

# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 4

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Kelas : B

### Latihan :

```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.18363.719]
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C:\Users\Win 10>cd..
C:\Users>cd..
C:\Users>cd xampp
C:\xampp>cd mysql
C:\xampp>cd bin
C:\xampp>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)]> create database perbankan;
-> use perbankan;
->
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 'use perbankan' at line 2
MariaDB [(none)]> create database perbankan;
Query OK, 1 row affected (0.007 sec)

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah(
-> id_nasabah INTEGER PRIMARY KEY,
-> nama_nasabah VARCHAR(45) NOT FULL,
-> alamat_nasabah VARCHAR(255) NOT FULL
-> );
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 'FULL,
alamat_nasabah VARCHAR(255) NOT FULL
)' at line 3
MariaDB [perbankan]> CREATE TABLE nasabah (
-> id_nasabah INTEGER PRIMARY KEY,
-> nama_nasabah VARCHAR(45) NOT FULL,
-> alamat_nasabah VARCHAR(255) 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 'FULL,' at line 3
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 (0.029 sec)

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
-> );
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 'NULL
)' at line 4
MariaDB [perbankan]> CREATE TABLE cabang_bank (
-> kode_cabang VARCHAR(20) PRIMARY KEY,
-> nama_cabang VARCHAR(45) UNIQUE NOT NULL,
```

```
Command Prompt - mysql -u root -p
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 'FULL,' at line 3
MariaDB [perbankan]> CREATE TABLE nasabah (
-> id_nasabah INTEGER PRIMARY KEY,
-> nama_nasabah VARCHAR(45) UNIQUE NOT NULL,
-> alamat_nasabah VARCHAR(255) NOT NULL
-> );
Query OK, 0 rows affected (0.029 sec)

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
-> );
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 'NULL
)' at line 4
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 (0.033 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 (0.037 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>=0)
-> );
Query OK, 0 rows affected (0.030 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 (0.030 sec)

MariaDB [perbankan]> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+-----+
5 rows in set (0.001 sec)
```

```
Command Prompt - mysql -u root -p
transaksi
+-----+
| 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 (0.030 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 (0.025 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 (0.022 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   |     | NULL    |       |
| tanggal             | datetime            | NO   |     | current_timestamp() |
| jumlah               | int(11)             | NO   |     | NULL    |       |
+-----+
6 rows in set (0.026 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 (0.022 sec)

MariaDB [perbankan]>
```

# Tugas :

```
Command Prompt: mysql -u root -p
Microsoft Windows [Version 10.0.18363.710]
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C:\Users\Win 10>cd..
C:\Users>cd..
C:\>cd xampp
C:\xampp>cd mysql
C:\xampp\mysql>cd 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 perkuliahan
->
Query OK, 1 row affected (0.002 sec)

MariaDB [(none)]> use perkuliahan;
Database changed
MariaDB [perkuliahan]> CREATE TABLE mahasiswa (
->   nim VARCHAR(10) PRIMARY KEY,
->   nama_mahasiswa VARCHAR(45) NOT NULL,
->   alamat_mahasiswa VARCHAR(255) 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 ');' at line 5
MariaDB [perkuliahan]> CREATE TABLE mahasiswa (
->   nim VARCHAR(10) PRIMARY KEY,
->   nama_mahasiswa VARCHAR(45) NOT NULL,
->   alamat_mahasiswa VARCHAR(255) 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 ');' at line 5
MariaDB [perkuliahan]> \g
MariaDB [perkuliahan]> CREATE TABLE mahasiswa (
->   nim VARCHAR(10) PRIMARY KEY,
->   nama_mahasiswa VARCHAR(45) NOT NULL,
->   alamat_mahasiswa VARCHAR(255) NOT NULL,
-> );
Query OK, 0 rows affected (0.033 sec)

MariaDB [perkuliahan]> CREATE TABLE dosen (
->   id_dosen VARCHAR(10) PRIMARY KEY,
->   nama_dosen VARCHAR 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 'NOT NULL,' at line 3
MariaDB [perkuliahan]> CREATE TABLE dosen (
->   id_dosen VARCHAR(10) PRIMARY KEY,
->   nama_dosen VARCHAR(45) NOT NULL,
->   alamat_dosen VARCHAR(255) NOT NULL,
-> );
Query OK, 0 rows affected (0.031 sec)

MariaDB [perkuliahan]> CREATE TABLE mata_kuliah (
->   nama_matakul VARCHAR(100) PRIMARY KEY,
```

```
Command Prompt: mysql -u root -p
-> nama_matakul VARCHAR(100),
-> );
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 2
MariaDB [perkuliahan]> CREATE TABLE mata_kuliah (
->   nama_matakul VARCHAR(100) NOT NULL,
->   tipe_matakul VARCHAR(100) NOT NULL,
->   jumlah_sks INTEGER NOT NULL,
->   kode_matakul VARCHAR(10) PRIMARY KEY,
-> );
Query OK, 0 rows affected (0.032 sec)

MariaDB [perkuliahan]> CREATE TABLE ruang_kelas (
->   kode_kelas VARCHAR(10) PRIMARY KEY,
->   lokasi_kelas VARCHAR(100) NOT NULL,
->   jumlah_daya_tampung_kelas INTEGER NOT NULL,
-> );
Query OK, 0 rows affected (0.033 sec)

MariaDB [perkuliahan]> describe mahasiswa
->
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| nim | varchar(10) | NO | PRI | NULL | |
| nama_mahasiswa | varchar(45) | NO | | NULL | |
| alamat_mahasiswa | varchar(255) | NO | | NULL | |
+----+-----+-----+-----+-----+-----+
3 rows in set (0.042 sec)

MariaDB [perkuliahan]> describe dosen
->
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| id_dosen | varchar(10) | NO | PRI | NULL | |
| nama_dosen | varchar(45) | NO | | NULL | |
| alamat_dosen | varchar(255) | NO | | NULL | |
+----+-----+-----+-----+-----+-----+
3 rows in set (0.026 sec)

MariaDB [perkuliahan]> describe mata_kuliah;
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| nama_matakul | varchar(100) | NO | | NULL | |
| tipe_matakul | varchar(100) | NO | | NULL | |
| jumlah_sks | int(11) | NO | | NULL | |
| kode_matakul | varchar(10) | NO | PRI | NULL | |
+----+-----+-----+-----+-----+-----+
4 rows in set (0.021 sec)

MariaDB [perkuliahan]> describe ruang_kelas
->
+----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+----+-----+-----+-----+-----+-----+
| kode_kelas | varchar(10) | NO | PRI | NULL | |
| lokasi_kelas | varchar(100) | NO | | NULL | |
| jumlah_daya_tampung_kelas | int(11) | NO | | NULL | |
+----+-----+-----+-----+-----+-----+
3 rows in set (0.023 sec)

MariaDB [perkuliahan]>
```