

MySQL – Duplicate a Table

You can copy or duplicate MySQL table to another table. Duplicating MySQL table is useful when you would like to run some experiments on the table, but want to have a backup of the table. Or in some scenarios, you would like to create a table with exact columns and indexes of an already existing table.

There are two levels to duplicate a MySQL table based on the totality of duplicating table.

1. Duplicate only structure and data of the table
2. Duplicate structure and data of the table along with indexes and triggers.

Duplicate structure and data of MySQL Table

Columns and their properties such as datatypes, default values, character sets, etc., is called structure of the tables. And rows in that table is data.

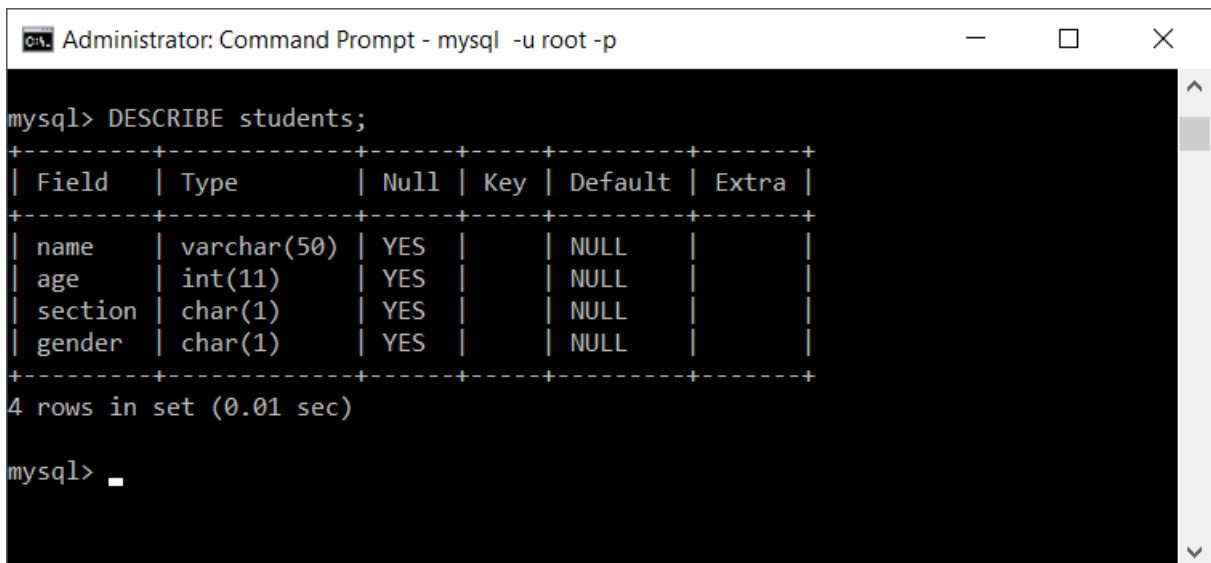
To duplicate structure and data of MySQL Table, CREATE a new TABLE with the data selected from the previous table. Following is the syntax:

```
mysql> CREATE  
TABLE new_table AS
```

```
mysql> CREATE TABLE new_table AS SELECT * FROM old_table;
```

Example

Following is the `students` table's structure.



```
Administrator: Command Prompt - mysql -u root -p

mysql> DESCRIBE students;
+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(50) | YES  |     | NULL    |       |
| age   | int(11)     | YES  |     | NULL    |       |
| section | char(1)    | YES  |     | NULL    |       |
| gender | char(1)     | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)

mysql> 
```

And `students` table has the following data.

```
Administrator: Command Prompt - mysql -u root -p

mysql> SELECT * FROM students;
+-----+-----+-----+-----+
| name | age | section | gender |
+-----+-----+-----+-----+
| Mohan | 9 | B | M |
| Ayan | 10 | C | M |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql> _
```

Now we shall copy the structure and data of `students` into a new table `pupils`.

```
Administrator: Command Prompt - mysql -u root -p

mysql> CREATE TABLE pupils AS SELECT * FROM students;
Query OK, 2 rows affected (0.15 sec)
Records: 2 Duplicates: 0 Warnings: 0

mysql> _
```

Let us see if both duplicate and original tables exist.

```
Administrator: Command Prompt - mysql -u root -p

mysql> SHOW TABLES;
+-----+
| Tables_in_school |
+-----+
| pupils           |
| students         |
+-----+
2 rows in set (0.00 sec)

mysql> _
```

Yeah. There they are. And it is time to check if the structure and data of `pupils` table is exactly same as that of `students`.

```
Administrator: Command Prompt - mysql -u root -p

mysql> DESCRIBE pupils;
+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(50) | YES  |     | NULL    |       |
| age   | int(11)     | YES  |     | NULL    |       |
| section | char(1)    | YES  |     | NULL    |       |
| gender | char(1)     | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

```
Administrator: Command Prompt - mysql -u root -p

mysql> SELECT * FROM pupils;
+-----+-----+-----+-----+
| name | age | section | gender |
+-----+-----+-----+-----+
| Mohan | 9 | B | M |
| Ayan | 10 | C | M |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)

mysql>
```

Thats it for the first level of duplication! We have successfully duplicated a table's structure and rows in it.

Duplicate structure and data of the table along with indexes and triggers

To duplicate MySQL Table's indexes and triggers also along with structure and data, you have to run two SQL Queries in mysql command line interface.

```
mysql> CREATE
TABLE new_table LIKE

mysql> CREATE TABLE new_table LIKE old_table;
mysql> INSERT new_table SELECT * FROM old_table;
```

- The first query creates a table with the same structure, index and triggers as of the old table.
- The second query copies the data from old table to new table.

To check the effect on index, we shall [add a new column to mysql table](#) `students` and try duplicating the table.

`students` table structure

```
Administrator: Command Prompt - mysql -u root -p

mysql> DESCRIBE students;
+-----+-----+-----+-----+-----+-----+
| Field | Type      | Null | Key | Default | Extra           |
+-----+-----+-----+-----+-----+-----+
| name  | varchar(50) | YES  |     | NULL    |                 |
| age   | int(11)    | YES  |     | NULL    |                 |
| section | char(1)    | YES  |     | NULL    |                 |
| gender | char(1)    | YES  |     | NULL    |                 |
| id    | int(11)    | NO   | PRI | NULL    | auto_increment |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> _
```

students table index

```
Administrator: Command Prompt - mysql -u root -p

mysql> SHOW INDEX FROM students;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Table      | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality |
| Sub_part  | Packed    | Null    | Index_type   | Comment    | Index_comment | Visible | Expression |
+-----+-----+-----+-----+-----+-----+-----+-----+
| students  | 0         | PRIMARY | 1           | id         | A         | 2         |
| NULL     | NULL     |        | BTREE       |           |           | YES      | NULL      |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> _
```

Now we shall try to duplicate all of this table (data, structure, index and triggers) into a new table called `pupils`.

Run the following two queries.

```
mysql> CREATE
TABLE pupils LIKE

mysql> CREATE TABLE pupils LIKE students;
mysql> INSERT pupils SELECT * FROM students;
```

```
Administrator: Command Prompt - mysql -u root -p

mysql> CREATE TABLE pupils LIKE students;
Query OK, 0 rows affected (0.12 sec)

mysql> INSERT pupils SELECT * FROM students;
Query OK, 2 rows affected (0.05 sec)
Records: 2  Duplicates: 0  Warnings: 0

mysql> _
```

Let us see what happened to the index of newly created table `pupils`.

```
Administrator: Command Prompt - mysql -u root -p

mysql> SHOW INDEX FROM pupils;
+-----+-----+-----+-----+-----+-----+-----+-----+
| Table | Non_unique | Key_name | Seq_in_index | Column_name | Collation | Cardinality | S |
| Sub_part | Packed | Null | Index_type | Comment | Index_comment | Visible | Expression |
+-----+-----+-----+-----+-----+-----+-----+-----+
| pupils |          0 | PRIMARY |          1 | id          | A          |          2 | 2 |
| NULL | NULL | | BTREE | | | YES | NULL |
+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.06 sec)

mysql> _
```

Conclusion

In this [MySQL Tutorial](#), we learned to duplicate a table (structure and data, optionally index and triggers).

Learn MySQL

- MySQL Tutorial

User Management

- MySQL Server - Login to mysql Command Line Interface

- MySQL Server - Get list of All Users

- MySQL Server - Get list of Connected Users

DATABASE

- MySQL - Create DATABASE

- MySQL - Delete DATABASE

- MySQL - Show existing Databases

- MySQL - Select or Use DATABASE

TABLE

- MySQL - Create Table

- MySQL - Rename Table

- MySQL - Duplicate a Table

- MySQL - Add a new Column to Table

- MySQL - Delete or Drop a Column from MySQL Table

- MySQL - Select Distinct Values of Column

- MySQL - Count number of rows in Table

- MySQL - Increase column size

- MySQL - Add an AUTO_INCREMENT column as PRIMARY KEY

- MySQL - Add Column to INDEX

- MySQL - Delete or Drop Column from INDEX

- MySQL - SHOW INDEX of Table

- MySQL - Rename Column or Change Column

Solve Issues

- MySQL - LAST_INSERT_ID returns 0