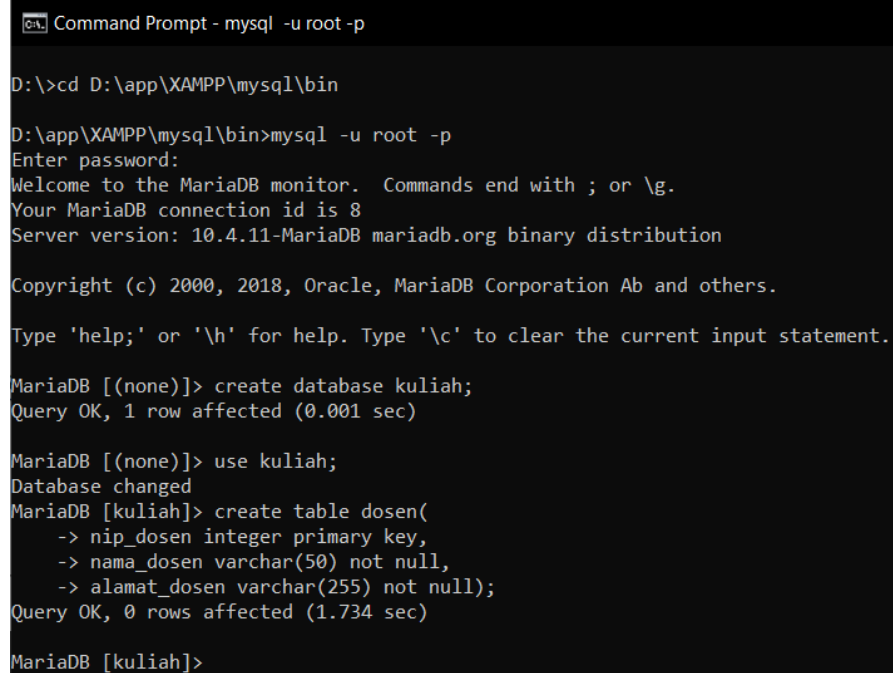


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LAPORAN TUGAS PRAKTIKUM

SISTEM BASIS DATA MODUL 4

1. Membuat database kuliah dan table dosen



```
Command Prompt - mysql -u root -p

D:\>cd D:\app\XAMPP\mysql\bin

D:\app\XAMPP\mysql\bin>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 kuliah;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> use kuliah;
Database changed
MariaDB [kuliah]> create table dosen(
  -> nip_dosen integer primary key,
  -> nama_dosen varchar(50) not null,
  -> alamat_dosen varchar(255) not null);
Query OK, 0 rows affected (1.734 sec)

MariaDB [kuliah]>
```

2. Membuat table mata_kuliah , mahasiswa, ruang, dosen_has_mahasiswa, mahasiswa_has_matkul, table dosen_has_matkul

```
Command Prompt - mysql -u root -p

MariaDB [kuliah]> create table mata_kuliah(
  -> kode_mk integer primary key,
  -> nama_mk varchar(50) not null,
  -> jumlah_mk integer default 0 not null);
Query OK, 0 rows affected (1.734 sec)

MariaDB [kuliah]> create table mahasiswa(
  -> nim_mhs varchar(20) primary key,
  -> nama_mhs varchar(45) not null,
  -> alamat_mhs varchar(255) not null,
  -> kode_ruangFK integer references ruang(kode_ruang) on delete set null on update cascade);
Query OK, 0 rows affected (0.405 sec)

MariaDB [kuliah]> create table ruang(
  -> kode_ruang integer primary key,
  -> nama_ruang varchar(50) not null,
  -> kapasitas_ruang integer default 0 not null);
Query OK, 0 rows affected (0.052 sec)

MariaDB [kuliah]> create table dosen_has_mahasiswa(
  -> nip_dosenFK integer references dosen(nip_dosen)
  -> on delete set null on update cascade,
  -> nim_mhsFK varchar(20) references mahasiswa(nim_mhs)
  -> on delete set null on update cascade);
Query OK, 0 rows affected (1.738 sec)

MariaDB [kuliah]> create table mahasiswa_has_matkul(
  -> nim_mhsFK varchar(20) references mahasiswa(nim_mhs)
  -> on delete set null on update cascade,
  -> kode_mkFK integer references matkul(kode_mk)
  -> on delete set null on update cascade,
  -> );
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 6
MariaDB [kuliah]> create table mahasiswa_has_matkul(
  -> nim_mhsFK varchar(20) references mahasiswa(nim_mhs)
  -> on delete set null on update cascade,
  -> kode_mkFK integer references matkul(kode_mk)
  -> on delete set null on update cascade);
Query OK, 0 rows affected (0.033 sec)

MariaDB [kuliah]> create table dosen_has_matkul(
  -> nip_dosenFK integer references dosen(nip_dosen)
  -> on delete set null on update cascade,
  -> kode_mkFK integer references matkul(kode_mk)
  -> on delete set null on update cascade);
Query OK, 0 rows affected (0.052 sec)

MariaDB [kuliah]>
```

3. Show table dan describe per table

```
C:\> Command Prompt - mysql -u root -p

+-----+
| Tables_in_kuliah |
+-----+
| dosen              |
| dosen_has_mahasiswa |
| dosen_has_matkul   |
| mahasiswa          |
| mahasiswa_has_matkul |
| mata_kuliah        |
| ruang              |
+-----+
7 rows in set (0.001 sec)

MariaDB [kuliah]> describe dosen;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip_dosen  | int(11)   | NO   | PRI | NULL    |       |
| nama_dosen | varchar(50) | NO   |     | NULL    |       |
| alamat_dosen | varchar(255) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (1.707 sec)

MariaDB [kuliah]> describe dosen_has_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip_dosenFK | int(11)   | YES  |     | NULL    |       |
| nim_mhsFK   | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.005 sec)

MariaDB [kuliah]> describe dosen_has_matkul;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip_dosenFK | int(11)   | YES  |     | NULL    |       |
| kode_mkFK   | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.004 sec)

MariaDB [kuliah]> describe mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim_mhs    | varchar(20) | NO   | PRI | NULL    |       |
| nama_mhs   | varchar(45) | NO   |     | NULL    |       |
| alamat_mhs | varchar(255) | NO   |     | NULL    |       |
| kode_ruangFK | int(11)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

Command Prompt - mysql -u root -p

MariaDB [kuliah]> describe mahasiswa_has_matkul;

Field	Type	Null	Key	Default	Extra
nim_mhsFK	varchar(20)	YES		NULL	
kode_mkFK	int(11)	YES		NULL	

2 rows in set (0.004 sec)

MariaDB [kuliah]> describe mata_kuliah;

Field	Type	Null	Key	Default	Extra
kode_mk	int(11)	NO	PRI	NULL	
nama_mk	varchar(50)	NO		NULL	
jumlah_mk	int(11)	NO		0	

3 rows in set (0.021 sec)