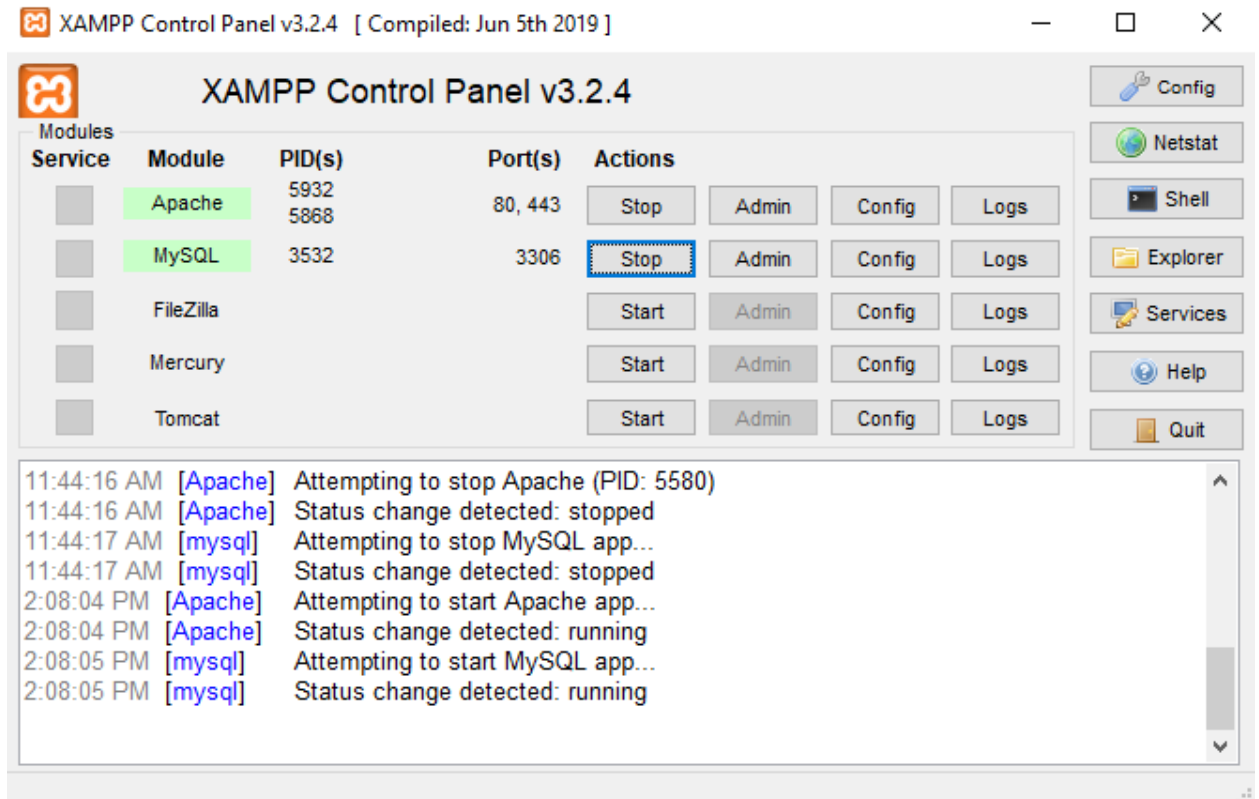Nama   : Tomy Satmoko Aji

Nim   : L200180057

Kelas   : C

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

3. Buka command promt dan login seperti modul 1

```
C:\Users\tomy>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: 10.4.8-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. Buat database baru

```
MariaDB [(none)]> create database perbankan;
ERROR 1007 (HY000): Can't create database 'perbankan'; database exists
```

5. Hubungkan kedalam database

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

6. Membuat table nasabah

```
MariaDB [perbankan]> CREATE TABLE nasabah(id_nasabah INTEGER PRIMARY KEY, nama_nasabah VARCHAR(45) NOT NULL, alamat_nasa
bah VARCHAR(255) NOT NULL);
Query OK, 0 rows affected (0.869 sec)

MariaDB [perbankan]>
```

7. Membuat table nasabah

```
MariaDB [perbankan]> CREATE TABLE cabang_bank(
    -> kode_cabang VARCHAR(20) PRIMARY KEY,
    -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
    -> alamat_cabang VARCHAR(255) NOT NULL
    -> );
Query OK, 0 rows affected (1.644 sec)

MariaDB [perbankan]> _
```

8. Membuat table rekening

```
MariaDB [perbankan]> CREATE TABLE rekening(
    -> no_rekening INTEGER PRIMARY KEY,
    -> kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
    -> saldo INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.302 sec)
```

9. Membuat table nasabah

```
MariaDB [perbankan]> CREATE TABLE transaksi(
    -> no_transaksi SERIAL PRIMARY KEY,
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
    -> tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
    -> jumlah INTEGER NOT NULL CHECK (jumlah>=20000)
    -> );
```

10. Membuat table nasabah_has_rekening

```
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
    -> );
Query OK, 0 rows affected (0.303 sec)
```

11. Cek table

```
MariaDB [perbankan]> show tables;
+----------------------+
| Tables_in_perbankan  |
+----------------------+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| transaksi            |
+----------------------+
4 rows in set (0.086 sec)
```

12. Lihat struktur table

a. Nasabah

```
MariaDB [perbankan]> describe nasabah;
+----------------+--------------+------+-----+---------+-------+
| Field          | Type         | Null | Key | Default | Extra |
+----------------+--------------+------+-----+---------+-------+
| id_nasabah     | int(11)      | NO   | PRI | NULL    |       |
| nama_nasabah   | varchar(45)  | NO   |     | NULL    |       |
| alamat_nasabah | varchar(255) | NO   |     | NULL    |       |
+----------------+--------------+------+-----+---------+-------+
3 rows in set (0.150 sec)
```

b. Cabang_bank

```
MariaDB [perbankan]> describe cabang_bank;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| kode_cabang   | varchar(20)  | NO   | PRI | NULL    |       |
| nama_cabang   | varchar(45)  | NO   | UNI | NULL    |       |
| alamat_cabang | varchar(255) | NO   |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
3 rows in set (0.050 sec)
```

c. Rekening

```
MariaDB [perbankan]> describe rekening;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| no_rekening  | int(11)     | NO   | PRI | NULL    |       |
| kode_cabangFK| varchar(20) | YES  |     | NULL    |       |
| pin          | varchar(20) | NO   |     | 1234    |       |
| saldo        | int(11)     | NO   |     | 0       |       |
+--------------+-------------+------+-----+---------+-------+
4 rows in set (0.044 sec)

MariaDB [perbankan]>
```

d. Transaksi

```
MariaDB [perbankan]> describe transaksi;
+--------------+-------------------+------+-----+---------+----------------+
| Field        | Type              | Null | Key | Default | Extra          |
+--------------+-------------------+------+-----+---------+----------------+
| no_transaksi | bigint(20) unsigned| NO  | PRI | NULL    | auto_increment |
| kode_cabangFK| varchar(20)       | YES  |     | NULL    |                |
| pin          | varchar(20)       | NO   |     | 1234    |                |
| saldo        | int(11)           | NO   |     | 0       |                |
+--------------+-------------------+------+-----+---------+----------------+
4 rows in set (0.044 sec)

MariaDB [perbankan]>
```

e. Nasabah_has_rekening

```
MariaDB [perbankan]> describe nasabah_has_rekening;
+----------------+---------+------+-----+---------+-------+
| Field          | Type    | Null | Key | Default | Extra |
+----------------+---------+------+-----+---------+-------+
| id_nasabahFK   | int(11) | NO   | PRI | NULL    |       |
| no_rekeningFK  | int(11) | NO   | PRI | NULL    |       |
+----------------+---------+------+-----+---------+-------+
2 rows in set (0.049 sec)

MariaDB [perbankan]>
```

Versi full

```
Command Prompt - mysql  -u root -p                                                                                    —    □    ×
Microsoft Windows [Version 10.0.18362.719]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\tomy>color a

C:\Users\tomy>color b

C:\Users\tomy>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: 10.4.8-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)]> create database perbankan;
ERROR 1007 (HY000): Can't create database 'perbankan'; database exists
MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah(id_nasabah INTEGER PRIMARY KEY, nama_nasabah VARCHAR(45) NOT NULL, alamat_nasabah VARCHAR(255) NOT NULL);
Query OK, 0 rows affected (0.869 sec)

MariaDB [perbankan]> CREATE TABLE cabang_bank();
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near ')' at line
1
MariaDB [perbankan]> CREATE TABLE cabang_bank(
    -> kode_cabang VARCHAR(20) PRIMARY KEY,
    -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
    -> alamat_cabang VARCHAR(255) NOT NULL
    -> );
Query OK, 0 rows affected (1.644 sec)

MariaDB [perbankan]> CREATE TABLE transaksi(
    -> no_transaksi SERIAL PRIMARY KEY,
    -> kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang)        Activate Windows
    -> ON DELETE CASCADE ON UPDATE CASCADE,                                 Go to Settings to activate Windows.
    -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
    -> saldo INTEGER DEFAULT 0 NOT NULL
```

```
    -> saldo INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.559 sec)

MariaDB [perbankan]> CREATE TABLE transaksi(
    -> no_transaksi SERIAL PRIMARY KEY,
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> ON DELETE SEL NULL ON UPDATE CASCADE,
    -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
    -> tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
    -> jumlah INTEGER NOT NULL CHECK (jumlah>=20000)
    -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'SEL NULL ON
 UPDATE CASCADE,
jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL' at line 6
MariaDB [perbankan]> CREATE TABLE transaksi(
    -> no_transaksi SERIAL PRIMARY KEY,
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
    -> tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP,
    -> jumlah INTEGER NOT NULL CHECK (jumlah>=20000)
    -> );
ERROR 1050 (42S01): Table 'transaksi' already exists
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE SET NULL ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> CREATE TABLE nasabah_has_rekening(
    -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'CREATE TABL
E nasabah_has_rekening(
)' at line 5
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCE rekening(no_rekening)
    -> ON DELETE CASCADE
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
```

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3/20/2020

```
    -> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
    -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'rekening(no
_rekening)
ON DELETE CASCADE
ON DELETE CASCADE ON UPDATE CASCADE,
PRI' at line 4
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCE rekening(no_rekening)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
    -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'rekening(no
_rekening)
ON DELETE CASCADE ON UPDATE CASCADE,
PRIMARY KEY(id_nasaba' at line 4
MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening(
    -> id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> no_rekeningFK INTEGER REFERENCES rekening(no_rekening)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
    -> );
Query OK, 0 rows affected (0.303 sec)

MariaDB [perbankan]> show tables;
+---------------------+
| Tables_in_perbankan |
+---------------------+
| cabang_bank         |
| nasabah             |
| nasabah_has_rekening |
| transaksi           |
+---------------------+
4 rows in set (0.086 sec)

MariaDB [perbankan]> describe nasabah;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| id_nasabah    | int(11)     | NO   | PRI | NULL    |       |
| nama_nasabah  | varchar(45) | NO   |     | NULL    |       |
```

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3/20/2020

```
| nama_nasabah   | varchar(45)    | NO   |     | NULL    |       |
| alamat_nasabah | varchar(255)   | NO   |     | NULL    |       |
+----------------+----------------+------+-----+---------+-------+
3 rows in set (0.150 sec)

MariaDB [perbankan]> describe cabang_bank;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| kode_cabang  | varchar(20)  | NO   | PRI | NULL    |       |
| nama_cabang  | varchar(45)  | NO   | UNI | NULL    |       |
| alamat_cabang| varchar(255) | NO   |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
3 rows in set (0.050 sec)

MariaDB [perbankan]> describe rekening;
ERROR 1146 (42S02): Table 'perbankan.rekening' doesn't exist
MariaDB [perbankan]> CREATE TABLE rekening(
    -> no_rekening INTEGER PRIMARY KEY,
    -> kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
    -> saldo INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.302 sec)

MariaDB [perbankan]> describe rekening;
+---------------+-------------+------+-----+---------+-------+
| Field         | Type        | Null | Key | Default | Extra |
+---------------+-------------+------+-----+---------+-------+
| no_rekening   | int(11)     | NO   | PRI | NULL    |       |
| kode_cabangFK | varchar(20) | YES  |     | NULL    |       |
| pin           | varchar(20) | NO   |     | 1234    |       |
| saldo         | int(11)     | NO   |     | 0       |       |
+---------------+-------------+------+-----+---------+-------+
4 rows in set (0.044 sec)

MariaDB [perbankan]> describe transaksi;
+---------------+-------------------+------+-----+---------+----------------+
| Field         | Type              | Null | Key | Default | Extra          |
+---------------+-------------------+------+-----+---------+----------------+
| no_transaksi  | bigint(20) unsigned| NO  | PRI | NULL    | auto_increment |
| kode_cabangFK | varchar(20)       | YES  |     | NULL    |                |
| pin           | varchar(20)       | NO   |     | 1234    |                |
```

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```
MariaDB [perbankan]> describe transaksi;
+---------------+-------------------+------+-----+---------+----------------+
| Field         | Type              | Null | Key | Default | Extra          |
+---------------+-------------------+------+-----+---------+----------------+
| no_transaksi  | bigint(20) unsigned| NO  | PRI | NULL    | auto_increment |
| kode_cabangFK | varchar(20)       | YES  |     | NULL    |                |
| pin           | varchar(20)       | NO   |     | 1234    |                |
| saldo         | int(11)           | NO   |     | 0       |                |
+---------------+-------------------+------+-----+---------+----------------+
4 rows in set (0.044 sec)

MariaDB [perbankan]> describe nasabah_has_rekening;
+--------------+---------+------+-----+---------+-------+
| Field        | Type    | Null | Key | Default | Extra |
+--------------+---------+------+-----+---------+-------+
| id_nasabahFK | int(11) | NO   | PRI | NULL    |       |
| no_rekeningFK| int(11) | NO   | PRI | NULL    |       |
+--------------+---------+------+-----+---------+-------+
2 rows in set (0.049 sec)

MariaDB [perbankan]>
```

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