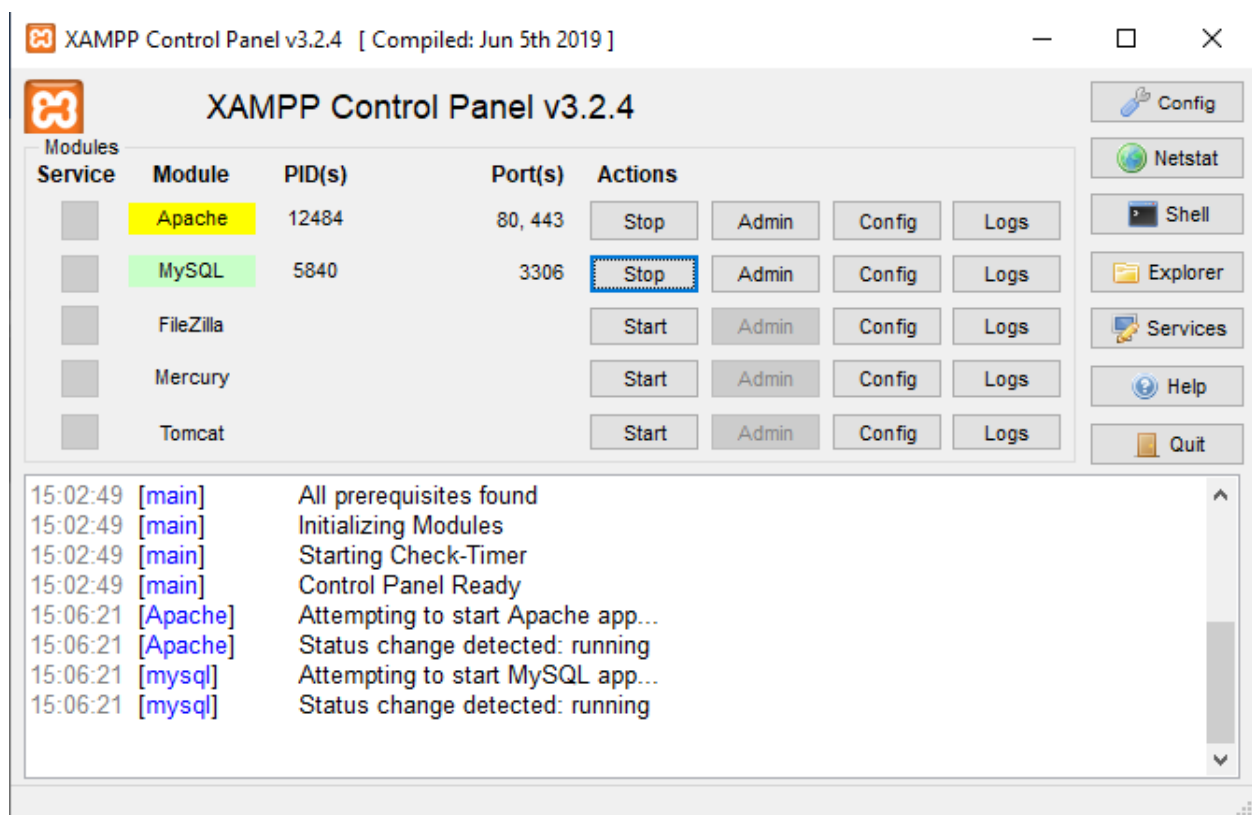


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## KEGIATAN MODUL 5

### Data Manipulation Language(DML)

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



3. Buka Command Prompt dan login sebagai root ke MySQL seperti di Modul 1.

```
C:\Users\Lenovo>cd/
C:\>cd C:\xampp\mysql\bin
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 8
Server version: 10.4.11-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.

MariaDB [(none)]>
```

4. Pilih database perbankan dengan perintah 'use perbankan'. Sehingga akan muncul pemberitahuan 'database changed'.

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

5. Memasukkan data ke dalam database perbankan.

- Tabel nasabah

```
MariaDB [perbankan]> INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah) VALUES
-> (1, "Sutopo", "Jl. Jendral Sudirman 12"),
-> (2, "Maryati", "Jl. MT. Haryono 31"),
-> (3, "Suparman", "Jl. Hasanudin 81"),
-> (4, "Kartika Padamasari", "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");
Query OK, 10 rows affected (0.708 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

- Tabel cabang\_bank

```
MariaDB [perbankan]> INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_cabang) VALUES
-> ("BRUS", "Bank Rut Unit Surakarta", "Jl. Slamet Riyadi 18"),
-> ("BRUM", "Bank Rut Unit Magelang", "Jl. P. Tendean 63"),
-> ("BRUB", "Bank Rut Unit Boyolali", "Jl. Ahmad Yani 45"),
-> ("BRUK", "Bank Rut Unit Klaten", "Jl. Suparman 23"),
-> ("BRUY", "Bank Rut Unit Yogyakarta", "Jl. Anggrek 21"),
-> ("BRUW", "Bank Rut Unit Wonogiri", "Jl. Untung Suropati 12");
Query OK, 6 rows affected (0.615 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

- Tabel rekening

```
MariaDB [perbankan]> INSERT INTO rekening(no_rekening, kode_cabangFK, pin, saldo) VALUES
-> (101, "BRUS", "1111", 500000),
-> (102, "BRUS", "2222", 350000),
-> (103, "BRUS", "3333", 750000),
-> (104, "BRUM", "4444", 900000),
-> (105, "BRUM", "5555", 2000000),
-> (106, "BRUS", "6666", 3000000),
-> (107, "BRUS", "7777", 1000000),
-> (108, "BRUB", "0000", 5000000),
-> (109, "BRUB", "9999", 0),
-> (110, "BRUY", "1234", 550000),
-> (111, "BRUK", "4321", 150000),
-> (112, "BRUK", "0123", 300000),
-> (113, "BRUY", "8888", 255000);
Query OK, 13 rows affected (0.111 sec)
Records: 13  Duplicates: 0  Warnings: 0
```

- Tabel nasabah\_has\_rekening

```
MariaDB [perbankan]> INSERT INTO nasabah_has_rekening(id_nasabahFK, no_rekeningFK) VALUES
-> (1, 104),
-> (2, 103),
-> (3, 105),
-> (3, 106),
-> (4, 101),
-> (4, 107),
-> (5, 102),
-> (5, 107),
-> (6, 109),
-> (7, 109),
-> (8, 111),
-> (9, 110),
-> (10, 113),
-> (8, 112),
-> (10, 108);
Query OK, 15 rows affected (0.732 sec)
Records: 15  Duplicates: 0  Warnings: 0
```

- Tabel transaksi

```
MariaDB [perbankan]> INSERT INTO transaksi(no_transaksi, no_rekeningFK, id_nasabahFK,
jenis_transaksi, tanggal, jumlah) VALUES
-> (1, 105, 3, 'debit', 2009-11-10, 50000),
-> (2, 103, 2, 'debit', 2009-11-10, 40000),
-> (3, 101, 4, 'kredit', 2009-11-12, 20000),
-> (4, 106, 3, 'debit', 2009-11-13, 50000),
-> (5, 107, 5, 'kredit', 2009-11-13, 30000),
-> (6, 104, 1, 'kredit', 2009-11-15, 200000),
-> (7, 110, 9, 'kredit', 2009-11-15, 150000),
-> (8, 102, 5, 'debit', 2009-11-16, 20000),
-> (9, 105, 3, 'kredit', 2009-11-18, 50000),
-> (10, 107, 4, 'debit', 2009-11-19, 100000),
-> (11, 103, 2, 'debit', 2009-11-19, 100000),
-> (12, 104, 1, 'debit', 2009-11-19, 50000),
-> (13, 107, 4, 'kredit', 2009-11-20, 200000),
-> (14, 105, 3, 'debit', 2009-11-21, 40000),
-> (15, 104, 1, 'kredit', 2009-11-22, 100000),
-> (16, 101, 4, 'kredit', 2009-11-22, 20000),
-> (17, 103, 2, 'debit', 2009-11-22, 50000),
-> (18, 102, 5, 'debit', 2009-11-25, 50000),
-> (19, 108, 10, 'debit', 2009-11-26, 100000),
-> (20, 106, 3, 'kredit', 2009-11-27, 50000),
-> (21, 103, 2, 'kredit', 2009-11-28, 200000),
-> (22, 105, 3, 'kredit', 2009-11-28, 100000),
-> (23, 102, 5, 'debit', 2009-11-30, 20000),
-> (24, 104, 1, 'debit', 2009-12-1, 50000),
-> (25, 103, 2, 'debit', 2009-12-2, 40000),
-> (26, 101, 4, 'debit', 2009-12-4, 50000),
-> (27, 103, 2, 'kredit', 2009-12-5, 100000),
-> (28, 102, 5, 'kredit', 2009-12-5, 200000),
-> (29, 109, 7, 'debit', 2009-12-5, 100000),
-> (30, 110, 9, 'debit', 2009-12-6, 20000);
Query OK, 30 rows affected, 30 warnings (0.541 sec)
Records: 30 Duplicates: 0 Warnings: 30
```

6. Melakukan update untuk kasus-kasus berikut :

- a. Nasabah dengan nama “Indri Hapsari” pindah alamat ke “Jalan Slamet Riyadi No. 34”

```
MariaDB [perbankan]> update nasabah
-> set alamat_nasabah = 'Jalan Slamet Riyadi No. 34'
-> where nama_nasabah = 'Indri Hapsari';
Query OK, 1 row affected (0.481 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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 Padamasari	Jl. Manggis 15
5	Budi Eko Prayogo	Jl. Kantil 30
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
7	Indri Hapsari	Jalan Slamet Riyadi No. 34
8	Sari Murti	Jl. Pangandaran 11
9	Canka Lokananta	Jl. Tidar 86
10	Budi Murtono	Jl. Merak 22

```
10 rows in set (0.152 sec)
```

- b. Cabang dengan kode “BRUW” pindah ke alamat “Jalan A. Yani No. 23”

```
MariaDB [perbankan]> update cabang_bank
-> set alamat_cabang = "Jalan A. Yani No. 23"
-> where kode_cabang = "BRUW";
Query OK, 1 row affected (0.262 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [perbankan]> select * from cabang_bank;
```

kode_cabang	nama_cabang	alamat_cabang
BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
BRUK	Bank Rut Unit Klaten	Jl. Suparman 23
BRUM	Bank Rut Unit Magelang	Jl. P. Tendean 63
BRUS	Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
BRUW	Bank Rut Unit Wonogiri	Jalan A. Yani No. 23
BRUY	Bank Rut Unit Yogyakarta	Jl. Anggrek 21

```
6 rows in set (0.001 sec)
```

7. Melakukan penghapusan untuk kasus-kasus berikut :

a. Nasabah dengan id “7” menutup rekeningnya.

```
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 Padamasari	Jl. Manggis 15
5	Budi Eko Prayogo	Jl. Kantil 30
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
7	Indri Hapsari	Jalan Slamet Riyadi No. 34
8	Sari Murti	Jl. Pangandaran 11
9	Canka Lokananta	Jl. Tidar 86
10	Budi Murtono	Jl. Merak 22

```
10 rows in set (0.001 sec)
```

```
MariaDB [perbankan]> delete from nasabah  
-> where id_nasabah = 7;
```

```
Query OK, 1 row affected (0.177 sec)
```

```
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 Padamasari	Jl. Manggis 15
5	Budi Eko Prayogo	Jl. Kantil 30
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
8	Sari Murti	Jl. Pangandaran 11
9	Canka Lokananta	Jl. Tidar 86
10	Budi Murtono	Jl. Merak 22

```
9 rows in set (0.001 sec)
```

- b. Cabang dengan nama\_cabang “Bank Rut Unit Magelang” menutup kantornya.

```
MariaDB [perbankan]> select * from cabang_bank;
```

kode_cabang	nama_cabang	alamat_cabang
BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
BRUK	Bank Rut Unit Klaten	Jl. Suparman 23
BRUM	Bank Rut Unit Magelang	Jl. P. Tendean 63
BRUS	Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
BRUW	Bank Rut Unit Wonogiri	Jalan A. Yani No. 23
BRUY	Bank Rut Unit Yogyakarta	Jl. Anggrek 21

```
6 rows in set (0.001 sec)
```

```
MariaDB [perbankan]> delete from cabang_bank  
-> where nama_cabang = "Bank Rut Unit Magelang";  
Query OK, 1 row affected (0.213 sec)
```

```
MariaDB [perbankan]> select * from cabang_bank;
```

kode_cabang	nama_cabang	alamat_cabang
BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
BRUK	Bank Rut Unit Klaten	Jl. Suparman 23
BRUS	Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
BRUW	Bank Rut Unit Wonogiri	Jalan A. Yani No. 23
BRUY	Bank Rut Unit Yogyakarta	Jl. Anggrek 21

```
5 rows in set (0.001 sec)
```