LU07.A01 - Preparatory work

Requirements

- Work type: Individual
- Timeframe: 10 Minutes
- Means of aid:
  - Only teaching materials, no websearch, no use of ai.
- Expected result:
  - Conduct the database schema (instance) as foundation for our employee's data.
  - Establishment of a MySQL **table employees** including all relevant attributes.

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;
```

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.

Solution

Lösung

Vocabulary

English	German
preparatary work	Vorarbeit