Learn MYSQL in one video

Sunday, August 21, 2022   6:55 PM

Start

Flow

SERVER-- DBS --- TABLES
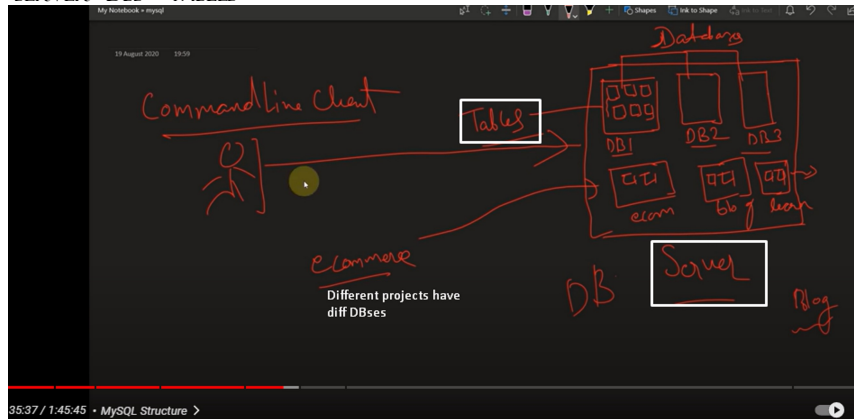
Syntax Close eyes and give all cols u want to give.

```
mysql> use learn;
Database changed
mysql> drop database learn;                    didn't gave db
Query OK, 0 rows affected (0.02 sec)           name

mysql> use learn;
ERROR 1049 (42000): Unknown database 'learn'   or
mysql> create database learn;                  didn't select it
Query OK, 1 row affected (0.01 sec)

mysql> create table(id int(5) primary key , name varchar(100)notnull , ci
ty varchar(40));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manua
l that corresponds to your MySQL server version for the right syntax to u
se near '(id int(5) primary key , name varchar(100)notnull , city varchar
(40))' at line 1
mysql> create table(id int(5) primary key , name varchar (100) notnull ,
city varchar(40));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manua
l that corresponds to your MySQL server version for the right syntax to u
se near '(id int(5) primary key , name varchar (100) notnull , city varch
ar(40))' at line 1
mysql> create table(id int(5) primary key , name varchar(100) not null ,
city varchar(40));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manua
l that corresponds to your MySQL server version for the right syntax to u
se near '(id int(5) primary key , name varchar(100) not null , city varch
ar(40))' at line 1
mysql> create table user(id int(5) primary key , name varchar(100) not nu
ll , city varchar(40));
ERROR 1046 (3D000): No database selected
mysql> create table user(id int(5) primary key , name varchar(100) not nu
ll, city varchar(40));
ERROR 1046 (3D000): No database selected
mysql> use learn;
Database changed
mysql> create table user(id int(5) primary key , name varchar(100) not nu
ll, city varchar(40));
Query OK, 0 rows affected, 1 warning (0.05 sec)
```

```
mysql> show tables;
+----------------+
| Tables_in_learn |
+----------------+
| user           |
+----------------+
1 row in set (0.01 sec)

mysql> desc user;
+-------+--------------+------+-----+---------+-------+
| Field | Type         | Null | Key | Default | Extra |
+-------+--------------+------+-----+---------+-------+
| id    | int          | NO   | PRI | NULL    |       |
| name  | varchar(100) | NO   |     | NULL    |       |
| city  | varchar(40)  | YES  |     | NULL    |       |
+-------+--------------+------+-----+---------+-------+
3 rows in set (0.01 sec)
```

Continue from here
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30/8/22

```
> create table technologies(id int(5) primary key , name varchar(100) not null,LOI VARCHAR(10),is_checked BIT(1) ,LOinterest varchar(50));
OK, 0 rows affected, 1 warning (0.10 sec)
```

https://www.databasestar.com/sql-boolean-data-type/#:~:text=SQL%20Server%20Boolean,TRUE%20and%200%0
20for%20FALSE.
I have given a new query here which is boolean type and is gonna work with
the boolean way

Order can be changed and specified here
```
insert into [table_name](id,name,city) values(12,'durgesh','delhi');
insert intor [table_name] values(12,'ankit','kanpur');
```

 1st one is we can modify the order
but in 2nd one we can't

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```
mysql> update tech set LOinterest= 'High ' , complexity=ok where id =3;
ERROR 1054 (42S22): Unknown column 'ok' in 'field list'
mysql> update tech set LOinterest='High' , complexity='ok' where id =3;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from tech;
+----+-------+------------+------------+
| id | name  | LOinterest | complexity |
+----+-------+------------+------------+
|  1 | Java  | NULL       | NULL       |
|  2 | Py    | NULL       | NULL       |
|  3 | cloud | High       | ok         |
+----+-------+------------+------------+
3 rows in set (0.00 sec)
```

3rd Sept

Query for searching a particular kind of the record

l> select * from avengers where name="hulk";
+----+------+----------+
| id | name | Power |
+----+------+----------+
| 1 | hulk | Greenguy |
+----+------+----------+
1 row in set (0.00 sec)

Using the alias query

mysql> select name as "aname", Power as "Ability" from avengers;
+---------+---------------+
| aname | Ability |
+---------+---------------+
hulk	Greenguy
Ironman	Flying guy
NULL	fighting girl
+---------+---------------+
3 rows in set (0.00 sec)

Selecting a column only

mysql> Select Power from avengers;
+---------------+
| Power |
+---------------+
| Greenguy |
| Flying guy |
| fighting girl |
+---------------+
3 rows in set (0.00 sec)

Now for skipping the same set of the result,
by using the distinct query

mysql> select distinct(power) from student;
ERROR 1146 (42S02): Table 'ltube.student' doesn't exist
mysql> select distinct(power) from avengers;
+---------------+
| power |
+---------------+
| Greenguy |
| Flying guy |
| fighting girl |
+---------------+
3 rows in set (0.00 sec)

For adding a column in the existing table

Following is the syntax

ALTER TABLE table ADD [COLUMN] column_name_1 column_1_definition [FIRST|AFTER existing_column], ADD

[COLUMN] column_name_2 column_2_definition [FIRST|AFTER existing_column], ...;

example

ALTER TABLE vendors ADD COLUMN phone VARCHAR(15) AFTER name;

Practical below 👇👇

```
mysql> alter table avengers
    -> add column skincolor varchar(100) after power;
Query OK, 0 rows affected (0.03 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> select * from avengers;
+----+---------+--------------+-----------+
| id | name    | Power        | skincolor |
+----+---------+--------------+-----------+
|  1 | hulk    | Greenguy     | NULL      |
|  2 | Ironman | Flying guy   | NULL      |
|  3 | NULL    | fighting girl | NULL     |
+----+---------+--------------+-----------+
3 rows in set (0.00 sec)
```

From <https://www.mysqltutorial.org/mysql-add-column/>

```
File Edit Format View Help
drop database [db_name]

create table [table_name] (col1 , col2, col3 , col4......);
eg user

show tables;
desc [tb_name];
drop table [table_name];

alter table [old table name] rename to [new name];
truncate table [table_name];

insert into [table_name](id,name,city) values(12,'durgesh','delhi');
insert intor [table_name] values(12,'ankit','kanpur');

alter table [table_name] add col1;
update [table_name] set col= value , col = value where col=value;
delete from [table_name] where col=value;
```

Specific kinda operations

In practical below
```
mysql> select * from avengers;
+----+---------+--------------+-----------+
| id | name    | Power        | skincolor |
+----+---------+--------------+-----------+
|  1 | hulk    | Greenguy     | NULL      |
|  2 | Ironman | Flying guy   | NULL      |
|  3 | NULL    | fighting girl | NULL     |
+----+---------+--------------+-----------+
```

The main query

```
mysql> update avengers
    -> set skincolor="Green" where name="hulk";
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from avengers;
+----+---------+--------------+-----------+
| id | name    | Power        | skincolor |
+----+---------+--------------+-----------+
|  1 | hulk    | Greenguy     | Green     |
|  2 | Ironman | Flying guy   | NULL      |
|  3 | NULL    | fighting girl | NULL     |
+----+---------+--------------+-----------+
```

Single condition Query

```
mysql> select * from avengers where id=1 and skincolor="Green";
+----+------+----------+-----------+
```

```
| id | name | Power    | skincolor |
+----+------+----------+-----------+
| 1 | hulk | Greenguy | Green     |
+----+------+----------+-----------+
1 row in set (0.00 sec)
```

OR start from here

```
mysql> select * from avengers where skincolor="blue" or name="hulk";
+----+------+----------+-----------+-------+
| id | name | Power    | skincolor | movie |
+----+------+----------+-----------+-------+
| 1 | hulk | Greenguy | Green     | NULL  |
+----+------+----------+-----------+-------+
1 row in set (0.00 sec)
```

Range between the operator

```
mysql> select * from avengers where id >=2 and <=4;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server
version for the right syntax to use near '<=4' at line 1
mysql> select * from avengers where id >=2 and id <=4;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
| 2 | Ironman   | Flying guy   | skinc     | NULL  |
| 3 | Romanoff  | fighting girl | skinc    | NULL  |
| 4 | DrStrange | Wizard       | skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)

mysql> select * from avengers where id between 2 and 4;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
| 2 | Ironman   | Flying guy   | skinc     | NULL  |
| 3 | Romanoff  | fighting girl | skinc    | NULL  |
| 4 | DrStrange | Wizard       | skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)
```

The usefulness of the "in operator"

<u>Below is with using the normal or</u>

```
mysql> select * from avengers where id=1 or id=2 or id=5;
+----+---------+------------+-----------+-------+
| id | name    | Power      | skincolor | movie |
+----+---------+------------+-----------+-------+
| 1 | hulk    | Greenguy   | Green     | NULL  |
| 2 | Ironman | Flying guy | skinc     | NULL  |
| 5 | Groot   | Cute       | Brown     | NULL  |
+----+---------+------------+-----------+-------+
3 rows in set (0.00 sec)

mysql> using the 'IN operator'
    -> ^C
mysql> select * from avengers where skincolor in(skinc);
ERROR 1054 (42S22): Unknown column 'skinc' in 'where clause'
mysql> select * from avengers where skincolor in("skinc");
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
| 2 | Ironman   | Flying guy   | skinc     | NULL  |
| 3 | Romanoff  | fighting girl | skinc    | NULL  |
| 4 | DrStrange | Wizard       | skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)
```

Limit and Offset

Whole table view

```
mysql> select * from avengers;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  1 | hulk     | Greenguy     | Green     | NULL  |
|  2 | Ironman  | Flying guy   | skinc     | NULL  |
|  3 | Romanoff | fighting girl| skinc     | NULL  |
|  4 | DrStrange| Wizard       | skinc     | NULL  |
|  5 | Groot    | Cute         | Brown     | NULL  |
+----+----------+--------------+-----------+-------+
5 rows in set (0.00 sec)
```

```
mysql> select * from avengers limit 3;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  1 | hulk     | Greenguy     | Green     | NULL  |
|  2 | Ironman  | Flying guy   | skinc     | NULL  |
|  3 | Romanoff | fighting girl| skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)
```

```
mysql> select * from avengers limit 3 offset 1;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  2 | Ironman  | Flying guy   | skinc     | NULL  |
|  3 | Romanoff | fighting girl| skinc     | NULL  |
|  4 | DrStrange| Wizard       | skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)
```

Order by

```
mysql> select * from avengers order by name desc;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  3 | Romanoff | fighting girl| skinc     | NULL  |
|  2 | Ironman  | Flying guy   | skinc     | NULL  |
|  1 | hulk     | Greenguy     | Green     | NULL  |
|  5 | Groot    | Cute         | Brown     | NULL  |
|  4 | DrStrange| Wizard       | skinc     | NULL  |
+----+----------+--------------+-----------+-------+
5 rows in set (0.00 sec)
```

```
mysql> select * from avengers order by id desc;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  5 | Groot    | Cute         | Brown     | NULL  |
|  4 | DrStrange| Wizard       | skinc     | NULL  |
|  3 | Romanoff | fighting girl| skinc     | NULL  |
|  2 | Ironman  | Flying guy   | skinc     | NULL  |
|  1 | hulk     | Greenguy     | Green     | NULL  |
+----+----------+--------------+-----------+-------+
5 rows in set (0.00 sec)
```

From below order by

```
mysql> select * from avengers order by id desc limit 3;
+----+----------+--------------+-----------+-------+
| id | name     | Power        | skincolor | movie |
+----+----------+--------------+-----------+-------+
|  5 | Groot    | Cute         | Brown     | NULL  |
|  4 | DrStrange| Wizard       | skinc     | NULL  |
|  3 | Romanoff | fighting girl| skinc     | NULL  |
+----+----------+--------------+-----------+-------+
3 rows in set (0.00 sec)
```

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