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Praktikum Sistem Basis Data Modul ke 4

1. Praktikum

```
MariaDB [(none)]> create database perbankan;  
Query OK, 1 row affected (0.013 sec)
```

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

```
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 (0.332 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 (0.390 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 (0.305 sec)
```

```
MariaDB [perbankan]> create table transaksi(  
-> no_transaksi SERIAL PRIMARY KEY,  
-> 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,  
-> 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 (0.412 sec)
```

```

MariaDB [perbankan]> create table transaksi(
-> no_transaksi SERIAL PRIMARY KEY,
-> 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,
-> 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 (0.412 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 (0.346 sec)

```

MariaDB [perbankan]> show tables;

```

```

+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank         |
| nasabah             |
| nasabah_has_rekening |
| rekening            |
| transaksi           |
+-----+

```

5 rows in set (0.002 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 (0.039 sec)

2. Tugas

```
C:\Windows\system32\cmd.exe - mysql -u root -p
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\fix>cd\

C:\>C:\xampp\mysql\bin
'C:\xampp\mysql\bin' is not recognized as an internal or external command,
operable program or batch file.

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 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 datakuliah;
Query OK, 1 row affected (0.072 sec)

MariaDB [(none)]> use datakuliah;
Database changed
MariaDB [datakuliah]> create table mahasiswa(
-> NIM_mhs VARCHAR(20) PRIMARY KEY,
-> nama_mhs VARCHAR(45),
-> alamat_mhs VARCHAR(255)
-> );
Query OK, 0 rows affected (0.617 sec)

MariaDB [datakuliah]> create table dosen(
-> id_dosen VARCHAR(20) PRIMARY KEY,
-> nama_dosen VARCHAR(45),
-> alamat_dosen VARCHAR(255),
-> status_dosen VARCHAR(20)
-> );
Query OK, 0 rows affected (0.595 sec)

MariaDB [datakuliah]> create table matkul(
-> id_matkul VARCHAR(20) PRIMARY KEY,
-> nama_matkul VARCHAR(45)
-> );
Query OK, 0 rows affected (0.301 sec)

MariaDB [datakuliah]> create table rk(
-> nama_rk VARCHAR(20) PRIMARY KEY,
-> kapasitas_rk INTEGER(5)
-> );
Query OK, 0 rows affected (0.344 sec)
```

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

```
MariaDB [datakuliah]> create table mahasiswa_has_dosen(  
-> NIM_mhsFK INTEGER REFERENCES mahasiswa(NIM_mhs)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> id_dosenFK INTEGER REFERENCES dosen(id_dosen)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (NIM_mhsFK, id_dosenFK)  
-> );
```

Query OK, 0 rows affected (0.369 sec)

```
MariaDB [datakuliah]> create table mahasiswa_has_rk(  
-> NIM_mhsFK INTEGER REFERENCES mahasiswa(NIM_mhs)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> nama_rkFK INTEGER REFERENCES rk(nama_rk)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (NIM_mhsFK, nama_rkFK)  
-> );
```

Query OK, 0 rows affected (0.393 sec)

```
MariaDB [datakuliah]> create table mahasiswa_has_matkul(  
-> NIM_mhsFK INTEGER REFERENCES mahasiswa(NIM_mhs)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> id_matkulFK INTEGER REFERENCES matkul(id_matkul)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (NIM_mhsFK, id_matkulFK)  
-> );
```

Query OK, 0 rows affected (0.336 sec)

```
MariaDB [datakuliah]> create table dosen_has_matkul(  
-> id_dosenFK INTEGER REFERENCES dosen(id_dosen)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> id_matkulFK INTEGER REFERENCES matkul(id_matkul)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (id_dosenFK, id_matkulFK)  
-> );
```

Query OK, 0 rows affected (0.541 sec)

```
MariaDB [datakuliah]> create table dosen_has_rk(  
-> id_dosenFK INTEGER REFERENCES dosen(id_dosen)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> nama_rkFK INTEGER REFERENCES rk(nama_rk)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (id_dosenFK, nama_rkFK)  
-> );
```

Query OK, 0 rows affected (0.587 sec)

```
MariaDB [datakuliah]> create table matkul_has_rk(  
-> id_matkulFK INTEGER REFERENCES matkul(id_matkul)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> nama_rkFK INTEGER REFERENCES rk(nama_rk)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY (id_matkulFK, nama_rkFK)  
-> );
```

Query OK, 0 rows affected (0.241 sec)

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

Query OK, 0 rows affected (0.241 sec)

MariaDB [datakuliah]> show tables;

Tables_in_datakuliah
dosen
dosen_has_matkul
dosen_has_rk
mahasiswa
mahasiswa_has_dosen
mahasiswa_has_matkul
mahasiswa_has_rk
matkul
matkul_has_rk
rk

10 rows in set (0.002 sec)

MariaDB [datakuliah]> describe mahasiswa;

Field	Type	Null	Key	Default	Extra
NIM_mhs	varchar(20)	NO	PRI	NULL	
nama_mhs	varchar(45)	YES		NULL	
alamat_mhs	varchar(255)	YES		NULL	

3 rows in set (0.367 sec)

MariaDB [datakuliah]> describe dosen;

Field	Type	Null	Key	Default	Extra
id_dosen	varchar(20)	NO	PRI	NULL	
nama_dosen	varchar(45)	YES		NULL	
alamat_dosen	varchar(255)	YES		NULL	
status_dosen	varchar(20)	YES		NULL	

4 rows in set (0.040 sec)