/*STUDY THE OPEN SOURCE RELATIONAL DATABASE : MYSQL AND DESIGN SQL DDL STATEMENT */

-- Step 1: Create Database
CREATE DATABASE IF NOT EXISTS StudentRecords;
-- Output:
-- Query OK, 1 row affected

-- Step 2: Use Database
USE StudentRecords;
-- Output:
-- Database changed

-- Step 3: Create Table
CREATE TABLE IF NOT EXISTS Students (
   StudentID INT PRIMARY KEY,
   FirstName VARCHAR(50),
   LastName VARCHAR(50),
   Age INT,
   Major VARCHAR(50)
);
-- Output:
-- Query OK, 0 rows affected

-- Step 4: Alter Table to Add Column
ALTER TABLE Students
ADD COLUMN GPA DECIMAL(3, 2);
-- Output:
-- Query OK, 0 rows affected

-- Step 5: Insert Data into Table
INSERT INTO Students (StudentID, FirstName, LastName, Age, Major, GPA)
VALUES (1, 'John', 'Doe', 20, 'Computer Science', 3.5);
-- Output:
-- Query OK, 1 row affected

-- Step 6: Modify Column Data Type
ALTER TABLE Students
MODIFY COLUMN Age SMALLINT;
-- Output:
-- Query OK, 0 rows affected

-- Step 7: Describe Table Structure
DESCRIBE Students;
-- Output:
-- +-----------+-------------+------+-----+---------+-------+

```
-- | Field     | Type        | Null | Key | Default | Extra |
-- +-----------+-------------+------+-----+---------+-------+
-- | StudentID | int         | NO   | PRI | NULL    |       |
-- | FirstName | varchar(50) | YES  |     | NULL    |       |
-- | LastName  | varchar(50) | YES  |     | NULL    |       |
-- | Age       | smallint    | YES  |     | NULL    |       |
-- | Major     | varchar(50) | YES  |     | NULL    |       |
-- | GPA       | decimal(3,2)| YES  |     | NULL    |       |
-- +-----------+-------------+------+-----+---------+-------+
```

-- Step 8: Drop Column from Table
ALTER TABLE Students
DROP COLUMN GPA;
-- Output:
-- Query OK, 0 rows affected

-- Step 9: Truncate Table
TRUNCATE TABLE Students;
-- Output:
-- Query OK, 0 rows affected

-- Step 10: Drop Table
DROP TABLE Students;
-- Output:
-- Query OK, 0 rows affected

-- Step 11: Drop Database
DROP DATABASE StudentRecords;
-- Output:
-- Query OK, 0 rows affected