

Praktikum Sistem Basis Data

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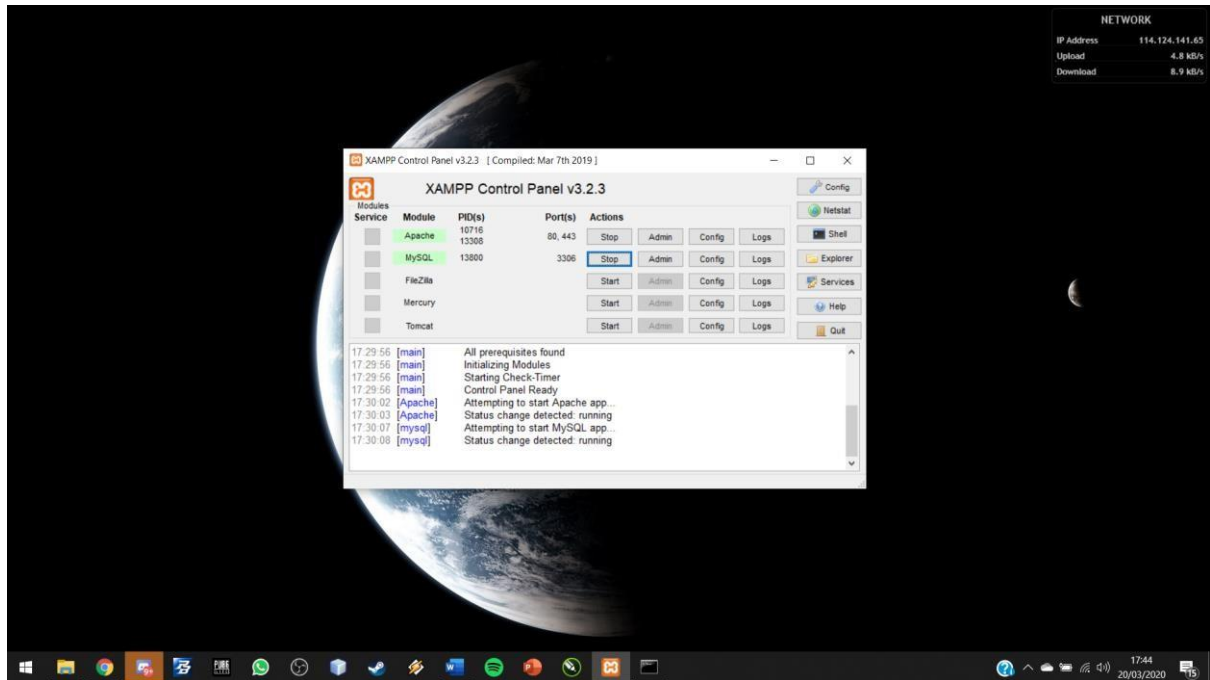
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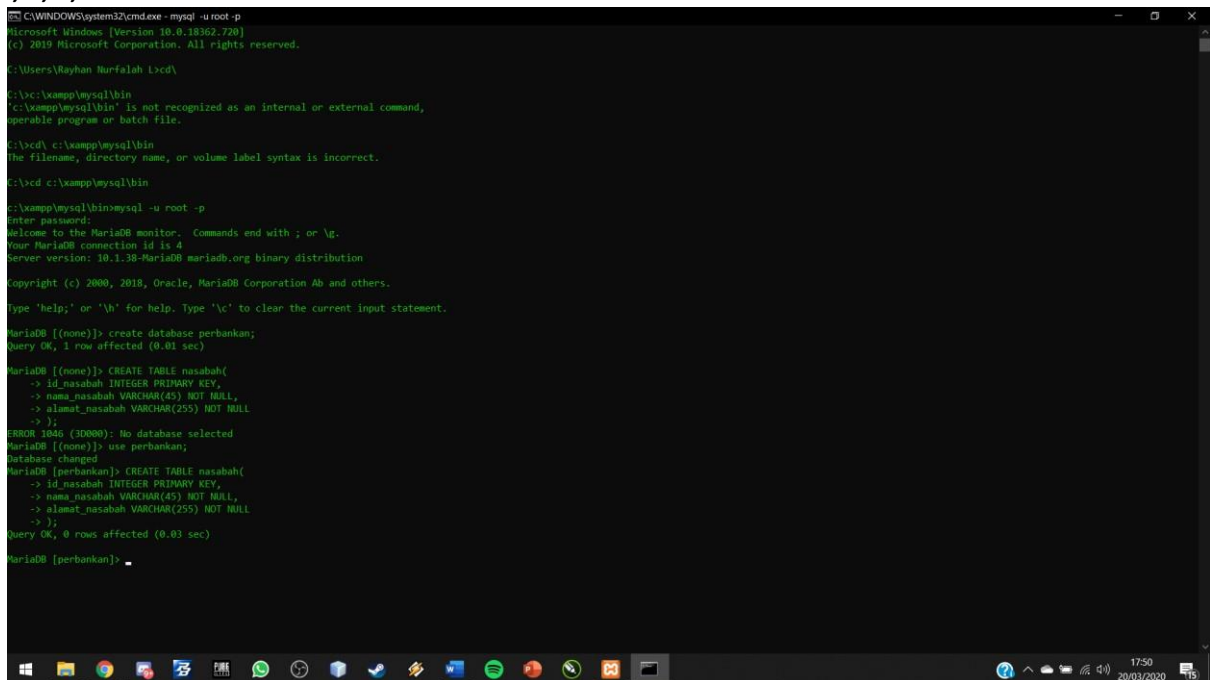
Modul 4

Langkah-langkah Praktikum

1, dan 2.



3, 4, 5, dan 6.



7, 8, 9, dan 10.

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p
-> );
Query OK, 0 rows affected (0.03 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
  -> );
Query OK, 0 rows affected (0.03 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 (0.03 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 (0.03 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 (0.03 sec)

MariaDB [perbankan]>
```

11 dan 12.

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p
-> PRIMARY KEY(id_nasabahFK, no_rekeningFK)
-> );
Query OK, 0 rows affected (0.03 sec)

MariaDB [perbankan]> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi             |
+-----+
3 rows in set (0.00 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 (0.02 sec)

MariaDB [perbankan]>
```

Tugas

Membuat database kuliah

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

Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 2
Server version: 10.1.38-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 kuliah;
Query OK, 1 row affected (0.01 sec)

MariaDB [(none)]> use kuliah;
Database changed
MariaDB [kuliah]> create table mahasiswa (
  -> nim INTEGER PRIMARY KEY,
  -> nama VARCHAR(45) NOT NULL,
  -> alamat VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.06 sec)

MariaDB [kuliah]> drop database kuliah
  -> ;
Query OK, 1 row affected (0.06 sec)

MariaDB [(none)]> create database kuliah;
Query OK, 1 row affected (0.01 sec)

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

Membuat table mahasiswa, dosen, mata_kuliah, ruang_kelas

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

Database changed
MariaDB [kuliah]> create table mahasiswa (
  -> nim INTEGER PRIMARY KEY,
  -> nama VARCHAR(45) NOT NULL,
  -> alamat VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.06 sec)

MariaDB [kuliah]> drop database kuliah
  -> ;
Query OK, 1 row affected (0.06 sec)

MariaDB [(none)]> create database kuliah;
Query OK, 1 row affected (0.01 sec)

MariaDB [(none)]> use kuliah;
Database changed
MariaDB [kuliah]> create table mahasiswa (
  -> nim_mhs INTEGER PRIMARY KEY,
  -> nama_mhs VARCHAR(45) NOT NULL,
  -> alamat_mhs VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.03 sec)

MariaDB [kuliah]> create table dosen (
  -> nip_dosen INTEGER PRIMARY KEY,
  -> nama_dosen VARCHAR(45) NOT NULL,
  -> alamat_dosen VARCHAR(255) NOT NULL
  -> );
Query OK, 0 rows affected (0.03 sec)
```

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

MariaDB [kuliah]> create table mata_kuliah (
  -> id_mk INTEGER PRIMARY KEY,
  -> nama_mk VARCHAR(25) NOT NULL
  -> );
Query OK, 0 rows affected (0.03 sec)

MariaDB [kuliah]> create table ruang_kelas (
  -> id_ruangan INTEGER PRIMARY KEY,
  -> nama_ruangan VARCHAR(25) NOT NULL
  -> );
Query OK, 0 rows affected (0.03 sec)

MariaDB [kuliah]> create table mahasiswa_has_dosen (
  -> nim_mhsFK INTEGER REFERENCES mahasiswa(nim_mhs)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> nip_dosenFK INTEGER REFERENCES dosen(nip_dosen)
  -> ON DELETE CASCADE ON UPDATE CASCADE
  -> );
Query OK, 0 rows affected (0.03 sec)

MariaDB [kuliah]> create table mahasiswa_has_mata_kuliah (
  -> nim_mhsFK INTEGER REFERENCES mahasiswa(nim_mhs)
  -> ON DELETE CASCADE ON UPDATE CASCADE,
  -> id_mkFK INTEGER REFERENCES mata_kuliah(id_mk)
  -> ON DELETE CASCADE ON UPDATE CASCADE
  -> ,
  -> PRIMARY KEY(nim_mhsFK,id_mkFK)
```

Show semua table yang ada pada database kuliah

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

Query OK, 0 rows affected (0.03 sec)

MariaDB [kuliah]> show tables;
+-----+
| Tables_in_kuliah |
+-----+
| dosen              |
| mahasiswa           |
| mahasiswa_has_dosen |
| mahasiswa_has_mata_kuliah |
| mata_kuliah         |
| ruang_kelas         |
+-----+
6 rows in set (0.00 sec)

MariaDB [kuliah]> describe mahasiswa;
+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+
| nim_mhs    | int(11)       | NO   | PRI | NULL    |       |
| nama_mhs   | varchar(45)   | NO   |     | NULL    |       |
| alamat_mhs | varchar(255)  | NO   |     | NULL    |       |
+-----+
3 rows in set (0.03 sec)

MariaDB [kuliah]> describe dosen;
+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+
| nip_dosen  | int(11)       | NO   | PRI | NULL    |       |
```

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

MariaDB [kuliah]> describe dosen;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip_dosen  | int(11)   | NO   | PRI | NULL    |       |
| nama_dosen | varchar(45)| NO   |     | NULL    |       |
| alamat_dosen | varchar(255)| NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.02 sec)

MariaDB [kuliah]> describe mata_kuliah;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_mk      | int(11)   | NO   | PRI | NULL    |       |
| nama_mk    | varchar(25)| NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

MariaDB [kuliah]> describe ruang_kelas;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_ruangan | int(11)   | NO   | PRI | NULL    |       |
| nama_ruangan | varchar(25)| NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

MariaDB [kuliah]> describe mahasiswa_has_dosen;
```

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

+-----+-----+-----+-----+-----+-----+
| id_ruangan | int(11)   | NO   | PRI | NULL    |       |
| nama_ruangan | varchar(25)| NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

MariaDB [kuliah]> describe mahasiswa_has_dosen;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim_mhsFK  | int(11)   | YES  |     | NULL    |       |
| nip_dosenFK | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

MariaDB [kuliah]> describe mahasiswa_has_mata_kuliah;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim_mhsFK  | int(11)   | NO   | PRI | NULL    |       |
| id_mkFK    | int(11)   | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.02 sec)

MariaDB [kuliah]> _
```