

```
● mine@mine:~$ sudo dnf install mariadb-server
[sudo] password for mine:
Last metadata expiration check: 0:05:34 ago on Wed 24 Jan 2024
10:19:47 PM +0545.
Package mariadb-server-3:10.5.23-1.fc39.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
○ mine@mine:~$
```

```
● mine@mine:~$ sudo systemctl start mariadb
● mine@mine:~$ sudo systemctl enable mariadb
○ mine@mine:~$ sudo systemctl status mariadb
● mariadb.service - MariaDB 10.5 database server
   Loaded: loaded (/usr/lib/systemd/system/mariadb.service; >
   Drop-In: /usr/lib/systemd/system/service.d
            └─10-timeout-abort.conf
   Active: active (running) since Wed 2024-01-24 17:33:33 +>
   Docs: man:mariabdb(8)
         https://mariadb.com/kb/en/library/systemd/
  Main PID: 1342 (mariabdb)
    Status: "Taking your SQL requests now..."
   Tasks: 8 (limit: 18678)
  Memory: 99.4M
     CPU: 4.018s
   CGroup: /system.slice/mariadb.service
           └─1342 /usr/libexec/mariabdb --basedir=/usr

Jan 24 17:33:33 mine systemd[1]: Starting mariadb.service - M>
Jan 24 17:33:33 mine mariadb-prepare-db-dir[1306]: Database M>
Jan 24 17:33:33 mine mariadb-prepare-db-dir[1306]: If this is>
Jan 24 17:33:33 mine (mariabdb)[1342]: mariadb.service: Refer>
Jan 24 17:33:33 mine systemd[1]: Started mariadb.service - Ma>
lines 1-20/20 (END)
```

```
✧mine@mine:~$ mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 6
Server version: 10.5.23-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and o
thers.

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

MariaDB [(none)]> 
```

```
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database                |
+-----+
| information_schema      |
| mysql                   |
| performance_schema     |
| wizedemy                |
+-----+
4 rows in set (0.002 sec)
```

```
MariaDB [(none)]> CREATE DATABASE satish;
Query OK, 1 row affected (0.001 sec)
```

```
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database                |
+-----+
| information_schema      |
| mysql                   |
| performance_schema     |
| satish                  |
| wizedemy                |
+-----+
5 rows in set (0.001 sec)
```

```
MariaDB [(none)]> USE satish;
Database changed
MariaDB [satish]> 
```

```
MariaDB [satish]> CREATE TABLE user(
  -> id INT PRIMARY KEY AUTO_INCREMENT,
  -> username VARCHAR(255) UNIQUE NOT NULL,
  -> email VARCHAR(255) UNIQUE NOT NULL,
  -> password VARCHAR(255) NOT NULL,
  -> created_at DATETIME DEFAULT CURRENT_TIMESTAMP);
Query OK, 0 rows affected (0.020 sec)
```

```
MariaDB [satish]> SHOW TABLES;
```

```
+-----+
| Tables_in_satish |
+-----+
| user              |
+-----+
1 row in set (0.001 sec)
```

```
MariaDB [satish]> DESC user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL             | auto_increment |
| username   | varchar(255)  | NO   | UNI | NULL             |                |
| email      | varchar(255)  | NO   | UNI | NULL             |                |
| password   | varchar(255)  | NO   |     | NULL             |                |
| created_at | datetime      | YES  |     | current_timestamp() |                |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.002 sec)
```

```
MariaDB [satish]> ALTER TABLE user ADD COLUMN address VARCHAR(255);
```

```
Query OK, 0 rows affected (0.015 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> DESC user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL             | auto_increment |
| username   | varchar(255)  | NO   | UNI | NULL             |                |
| email      | varchar(255)  | NO   | UNI | NULL             |                |
| password   | varchar(255)  | NO   |     | NULL             |                |
| created_at | datetime      | YES  |     | current_timestamp() |                |
| address    | varchar(255)  | YES  |     | NULL             |                |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.002 sec)
```

```
MariaDB [satish]> ALTER TABLE user MODIFY COLUMN username VARCHAR(50);
Query OK, 0 rows affected (0.024 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> DESC user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL             | auto_increment |
| username   | varchar(50)   | YES  | UNI | NULL             |                |
| email      | varchar(255)  | NO   | UNI | NULL             |                |
| password   | varchar(255)  | NO   |     | NULL             |                |
| created_at | datetime      | YES  |     | current_timestamp() |                |
| address    | varchar(255)  | YES  |     | NULL             |                |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.001 sec)
```

```
MariaDB [satish]> ALTER TABLE user DROP COLUMN password;
Query OK, 0 rows affected (0.015 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> DESC user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL             | auto_increment |
| username   | varchar(50)   | YES  | UNI | NULL             |                |
| email      | varchar(255)  | NO   | UNI | NULL             |                |
| created_at | datetime      | YES  |     | current_timestamp() |                |
| address    | varchar(255)  | YES  |     | NULL             |                |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.002 sec)
```

```
MariaDB [satish]> ALTER TABLE user ADD CHECK (age >= 18);
Query OK, 0 rows affected (0.037 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> DESC user;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default          | Extra          |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | NO   | PRI | NULL             | auto_increment |
| username   | varchar(50)   | YES  | UNI | NULL             |                |
| email      | varchar(255)  | NO   | UNI | NULL             |                |
| created_at | datetime      | YES  |     | current_timestamp() |                |
| address    | varchar(255)  | YES  |     | NULL             |                |
| age        | int(11)       | YES  |     | NULL             |                |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.002 sec)
```

```
MariaDB [satish]> ALTER TABLE user RENAME TO users;
Query OK, 0 rows affected (0.017 sec)
```

```
MariaDB [satish]> SHOW TABLES;
```

```
+-----+
| Tables_in_satish |
+-----+
| users             |
+-----+
1 row in set (0.001 sec)
```

```
MariaDB [satish]> ALTER TABLE users DROP CONSTRAINT username;
Query OK, 0 rows affected (0.006 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> DESC user;
ERROR 1146 (42S02): Table 'satish.user' doesn't exist
MariaDB [satish]> DESC users;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default      | Extra      |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)   | NO   | PRI | NULL         | auto_increment |
| username   | varchar(50) | YES  |     | NULL         |               |
| email      | varchar(255) | NO   | UNI | NULL         |               |
| created_at | datetime  | YES  |     | current_timestamp() |               |
| address    | varchar(255) | YES  |     | NULL         |               |
| age        | int(11)   | YES  |     | NULL         |               |
+-----+-----+-----+-----+-----+-----+
```

6 rows in set (0.002 sec)

```
MariaDB [satish]> DROP TABLE users;
Query OK, 0 rows affected (0.049 sec)
```

```
MariaDB [satish]> SHOW TABLES;
Empty set (0.001 sec)
```

```
MariaDB [satish]> DROP DATABASE satish;
Query OK, 0 rows affected (0.037 sec)
```

```
MariaDB [(none)]>
```

## Foreign key

```
MariaDB [satish]> CREATE TABLE addresses (
-> id INT PRIMARY KEY AUTO_INCREMENT,
-> user_id INT NOT NULL,
-> street_address VARCHAR(255),
-> city VARCHAR(50),
-> state VARCHAR(20),
-> postal_code VARCHAR(10),
-> FOREIGN KEY (user_id) REFERENCES users(id)
-> );
Query OK, 0 rows affected (0.019 sec)
```

```
MariaDB [satish]> desc addresses
-> ;
```

```
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default      | Extra      |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)   | NO   | PRI | NULL         | auto_increment |
| user_id    | int(11)   | NO   | MUL | NULL         |               |
| street_address | varchar(255) | YES  |     | NULL         |               |
| city       | varchar(50) | YES  |     | NULL         |               |
| state      | varchar(20) | YES  |     | NULL         |               |
| postal_code | varchar(10) | YES  |     | NULL         |               |
+-----+-----+-----+-----+-----+-----+
```

6 rows in set (0.002 sec)

```
MariaDB [satish]> ALTER TABLE addresses DROP FOREIGN KEY addresses_ibfk_1;  
Query OK, 0 rows affected (0.014 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> ALTER TABLE addresses  
-> DROP COLUMN user_id;  
Query OK, 0 rows affected (0.019 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> desc addresses;
```

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto_increment
street_address	varchar(255)	YES		NULL	
city	varchar(50)	YES		NULL	
state	varchar(20)	YES		NULL	
postal_code	varchar(10)	YES		NULL	

```
5 rows in set (0.002 sec)
```

```
MariaDB [satish]> ALTER TABLE addresses  
-> ADD COLUMN user_id INT(11) NOT NULL,  
-> ADD FOREIGN KEY (user_id) REFERENCES users(id);  
Query OK, 0 rows affected (0.034 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [satish]> desc addresses;
```

Field	Type	Null	Key	Default	Extra
id	int(11)	NO	PRI	NULL	auto_increment
street_address	varchar(255)	YES		NULL	
city	varchar(50)	YES		NULL	
state	varchar(20)	YES		NULL	
postal_code	varchar(10)	YES		NULL	
user_id	int(11)	NO	MUL	NULL	

```
6 rows in set (0.002 sec)
```