

# **Replikasi Database Master-Slave pada Linux Ubuntu**



**Nama : Clarisa Putri Amanda**

**NIM : 09011282126094**

**Dosen Pengampuh : Adi Hermansyah, M.T**

**FAKULTAS ILMU KOMPUTER  
PROGRAM STUDI SISTEM KOMPUTER  
UNIVERSITAS SRIWIJAYA  
PALEMBANG  
2024**

## Install MariaDB pada Kedua Ubuntu yang akan dipakai

`sudo apt install mariadb-server`

## Ubah Konfigurasi MariaDB Master

`sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf`

# baris 29, ubah IP bind-address

`bind-address = 192.168.100.96` (Ip Master)

# baris 74, lepas comment `server-id = 1`

# baris 75, lepas comment `log_bin = /var/log/mysql/mysql-bin.log`



```
GNU nano 6.2 /etc/mysql/mariadb.conf.d/50-server.cnf
# * Basic Settings
#
#user                        = mysql
pid-file                    = /run/mysqld/mysqld.pid
basedir                    = /usr
#datadir                   = /var/lib/mysql
#tmpdir                    = /tmp

# Broken reverse DNS slows down connections considerably and name resolve is
# safe to skip if there are no "host by domain name" access grants
#skip-name-resolve

# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address                = 192.168.100.96
#
```

## Restart service MariaDB

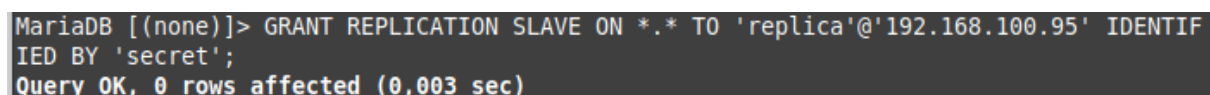
`sudo systemctl restart mysql`

## Buat user untuk akses replikasi

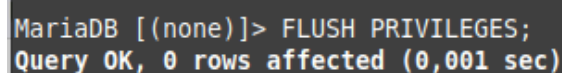
`mysql -u root -p`

`GRANT REPLICATION SLAVE ON *.* TO 'replica'@'192.168.100.95' IDENTIFIED BY 'secret';`

`FLUSH PRIVILEGES;`



```
MariaDB [(none)]> GRANT REPLICATION SLAVE ON *.* TO 'replica'@'192.168.100.95' IDENTIF
IED BY 'secret';
Query OK, 0 rows affected (0,003 sec)
```



```
MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0,001 sec)
```

**Tampilkan status master. File dan Position dibutuhkan pada saat konfigurasi Slave.**

```
MariaDB [(none)]> SHOW MASTER STATUS;
+-----+-----+-----+-----+
| File           | Position | Binlog_Do_DB | Binlog_Ignore_DB |
+-----+-----+-----+-----+
| mysql-bin.000002 |      667 |              |                  |
+-----+-----+-----+-----+
1 row in set (0.000 sec)
```

## Konfigurasi Server MariaDB Slave

`sudo nano /etc/mysql/mariadb.conf.d/50-server.cnf`

# baris 29, ubah IP bind-address `bind-address = 192.168.100.65` (Ip Slave)

# baris 74, lepas comment. Ganti dengan nomor lain, `server-id = 2`

# baris 75, lepas comment `log_bin = /var/log/mysql/mysql-bin.log`

```
root@slave-VirtualBox: /home/slave

File Edit View Search Terminal Help
GNU nano 6.2 /etc/mysql/mariadb.conf.d/50-server.cnf *

# Broken reverse DNS slows down connections considerably and name resolu
# safe to skip if there are no "host by domain name" access grants
#skip-name-resolve

# Instead of skip-networking the default is now to listen only on
# localhost which is more compatible and is not less secure.
bind-address            = 192.168.100.95

#
# * Fine Tuning
#
```

Restart service MariaDB

```
root@slave-VirtualBox:/home/slave# sudo systemctl restart mysql
```

Konfigurasi koneksi ke Master

```
root@slave-VirtualBox:/home/slave# mysql -u root -p
```

```
MariaDB [(none)]> CHANGE MASTER TO MASTER_HOST='192.168.100.96', MASTER_USER='re
plica', MASTER_PASSWORD='secret', MASTER_LOG_FILE='mysql-bin.000002', MASTER_LOG
_POS=667;
Query OK, 0 rows affected (0.032 sec)
```

## Jalankan slave

START SLAVE;

```
MariaDB [(none)]> START SLAVE;
Query OK, 0 rows affected (0.001 sec)
```

Jika tidak ada masalah pada saat menjalankan slave, lepas kunci database pada server master

mysql -u root -p

UNLOCK TABLES;

```
MariaDB [(none)]> mysql -u root -p
```

```
MariaDB [(none)]> UNLOCK TABLES;  
Query OK, 0 rows affected (0,000 sec)
```

**Tampilkan status slave**

SHOW SLAVE STATUS \G

```
root@slave-VirtualBox: /home/slave  
File Edit View Search Terminal Help  
MariaDB [(none)]> SHOW SLAVE STATUS \G  
***** 1. row *****  
Slave_IO_State: Waiting for master to send event  
Master_Host: 192.168.100.96  
Master_User: replica  
Master_Port: 3306  
Connect_Retry: 60  
Master_Log_File: mysql-bin.000002  
Read_Master_Log_Pos: 667  
Relay_Log_File: mysqld-relay-bin.000002  
Relay_Log_Pos: 555  
Relay_Master_Log_File: mysql-bin.000002  
Slave_IO_Running: Yes  
Slave_SQL_Running: Yes  
Replicate_Do_DB:  
Replicate_Ignore_DB:  
Replicate_Do_Table:  
Replicate_Ignore_Table:  
Replicate_Wild_Do_Table:  
Replicate_Wild_Ignore_Table:  
Last_Errno: 0  
Last_Error:  
Skip_Counter: 0
```

## Pengujian

Membuat Database pada Master

```
MariaDB [(none)]> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
4 rows in set (0,000 sec)  
  
MariaDB [(none)]> CREATE DATABASE Clarisa;  
Query OK, 1 row affected (0,000 sec)  
  
MariaDB [(none)]> SHOW DATABASES;  
+-----+  
| Database |  
+-----+  
| Clarisa |  
| information_schema |  
| mysql |  
| performance_schema |  
| sys |  
+-----+  
5 rows in set (0,001 sec)
```

## Show Databases pada Slave

```
root@slave-VirtualBox: /home/slave
File Edit View Search Terminal Help
MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
4 rows in set (0,000 sec)

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| Clarisa |
| information_schema |
| mysql |
| performance_schema |
| sys |
+-----+
5 rows in set (0,000 sec)
```