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LU07.A01 - Preparatory work

Requirements

Work type: IndividualTimeframe: 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 as the primary key
 employee ID INT 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 of the employee (M/F/O for
  sex CHAR(1),
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
);
```

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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
- 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 |



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