2025/09/08 07:54 1/2 103

LU06.S03 - SQL-DDL: Constraint Management

Case studies / Assignments

Here are five assignments, each covering a specific MySQL constraint. As usual, along with the solutions at the end (link).

Assignments

A: PRIMARY KEY

Create a table books that has a book_id as a unique identifier for each book, with book_id as the primary key. Include columns for book_title (VARCHAR) and author_name (VARCHAR). The book_id should be an integer and cannot be NULL.

```
CREATE TABLE books (
  book_id INT PRIMARY KEY,
  book_title VARCHAR(100),
  author_name VARCHAR(100)
);
```

B: FOREIGN KEY

Create two tables: one called departments and the other called employees. Each department has a department_id as its primary key. In the employees table, include a column called department_id as a foreign key that references the departments table. Ensure that every employee is linked to a department.

```
CREATE TABLE departments (
  department_id INT PRIMARY KEY,
  department_name VARCHAR(50)
);

CREATE TABLE employees (
  employee_id INT PRIMARY KEY,
  employee_name VARCHAR(100),
  department_id INT,
  FOREIGN KEY (department_id) REFERENCES departments(department_id)
);
```

C: NOT NULL

Create a table students that includes a student_id (INT) and a student_name (VARCHAR). Ensure that

 $\label{loss-modul} \begin{tabular}{ll} update: \\ 2024/09/27 \end{tabular} modul: m290: learning units: lu06: loes ungen: l03 https://wiki.bzz.ch/modul/m290/learning units/lu06/loes ungen/l03? rev=1727436169 learning units/l03/loes ungen/l03/loes ungen/l03/loe$ 13:22

the student_name column cannot have a NULL value by applying the NOT NULL constraint.

```
CREATE TABLE students (
  student id INT PRIMARY KEY,
  student name VARCHAR(50) NOT NULL
);
```

D: AUTO INCREMENT

Create a table products where each product has an automatically generated, unique product_id using the AUTO INCREMENT feature. Include columns for product name and price.

E: UNIQUE

Create a table users that has a user id (INT) and email (VARCHAR). Ensure that no two users can have the same email address by applying the UNIQUE constraint to the email column.

Solution

Lösung

Vocabulary

English	German



https://wiki.bzz.ch/ - BZZ - Modulwiki

https://wiki.bzz.ch/modul/m290/learningunits/lu06/loesungen/l03?rev=1727436169

Last update: 2024/09/27 13:22



https://wiki.bzz.ch/ Printed on 2025/09/08 07:54