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## TUGAS MODUL 4

### 1. Membuat database mahasiswa

```
C:\Windows\System32\cmd.exe - mysql -u aeo27 -p
Microsoft Windows [Version 10.0.18363.720]
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C:\xampp\mysql\bin>mysql -u aeo27 -p
Enter password: *****
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 181
Server version: 10.1.36-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 mahasiswa;
Query OK, 1 row affected (0.09 sec)

MariaDB [(none)]> use mahasiswa
Database changed
MariaDB [mahasiswa]>
```

### 2. Membuat tabel mahasiswa

```
C:\Windows\System32\cmd.exe - mysql -u aeo27 -p
MariaDB [mahasiswa]> create table mahasiswa (
->   nim_mahasiswa integer(15) primary key not null,
->   nama_mahasiswa varchar(30) not null,
->   alamat_mahasiswa varchar(225) not null
-> );
Query OK, 0 rows affected (0.49 sec)

MariaDB [mahasiswa]>
```

### 3. Membuat tabel dosen

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p
MariaDB [mahasiswa]> create table dosen (
  -> nip_dosen integer(15) primary key not null,
  -> nama_dosen varchar(30) not null,
  -> alamat_dosen varchar(225) not null
  -> );
Query OK, 0 rows affected (0.22 sec)
MariaDB [mahasiswa]>
```

### 4. Membuat tabel mata\_kuliah

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p
MariaDB [mahasiswa]> create table mata_kuliah (
  -> kode_matkul integer(10) primary key not null,
  -> nama_matkul varchar(10) not null
  -> );
Query OK, 0 rows affected (0.42 sec)
MariaDB [mahasiswa]>
```

## 5. Membuat tabel kelas

```
C:\Windows\System32\cmd.exe - mysql -u aezo27 -p

MariaDB [mahasiswa]> create table kelas (
  -> id_kelas integer (5) primary key not null,
  -> kode_kelas varchar(10) not null
  -> );
Query OK, 0 rows affected (0.25 sec)

MariaDB [mahasiswa]>
```

## 6. Membuat tabel dosen\_has\_mahasiswa

```
C:\Windows\System32\cmd.exe - mysql -u aezo27 -p

MariaDB [mahasiswa]> create table dosen_has_mahasiswa (
  -> nip_dosenFK integer references dosen(nip_dosen)
  -> on delete set null on update cascade,
  -> nim_mahasiswaFK integer references mahasiswa(nim_mahasiswa)
  -> on delete set null on update cascade,
  -> primary key (nip_dosenFK, nim_mahasiswaFK)
  -> );
Query OK, 0 rows affected (0.25 sec)

MariaDB [mahasiswa]>
```

## 7. Membuat table mahasiswa\_has\_mata\_kuliah

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p

MariaDB [mahasiswa]> create table mahasiswa_has_mata_kuliah (
  -> nim_mahasiswaFK integer references mahasiswa(nim_mahasiswa)
  -> on delete set null on update cascade,
  -> kode_matkulFK integer references mata_kuliah(kode_matkul)
  -> on delete set null on update cascade,
  -> primary key (nim_mahasiswaFK, kode_matkulFK)
  -> );
Query OK, 0 rows affected (0.23 sec)

MariaDB [mahasiswa]>
```

## 8. Membuat table dosen\_has\_mata\_kuliah

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p

MariaDB [mahasiswa]> create table dosen_has_mata_kuliah (
  -> nip_dosenFK integer references dosen(nip_dosen)
  -> on delete set null on update cascade,
  -> kode_matkulFK integer references mata_kuliah(kode_matkul)
  -> on delete set null on update cascade,
  -> primary key (nip_dosenFK, kode_matkulFK)
  -> );
Query OK, 0 rows affected (0.21 sec)

MariaDB [mahasiswa]>
```

## 9. Membuat table dosen\_has\_kelas

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p
MariaDB [mahasiswa]> create table dosen_has_kelas (
  -> nip_dosenFK integer references dosen(nip_dosen)
  -> on delete set null on update cascade,
  -> id_kelasFK integer references kelas(id_kelas)
  -> on delete set null on update cascade,
  -> primary key (nip_dosenFK, id_kelasFK)
  -> );
Query OK, 0 rows affected (0.24 sec)
MariaDB [mahasiswa]> _
```

## 10. Membuat table mata\_kuliah\_has\_kelas

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p
MariaDB [mahasiswa]> create table mata_kuliah_has_kelas (
  -> kode_matkulFK integer references mata_kuliah(kode_matkul)
  -> on delete set null on update cascade,
  -> id_kelasFK integer references kelas(id_kelas)
  -> on delete set null on update cascade,
  -> primary key (kode_matkulFK, id_kelasFK)
  -> );
Query OK, 0 rows affected (0.31 sec)
MariaDB [mahasiswa]> _
```

## 11. Cek database

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p

MariaDB [mahasiswa]> show tables;
+-----+
| Tables_in_mahasiswa |
+-----+
| dosen                |
| dosen_has_kelas      |
| dosen_has_mahasiswa  |
| dosen_has_mata_kuliah |
| kelas                |
| mahasiswa            |
| mahasiswa_has_mata_kuliah |
| mata_kuliah          |
| mata_kuliah_has_kelas |
+-----+
3 rows in set (0.00 sec)

MariaDB [mahasiswa]>
```

## 12. Cek struktur database

```
C:\Windows\System32\cmd.exe - mysql -u aezoz7 -p

MariaDB [mahasiswa]> describe mahasiswa;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| nim_mahasiswa | int(15)   | NO   | PRI | NULL    |       |
| nama_mahasiswa | varchar(30) | NO   |     | NULL    |       |
| alamat_mahasiswa | varchar(225) | NO   |     | NULL    |       |
+-----+
3 rows in set (0.00 sec)

MariaDB [mahasiswa]> describe dosen;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| nip_dosen | int(15)   | NO   | PRI | NULL    |       |
| nama_dosen | varchar(30) | NO   |     | NULL    |       |
| alamat_dosen | varchar(225) | NO   |     | NULL    |       |
+-----+
3 rows in set (0.01 sec)

MariaDB [mahasiswa]> describe dosen_has_mahasiswa
-> ;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| nip_dosenFK | int(11)   | NO   | PRI | NULL    |       |
| nim_mahasiswaFK | int(11) | NO   | PRI | NULL    |       |
+-----+
2 rows in set (0.06 sec)

MariaDB [mahasiswa]> describe kelas
-> ;
+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+
| id_kelas | int(5)    | NO   | PRI | NULL    |       |
| kode_kelas | varchar(10) | NO   |     | NULL    |       |
+-----+
2 rows in set (0.01 sec)

MariaDB [mahasiswa]>
```