# Petunjuk Penggunaan MariaDB

## Menjalankan MariaDB

### Windows

1. Buka command prompt/powershell
2. Jalankan MariaDB

```
mariadb -u {username} -p
```

username: root
password: sesuaikan dengan yang ditulis saat instalasi

### Linux

1. Buka terminal
2. Jalankan server jika server belum aktif

```
sudo systemctl start mariadb
```

3. Jalankan MariaDB

```
mysql -u {username} -p
```

username: root
password: sesuaikan dengan yang ditulis saat instalasi.
Jika password tidak diubah, biasanya password kosong sehingga MariaDB dapat dijalankan dengan perintah `mysql -u root`

### MacOS

1. Buka terminal
2. Jalankan server jika server belum aktif

```
mysql.server start
```

3. Jalankan MariaDB

```
mysql -u {username} -p
```

username: root
password: sesuaikan dengan yang ditulis saat mengamankan instalasi
Jika password tidak diubah, biasanya password kosong sehingga MariaDB dapat dijalankan dengan perintah `mysql -u root`

## Query untuk Administrasi Database

**Membuat database baru**

```
create database {database_name};
```

**Menampilkan daftar database yang ada dalam server**

```
show databases;
```

**Mengganti database yang digunakan**

```
use {database_name};
```

**Menampilkan daftar tabel pada sebuah database**

```
show tables;
```

**Menampilkan deskripsi field pada tabel**

```
describe {table_name};
```

**Menghapus sebuah database**

```
drop database {database_name};
```

**Men-dump sebuah database ke file eksternal**

Keluar dulu dari MariaDB (ctrl + C) kemudian tuliskan pada terminal:

```
mysqldump -c -u {username} -p --databases {database_name} >
{external_file_name}.sql

Contoh : (Database yang akan di export adalah database “nation”

> mysqldump -c -u root -p --databases nation > export_latihan.sql

File export_latihan.sql akan dibuat pada directory terminal saat itu.
```

**Me-restore sebuah database dari file eksternal**

Keluar dulu dari MariaDB (ctrl + C) kemudian tuliskan pada terminal:

```
mysql -u {username} -p {database_name} < {external_file_name}.sql

Contoh : (Terminal berada pada directory yang sama dengan file
“latihan.sql”, dengan nama database adalah “nation”)
```

```
> mysql -u root -p nation < latihan.sql
```

## Query untuk Administrasi User

### Membuat user baru

```
# mysql -u root -p /* masuk sebagai root */
mysql> use mysql; /* gunakan tabel mysql */
mysql> INSERT INTO user (Host,User,Password) VALUES('%','username',
PASSWORD('password')); /* buat user baru */
mysql> flush privileges; /* update privilege */
```

### Mengganti password user dari terminal

```
# mysqladmin -u username -h hostname.blah.org -p password 'new-password'
```

### Mengganti password user dari prompt MariaDB

```
# mysql -u root -p /* masuk sebagai root */
mysql> SET PASSWORD FOR 'user'@'hostname' = PASSWORD('passwordhere');
/* ganti password */
mysql> flush privileges; /* update privilege */
```

### Membuat password root (jika belum ada password root)

```
# mysqladmin -u root password {newpassword}
```

### Mengganti password root

```
# mysqladmin -u root -p {oldpassword} {newpassword}
```

**Contoh Query**

**CREATE TABLE EXAMPLE 1.**

```
mysql> CREATE TABLE [table name] (firstname VARCHAR(20), middleinitial
VARCHAR(3), lastname VARCHAR(35), suffix VARCHAR(3), officeid VARCHAR(10),
userid VARCHAR(15), username VARCHAR(8), email VARCHAR(35), phone VARCHAR(25),
groups VARCHAR(15), datestamp DATE, timestamp time, pgpemail VARCHAR(255));
```

**CREATE TABLE EXAMPLE 2.**

```
mysql> create table [table name] (personid int(50) not null auto_increment
primary key,firstname varchar(35), middlename varchar(50), lastnamevarchar(50)
default 'bato');
```

**CREATE TABLE EXAMPLE 3.**

```
mysql> CREATE TABLE IF NOT EXISTS `privileges`` (
    `Host` char(60) COLLATE utf8_bin NOT NULL DEFAULT '',
    `Db` char(64) COLLATE utf8_bin NOT NULL DEFAULT '',
    `User` char(16) COLLATE utf8_bin NOT NULL DEFAULT '',
    `Timestamp` timestamp NOT NULL DEFAULT CURRENT_TIMESTAMP ON UPDATE
CURRENT_TIMESTAMP,
    PRIMARY KEY (`Host`,`Db`,`User`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8 COLLATE=utf8_bin COMMENT='Column
privileges';
```

**INSERT NEW ROW**

```
mysql> INSERT INTO [table name] (col1,col2) VALUES (val1_col1, val1_col2),
(val2_col1, val2_col2);
```

**SHOW ALL DATA IN A TABLE.**

```
mysql> SELECT * FROM [table name];
```

**RETURNS THE COLUMNS AND COLUMN INFORMATION PERTAINING TO THE DESIGNATED TABLE.**

```
mysql> show columns from [table name];
```

**SHOW CERTAIN SELECTED ROWS WITH THE VALUE "WHATEVER".**

```
mysql> SELECT * FROM [table name] WHERE [field name] = "whatever";
```

**SHOW ALL RECORDS CONTAINING THE NAME "BOB" AND THE PHONE NUMBER '3444444'.**

```
mysql> SELECT * FROM [table name] WHERE name = "Bob" AND phone_number =
'3444444';
```

**SHOW ALL RECORDS NOT CONTAINING THE NAME "BOB" AND THE PHONE NUMBER '3444444' ORDER BY THE PHONE_NUMBER FIELD.**

```
mysql> SELECT * FROM [table name] WHERE name != "Bob" AND phone_number =
'3444444' order by phone_number;
```

**SHOW ALL RECORDS STARTING WITH THE LETTERS 'BOB' AND THE PHONE NUMBER '3444444'.**

```
mysql> SELECT * FROM [table name] WHERE name like "Bob%" AND phone_number =
'3444444';
```

**SHOW ALL RECORDS STARTING WITH THE LETTERS 'BOB' AND THE PHONE NUMBER '3444444' LIMIT TO RECORDS 1 THROUGH 5.**

```
mysql> SELECT * FROM [table name] WHERE name like "Bob%" AND phone_number =
'3444444' limit 1,5;
```

**USE A REGULAR EXPRESSION TO FIND RECORDS. USE "REGEXP BINARY" TO FORCE CASE-SENSITIVITY. THIS FINDS ANY RECORD BEGINNING WITH A.**

```
mysql> SELECT * FROM [table name] WHERE rec RLIKE "^a";
```

**SHOW UNIQUE RECORDS.**

```
mysql> SELECT DISTINCT [column name] FROM [table name];
```

**SHOW SELECTED RECORDS SORTED IN AN ASCENDING (ASC) OR DESCENDING (DESC).**

```
mysql> SELECT [col1],[col2] FROM [table name] ORDER BY [col2] DESC;
```

**RETURN NUMBER OF ROWS.**

```
mysql> SELECT COUNT(*) FROM [table name];
```

**SUM COLUMN.**

```
mysql> SELECT SUM([col]) FROM [table name];
```

**JOIN TABLES ON COMMON COLUMNS.**

```
mysql> select lookup.illustrationid, lookup.personid,person.birthday from
lookup left join person on lookup.personid=person.personid=statement to join
birthday in person table with primary illustration id;
```

**TO UPDATE INFO ALREADY IN A TABLE.**

```
mysql> UPDATE [table name] SET [col1] = '[value1]',[col2] = '[value2]',[coln]
= '[valuen]' where [field name] = [value];
```

**DELETE A ROW(S) FROM A TABLE.**

```
mysql> DELETE from [table name] where [field name] = 'whatever';
```

**DELETE A COLUMN.**

```
mysql> alter table [table name] drop column [column name];
```

**ADD A NEW COLUMN TO DB.**

```
mysql> alter table [table name] add column [new column name] varchar (20);
```

**CHANGE COLUMN NAME.**

```
mysql> alter table [table name] change [old column name] [new column name]
varchar (50);
```

**MAKE A UNIQUE COLUMN SO YOU GET NO DUPES.**

```
mysql> alter table [table name] add unique ([column name]);
```

**MAKE A COLUMN BIGGER.**

```
mysql> alter table [table name] modify [column name] VARCHAR(3);
```

**DELETE UNIQUE FROM TABLE.**

```
mysql> alter table [table name] drop index [column name];
```