

LAPORAN PRAKTIKUM
SISTEM BASIS DATA
MODUL 9
DATA CONTROL LANGUAGE

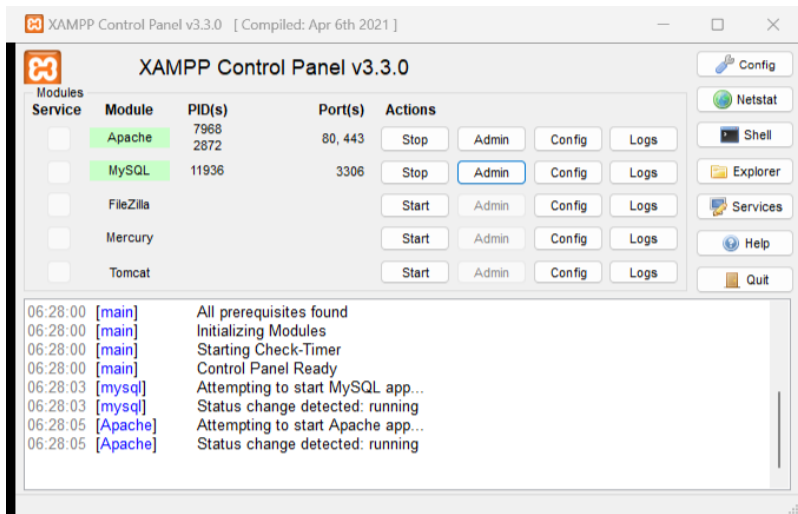


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TEKNIK INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA
2022/2023

D. Langkah-langkah Praktikum

1. Jalankan XAMPP Control Panel.
2. Jalankan server Apache dan MySQL.



3. Buka Command Prompt dan login sebagai root ke MySQL

```
C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.4.27-MariaDB mariadb.org binary distribution

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

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

4. Cek user

```
MariaDB [(none)]> select user, host, password from mysql.user;
+-----+-----+-----+
| User | Host      | Password |
+-----+-----+-----+
| root | localhost |          |
| root | 127.0.0.1 |          |
| root | ::1       |          |
| pma  | localhost |          |
+-----+-----+-----+
4 rows in set (0.066 sec)
```

5. Create user baru

```
MariaDB [(none)]> create user 'L200210137'@'localhost' identified by 'admin';
Query OK, 0 rows affected (0.003 sec)
```

6. Cek apakah sudah berhasil

```
MariaDB [(none)]> select user, host, password from mysql.user;
+-----+-----+-----+
| User      | Host      | Password                                     |
+-----+-----+-----+
| root      | localhost | *4ACFE3202A5FF5CF467898FC58AAB1D615029441 |
| L200210137 | localhost |                                             |
| root      | 127.0.0.1 |                                             |
| root      | ::1       |                                             |
| pma       | localhost |                                             |
+-----+-----+-----+
5 rows in set (0.002 sec)
```

7. Berikan hak akses kepada user baru

```
MariaDB [(none)]> GRANT select, insert, update ON *.* TO 'L200210137'@'localhost';
Query OK, 0 rows affected (0.003 sec)
```

Perintah FLUSH PRIVILEGES; (error)

```
MariaDB [(none)]> FLUSH PRIVILEGES;
ERROR 1030 (HY000): Got error 176 "Read page with wrong checksum" from storage engine Aria
```

8. Keluar dari root

```
MariaDB [(none)]> exit;
Bye
```

9. Login ke user baru

```
C:\xampp\mysql\bin>mysql -u L200210137 -p
Enter password: *****
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 43
Server version: 10.4.27-MariaDB mariadb.org binary distribution

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

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

10. Cek database yang bisa diakses

```
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| informatika |
| information_schema |
| jual |
| mysql |
| penyimpanan |
| perbankan |
| performance_schema |
| perpustakaan |
| phpmyadmin |
| rumah_sakit |
| test |
+-----+
11 rows in set (0.001 sec)
```

11. Ubah database yang digunakan

```
MariaDB [(none)]> use perbankan;  
Database changed
```

12. Lakukan select tabel nasabah

```
MariaDB [perbankan]> select * from nasabah;  
+-----+-----+-----+  
| id_nasabah | nama_nasabah | alamat_nasabah |  
+-----+-----+-----+  
| 1 | Sutopo | Jl. Jendral Sudirman 12 |  
| 2 | Maryati | Jl. MT. Haryono 31 |  
| 3 | Suparman | Jl. Hasanudin 81 |  
| 4 | Kartika Padmasari | Jl. Manggis 15 |  
| 5 | Budi Eko Prayogo | Jl. Kantil 30 |  
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |  
| 7 | Indri Hapsari | Jl. Sutoyo 5 |  
| 8 | Sari Murti | Jl. Pangandaran 11 |  
| 9 | Canka Lokananta | Jl. Tidar 86 |  
| 10 | Budi Murtono | Jl. Merak 22 |  
| 11 | Bima Triadmaja | Jl. Palihan 13 |  
| 12 | Risma Nanda | Jl. Pedan 27 |  
| 13 | Alha Jantri | Jl. Keden 01 |  
| 14 | Aisah Hindhun | Jl. Ngerangan 20 |  
| 15 | Ade Cahyo | Jl. Plosowangi 76 |  
| 16 | Ganang Pras | Jl. Toprayan 07 |  
| 17 | Dhea Salsabella | Jl. Karangasem 17 |  
| 18 | Reyhan Pradhana | Jl. Kedungampel 12 |  
| 19 | Fatika Sari | Jl. Trucuk 35 |  
| 20 | Ilham Muchron | Jl. Tirtomarto 05 |  
+-----+-----+-----+  
20 rows in set (0.007 sec)
```

13. Lakukan insert data ke tabel nasabah

```
MariaDB [perbankan]> insert into nasabah values ('21', 'Rizky Ridho', 'Surabaya');  
Query OK, 1 row affected (0.002 sec)
```

14. Keluar dari user baru

```
MariaDB [perbankan]> exit  
Bye
```

15. Masuk sebagai root

```
C:\xampp\mysql\bin>mysql -u root -p  
Enter password:  
Welcome to the MariaDB monitor. Commands end with ; or \g.  
Your MariaDB connection id is 44  
Server version: 10.4.27-MariaDB mariadb.org binary distribution  
  
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

16. Hilangkan hak akses user baru ke tabel nasabah

```
MariaDB [(none)]> revoke select on *.* from 'L200210137'@'localhost';  
Query OK, 0 rows affected (0.001 sec)
```

17. Keluar dari root

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

18. Login ke user baru

```
C:\xampp\mysql\bin>mysql -u L200210137 -p  
Enter password: *****  
Welcome to the MariaDB monitor.  Commands end with ; or \g.  
Your MariaDB connection id is 48  
Server version: 10.4.27-MariaDB mariadb.org binary distribution  
  
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
```

19. Ubah database yang digunakan

```
MariaDB [(none)]> use perbankan;  
Database changed
```

20. Lakukan perintah select

```
MariaDB [perbankan]> select * from nasabah;  
ERROR 1142 (42000): SELECT command denied to user 'L200210137'@'localhost' for  
table 'perbankan'.'nasabah'  
MariaDB [perbankan]> exit  
Bye
```

E. Tugas

1. Buat user baru sesuai dengan nama anda masing-masing.

```
MariaDB [(none)]> create user 'BimaTriadmaja'@'localhost' identified by 'admin';
Query OK, 0 rows affected (0.002 sec)

MariaDB [(none)]> select user, host, password from mysql.user;
+-----+-----+-----+
| User          | Host          | Password                                     |
+-----+-----+-----+
| root          | localhost     |                                             |
| L200210137    | localhost     | *4ACFE3202A5FF5CF467898FC58AAB1D615029441 |
| root          | 127.0.0.1     |                                             |
| root          | ::1           |                                             |
| pma           | localhost     |                                             |
| BimaTriadmaja | localhost     | *4ACFE3202A5FF5CF467898FC58AAB1D615029441 |
+-----+-----+-----+
6 rows in set (0.002 sec)
```

2. Beri Privilege untuk user tersebut dengan ketentuan sebagai berikutini.
 - a. Dapat melakukan INSERT, UPDATE, dan DELETE pada tabel nasabah.

```
MariaDB [(none)]> GRANT INSERT ON perbankan.nasabah to 'BimaTriadmaja'@'localhost';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
ERROR 1030 (HY000): Got error 176 "Read page with wrong checksum" from storage engine Aria
MariaDB [(none)]> GRANT UPDATE ON perbankan.nasabah to 'BimaTriadmaja'@'localhost';
Query OK, 0 rows affected (0.002 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
ERROR 1030 (HY000): Got error 176 "Read page with wrong checksum" from storage engine Aria
MariaDB [(none)]> GRANT DELETE ON perbankan.nasabah to 'BimaTriadmaja'@'localhost';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
ERROR 1030 (HY000): Got error 176 "Read page with wrong checksum" from storage engine Aria
MariaDB [(none)]>
MariaDB [(none)]>
```

- b. Hanya dapat melakukan SELECT pada tabel cabang_bank.

```
MariaDB [(none)]> GRANT SELECT ON perbankan.cabang_bank to 'BimaTriadmaja'@'localhost';
Query OK, 0 rows affected (0.003 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
ERROR 1030 (HY000): Got error 176 "Read page with wrong checksum" from storage engine Aria
MariaDB [(none)]> exit
Bye
```

3. Coba lakukan kasus berikut ini dengan login sebagai user yang dibuat dan screenshot hasilnya.

```
C:\xampp\mysql\bin>mysql -u BimaTriadmaja -p
Enter password: *****
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 13
Server version: 10.4.27-MariaDB mariadb.org binary distribution

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

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

- a. Lakukan perintah SELECT pada tabel nasabah.

```
MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> select * from nasabah;
ERROR 1142 (42000): SELECT command denied to user 'BimaTriadmaja'@'localhost'
for table 'perbankan'.'nasabah'
```

- b. Lakukan perintah INSERT pada tabel nasabah.

```
MariaDB [perbankan]> INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah) VALUES
-> (22, 'Febri Hariyadi', 'Bandung');
Query OK, 1 row affected (0.003 sec)
```

- c. Lakukan perintah INSERT pada tabel cabang_bank.

```
MariaDB [perbankan]> INSERT INTO cabang_bank VALUES
-> ('BRUKA', 'Bank Rut Unit Kartasura', 'Jl. Ahmad Yani 17');
ERROR 1142 (42000): INSERT command denied to user 'BimaTriadmaja'@'localhost'
for table 'perbankan'.'cabang_bank'
MariaDB [perbankan]> exit
Bye
```

4. Analisa hasil percobaan kalian tersebut.

GRANT memiliki fungsi untuk membuat user baru dan memberikan hak istimewa. GRANT merupakan privilege untuk tabel. Dimana dalam percobaan ini apabila sebelum melakukan hak akses pada sebuah tabel maka harus membuat GRANT dengan privilege yang dibutuhkan terlebih dahulu. Apabila tidak membuat GRANT dengan privilege terlebih dahulu maka hasilnya akan eror. Revoke digunakan untuk menghapus batasan akses yang telah diatur menggunakan perintah GRANT.