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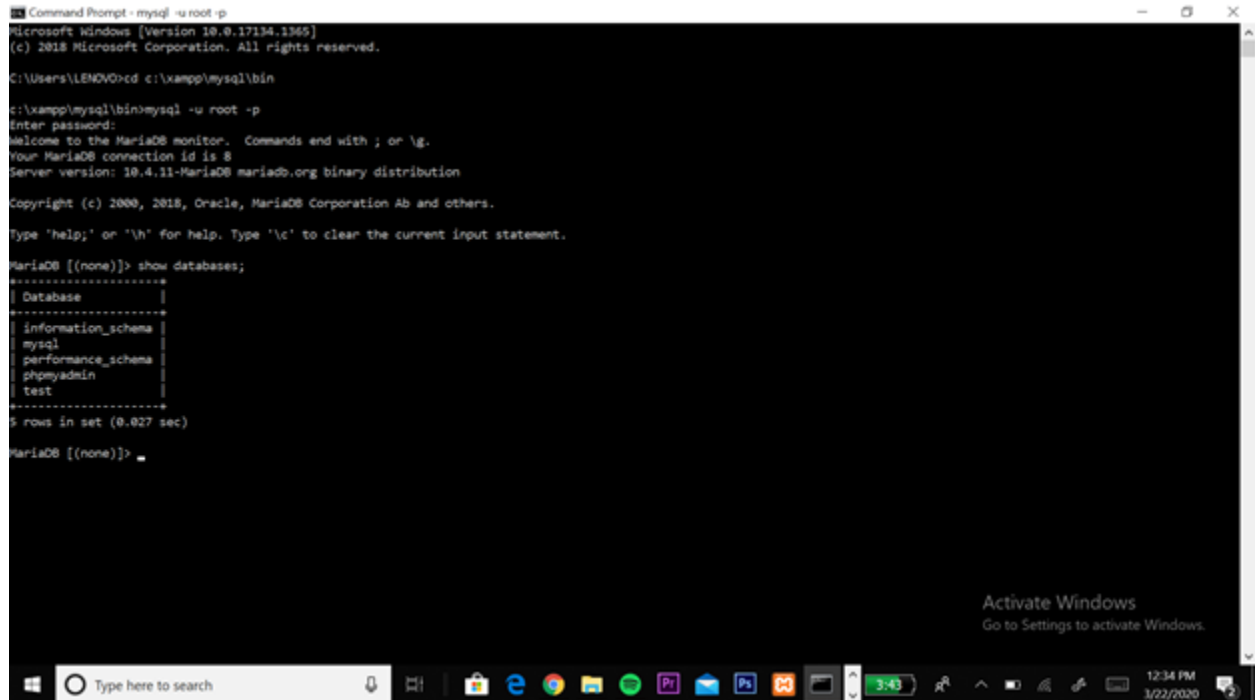
NIM : L200180083

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MODUL 4

Latihan

1. masuk ke direktori c:\xampp\mysql\bin lalu masuk sebagai admin (mysql -u -p)



```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.1365]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>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)]> show databases;
+-----+
| Database |
+-----+
| information_schema |
| mysql      |
| performance_schema |
| phpmyadmin  |
| test       |
+-----+
5 rows in set (0.027 sec)

MariaDB [(none)]>
```

Activate Windows
Go to Settings to activate Windows.

Type here to search

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2. membuat data base perbanka dan menghubungkannya

```
Select Command Prompt - mysql -u root -p

MariaDB [(none)]> create database perbankan;
Query OK, 1 row affected (0.168 sec)

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> show tables;
Empty set (0.001 sec)

MariaDB [perbankan]> create table nasabah(
  -> id_nasabah INTEGER PRIMARY KEY,
  -> nama_nasabah VARCHAR(45) NOT NULL,
  -> alamat_nasabah VARCHAR(225) NOT NULL
  -> );
Query OK, 0 rows affected (0.265 sec)

MariaDB [perbankan]> create table cabang_bank(
  -> kode_cabang VARCHAR(20) PRIMARY KEY,
  -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
  -> alamat_cabang VARCHAR(225) NOT NULL
  -> );
Query OK, 0 rows affected (0.450 sec)

MariaDB [perbankan]> create table rekening(
  -> no_rekening INTEGER PRIMARY KEY,
  -> kode_cabangFK VARCHAR(20) REFERENCE cabang_bank(kode_cabang)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
  -> saldo INTEGER DEFAULT 0 NOT NULL
  -> );
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 'cabang_bank(kod
e_cabang)
ON DELETE CASCADE ON UPDATE CASCADE,
pin VARCHAR(20) DE' at line 3
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 (0.399 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 SET NULL ON UPDATE CASCADE,
  -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
  -> );
Query OK, 0 rows affected (0.399 sec)
```

3. membuat table nasabah, rekening, transaksi, cabang bank dan (karena m:n ada tambahan table nasabah_has_rekening)

```
Command Prompt - mysql -u root -p

MariaDB [perbankan]> create table nasabah(
  -> id_nasabah INTEGER PRIMARY KEY,
  -> nama_nasabah VARCHAR(45) NOT NULL,
  -> alamat_nasabah VARCHAR(225) NOT NULL
  -> );
Query OK, 0 rows affected (0.265 sec)

MariaDB [perbankan]> create table cabang_bank(
  -> kode_cabang VARCHAR(20) PRIMARY KEY,
  -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
  -> alamat_cabang VARCHAR(225) NOT NULL
  -> );
Query OK, 0 rows affected (0.450 sec)

MariaDB [perbankan]> create table rekening(
  -> no_rekening INTEGER PRIMARY KEY,
  -> kode_cabangFK VARCHAR(20) REFERENCE cabang_bank(kode_cabang)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
  -> saldo INTEGER DEFAULT 0 NOT NULL
  -> );
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 'cabang_bank(kod
e_cabang)
ON DELETE CASCADE ON UPDATE CASCADE,
pin VARCHAR(20) DE' at line 3
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 (0.399 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 SET NULL ON UPDATE CASCADE,
  -> jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL,
  -> );
Query OK, 0 rows affected (0.399 sec)
```

```
Command Prompt - mysql -u root -p
MariaDB [perbankan]> create table rekening(
  -> no_rekening INTEGER PRIMARY KEY,
  -> kode_cabangFK VARCHAR(20) REFERENCE cabang_bank(kode_cabang)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> pin VARCHAR(20) DEFAULT '1234' NOT NULL,
  -> saldo INTEGER DEFAULT 0 NOT NULL
  -> );
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 'cabang_bank(kod
e_cabang)
ON DELETE CASCADE ON UPDATE CASCADE,
pin VARCHAR(20) DE' at line 3
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 (0.399 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 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 (0.279 sec)

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 (0.386 sec)
```

4. menampilkan table pada database perbankan dan melihat struktur table nasabah

```
Command Prompt - mysql -u root -p
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(225)  | NO   |     | NULL    |       |
+-----+
3 rows in set (0.031 sec)

MariaDB [perbankan]>
```

Tugas

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

```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.1365]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\LENOVO>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 9
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)]> create database perpustakaan;
Query OK, 1 row affected (0.003 sec)

MariaDB [(none)]> use perpustakaan;
Database changed
MariaDB [perpustakaan]> create table mahasiswa(
  -> nim integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.407 sec)

MariaDB [perpustakaan]> create table pegawai(
  -> nip integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.369 sec)

MariaDB [perpustakaan]> create table buku(
  -> id integer primary key,
  -> judul varchar(25) not null,
  -> jumlah integer not null
  -> );
Query OK, 0 rows affected (0.357 sec)
```

2. lalu buat tabel mahasiswa,pegawai,buku,supplier,mahasiswa_has_pegawai

```
Command Prompt - mysql -u root -p
MariaDB [(none)]> use perpustakaan;
Database changed
MariaDB [perpustakaan]> create table mahasiswa(
  -> nim integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.407 sec)

MariaDB [perpustakaan]> create table pegawai(
  -> nip integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.369 sec)

MariaDB [perpustakaan]> create table buku(
  -> id integer primary key,
  -> judul varchar(25) not null,
  -> jumlah integer not null
  -> );
Query OK, 0 rows affected (0.357 sec)

MariaDB [perpustakaan]> create table supplier(
  -> id integer primary key,
  -> judulbuku varchar(25) not null,
  -> jumlahbuku integer not null
  -> );
Query OK, 0 rows affected (0.381 sec)

MariaDB [perpustakaan]> create table mahasiswa_has_pegawai(
  -> nimFK integer references mahasiswa(nim)
  -> on delete cascade on update cascade,
  -> nipFK integer references pegawai(nip)
  -> on delete cascade on update cascade,
  -> primary key(nimFK,nipFK)
  -> );
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 'pegawai(nip) on delete cascade on update cascade, primary key(nimFK,nipFK) )' at line 4
```

```
Command Prompt - mysql -u root -p

MariaDB [perpustakaan]> create table pegawai(
  -> nip integer primary key,
  -> nama varchar(45) not null,
  -> alamat varchar(225) not null
  -> );
Query OK, 0 rows affected (0.369 sec)

MariaDB [perpustakaan]> create table buku(
  -> id integer primary key,
  -> judul varchar(25) not null,
  -> jumlah integer not null
  -> );
Query OK, 0 rows affected (0.357 sec)

MariaDB [perpustakaan]> create table supplier(
  -> id integer primary key,
  -> judulbuku varchar(25) not null,
  -> jumlahbuku integer not null
  -> );
Query OK, 0 rows affected (0.381 sec)

MariaDB [perpustakaan]> create table mahasiswa_has_pegawai(
  -> nimFK integer references mahasiswa(nim)
  -> on delete cascade on update cascade,
  -> nipFK integer references pegawai(nip)
  -> on delete cascade on update cascade,
  -> primary key(nimFK,nipFK)
  -> );
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 'pegawai(nip)
on delete cascade on update cascade,
primary key(nimFK,nipFK)
)' at line 4
MariaDB [perpustakaan]> create table mahasiswa_has_pegawai(
  -> nimFK integer references mahasiswa(nim)
  -> on delete cascade on update cascade,
  -> nipFK integer references pegawai(nip)
  -> on delete cascade on update cascade,
  -> primary key(nimFK,nipFK)
  -> );
Query OK, 0 rows affected (0.375 sec)
```

3. setelah itu tampilkan tabel database perpustakaan

```
MariaDB [perpustakaan]> show tables;
+-----+
| Tables_in_perpustakaan |
+-----+
| buku                    |
| mahasiswa               |
| mahasiswa_has_pegawai  |
| pegawai                 |
| supplier                |
+-----+
5 rows in set (0.001 sec)
```

4. tampilkan struktur tabel perpustakaan

```
MariaDB [perpustakaan]> describe pegawai;
```

| 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 (0.156 sec)

```
MariaDB [perpustakaan]> 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 (0.145 sec)