

Nama : Guntur Jatmiko

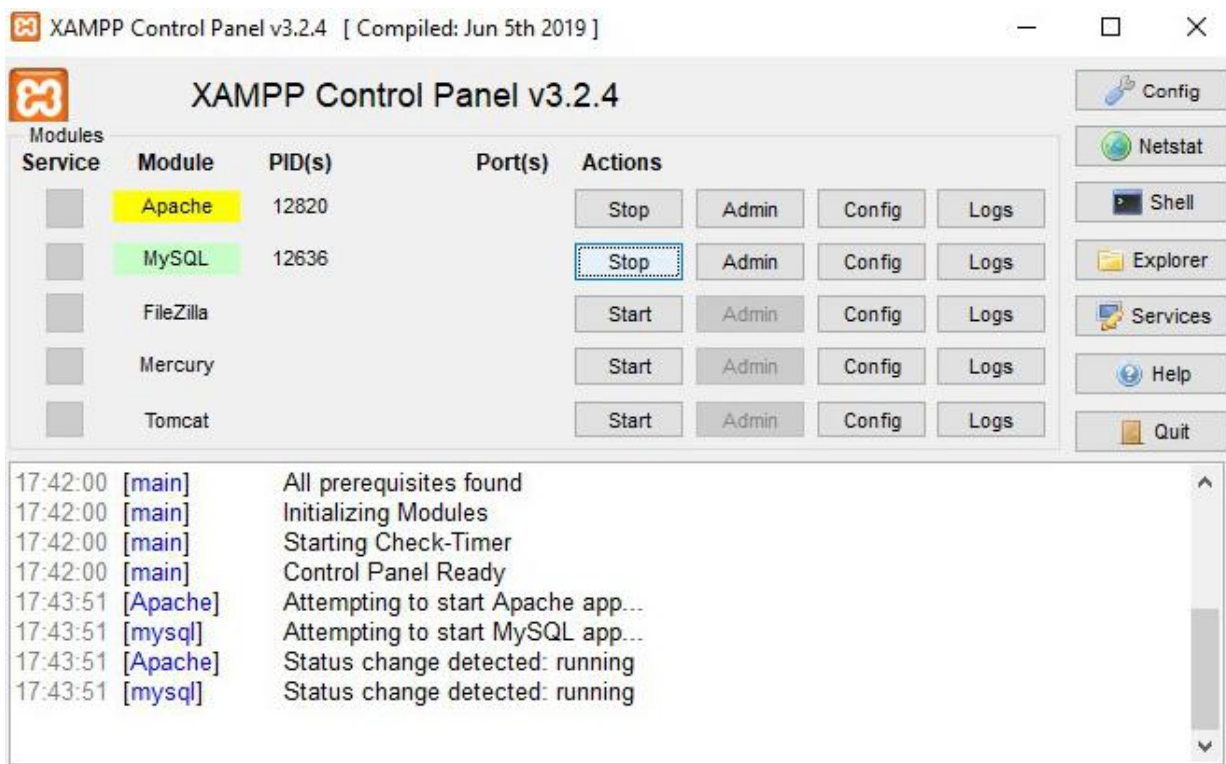
NIM : L200180039

Kelas : B

## LAPRAK MODUL 4

### Latihan

- 1) Jalankan XAMPP Control Panel dan jalankan Apache dan MySQL



- 2) Membuat database perbankan dan

```
MariaDB [(none)]> create database perbankan;
Query OK, 1 row affected (0.004 sec)

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

menggunakanny

- 3) Membuat tabel nasabah

```
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 (0.475 sec)
```

#### 4) Membuat tabel 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 (0.408 sec)
```

#### 5) Membuat tabel 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 (0.314 sec)
```

#### 6) Membuat tabel 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 (0.368 sec)
```

#### 7) Membuat tabel 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 (0.491 sec)
```

#### 8) Mengecek table

```
MariaDB [perbankan]> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+-----+
```

#### 9) Melihat struktur table 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 (0.187 sec)
```

## Tugas

- 1) Buka cmd lalu masuk ke direktori c:\xampp\mysql\bin masuk sebagai admin(mysql -u root -p) dan buat database universitas lalu menghubungkannya

```
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 5
Server version: 10.1.34-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 universitas;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> use universitas;
Database changed
MariaDB [universitas]> create table mahasiswa(
-> NIM integer primary key,
-> nama varchar(45) not null,
-> alamat varchar(225) not null
-> );
Query OK, 0 rows affected (0.42 sec)

MariaDB [universitas]> create table dosen(
-> NIP integer primary key,
-> nama varchar(45) not null,
-> alamat varchar(225) not null
-> );
Query OK, 0 rows affected (0.31 sec)

MariaDB [universitas]> create table matkul(
-> id_mk integer primary key,
-> nama_mk varchar(25) not null
-> );
Query OK, 0 rows affected (0.33 sec)

MariaDB [universitas]> create table ruang_kelas(
-> id_ruangan integer(10) primary key,
-> nama_ruangan varchar(25) not null
-> );
```

- 2) Lalu buat table mahasiswa,dosen,matkul,ruang\_kelas dan (tambahan- tambahan table m:n)

```

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 5
Server version: 10.1.34-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 university;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> use university;
Database changed
MariaDB [university]> create table mahasiswa(
  -> NIM integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.42 sec)

MariaDB [university]> create table dosen(
  -> NIP integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.31 sec)

MariaDB [university]> create table matkul(
  -> id_mk integer primary key,
  -> nama_mk varchar(25) not null
  -> );
Query OK, 0 rows affected (0.33 sec)

MariaDB [university]> create table ruang_kelas(
  -> id_ruangan integer(10) primary key,
  -> nama_ruangan varchar(25) not null
  -> );

```

```

MariaDB [university]> create table ruang_kelas(
  -> id_ruangan integer(10) primary key,
  -> nama_ruangan varchar(25) not null
  -> );
Query OK, 0 rows affected (0.35 sec)

MariaDB [university]> create table mahasiswa_has_dosen(
  -> NIMFK integer references mahasiswa(NIM)
  -> on delete cascade on update cascade,
  -> NIPFK integer references dosen(NIP)
  -> on delete cascade on update cascade,
  -> primary key(NIMFK,NIPFK)
  -> );
Query OK, 0 rows affected (0.29 sec)

MariaDB [university]> create table mahasiswa_has_matkul(
  -> NIMFK integer references mahasiswa(NIM)
  -> on delete cascade on update cascade,
  -> id_mkFK integer references matkul(id_mkFK)
  -> on delete cascade on update cascade,
  -> );
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 6
MariaDB [university]> create table mahasiswa_has_matkul(
  -> NIMFK integer references mahasiswa(NIM)
  -> on delete cascade on update cascade,
  -> id_mkFK integer references matkul(id_mk)
  -> on delete cascade on update cascade,
  -> primary key(NIMFK,id_mkFK)
  -> );
Query OK, 0 rows affected (0.31 sec)

MariaDB [university]> create table dosen_has_matkul(
  -> NIPFK integer references dosen(NIP)
  -> on delete cascade on update cascade,
  -> id_mkFK integer references matkul(id_mk)
  -> on delete cascade on update cascade,
  -> primary key(NIPFK,id_mkFK)
  -> );
Query OK, 0 rows affected (0.31 sec)

MariaDB [university]> drop table mahasiswa_has_dosen;

```

3) Setelah itu tampilkan table database university

```

Query OK, 0 rows affected (0.31 sec)

MariaDB [university]> drop table mahasiswa_has_dosen;
Query OK, 0 rows affected (0.60 sec)

MariaDB [university]> show tables;
+-----+
| Tables_in_university |
+-----+
| dosen                 |
| dosen_has_matkul      |
| mahasiswa             |
| mahasiswa_has_matkul  |
| matkul                |
| ruang_kelas           |
+-----+
0 rows in set (0.00 sec)

```

4) Tampilkan struktur tiap table university

```
MariaDB [university]> describe dosen;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIP    | int(11)        | NO   | PRI | NULL    |       |
| nama   | varchar(45)    | NO   |     | NULL    |       |
| alamat | varchar(225)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.14 sec)
```

```
MariaDB [university]> describe dosen_has_matkul;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIPFK  | int(11)        | NO   | PRI | NULL    |       |
| id_mkFK | int(11)       | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.04 sec)
```

```
MariaDB [university]> describe mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM    | int(11)        | NO   | PRI | NULL    |       |
| nama   | varchar(45)    | NO   |     | NULL    |       |
| alamat | varchar(225)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

```

+-----+-----+-----+-----+-----+-----+
| NIPFK  | int(11)        | NO   | PRI | NULL    |       |
| id_mkFK | int(11)       | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.04 sec)
```

```
MariaDB [university]> describe mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM    | int(11)        | NO   | PRI | NULL    |       |
| nama   | varchar(45)    | NO   |     | NULL    |       |
| alamat | varchar(225)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.06 sec)
```

```
MariaDB [university]> describe mahasiswa_has_matkul;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIMFK  | int(11)        | NO   | PRI | NULL    |       |
| id_mkFK | int(11)       | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.03 sec)
```

```
MariaDB [university]> describe matkul;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_mk  | int(11)        | NO   | PRI | NULL    |       |
| nama_mk | varchar(25)    | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.09 sec)
```

```
MariaDB [university]> describe ruang_kelas;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_ruangan | int(10)      | NO   | PRI | NULL    |       |
| nama_ruangan | varchar(25)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)
```

```
MariaDB [university]> _
```