

LU06a - SQL-DDL: DB Management

Learning Objectives

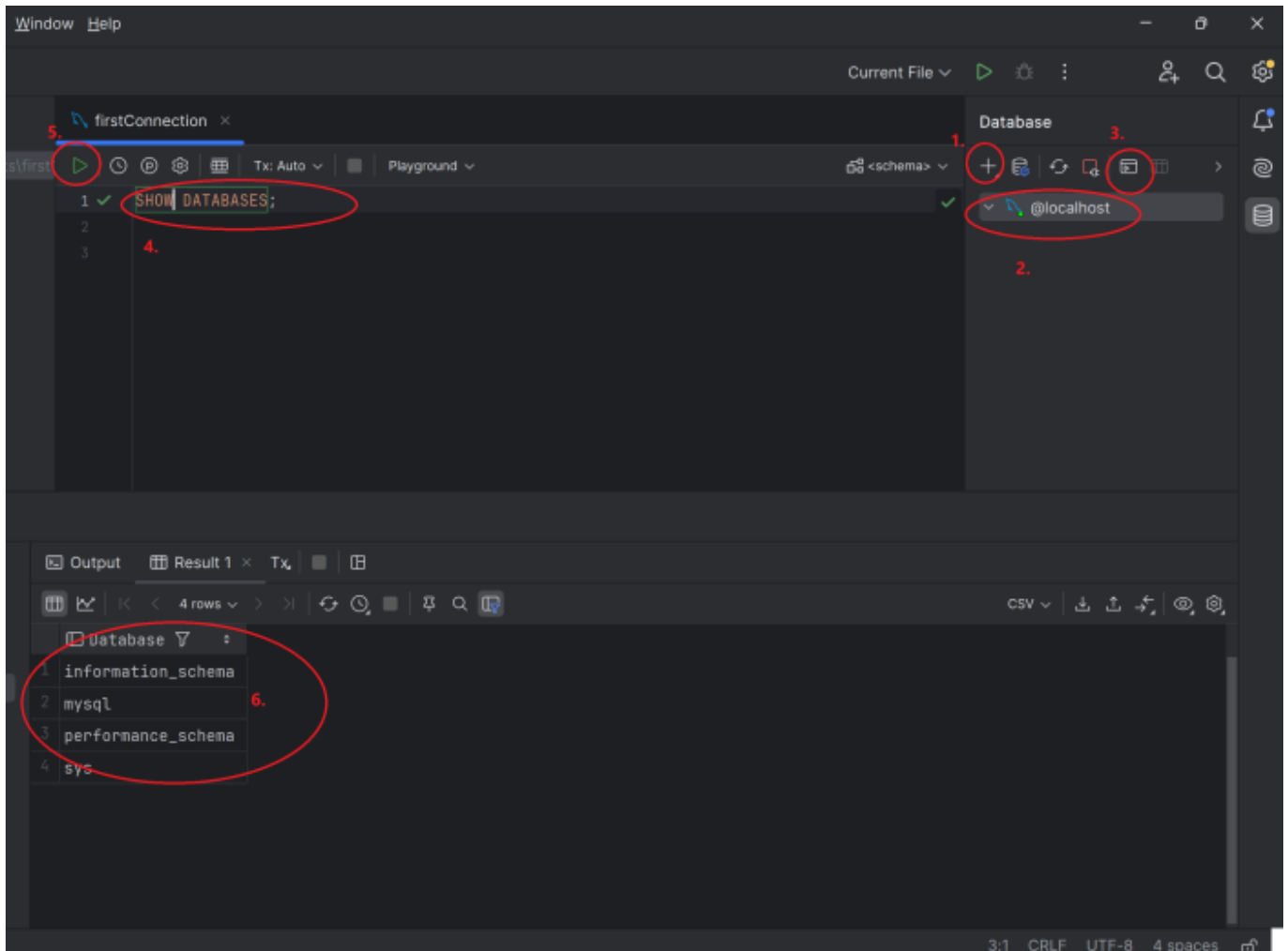
In this session, we will learn some thrilling details about how to properly manage our databases. To achieve this, we need to know more about:

1. How to create database instances.
2. How to display all currently available instances.
3. How to connect to one specific db-instance.
4. how you can delete obsolete or no longer required databases.
5. How to import pre-pared databases that are ready for immediate use.

Access to the db with Webstorm code editor

There are many ways how we can connect to our database instance. One way is from the terminal or commandline. Instead, during the module 290 we are going to use do the management with the code editor WEBSTORM, which is pictured below.

1. New connection to our MySQL database system
2. The already existing connections to our database instance
3. New terminal window to the database to enter sql commands (leads to 4.)
4. Terminal to the database to enter our SQL commands
5. Execute button that sends the SQL command to the database



Commands

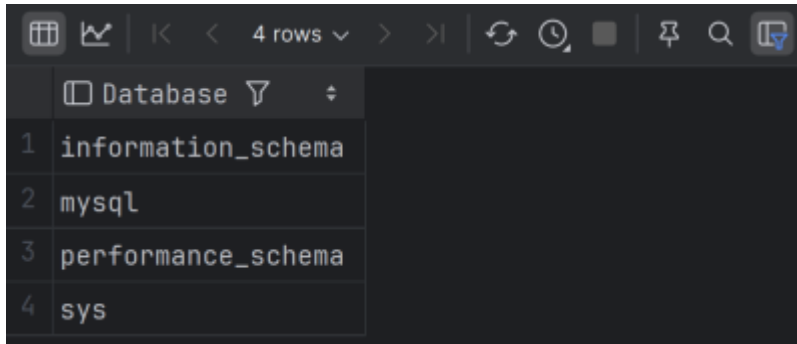
SHOW DATABASES

Source: [Alle verfügbaren Datenbanken anzeigen lassen](#)

To show all currently available datases we use the SHOW command. The basic syntax is as shown below:

```
SHOW DATABASES;
```

After executing this command, we will receive the list of currently installed database instances, as shown in the following picture.



A screenshot of a database client interface. At the top, there is a toolbar with icons for grid, chart, navigation, and search. Below the toolbar, a dropdown menu is open, showing a list of databases. The list contains four entries: 'information_schema', 'mysql', 'performance_schema', and 'sys'. The 'information_schema' entry is highlighted with a mouse cursor.

	Database
1	information_schema
2	mysql
3	performance_schema
4	sys

CREATE DATABASES

Source: [CREATE DB](#)

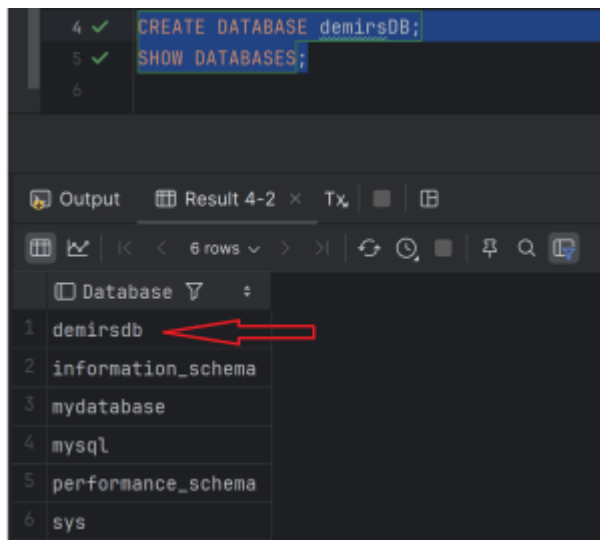
A new application is basically constructed within a new environment. Therefore we need to create a new database instance for us. To achieve this, which is done by the following command syntax.

```
CREATE DATABASE myDatabase;
```

So, if we want to create a new database for a webshop for our customer „Demir“, we need to type in:

```
CREATE DATABASE DemirsDB;  
SHOW DATABASES;
```

After executing both commands, our result-set would look like:



A screenshot of a database client interface showing the execution of SQL commands. The top panel shows two commands: 'CREATE DATABASE demirsDB;' and 'SHOW DATABASES;'. The bottom panel shows the result of the 'SHOW DATABASES;' command, which is a list of six databases: 'demirsdb', 'information_schema', 'mydatabase', 'mysql', 'performance_schema', and 'sys'. A red arrow points to the 'demirsdb' entry in the list.

	Database
1	demirsdb
2	information_schema
3	mydatabase
4	mysql
5	performance_schema
6	sys

DROP DATABASES

Source: [DROP DB](#)

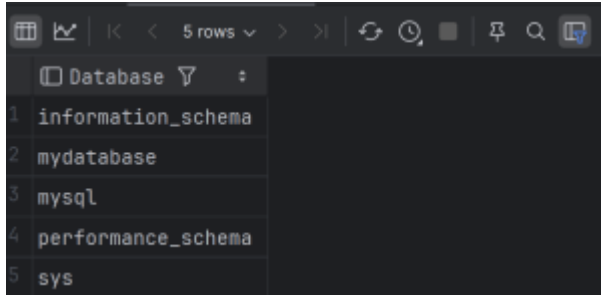
It can happen, that our database is corrupted, obsolete or otherwise not required any more. Thus, we have to delete it, which is done by the command

```
DROP DATABASE myDatabase;
```

So, if we want to delete demirsDB, we need to type in the following SQL commands.

```
DROP DATABASE demirsDB;  
SHOW DATABASES;
```

After, executing both commands, the result-set would look like:



Using databases

Most database systems usually have more than one instance (project areas) running, e.g. DIGITECH.CH and GALAXUS.CH, these two database instances (storage areas for different purposes) are running on the same database systems, but organize their data separately.

As a database administrator, we cannot work on both instances at the same time, so we have to choose which instance we actually want to work on. The SQL statement in question is the USE command.

Vocabulary

English	Deutsch
Obsolete	veraltet
result-set	Ergebnismenge



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Last update: 2024/09/25 10:35

