

Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 31  
Server version: 10.1.43-MariaDB-0ubuntu0.18.04.1 Ubuntu 18.04

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> **show databases;**

```
+-----+
| Database |
+-----+
| C3hsDB   |
| bondDB   |
| information_schema |
| mysql    |
| performance_schema |
| vsearchlogDB |
| weatherDB |
+-----+
7 rows in set (0.00 sec)
```

MariaDB [(none)]> **create database leaderboardDB;**  
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> **show databases;**

```
+-----+
| Database |
+-----+
| C3hsDB   |
| bondDB   |
| information_schema |
| leaderboardDB |
| mysql    |
| performance_schema |
| vsearchlogDB |
| weatherDB |
+-----+
8 rows in set (0.00 sec)
```

MariaDB [(none)]> **grant all on leaderboardDB.\* to 'g3user' identified by 'g3userpasswd';**  
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> **quit**  
Bye

```
C:\> mysql -u g3user -p leaderboardDB
```

```
Enter password:
```

```
Welcome to the MariaDB monitor.  Commands end with ; or \g.
```

```
Your MariaDB connection id is 32
```

```
Server version: 10.1.43-MariaDB-0ubuntu0.18.04.1 Ubuntu 18.04
```

```
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.
```

```
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

```
MariaDB [leaderboardDB]> show tables;
```

```
Empty set (0.00 sec)
```

```
MariaDB [leaderboardDB]> create table leaderboard (
```

```
-> name varchar(64),
```

```
-> thetime decimal(16,2),
```

```
-> attempts int
```

```
-> );
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
MariaDB [leaderboardDB]> show tables;
```

```
+-----+  
| Tables_in_leaderboardDB |  
+-----+  
| leaderboard              |  
+-----+
```

```
1 row in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> describe leaderboard;
```

```
+-----+-----+-----+-----+-----+-----+  
| Field      | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| name       | varchar(64)   | YES  |     | NULL    |       |  
| thetime    | decimal(16,2) | YES  |     | NULL    |       |  
| attempts   | int(11)       | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+
```

```
3 rows in set (0.01 sec)
```

```
MariaDB [leaderboardDB]> drop table leaderboard;
```

```
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> show tables;
```

```
Empty set (0.00 sec)
```

```
MariaDB [leaderboardDB]> create table leaderboard ( name varchar(64) not null, thetime decimal(16,2) not null, attempts int not null);
```

```
Query OK, 0 rows affected (0.01 sec)
```

MariaDB [leaderboardDB]> **describe leaderboard;**

Field	Type	Null	Key	Default	Extra
name	varchar(64)	NO		NULL	
thetime	decimal(16,2)	NO		NULL	
attempts	int(11)	NO		NULL	

3 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **select \* from leaderboard;**

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Paul', 42.16, 5);**

Query OK, 1 row affected (0.00 sec)

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Paul', 42.16, 5);**

Query OK, 1 row affected (0.00 sec)

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Paul', 42.16, 5);**

Query OK, 1 row affected (0.00 sec)

MariaDB [leaderboardDB]> **select \* from leaderboard;**

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5

3 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Harry', 62.16, 4);**

Query OK, 1 row affected (0.00 sec)

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Mary', 12.16, 4);**

Query OK, 1 row affected (0.00 sec)

MariaDB [leaderboardDB]> **insert into leaderboard (name, thetime, attempts) values ('Joe', 22.16, 3);**

Query OK, 1 row affected (0.00 sec)

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5
Harry	62.16	4
Mary	12.16	4
Joe	22.16	3

```
6 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Mike', 72.16, 7);
```

```
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Mike', 12.46, 2);
```

```
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5
Harry	62.16	4
Mary	12.16	4
Joe	22.16	3
Mike	72.16	7
Mike	12.46	2

```
8 rows in set (0.00 sec)
```

MariaDB [leaderboardDB]> **select attempts from leaderboard;**

attempts
5
5
5
4
4
3
7
2

8 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **select attempts, name, thetime from leaderboard;**

attempts	name	thetime
5	Paul	42.16
5	Paul	42.16
5	Paul	42.16
4	Harry	62.16
4	Mary	12.16
3	Joe	22.16
7	Mike	72.16
2	Mike	12.46

8 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **select \* from leaderboard;**

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5
Harry	62.16	4
Mary	12.16	4
Joe	22.16	3
Mike	72.16	7
Mike	12.46	2

8 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **select attempts, name, thetime from leaderboard;**

attempts	name	thetime
5	Paul	42.16
5	Paul	42.16
5	Paul	42.16
4	Harry	62.16
4	Mary	12.16
3	Joe	22.16
7	Mike	72.16
2	Mike	12.46

8 rows in set (0.00 sec)

MariaDB [leaderboardDB]> **select count(\*) from leaderboard;**

count(*)
8

1 row in set (0.00 sec)

MariaDB [leaderboardDB]> **select attempts, thetime, name from leaderboard;**

attempts	thetime	name
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
4	62.16	Harry
4	12.16	Mary
3	22.16	Joe
7	72.16	Mike
2	12.46	Mike

8 rows in set (0.00 sec)

```
MariaDB [leaderboardDB]> select attempts, thetime, name from leaderboard order by attempts, thetime;
```

attempts	thetime	name
2	12.46	Mike
3	22.16	Joe
4	12.16	Mary
4	62.16	Harry
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
7	72.16	Mike

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select attempts, thetime, name from leaderboard order by attempts, thetime desc;
```

attempts	thetime	name
2	12.46	Mike
3	22.16	Joe
4	62.16	Harry
4	12.16	Mary
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
7	72.16	Mike

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select attempts, thetime, name from leaderboard order by attempts, thetime asc  
-> ;
```

attempts	thetime	name
2	12.46	Mike
3	22.16	Joe
4	12.16	Mary
4	62.16	Harry
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
7	72.16	Mike

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select attempts, thetime, name from leaderboard order by attempts, thetime desc;
```

attempts	thetime	name
2	12.46	Mike
3	22.16	Joe
4	62.16	Harry
4	12.16	Mary
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
7	72.16	Mike

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select attempts, thetime, name from leaderboard order by attempts desc, thetime desc;
```

attempts	thetime	name
7	72.16	Mike
5	42.16	Paul
5	42.16	Paul
5	42.16	Paul
4	62.16	Harry
4	12.16	Mary
3	22.16	Joe
2	12.46	Mike

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Mike';
```

name	thetime	attempts
Mike	72.16	7
Mike	12.46	2

```
2 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Mike' order by attempts;
```

name	thetime	attempts
Mike	12.46	2
Mike	72.16	7

```
2 rows in set (0.01 sec)
```



```
MariaDB [leaderboardDB]> select * from leaderboard
-> where name = 'Harry'
-> order by thetime;
```

```
+-----+-----+-----+
| name | thetime | attempts |
+-----+-----+-----+
| Harry | 62.16 | 4 |
+-----+-----+-----+
1 row in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

```
+-----+-----+-----+
| name | thetime | attempts |
+-----+-----+-----+
| Paul | 42.16 | 5 |
| Paul | 42.16 | 5 |
| Paul | 42.16 | 5 |
| Harry | 62.16 | 4 |
| Mary | 12.16 | 4 |
| Joe | 22.16 | 3 |
| Mike | 72.16 | 7 |
| Mike | 12.46 | 2 |
+-----+-----+-----+
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Paul';
```

```
+-----+-----+-----+
| name | thetime | attempts |
+-----+-----+-----+
| Paul | 42.16 | 5 |
| Paul | 42.16 | 5 |
| Paul | 42.16 | 5 |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5
Harry	62.16	4
Mary	12.16	4
Joe	22.16	3
Mike	72.16	7
Mike	12.46	2

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Mary';
```

name	thetime	attempts
Mary	12.16	4

```
1 row in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> update leaderboard set thetime = 32.16 where name = 'Mary';
```

```
Query OK, 1 row affected (0.00 sec)
```

```
Rows matched: 1  Changed: 1  Warnings: 0
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Mary';
```

name	thetime	attempts
Mary	32.16	4

```
1 row in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5
Harry	62.16	4
Mary	32.16	4
Joe	22.16	3
Mike	72.16	7
Mike	12.46	2

```
8 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Paul';
```

name	thetime	attempts
Paul	42.16	5
Paul	42.16	5
Paul	42.16	5

```
3 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> describe leaderboard;
```

Field	Type	Null	Key	Default	Extra
name	varchar(64)	NO		NULL	
thetime	decimal(16,2)	NO		NULL	
attempts	int(11)	NO		NULL	

```
3 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]>
```

```
MariaDB [leaderboardDB]> drop table leaderboard;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
MariaDB [leaderboardDB]> show tables;
Empty set (0.00 sec)
```

```
MariaDB [leaderboardDB]> create table leaderboard (
->   id int not null auto_increment primary key,
->   name varchar(64) not null,
->   thetime decimal(16,2) not null,
->   attempts int not null
-> );
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
MariaDB [leaderboardDB]> describe leaderboard;
```

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto_increment
name	varchar(64)	NO		NULL	
thetime	decimal(16,2)	NO		NULL	
attempts	int(11)	NO		NULL	

```
4 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Mike', 72.16, 7);
```

```
Query OK, 1 row affected (0.01 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Mike', 72.16, 7);
```

```
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Mike', 72.16, 7);
```

```
Query OK, 1 row affected (0.01 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

id	name	thetime	attempts
1	Mike	72.16	7
2	Mike	72.16	7
3	Mike	72.16	7

```
3 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard where name = 'Mike' and id <> 1;
```

```
+-----+-----+-----+-----+
| id | name | thetime | attempts |
+-----+-----+-----+-----+
|  2 | Mike |   72.16 |         7 |
|  3 | Mike |   72.16 |         7 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> delete from leaderboard where name = 'Mike' and id <> 1;
Query OK, 2 rows affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

```
+-----+-----+-----+-----+
| id | name | thetime | attempts |
+-----+-----+-----+-----+
|  1 | Mike |   72.16 |         7 |
+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Joe', 32.16, 6);
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

```
+-----+-----+-----+-----+
| id | name | thetime | attempts |
+-----+-----+-----+-----+
|  1 | Mike |   72.16 |         7 |
|  4 | Joe  |   32.16 |         6 |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (id, name, thetime, attempts) values (2, 'Linda', 22.16, 4);
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

```
+-----+-----+-----+-----+
| id | name | thetime | attempts |
+-----+-----+-----+-----+
|  1 | Mike |   72.16 |         7 |
|  2 | Linda |   22.16 |         4 |
|  4 | Joe  |   32.16 |         6 |
+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (name, thetime, attempts) values ('Timmy', 52.16, 3);
Query OK, 1 row affected (0.00 sec)
```

```
MariaDB [leaderboardDB]> select * from leaderboard;
```

id	name	thetime	attempts
1	Mike	72.16	7
2	Linda	22.16	4
4	Joe	32.16	6
5	Timmy	52.16	3

```
4 rows in set (0.00 sec)
```

```
MariaDB [leaderboardDB]> insert into leaderboard (id, name, thetime, attempts) values (2, 'Linda', 22.16, 4);
```

```
ERROR 1062 (23000): Duplicate entry '2' for key 'PRIMARY'
```

```
MariaDB [leaderboardDB]>
```