DDL MySQL Commands Tutorial

let's go through the Data Definition Language (DDL) commands step by step for MySQL. DDL commands include CREATE, ALTER, DROP, TRUNCATE, and RENAME. We'll create a database, a table, insert records, and use each DDL command.

# CREATE DATABASE

First, we'll create a database named **`mydatabase`**.

**CREATE** DATABASE mydatabase;

sql

# USE DATABASE

Select the newly created database to perform operations on it.

USE mydatabase;

sql

# CREATE TABLE

Now, let's create a table named **`employees`**.

**CREATE TABLE** employees ( employee\_id INT AUTO\_INCREMENT, first\_name VARCHAR(50), last\_name VARCHAR(50),

email VARCHAR(100),

hire\_date DATE,

salary DECIMAL(10, 2),

**PRIMARY** KEY (employee\_id)

);

sql

# INSERT RECORDS

Insert at least 10 records into the **`employees`** table.

**INSERT INTO** employees (first\_name, last\_name, email, hire\_date, salary) **VALUES**

('John', 'Doe', 'john.doe@example.com', '2020-01-15', 50000.00),

('Jane', 'Smith', 'jane.smith@example.com', '2019-03-23', 60000.00),

('Michael', 'Johnson', 'michael.johnson@example.com', '2018-07-11', 45000.00),

('Emily', 'Davis', 'emily.davis@example.com', '2021-09-01', 55000.00),

('Chris', 'Brown', 'chris.brown@example.com', '2017-05-20', 52000.00),

('Patricia', 'Wilson', 'patricia.wilson@example.com', '2016-11-30', 58000.00),

('Linda', 'Taylor', 'linda.taylor@example.com', '2019-02-17', 49000.00),

('Robert', 'Anderson', 'robert.anderson@example.com', '2020-08-25', 53000.00),

('Barbara', 'Thomas', 'barbara.thomas@example.com', '2018-04-14', 62000.00),

('James', 'Jackson', 'james.jackson@example.com', '2021-12-05', 60000.00);

sql

# ALTER TABLE

Alter the table to add a new column **`department`**.

**ALTER TABLE** employees **ADD COLUMN** department VARCHAR(50);

sql

Update the new column with some data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| sql | | | | | |
| **UPDATE** | employees | **SET** | department | = | 'HR' **WHERE** employee\_id **IN** (1, 2); |
| **UPDATE** | employees | **SET** | department | = | 'Finance' **WHERE** employee\_id **IN** (3, 4); |
| **UPDATE** | employees | **SET** | department | = | 'IT' **WHERE** employee\_id **IN** (5, 6); |
| **UPDATE** | employees | **SET** | department | = | 'Marketing' **WHERE** employee\_id **IN** (7, 8); |
| **UPDATE** | employees | **SET** | department | = | 'Sales' **WHERE** employee\_id **IN** (9, 10); |

# DROP COLUMN

Drop the column **`department`** from the **`employees`** table.

**ALTER TABLE** employees **DROP COLUMN** department;

sql

# RENAME TABLE

Rename the table **`employees`** to **`staff`**.

RENAME **TABLE** employees **TO** staff;

sql

# TRUNCATE TABLE

Truncate the **`staff`** table to remove all records.

**TRUNCATE TABLE** staff;

sql

# DROP TABLE

Drop the **`staff`** table.

**DROP TABLE** staff;

sql

# DROP DATABASE

Finally, drop the **`mydatabase`** database.

**DROP** DATABASE mydatabase;

sql

This sequence of commands demonstrates the use of various DDL operations in MySQL. Starting from creating a database and a table, inserting records, altering the table structure, renaming, truncating, and finally dropping the table and database.