

Data Definition Language

How to connect to MySql

```
$ mysql u root p
Enter password: root
```

How to display available Databases

```
mysql>SHOW databases;
```

How to create a new Database

```
mysql> CREATE DATABASE demo;
```

How to connect to a particular Database

```
mysql> USE employee;
```

```
mysql> CONNECT employee;
```

How to know which Database user is connected

```
mysql>SELECT DATABASE() FROM DUAL;
```

How to display all tables available in connected Database

```
mysql>SHOW TABLES;
```

Creating a Table

```
mysql> CREATE TABLE employee (empid INT, ename VARCHAR (20), salary FLOAT (10, 2));
```

How to create a table by copying the structure and data of an existing Table

```
mysql> CREATE TABLE student AS SELECT * FROM employees;
```

How to create a table by copying the structure only not the data of an existing Table

```
mysql> CREATE TABLE student AS SELECT * FROM employees where 1=2;
```

Data Definition Language

How to describe the structure of a Table

```
mysql>DESC employee;
```

Alter

How to add a new column to existing Table

```
mysql>ALTER TABLE employee add address varchar(20);  
mysql>ALTER TABLE employee add address varchar(20),add phone int;
```

How to modify structure of existing column of a Table

```
mysql> ALTER TABLE employee MODIFY address VARCHAR (40);  
mysql> ALTER TABLE employee MODIFY ename VARCHAR (22), MODIFY city VARCHAR (22);
```

How to drop existing column from a Table

```
mysql> ALTER TABLE employee DROP phone;  
mysql> ALTER TABLE employee DROP ename, DROP salary;
```

How to rename existing column of a Table

```
mysql> ALTER TABLE employee CHANGE address newaddress VARCHAR(30) ;  
mysql> ALTER TABLE employee CHANGE empid id VARCHAR (100), CHANGE newaddress address VARCHAR (100);
```

How to rename an existing Table

```
mysql> RENAME TABLE employee TO newemployee;  
mysql> RENAME TABLE newemployee TO employees,student TO students, department TO departments;
```

Drop

How to drop existing Table

```
mysql>DROP TABLE employee;
```

Data Definition Language

How to delete all records of a table permanently

```
mysql> TRUNCATE employee;
```

Data Types

- **SMALLINT**: A small integer. The signed range is -32768 to 32767. The unsigned range is 0 to 65535.
- **MEDIUMINT**: A medium-sized integer. The signed range is -8388608 to 8388607. The unsigned range is 0 to 16777215.
- **INT**: A normal-size integer. The signed range is -2147483648 to 2147483647. The unsigned range is 0 to 4294967295.
- **BIGINT**: A large integer. The signed range is -9223372036854775808 to 9223372036854775807. The unsigned range is 0 to 18446744073709551615.
- **FLOAT**: A small (single-precision) floating-point number. Permissible values are -3.402823466E+38 to -1.175494351E-38, 0, and 1.175494351E-38 to 3.402823466E+38. These are the theoretical limits, based on the IEEE standard. The actual range might be slightly smaller depending on your hardware or operating system.
- **DATE**: A date. The supported range is '1000-01-01' to '9999-12-31'. MySQL displays DATE values in 'YYYY-MM-DD' format.
- **TIME** : A time. The range is '-838:59:59' to '838:59:59'. MySQL displays TIME values in 'HH:MM:SS' format.
- **DATETIME**: A date and time combination. The supported range is '1000-01-01 00:00:00' to '9999-12-31 23:59:59'. MySQL displays DATETIME values in 'YYYYMM-DD HH:MM:SS' format.
- **YEAR[(2—4)]**: A year in two-digit or four-digit format. The default is four-digit format. In four-digit format, the permissible values are 1901 to 2155, and 0000. In two-digit format, the permissible values are 70 to 69, representing years from 1970 to 2069. MySQL displays YEAR values in YYYY format.
- **TIMESTAMP**: A timestamp. The range is '1970-01-01 00:00:01' UTC to '2038-01-19 03:14:07' UTC.

Data Defination Language

- **CHAR** :The length of a CHAR column is fixed to the length that you declare when you create the table. The length can be any value from 0 to 255.
- **VARCHAR**: The length can be specified as a value from 0 to 255 before MySQL 5.0.3, and 0 to 65,535 in 5.0.3 and later versions.