**MySQL DDL Commands**

**1. CREATE DATABASE**

* **Definition**: Used to create a new database.
* **Syntax**:

CREATE DATABASE database\_name;

* **Example**:

CREATE DATABASE school\_db;

👉 This creates a database named school\_db.  
To use it:

USE school\_db;

**2. CREATE TABLE**

* **Definition**: Used to create a table in a database.
* **Syntax**:

CREATE TABLE table\_name (

column1 datatype constraints,

column2 datatype constraints,

...

);

* **Example**:

CREATE TABLE students (

student\_id INT PRIMARY KEY AUTO\_INCREMENT,

name VARCHAR(50) NOT NULL,

age INT,

class VARCHAR(20),

admission\_date DATE

);

👉 This creates a students table inside school\_db.

**3. DROP DATABASE**

* **Definition**: Deletes a database permanently along with all tables. ⚠️
* **Syntax**:

DROP DATABASE database\_name;

* **Example**:

DROP DATABASE school\_db;

👉 This deletes the database school\_db.

**4. DROP TABLE**

* **Definition**: Deletes a table permanently but not the database.
* **Syntax**:

DROP TABLE table\_name;

* **Example**:

DROP TABLE students;

👉 This deletes only the students table.

**5. ALTER TABLE**

* **Definition**: Modifies the structure of an existing table (add, modify, rename, or drop a column).
* **Syntax & Examples**:

-- Add a new column

ALTER TABLE students ADD email VARCHAR(100);

-- Modify an existing column

ALTER TABLE students MODIFY age INT NOT NULL;

-- Rename a column

ALTER TABLE students CHANGE class grade VARCHAR(20);

-- Drop a column

ALTER TABLE students DROP email;

👉 ALTER is the most flexible command in DDL.

**6. TRUNCATE TABLE**

* **Definition**: Removes all rows from a table but keeps the table structure.
* **Syntax**:

TRUNCATE TABLE table\_name;

* **Example**:

TRUNCATE TABLE students;

👉 This removes all data from students but keeps the columns intact.

**7. RENAME TABLE**

* **Definition**: Changes the name of a table.
* **Syntax**:

RENAME TABLE old\_name TO new\_name;

* **Example**:

RENAME TABLE students TO learners;

👉 Now students is renamed to learners.

**8. Other Useful Commands**

-- Show all databases

SHOW DATABASES;

-- Show all tables in the current database

SHOW TABLES;

-- Describe the structure of a table

DESCRIBE learners;

-- Change to another database

USE school\_db;

✅ **Summary**:

* CREATE → make new (database/table)
* DROP → delete permanently
* ALTER → modify structure
* TRUNCATE → remove all data but keep structure
* RENAME → change table name