LU07.A01 - Preparations for the assignment of the DML commands

Requirements

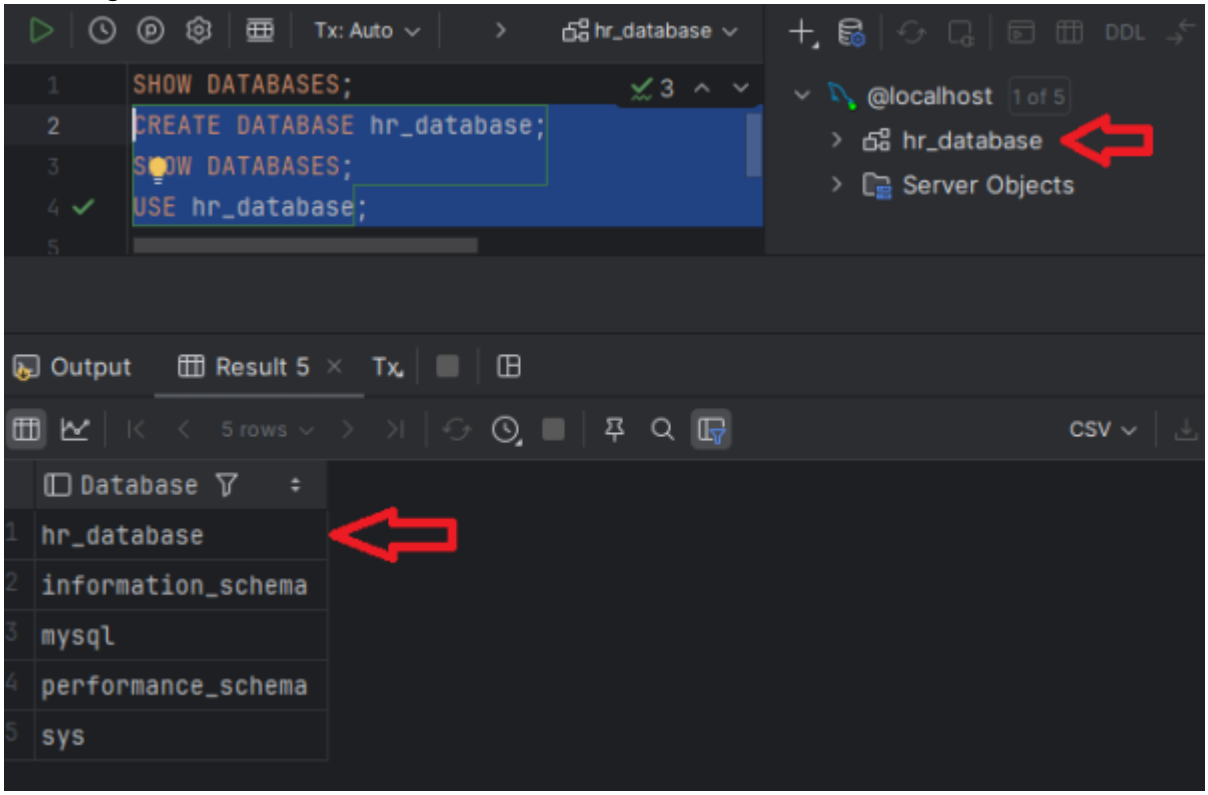
- Work type: Individual
- Timeframe: 10 Minutes
- Means of aid:
  - Only teaching materials, no websearch, no use of ai.
- Establishment of a MySQL table **employee** and import of the provided inital data in order to perform the requirements of the task: 2: INSERT, 3: UPDATE, 4: DELETE

Preparation Assignments

First of all we need a database schema (database workspace). Execute the following two lines on your MySQL installation.

```
CREATE DATABASE hr_database;
SHOW DATABASES;
USE hr_database;
```

After executing the three SQL commands above, the feedback from your database would look like in the image below:



B: CREATE TABLE

To exercise the DML commands, we need a suitable table including a reasonable amout of data. The following SQL statement will create a table **employee** regarding all necessary attributes of an „average employee“.

```
CREATE TABLE EMPLOYEES (
  employee_ID INT PRIMARY KEY,       -- Employee ID as the primary key
  name VARCHAR(50) NOT NULL,         -- Name of the employee (max length 50
characters)
  surname VARCHAR(50) NOT NULL,      -- Surname of the employee (max length
50 characters)
  birthdate DATE NOT NULL,           -- Birthdate of the employee
  sex CHAR(1),                       -- Sex of the employee (M/F/O for
other)
  pronomen VARCHAR(10),              -- Pronoun of the employee
  employment_date DATE NOT NULL,     -- Date when the employee was hired
  salary DECIMAL(10, 2) NOT NULL,    -- Salary of the employee (up to 10
digits, 2 decimal places)
  department VARCHAR(50) NOT NULL    -- Department where the employee works
);
```

Explanation

1. **employee_ID** is the primary key and ensures that each employee has a unique ID.
2. **name** and **surname** are 'VARCHAR' fields that store the name and surname of the employee.
3. **birthdate** and **employment_date** use the 'DATE' data type to store the birth and employment dates.
4. **sex** is stored as a 'CHAR(1)' type to represent gender with one letter ('M' for male, 'F' for female, etc.).
5. **pronomen** stores the employee's pronouns.
6. **salary** is stored as a 'DECIMAL' value to account for financial precision.
7. **department** is a VARCHAR(50) field that stores the name of the department the employee is associated with. It has a NOT NULL constraint to ensure that every employee is assigned to a department.

C: Inital DataImport

Once we have created our 'employees' table, we need a reasonable amount of data to be able to make the assignments. The following SQL INSERTS will provide you with the inital data. Though execute the follwing INSERT statements on your MySQL.

Task B

Display all instances which are currently running on our database.

Task C

Create the database instances

- myDB_PERFECT
- myDB_OK
- myDB_OBSOLETE

and display your result.

Task D

Drop the instance „myDB_obsolete“, as it obviously obsolete (no longer needed). Display the result.

Task E

Activate the instance „myDB_good“ by using the USE command.

Task F

Display the system date by using the command „SELECT sysdate();“

Solution

Lösung

Vocabulary

English	German
obsolete	überflüssig
credential	Berechtigungsnachweis
