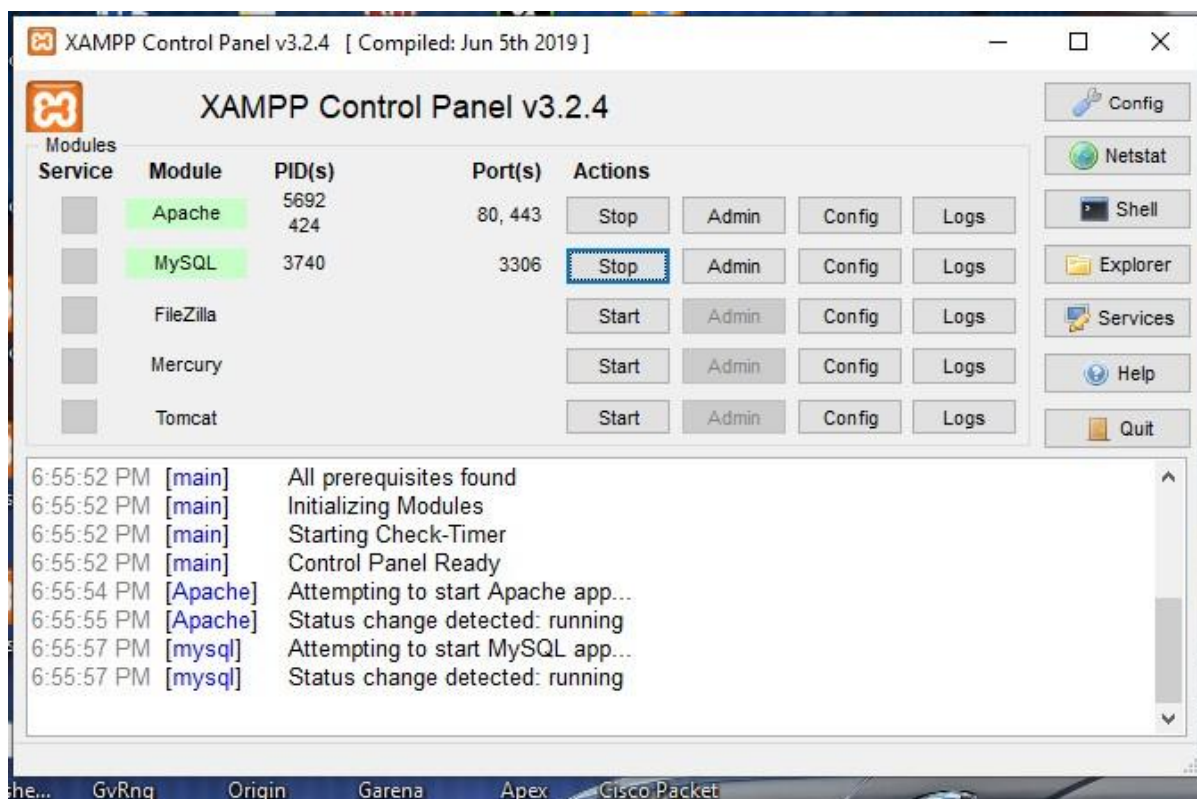


## MODUL 4

### Praktikum Sistem Basis Data

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Menjalankan XAMPP  
Start Server Apache dan MySQL



Membuka My SQL lewat Command Prompt

```
C:\>cd 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 22
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.
```

## Membuat database baru

```
MariaDB [(none)]> create database perbankan;  
Query OK, 1 row affected (0.010 sec)
```

## Menghubungkan kedalam database baru yang telah dibuat

```
MariaDB [perbankan]> use perbankan;  
Database changed  
MariaDB [perbankan]>
```

## Membuat table nasabah

```
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 (0.213 sec)  
  
MariaDB [perbankan]>
```

## Membuat table cabang\_bank

```
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 (0.215 sec)  
  
MariaDB [perbankan]>
```

## 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 (0.217 sec)  
  
MariaDB [perbankan]>
```

## Membuat table transaksi

```
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)  
  -> );  
Query OK, 0 rows affected (0.182 sec)  
  
MariaDB [perbankan]>
```

## 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 (0.174 sec)
```

```
MariaDB [perbankan]>
```

Cek hasil pembuatan database dengan perintah “show tables:” dan untuk melihat struktur tiap table menggunakan “describe nama\_table:” misal, describe nasabah:

```
MariaDB [perbankan]> show tables
```

```
-> ;
```

```
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank         |
| nasabah             |
| nasabah_has_rekening |
| rekening            |
| transaksi           |
+-----+
5 rows in set (0.001 sec)
```

```
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 (0.023 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 (0.023 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 (0.021 sec)
```

```
MariaDB [perbankan]> describe transaksi;
```

```
+-----+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+-----+
| no_transaksi | bigint(20) unsigned | NO   | PRI | NULL    | auto_increment |
| id_nasabahFK | int(11)   | YES  |     | NULL    |               |
| no_rekeningFK | int(11)   | YES  |     | NULL    |               |
| jenis_transaksi | varchar(20) | NO   |     | debit   |               |
| tanggal     | datetime  | NO   |     | current_timestamp() |               |
| jumlah      | int(11)   | NO   |     | NULL    |               |
+-----+-----+-----+-----+-----+-----+-----+
6 rows in set (0.030 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 (0.030 sec)
```

```
MariaDB [perbankan]>
```