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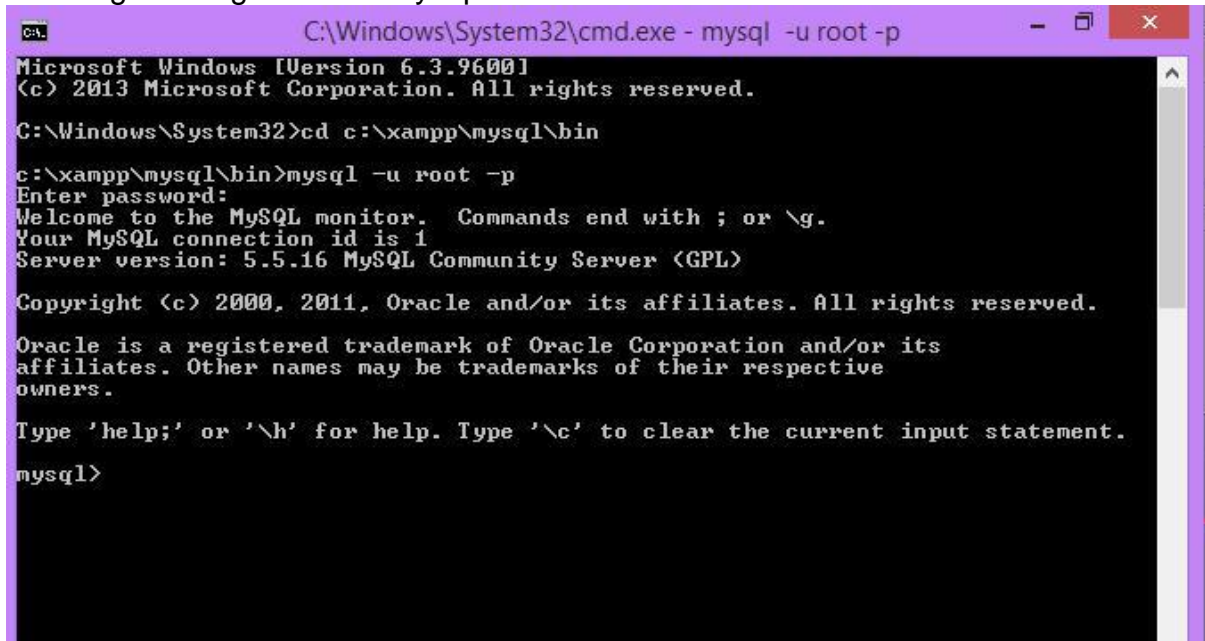
NIM : L200180081

## MODUL 4

### Data Definition Language (DDL)

Latihan

1. Login sebagai root ke MySql



```
C:\Windows\System32\cmd.exe - mysql -u root -p
Microsoft Windows [Version 6.3.9600]
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C:\Windows\System32>cd c:\xampp\mysql\bin

c:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.16 MySQL Community Server (GPL)

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Oracle is a registered trademark of Oracle Corporation and/or its
affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

2. Membuat table nasabah, cabang\_bank, rekening, transaksi dan nasabah\_has\_rekening

```
mysql> create table nasabah(
-> id_nasabah INTEGER PRIMARY KEY,
-> nama_nasabah VARCHAR(30) NOT NULL,
-> alamat_nasabah VARCHAR(100) NOT NULL);
Query OK, 0 rows affected (0.22 sec)

mysql> create table cabang_bank(
-> kode_cabang VARCHAR(10) PRIMARY KEY,
-> nama_cabang VARCHAR(40) UNIQUE NOT NULL,
-> alamat_cabang VARCHAR(225) NOT NULL);
Query OK, 0 rows affected (0.16 sec)

mysql> 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 (0.16 sec)

mysql> 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,
-> jumlah INTEGER NOT NULL CHECK(jumlah>=20000)
-> );
Query OK, 0 rows affected (0.19 sec)

mysql> 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 (0.19 sec)
```

3. Melihat table yang selesai dibuat

```
mysql> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+-----+
5 rows in set (0.00 sec)
```

4. Melihat struktur tiap table dengan perintah describe

```
mysql> describe nasabah;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_nasabah | int(11)   | NO   | PRI | NULL    |       |
| nama_nasabah | varchar(30) | NO   |     | NULL    |       |
| alamat_nasabah | varchar(100) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

## Tugas

1. Login sebagai root ke MySql, lalu membuat database data\_kuliah dan menghubungkan database dengan perintah 'use nama\_database'

```
Microsoft Windows [Version 6.3.9600]
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C:\Windows\System32>cd c:\xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 1
Server version: 5.5.16 MySQL Community Server (GPL)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> create database data_kuliah;
Query OK, 1 row affected (0.00 sec)

mysql> use data_kuliah;
```

## 2. Membuat table mahasiswa, dosen, mata\_kuliah dan ruang\_kelas

```
C:\Windows\system32\cmd.exe - mysql -u root -p

mysql> use data_kuliah;
Database changed
mysql> create table mahasiswa(
  -> NIM VARCHAR(10) PRIMARY KEY,
  -> nama_mhs VARCHAR(45) NOT NULL,
  -> jurusan VARCHAR(30) NOT NULL,
  -> alamat_mhs VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.14 sec)

mysql> create table dosen(
  -> NIDN integer primary key,
  -> nama_dosen varchar(45) not null,
  -> alamat_dosen varchar(255) not null
  -> );
Query OK, 0 rows affected (0.13 sec)

mysql> create table mata_kuliah(
  -> kode_matkul varchar(6) primary key,
  -> nama_matkul varchar(30) not null,
  -> jml_sks integer not null
  -> );
Query OK, 0 rows affected (0.13 sec)

mysql> create table(
  -> );
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MySQL server version for the right syntax to use near '(
)' at line 1
mysql> create table ruang_kelas(
  -> id_kelas varchar(6) primary key,
  -> kapasitas integer not null
  -> );
Query OK, 0 rows affected (0.13 sec)

mysql>
```

### 3. Melihat table yang selesai dibuat dan melihat struktur tiap tabel

```
C:\Windows\system32\cmd.exe - mysql -u root -p

mysql> show tables;
+-----+
| Tables_in_data_kuliah |
+-----+
| dosen                  |
| mahasiswa              |
| mata_kuliah            |
| ruang_kelas            |
+-----+
4 rows in set (0.00 sec)

mysql> describe mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM        | varchar(10)   | NO   | PRI | NULL    |       |
| nama_mhs   | varchar(45)   | NO   |     | NULL    |       |
| jurusan    | varchar(30)   | NO   |     | NULL    |       |
| alamat_mhs | varchar(255)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.09 sec)

mysql> describe dosen;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIDN       | int(11)       | NO   | PRI | NULL    |       |
| nama_dosen | varchar(45)   | NO   |     | NULL    |       |
| alamat_dosen | varchar(255) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> describe mata_kuliah;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_matkul | varchar(6)    | NO   | PRI | NULL    |       |
| nama_matkul | varchar(30)   | NO   |     | NULL    |       |
| jml_sks     | int(11)       | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> describe ruang_kelas;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_kelas   | varchar(6)    | NO   | PRI | NULL    |       |
| kapasitas  | int(11)       | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.08 sec)

mysql>
```