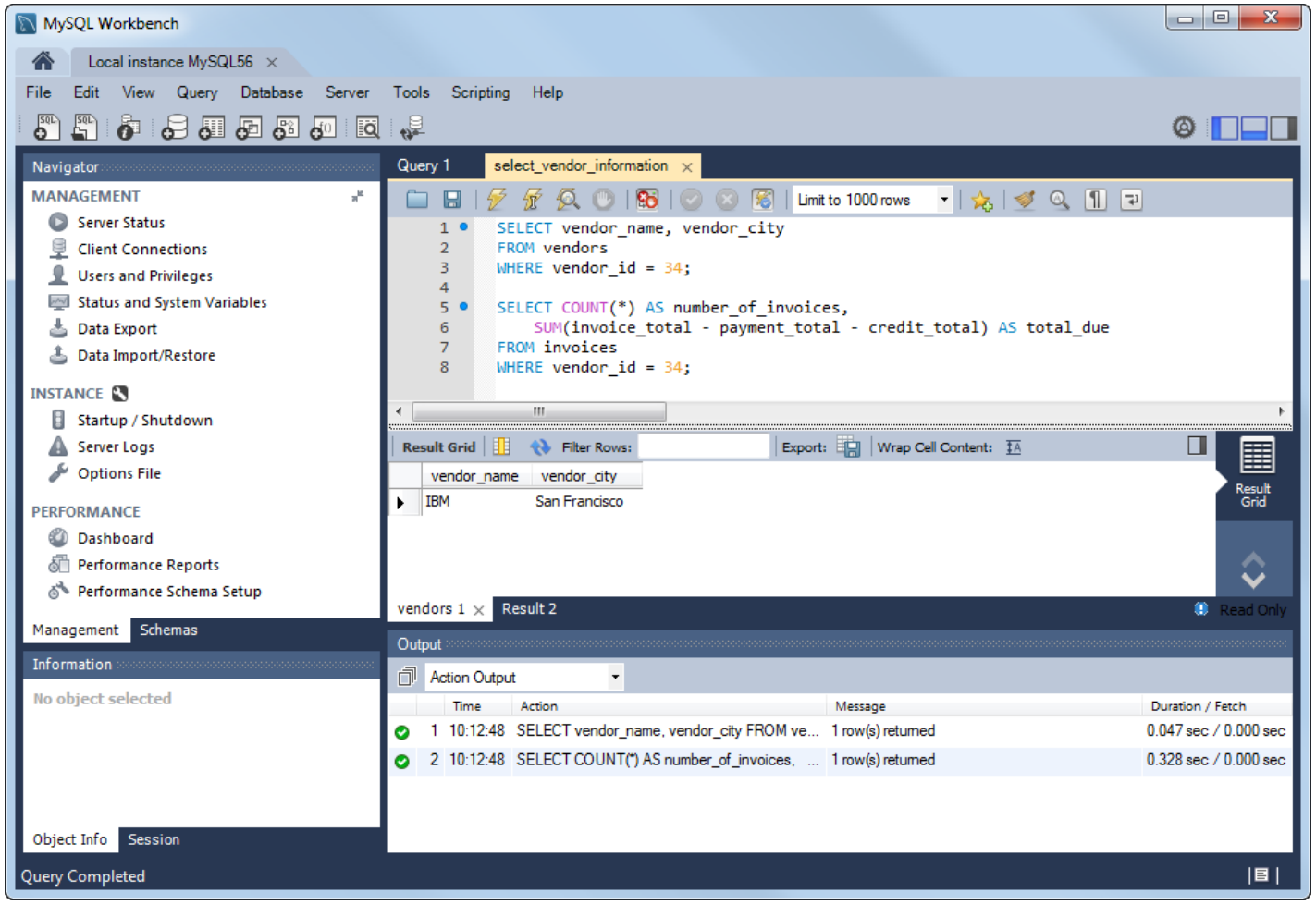
How to save a new SQL script

1. Click the Save button in the SQL editor toolbar or press Ctrl+S.
2. Use the Save SQL Script dialog box to specify a location and name for the file.

How to save a modified script to a new file

1. Press the Ctrl+Shift+S keys, or select the File→Save Script As command.
2. Use the Save SQL Script dialog box to specify a location and name for the file.

A SQL script and its results



How to run an entire script

- Press the Ctrl+Shift+Enter keys or click the Execute SQL Script button.

How to run one statement within a script

1. Move the insertion point into the statement you want to execute.
2. Press the Ctrl+Enter keys or click the Execute Current Statement button.

How to run two or more statements in a script

1. Select the statements you want to execute.
2. Press the Ctrl+Shift+Enter keys or click the Execute SQL Script button.

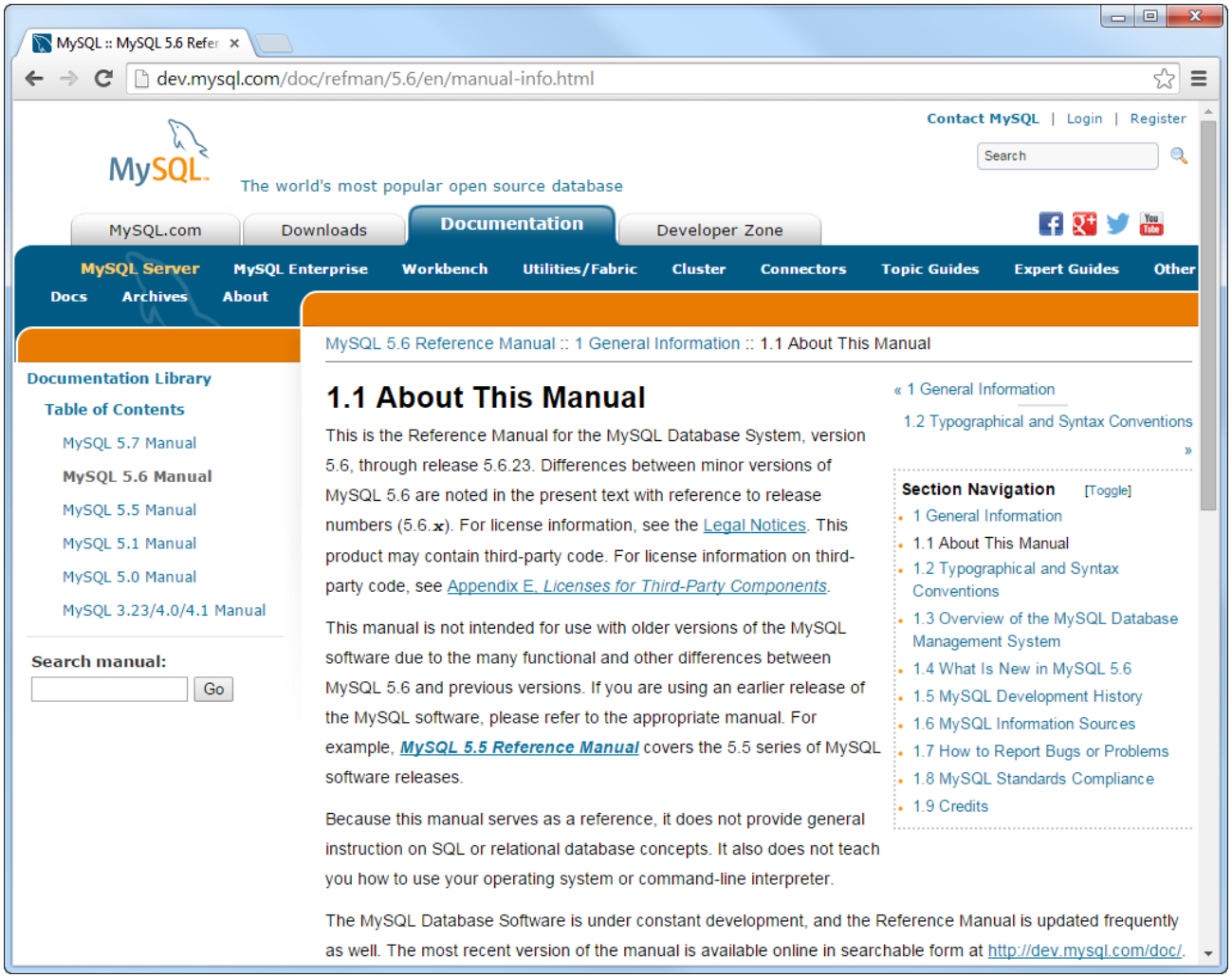
Notes

- The results of each statement that returns data are displayed in a separate Result grid.
- If a script contains more than one statement, you must code a semicolon at the end of each statement.

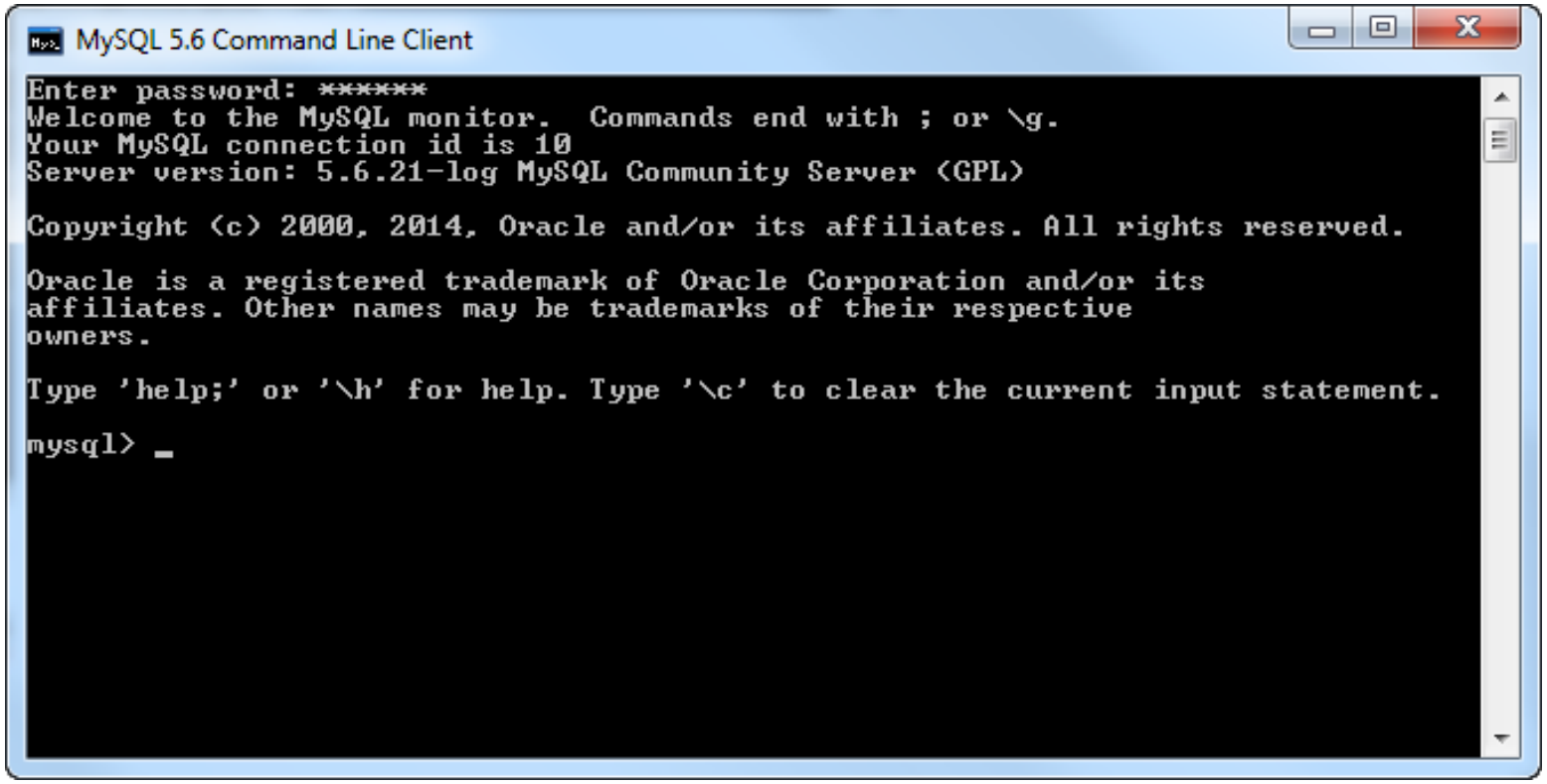
The web address for the MySQL 5.6 Reference Manual

http://dev.mysql.com/doc/refman/5.6/en/

A web page from the MySQL Reference Manual



The MySQL Command Line Client displayed by Windows



How to start the MySQL Command Line Client from the Windows Start menu

Start→All Programs→MySQL→MySQL Server 5.6→
MySQL 5.6 Command Line Client

How to start the MySQL Command Line Client from Windows Command Prompt window

```
cd \Program Files\MySQL\MySQL Server 5.6\bin
mysql –u root -p
```

How to start the MySQL Command Line Client from a Mac Terminal window

```
cd /usr/local/mysql/bin
./mysql –u root -p
```

The syntax of the mysql command

```
mysql –h hostname –u username –p
```

Examples of the mysql command

```
mysql –u ap_tester -p
mysql –h localhost –u root –p
mysql –h murach.com –u ap_tester –p
```

How to exit from the MySQL Command Line Client

```
mysql>exit;
```

How to list the names of all databases managed by the server

```
mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| ap                 |
| ex                 |
| mysql              |
| om                 |
| performance_schema |
| test               |
+--------------------+
7 rows in set (0.05 sec)
```

How to select a database for use

```
mysql> use ap;
Database changed
```

How to select data from a database

```
mysql> select vendor_name from vendors limit 5;
+------------------------------+
| vendor_name                  |
+------------------------------+
| Abbey Office Furnishings     |
| American Booksellers Assoc   |
| American Express             |
| ASC Signs                    |
| Ascom Hasler Mailing Systems |
+------------------------------+
5 rows in set (0.09 sec)
```