LU07.S01 - Preparations for the assignment of the DML commands

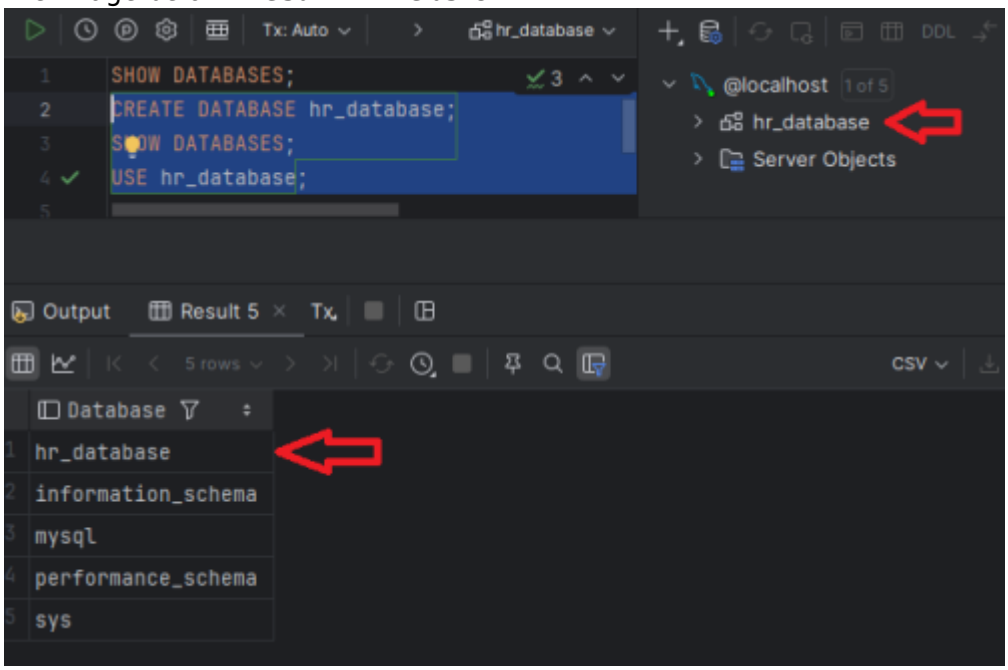
Preparation Assignments

A: DATA SCHEMA

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: **Result in webstorm**



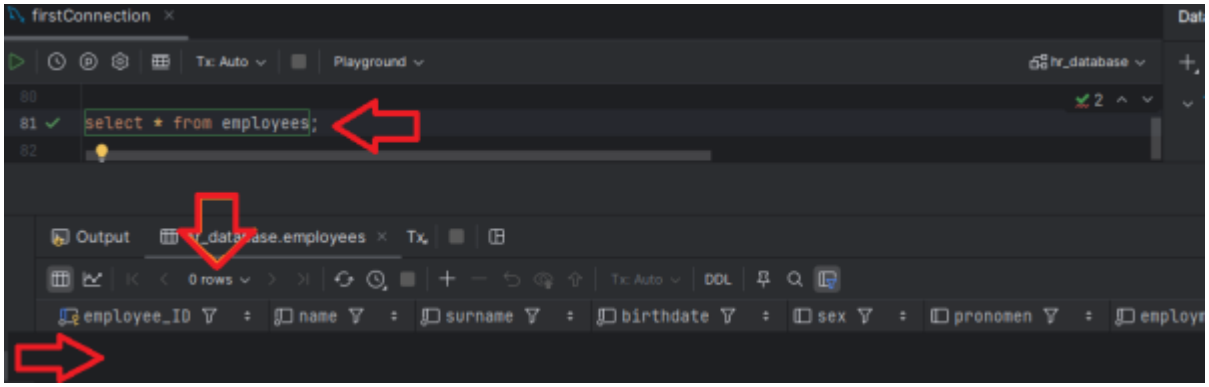
B: CREATE TABLE

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
);
```

After creating the table „employees“ the result in our Webstorm ought to look like the figure above:



C1: Inital data import

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 of 30 employees. Though execute the follwing INSERT statements on your MySQL.

As we already know there are two ways how to import the inital data cosisting of 30 rows of emloyee data:

- multiple inserts
- single insert

Multiple inserts

```
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (1, 'John', 'Doe', '1985-03-25', 'M', 'He/Him', '2015-01-15',
55000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (2, 'Jane', 'Smith', '1990-07-19', 'F', 'She/Her', '2017-06-10',
60000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (3, 'Mike', 'Brown', '1982-11-02', 'M', 'He/Him', '2012-03-05',
```

```
75000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (4, 'Sarah', 'Johnson', '1970-01-14', 'F', 'She/Her', '2020-08-22',
50000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (5, 'Chris', 'Williams', '1987-04-11', 'M', 'He/Him', '2016-09-30',
65000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (6, 'Anna', 'Lee', '1993-12-01', 'F', 'She/Her', '2018-04-12',
72000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (7, 'David', 'Kim', '1989-10-22', 'M', 'He/Him', '2014-11-08',
69000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (8, 'Laura', 'Clark', '1986-02-17', 'F', 'She/Her', '2013-05-01',
56000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (9, 'Jake', 'Lewis', '1962-09-05', 'M', 'He/Him', '2019-12-20',
59000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (10, 'Emily', 'Martinez', '1996-06-13', 'F', 'She/Her', '2021-01-05',
61000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (11, 'Ryan', 'Turner', '1991-05-21', 'M', 'He/Him', '2017-07-19',
70000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (12, 'Sophia', 'Adams', '1988-12-06', 'F', 'She/Her', '2014-02-11',
62000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (13, 'Nathan', 'Garcia', '1994-03-29', 'M', 'He/Him', '2018-09-15',
66000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (14, 'Olivia', 'Baker', '1983-08-11', 'F', 'She/Her', '2011-10-25',
78000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (15, 'Liam', 'Scott', '1958-12-18', 'M', 'He/Him', '2020-06-13',
53000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
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VALUES (16, 'Isabella', 'Carter', '1990-01-02', 'F', 'She/Her',
'2016-03-30', 67000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (17, 'James', 'Rodriguez', '1984-05-14', 'M', 'He/Him', '2013-07-22',
72000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (18, 'Mia', 'Lopez', '1998-09-27', 'F', 'She/Her', '2021-03-11',
51000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (19, 'Ethan', 'Harris', '1970-04-07', 'M', 'He/Him', '2019-10-05',
64000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (20, 'Charlotte', 'Moore', '1986-11-03', 'F', 'She/Her',
'2014-12-30', 59000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (21, 'Lucas', 'Jackson', '1989-02-28', 'M', 'He/Him', '2015-08-18',
74000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (22, 'Amelia', 'Young', '1991-06-23', 'F', 'She/Her', '2016-11-02',
62000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (23, 'Henry', 'King', '1993-10-08', 'M', 'He/Him', '2018-05-07',
67000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (24, 'Grace', 'Wright', '1987-03-19', 'F', 'She/Her', '2012-04-14',
71000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (25, 'Jack', 'White', '1962-08-15', 'M', 'He/Him', '2019-01-23',
69000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (26, 'Chloe', 'Martin', '1996-12-31', 'F', 'She/Her', '2021-07-05',
54000.00, 'IT');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (27, 'Daniel', 'Green', '1985-09-25', 'M', 'He/Him', '2013-02-13',
76000.00, 'Marketing');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (28, 'Ella', 'Hall', '1994-04-30', 'F', 'She/Her', '2017-09-26',
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63000.00, 'HR');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (29, 'Oliver', 'Nelson', '1993-07-21', 'M', 'He/Him', '2018-11-19',
64000.00, 'Finance');
INSERT INTO EMPLOYEES (employee_id, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES (30, 'Ava', 'Walker', '1958-02-11', 'F', 'She/Her', '2021-05-30',
52000.00, 'Marketing');
```

Single insert

```
INSERT INTO EMPLOYEES (employee_ID, name, surname, birthdate, sex, pronomen,
employment_date, salary, department)
VALUES
  (1, 'John', 'Doe', '1985-03-25', 'M', 'He/Him', '2015-01-15', 55000.00,
'Finance'),
  (2, 'Jane', 'Smith', '1990-07-19', 'F', 'She/Her', '2017-06-10', 60000.00,
'HR'),
  (3, 'Mike', 'Brown', '1982-11-02', 'M', 'He/Him', '2012-03-05', 75000.00,
'IT'),
  (4, 'Sarah', 'Johnson', '1970-01-14', 'F', 'She/Her', '2020-08-22',
50000.00, 'Marketing'),
  (5, 'Chris', 'Williams', '1987-04-11', 'M', 'He/Him', '2016-09-30',
65000.00, 'Finance'),
  (6, 'Anna', 'Lee', '1993-12-01', 'F', 'She/Her', '2018-04-12', 72000.00,
'IT'),
  (7, 'David', 'Kim', '1989-10-22', 'M', 'He/Him', '2014-11-08', 69000.00,
'Marketing'),
  (8, 'Laura', 'Clark', '1986-02-17', 'F', 'She/Her', '2013-05-01',
56000.00, 'HR'),
  (9, 'Jake', 'Lewis', '1962-09-05', 'M', 'He/Him', '2019-12-20', 59000.00,
'Finance'),
  (10, 'Emily', 'Martinez', '1996-06-13', 'F', 'She/Her', '2021-01-05',
61000.00, 'IT'),
  (11, 'Ryan', 'Turner', '1991-05-21', 'M', 'He/Him', '2017-07-19',
70000.00, 'Marketing'),
  (12, 'Sophia', 'Adams', '1988-12-06', 'F', 'She/Her', '2014-02-11',
62000.00, 'HR'),
  (13, 'Nathan', 'Garcia', '1994-03-29', 'M', 'He/Him', '2018-09-15',
66000.00, 'Finance'),
  (14, 'Olivia', 'Baker', '1983-08-11', 'F', 'She/Her', '2011-10-25',
78000.00, 'IT'),
  (15, 'Liam', 'Scott', '1958-12-18', 'M', 'He/Him', '2020-06-13', 53000.00,
'Marketing'),
  (16, 'Isabella', 'Carter', '1990-01-02', 'F', 'She/Her', '2016-03-30',
67000.00, 'HR'),
  (17, 'James', 'Rodriguez', '1984-05-14', 'M', 'He/Him', '2013-07-22',
72000.00, 'Finance'),
  (18, 'Mia', 'Lopez', '1998-09-27', 'F', 'She/Her', '2021-03-11', 51000.00,
'IT'),
```

```
  (19, 'Ethan', 'Harris', '1970-04-07', 'M', 'He/Him', '2019-10-05',
64000.00, 'Marketing'),
  (20, 'Charlotte', 'Moore', '1986-11-03', 'F', 'She/Her', '2014-12-30',
59000.00, 'HR'),
  (21, 'Lucas', 'Jackson', '1989-02-28', 'M', 'He/Him', '2015-08-18',
74000.00, 'Finance'),
  (22, 'Amelia', 'Young', '1991-06-23', 'F', 'She/Her', '2016-11-02',
62000.00, 'IT'),
  (23, 'Henry', 'King', '1993-10-08', 'M', 'He/Him', '2018-05-07', 67000.00,
'Marketing'),
  (24, 'Grace', 'Wright', '1987-03-19', 'F', 'She/Her', '2012-04-14',
71000.00, 'HR'),
  (25, 'Jack', 'White', '1962-08-15', 'M', 'He/Him', '2019-01-23', 69000.00,
'Finance'),
  (26, 'Chloe', 'Martin', '1996-12-31', 'F', 'She/Her', '2021-07-05',
54000.00, 'IT'),
  (27, 'Daniel', 'Green', '1985-09-25', 'M', 'He/Him', '2013-02-13',
76000.00, 'Marketing'),
  (28, 'Ella', 'Hall', '1994-04-30', 'F', 'She/Her', '2017-09-26', 63000.00,
'HR'),
  (29, 'Oliver', 'Nelson', '1993-07-21', 'M', 'He/Him', '2018-11-19',
64000.00, 'Finance'),
  (30, 'Ava', 'Walker', '1958-02-11', 'F', 'She/Her', '2021-05-30',
52000.00, 'Marketing');
```

Solution

Lösung

Vocabulary

English	German
...	...