NAMA   : BAITY JANNATIKA

NIM   : L200180211

KELAS   : H / PRAKTIKUM SISTEM BASIS DATA

MODUL 4

DATA DEFINITION LANGUAGE (DDL)

KEGIATAN MODUL (PERBANKAN)

```
MariaDB [(none)]> CREATE TABLE nasabah(
    -> id_nasabah INTEGER PRIMARY KEY,
    -> nama_nasabah VARCHAR(45) NOT NULL,
    -> alamat_nasabah VARCHAR(255) NOT NULL);
ERROR 1046 (3D000): No database selected
MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah(
    ->      -> id_nasabah INTEGER PRIMARY KEY,
    ->      -> nama_nasabah VARCHAR(45) NOT NULL,
    ->
    -> ;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server versi
on for the right syntax to use near '-> id_nasabah INTEGER PRIMARY KEY,
    -> nama_nasabah VARCHAR(45) NOT NULL,' at line 2
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 (0.389 sec)

MariaDB [perbankan]> CREATE TABLE cabang_bank(
    -> kode_bank VARCHAR(20) PRIMARY KEY,
    -> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
    -> alamat_cabang VARCHAR(255) NOT NULL
    -> );
Query OK, 0 rows affected (0.290 sec)
```

```
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 (0.280 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 (0.295 sec)
```

```
Command Prompt - mysql  -u root -p                                          —  □  ×

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 (0.285 sec)

MariaDB [perbankan]> show tables;
+----------------------+
| Tables_in_perbankan  |
+----------------------+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+----------------------+
5 rows in set (0.003 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 (0.044 sec)
```

```
Command Prompt - mysql  -u root -p                                          —  □  ×

MariaDB [perbankan]> describe cabang_bank;
+---------------+--------------+------+-----+---------+-------+
| Field         | Type         | Null | Key | Default | Extra |
+---------------+--------------+------+-----+---------+-------+
| kode_bank     | varchar(20)  | NO   | PRI | NULL    |       |
| nama_cabang   | varchar(45)  | NO   | UNI | NULL    |       |
| alamat_cabang | varchar(255) | NO   |     | NULL    |       |
+---------------+--------------+------+-----+---------+-------+
3 rows in set (0.022 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 (0.019 sec)
```

```
Command Prompt - mysql  -u root -p                                          —  □  ×

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 (0.021 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 (0.021 sec)

MariaDB [perbankan]>
```

TUGAS MODUL (KULIAH)

```
Command Prompt - mysql -u root -p                                         —    □    ×

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 45
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              |
| perbankan          |
| performance_schema |
| phpmyadmin         |
| test               |
+--------------------+
6 rows in set (0.283 sec)

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

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

```
Command Prompt - mysql -u root -p                                        —    □    ×

MariaDB [kuliah]> CREATE TABLE mahasiswa(
    -> nim INTEGER PRIMARY KEY,
    -> nama_mhs VARCHAR(45) NOT NULL,
    -> alamat_mhs VARCHAR(255) NOT NULL,
    -> notlp_mhs INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.424 sec)

MariaDB [kuliah]> CREATE TABLE dosen(
    -> nik INTEGER PRIMARY KEY,
    -> nama_dsn VARCHAR(45) NOT NULL,
    -> alamat_dsn VARCHAR(255) NOT NULL,
    -> jabatan_dsn VARCHAR(45) NOT NULL,
    -> notlp_dsn INTEGER DEFAULT 0 NOT NULL,
    -> gaji_dsn INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.348 sec)

MariaDB [kuliah]> CREATE TABLE matakuliah(
    -> kode_mk INTEGER PRIMARY KEY,
    -> nama_mk VARCHAR(45) NOT NULL,
    -> sks INTEGER DEFAULT 0 NOT NULL
    -> );
Query OK, 0 rows affected (0.342 sec)
```

```
Command Prompt - mysql -u root -p                                                — □ ×

MariaDB [kuliah]> CREATE TABLE ruangkelas(
    -> kode_rk VARCHAR(20) PRIMARY KEY,
    -> nama_rk VARCHAR(45) NOT NULL,
    -> letak_rk VARCHAR(45) NOT NULL
    -> );
Query OK, 0 rows affected (0.321 sec)

MariaDB [kuliah]> CREATE TABLE mahasiswa_diajar_dosen(
    -> nimFK INTEGER REFERENCES mahasiswa(nim)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> nikFK INTEGER REFERENCES dosen(nik)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(nimFK, nikFK)
    -> );
Query OK, 0 rows affected (0.642 sec)

MariaDB [kuliah]> CREATE TABLE mahasiswa_mengambil_matakuliah(
    -> nimFK INTEGER REFERENCES mahasiswa(nim)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> kode_mkFK INTEGER REFERENCES matakuliah(kode_mk)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(nimFK, kode_mkFK)
    -> );
Query OK, 0 rows affected (0.802 sec)
```

```
Command Prompt - mysql -u root -p                                                — □ ×

MariaDB [kuliah]> CREATE TABLE dosen_mengampu_matakuliah(
    -> nikFK INTEGER REFERENCES dosen(nik)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> kode_mkFK INTEGER REFERENCES matakuliah(kode_mk)
    -> ON DELETE CASCADE ON UPDATE CASCADE,
    -> PRIMARY KEY(nikFK, kode_mkFK)
    -> );
Query OK, 0 rows affected (0.499 sec)

MariaDB [kuliah]> show tables;
+-------------------------------+
| Tables_in_kuliah              |
+-------------------------------+
| dosen                         |
| dosen_mengampu_matakuliah     |
| mahasiswa                     |
| mahasiswa_diajar_dosen        |
| mahasiswa_mengambil_matakuliah|
| matakuliah                    |
| ruangkelas                    |
+-------------------------------+
7 rows in set (0.003 sec)
```

```
Command Prompt - mysql -u root -p                                                — □ ×

MariaDB [kuliah]> describe mahasiswa;
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| nim        | int(11)      | NO   | PRI | NULL    |       |
| nama_mhs   | varchar(45)  | NO   |     | NULL    |       |
| alamat_mhs | varchar(255) | NO   |     | NULL    |       |
| notlp_mhs  | int(11)      | NO   |     | 0       |       |
+------------+--------------+------+-----+---------+-------+
4 rows in set (0.021 sec)

MariaDB [kuliah]> describe dosen;
+------------+--------------+------+-----+---------+-------+
| Field      | Type         | Null | Key | Default | Extra |
+------------+--------------+------+-----+---------+-------+
| nik        | int(11)      | NO   | PRI | NULL    |       |
| nama_dsn   | varchar(45)  | NO   |     | NULL    |       |
| alamat_dsn | varchar(255) | NO   |     | NULL    |       |
| jabatan_dsn| varchar(45)  | NO   |     | NULL    |       |
| notlp_dsn  | int(11)      | NO   |     | 0       |       |
| gaji_dsn   | int(11)      | NO   |     | 0       |       |
+------------+--------------+------+-----+---------+-------+
6 rows in set (0.021 sec)
```

```
Command Prompt - mysql -u root -p                                             — □ ×

MariaDB [kuliah]> describe matakuliah;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| kode_mk | int(11)     | NO   | PRI | NULL    |       |
| nama_mk | varchar(45) | NO   |     | NULL    |       |
| sks     | int(11)     | NO   |     | 0       |       |
+---------+-------------+------+-----+---------+-------+
3 rows in set (0.021 sec)

MariaDB [kuliah]> describe ruangkelas;
+---------+-------------+------+-----+---------+-------+
| Field   | Type        | Null | Key | Default | Extra |
+---------+-------------+------+-----+---------+-------+
| kode_rk | varchar(20) | NO   | PRI | NULL    |       |
| nama_rk | varchar(45) | NO   |     | NULL    |       |
| letak_rk| varchar(45) | NO   |     | NULL    |       |
+---------+-------------+------+-----+---------+-------+
3 rows in set (0.024 sec)

MariaDB [kuliah]> describe mahasiswa_diajar_dosen;
+-------+---------+------+-----+---------+-------+
| Field | Type    | Null | Key | Default | Extra |
+-------+---------+------+-----+---------+-------+
| nimFK | int(11) | NO   | PRI | NULL    |       |
| nikFK | int(11) | NO   | PRI | NULL    |       |
+-------+---------+------+-----+---------+-------+
2 rows in set (0.020 sec)
```

```
Command Prompt - mysql -u root -p                                             — □ ×

MariaDB [kuliah]> describe mahasiswa_mengambil_matakuliah;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| nimFK    | int(11) | NO   | PRI | NULL    |       |
| kode_mkFK| int(11) | NO   | PRI | NULL    |       |
+----------+---------+------+-----+---------+-------+
2 rows in set (0.296 sec)
```

```
Command Prompt - mysql -u root -p                                             — □ ×

MariaDB [kuliah]> describe dosen_mengampu_matakuliah;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| nikFK    | int(11) | NO   | PRI | NULL    |       |
| kode_mkFK| int(11) | NO   | PRI | NULL    |       |
+----------+---------+------+-----+---------+-------+
2 rows in set (0.032 sec)
```