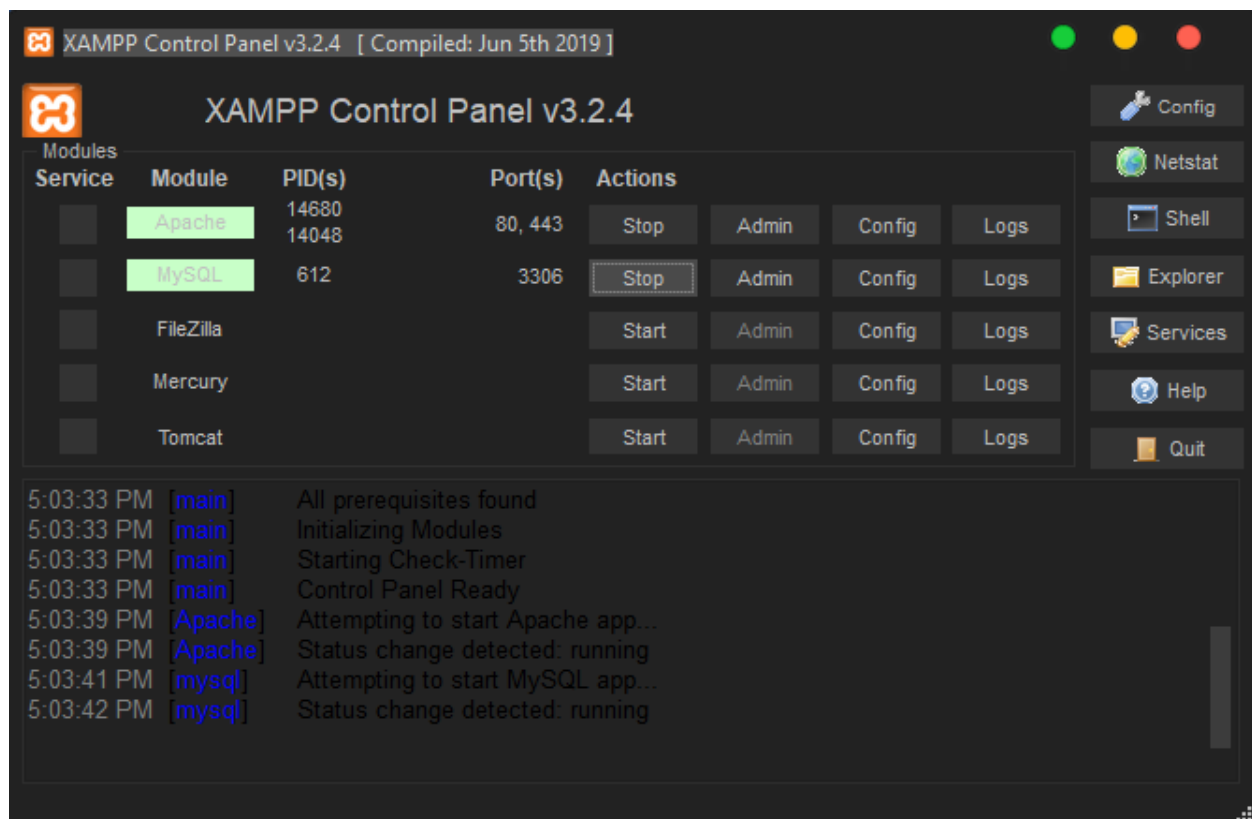Nama   : Nur Taufiq Hidayat
NIM   : L200180069
Kelas : C

MODUL 5

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.

```
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Diamond>cd
C:\Users\Diamond

C:\Users\Diamond>cd\

C:\>cd C:\xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root
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)]> use perbankan;
```

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)
```