

Creating the world_innodb Database

Overview

In this practice, you create and populate the `world_innodb` database, which you use in practices throughout this course.

Duration

This practice takes approximately 5 minutes to complete.

Tasks

1. Create the `world_innodb` database within the `mysql` client:

Enter the following at the `mysql` prompt from the previous practice:

```
mysql> CREATE DATABASE world_innodb CHARACTER SET latin1;
```

It returns the following message to indicate that the database was created:

```
Query OK, 1 row affected (0.02 sec)
```

Note: Adding the `latin1` character set to the above database creation statement makes it compatible with the script you use to populate it below.

2. Now you have created the `world_innodb` database, tell the client to use it:

Execute the following statement at the `mysql>` prompt:

```
mysql> USE world_innodb
```

– **Note:** You do not need a semicolon at the end of a `USE` statement.

It returns the following message to indicate that the database selection changed:

```
Database changed
```

3. Populate the `world_innodb` database with data:

Execute the following statement at the `mysql>` prompt:

```
mysql> SOURCE D:\labs\world_innodb.sql
```

– **Note:** Do not include a semicolon at the end of the `SOURCE` statement MySQL displays multiple instances of the following message while populating `world_innodb`. The process takes several minutes.

```
Query OK, 0 rows affected (0.00 sec)
```

When the script has finished executing, you are returned to the `mysql>` prompt.

Note: Do not attempt to review the database contents yet. You do this in a later practice.

4. Exit the `mysql` client:

Enter the following at the `mysql>` prompt:

```
mysql> EXIT
```

The following message appears and control returns to the standard command prompt:

```
Bye  
cmd>
```

Installing and Starting the MySQL Server

Overview

In this practice, you use MySQL Installer to install and configure MySQL. It installs the following components:

- MySQL Server 5.6.10 (Commercial/Enterprise Edition)
- MySQL Workbench SE 5.2.46
- MySQL Notifier 1.0.3
- MySQL Connector/ODBC 5.2.4
- MySQL Connector/C++ 1.1.2
- MySQL Connector/J 5.1.23
- MySQL Connector/NET 6.6.5
- MySQL Documentation 5.6.10
- MySQL Samples and Examples 5.6.10

Duration

This practice takes approximately 30 minutes to complete.

Tasks

1. Go to the `D:\stage\MySQL` directory by using Windows Explorer.
 2. Execute the MySQL Installer by double-clicking the `mysql-installer-commercial-5.6.10.0.msi` installation file.
 3. When the installer has finished loading, the Welcome window appears. Select **Install MySQL Products**.
 4. In the License Agreement window, select the check box to accept the terms, and then click the **Next** button.
 5. In the Choosing a Setup Type window:
 - a. Select **Developer Default**.
 - b. Enter (or confirm) the "Installation Path" as: `D:\Program Files\MySQL\`.
 - c. Enter (or confirm) the "Data Path" as: `D:\ProgramData\MySQL\MySQL Server 5.6\`.
 - d. Click the **Next** button.The Check Requirements window appears.
 6. The Check Requirements window lists any dependencies on external software:
 - Microsoft .NET Framework 4 (already installed)
 - Microsoft Visual C++ 2010 32-bit run time
 - Microsoft Excel 2007 or greater
 - Visual Studio Tools for Office 2010 run time
 7. The green check mark next to .NET Framework 4 shows it is already installed. You need to install the other items in the list.
-

8. Click the Execute button to install Microsoft Visual C++ 2010 32-bit run time:
 - a. Select the check box to accept the license terms. b.
Click the Install button.
 - c. When the Installation is Complete window appears, click the Finish button.
9. There is now a blue arrow next to Microsoft Excel 2007 or greater in the Check Requirements window.
 - a. Click the Execute button.

MySQL Installer checks if Microsoft Excel or Visual Studio are installed. They are not, so it refreshes the list of requirements to exclude these dependencies.

The required software (Microsoft .NET Framework 4 Client Profile and Microsoft Visual C++ 2010 32-bit runtime) has now been installed and the MySQL installation can proceed.
 - b. Click Next.
10. The Installation Progress window lists all MySQL products to be installed:
 - MySQL Server 5.6.10
 - MySQL Workbench SE 5.2.46
 - MySQL Notifier 1.0.3
 - Connector/ODBC 5.2.4
 - Connector/C++ 1.1.2
 - Connector/J 5.1.23
 - Connector/NET 6.6.5
 - MySQL Documentation 5.6.10
 - Samples and Examples 5.6.10.
11. Install the MySQL products:
 - a. Click the Execute button.

The installation process takes a few minutes. When complete, the Status column for all products shows "Install success".
 - b. Click the Next button.
12. Configure the software components in the Configuration Overview window:

A green arrow points to MySQL Server 5.6.10. Click Next to configure MySQL Server 5.6.10.
13. In the MySQL Server Configuration (1/3) window:
 - a. Server Configuration Type: From the Config Type drop-down list, select Development Machine.
 - b. Select (or confirm) Enable TCP/IP Networking and Port Number of 3306.
 - c. Select (or confirm) "Open Firewall port for network access". d.
Click Next.
14. In the MySQL Server Configuration (2/3) window:
 - a. In Root Account Password, enter and confirm the password `oracle`.
 - b. Click the Next button.
15. In the MySQL Server Configuration (3/3) window:
 - a. Enter (or confirm) Windows Service Name is `MySQL56`.
 - b. Select (or confirm) "Start the MySQL Server at System Startup".

- c. Select (or confirm) Run Windows Service as “Standard System Account”.
 - d. Click Next.
16. The Configuration Overview window appears and shows the configuration progress for the MySQL server.

This takes a few moments. When complete, a green tick appears next to MySQL Server 5.6.10 and the “Action to be performed” column reads “Configuration Complete”.
17. There is now a green arrow next to Samples and Examples, and the Action to be performed column reads “Initial Configuration”.
 - a. Click Next to configure Samples and Examples.
 - b. Configuration takes a minute or two. When complete, click Next.
18. In the Installation complete window:
 - a. Deselect the Start MySQL Workbench after Setup check box.
 - b. Click the Finish button.

The final MySQL Installer window closes. You have installed and configured MySQL Server and the other tools required for this course.
19. Confirm the installation:
 - a. Click the Windows Start button (in the lower left corner of the Windows desktop).
 - b. Select All Programs.
 - c. Select MySQL. The folder includes the following programs:
 - MySQL Workbench 5.2 SE
 - MySQL Connector/Net 6.6.5
 - MySQL Enterprise Backup 3.8 (pre-installed)
 - MySQL Enterprise Monitor (pre-installed)
 - MySQL Installer
 - MySQL Notifier 1.0.3
 - MySQL Server 5.6

Note: MySQL Enterprise Backup and MySQL Enterprise Monitor are pre-installed for you.

20. Attempt to start the `mysql` client from the Windows command prompt:

- a. Click the Start button (at the lower-left of the screen).
 - b. Select Run.
 - c. In the Open field, enter `cmd` and press Enter.
- A command-prompt window opens.

Note: You can also use the Command Prompt shortcut icon on the desktop.

The prompt shows the current working directory, for example:

```
D:\Users\Administrator>
```

Note: The practice steps use `cmd>` to refer to this prompt from now on. Do not attempt to type the prompt, just enter the commands that appear in bold after it:

```
cmd> enter commands here
```

- d. Enter the following at the command prompt:

```
cmd> mysql
```

- e. Press Enter.
-

Windows reports that it cannot find the `mysql` program:

```
cmd> mysql
'mysql' is not recognized as an internal or external command,
operable program or batch file.
```

This is because Windows has not been told where to look for the `mysql` program. So that Windows recognizes the `mysql` client program, you need to add it to the `PATH` environment variable.

- f. Type `exit` and then press Enter to close the command-prompt window.

21. Add the `mysql` client program to the `PATH`:

- a. Click the Windows Start button.
- b. Right-click the Computer link.
- c. From the context menu that appears, select Properties.
- d. Select Advanced System Settings.
- e. Click the Advanced tab.
- f. Click the "Environment variables" button.

The Environment variables window opens.

- g. From the list of System variables at the bottom of this window, select Path.
- h. Click Edit.

The Edit System Variable window opens.

- i. Click somewhere in the Variable Value field and press the End button to move to the end of the line.
- j. Type the following exactly as shown:

```
;D:\Program Files\MySQL\MySQL Server 5.6\bin;
```

– **Note:** include the semicolons at the beginning and end of the file path.

- k. Click OK to exit the Edit System Variable window.
- l. Click OK to exit the Environment Variables window.
- m. Click OK to exit the System Properties window.
- n. Close the System Window.

22. Connect to the MySQL server by using the `mysql` client program:

- a. Click the Windows Start button.
- b. Select Run.
- c. In the Open field, enter `cmd` and press Enter.

A command-prompt window opens, with the prompt located at the current user's "home" directory.

- d. Enter the following at the command prompt:

```
cmd> mysql -u root -p
Enter password: oracle
```

```
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 3  
Server version: 5.6.10-enterprise-commercial-advanced MySQL Enterprise  
Server - Advanced Edition (Commercial)
```

```
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```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql>
```

- In this course, the username is `root` and the password used is `oracle`. As you type the password, it appears as `*****` on your screen.
- The current version of the MySQL server is displayed.
- The “MySQL connection id” might differ on your machine.
- When the client is started, the standard command prompt is replaced by the `mysql>` prompt.

23. Exit the `mysql` client:

Enter the following from the `mysql>` prompt:

```
mysql> EXIT
```

The following message is displayed and the standard command prompt is returned:

```
Bye  
cmd>
```