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Modul : 4

### DATABASE UNIVERSITAS

1. Membuat database baru dengan nama Universitas.

```
MariaDB [(none)]> create database universitas;  
Query OK, 1 row affected (0.00 sec)
```

2. Menghubungkan ke dalam database yang telah dibuat.

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

3. Membuat tabel Mahasiswa.

```
MariaDB [universitas]> CREATE TABLE Mahasiswa(  
-> NIM_Mahasiswa INTEGER PRIMARY KEY,  
-> Nama_Mahasiswa VARCHAR(45) NOT NULL,  
-> Alamat_Mahasiswa VARCHAR(255) NOT NULL  
-> );  
Query OK, 0 rows affected (0.47 sec)
```

4. Membuat tabel Dosen.

```
MariaDB [universitas]> CREATE TABLE Dosen(  
-> NIK_Dosen INTEGER PRIMARY KEY,  
-> Nama_Dosen VARCHAR(45) NOT NULL,  
-> Alamat_Dosen VARCHAR(255) NOT NULL  
-> );  
Query OK, 0 rows affected (0.45 sec)
```

5. Membuat tabel Mata\_Kuliah.

```
MariaDB [universitas]> CREATE TABLE Mata_Kuliah(  
-> Kode_MK VARCHAR(10) PRIMARY KEY,  
-> Nama_MK VARCHAR(20) NOT NULL  
-> );  
Query OK, 0 rows affected (0.21 sec)
```

6. Membuat tabel Ruang\_Kelas.

```
MariaDB [universitas]> CREATE TABLE Ruang_Kelas(  
-> Kode_RK VARCHAR(10) PRIMARY KEY,  
-> Nama_RK VARCHAR(10) NOT NULL  
-> );  
Query OK, 0 rows affected (0.85 sec)
```

7. Membuat tabel Mahasiswa\_has\_Dosen.

```
MariaDB [universitas]> CREATE TABLE Mahasiswa_has_Dosen(  
-> NIM_MahasiswaFK INTEGER REFERENCES Mahasiswa(NIM_Mahasiswa)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> NIK_DosenFK INTEGER REFERENCES Dosen(NIK_Dosen)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY(NIM_MahasiswaFK, NIK_DosenFK)  
-> );  
Query OK, 0 rows affected (0.29 sec)
```

8. Membuat tabel Dosen\_has\_MK.

```
MariaDB [universitas]> CREATE TABLE Dosen_has_MK(
-> NIK_DosenFK INTEGER REFERENCES Dosen(NIK_Dosen)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> Kode_MKFK INTEGER REFERENCES MK(Kode_MK)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> PRIMARY KEY(NIK_DosenFK, Kode_MKFK)
-> );
Query OK, 0 rows affected (0.23 sec)
```

9. Membuat tabel Mahasiswa\_has\_RK.

```
MariaDB [universitas]> CREATE TABLE Mahasiswa_has_RK(
-> NIM_MahasiswaFK INTEGER REFERENCES Mahasiswa(NIM_Mahasiswa)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> Kode_RKFK INTEGER REFERENCES RK(Kode_RK)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> PRIMARY KEY(NIM_MahasiswaFK, Kode_RKFK)
-> );
Query OK, 0 rows affected (0.19 sec)
```

10. Membuat tabel RK\_has\_MK.

```
MariaDB [universitas]> CREATE TABLE RK_has_MK(
-> Kode_RKFK INTEGER REFERENCES RK(Kode_RK)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> Kode_MKFK INTEGER REFERENCES MK(Kode_MK)
-> ON DELETE CASCADE ON UPDATE CASCADE,
-> PRIMARY KEY(Kode_RKFK, Kode_MKFK)
-> );
Query OK, 0 rows affected (0.19 sec)
```

11. Mengecek hasil Pembuatan Database.

```
MariaDB [universitas]> show tables;
+-----+
| Tables_in_universitas |
+-----+
| dosen                  |
| dosen_has_mk           |
| mahasiswa              |
| mahasiswa_has_dosen    |
| mahasiswa_has_rk       |
| mata_kuliah            |
| rk_has_mk              |
| ruang_kelas            |
+-----+
8 rows in set (0.00 sec)
```

12. Melihat Struktur tabel Mahasiswa.

```
MariaDB [universitas]> describe Mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field          | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM_Mahasiswa  | int(11)   | NO   | PRI | NULL    |       |
| Nama_Mahasiswa | varchar(45) | NO   |     | NULL    |       |
| Alamat_Mahasiswa | varchar(255) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

13. Melihat Struktur tabel Dosen.

```
MariaDB [universitas]> describe Dosen;
```

Field	Type	Null	Key	Default	Extra
NIK_Dosen	int(11)	NO	PRI	NULL	
Nama_Dosen	varchar(45)	NO		NULL	
Alamat_Dosen	varchar(255)	NO		NULL	

3 rows in set (0.00 sec)

14. Melihat Struktur data Mata\_Kuliah.

```
MariaDB [universitas]> describe Mata_Kuliah;
```

Field	Type	Null	Key	Default	Extra
Kode_MK	varchar(10)	NO	PRI	NULL	
Nama_MK	varchar(20)	NO		NULL	

2 rows in set (0.00 sec)

15. Melihat Struktur data Ruang\_Kelas.

```
MariaDB [universitas]> describe Ruang_Kelas;
```

Field	Type	Null	Key	Default	Extra
Kode_RK	varchar(10)	NO	PRI	NULL	
Nama_RK	varchar(10)	NO		NULL	

2 rows in set (0.00 sec)

16. Melihat Struktur data Mahasiswa\_has\_Dosen.

```
MariaDB [universitas]> describe Mahasiswa_has_Dosen;
```

Field	Type	Null	Key	Default	Extra
NIM_MahasiswaFK	int(11)	NO	PRI	NULL	
NIK_DosenFK	int(11)	NO	PRI	NULL	

2 rows in set (0.00 sec)

17. Melihat Struktur data Dosen\_has\_MK.

```
MariaDB [universitas]> describe Dosen_has_MK;
```

Field	Type	Null	Key	Default	Extra
NIK_DosenFK	int(11)	NO	PRI	NULL	
Kode_MKFK	int(11)	NO	PRI	NULL	

2 rows in set (0.00 sec)

18. Melihat Struktur data Mahasiswa\_has\_RK.

```
MariaDB [universitas]> describe Mahasiswa_has_RK;
+-----+-----+-----+-----+-----+-----+
| Field          | Type    | Null  | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM_MahasiswaFK | int(11) | NO    | PRI  | NULL    |       |
| Kode_RKFK       | int(11) | NO    | PRI  | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

19. Melihat Struktur data RK\_has\_MK.

```
MariaDB [universitas]> describe RK_has_MK;
+-----+-----+-----+-----+-----+-----+
| Field      | Type    | Null  | Key  | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Kode_RKFK  | int(11) | NO    | PRI  | NULL    |       |
| Kode_MKFK  | int(11) | NO    | PRI  | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```



## DATABASE PENJUALAN

```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.648]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Adhy Oyon>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 3
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 penjualan;
Query OK, 1 row affected (0.00 sec)

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

```
MariaDB [penjualan]> create table pelanggan(
-> id_pelanggan integer primary key,
-> nama_pelanggan varchar(45) not null,
-> alamat_nasabah varchar(255) not null,
-> email_nasabah varchar(50) not null
-> );
Query OK, 0 rows affected (0.46 sec)

MariaDB [penjualan]> create table pesanan(
-> id_pesnan integer primary key,
-> jumlah_pesanan varchar(255)not null,
-> tanggal_pemesanan varchar(50) not null,
-> pembayaran varchar(100) not null
-> );
Query OK, 0 rows affected (0.17 sec)
```

```
MariaDB [penjualan]> create table pekerja(
-> id_pekerja integer primary key,
-> alamat_pekerja varchar (255) not null,
-> nama_pekerja varchar(50) not null,
-> umur varchar(10) not null
-> );
Query OK, 0 rows affected (0.48 sec)
```

```

MariaDB [penjualan]> create table barang(
  -> kode_barang varchar(20) unique not null,
  -> nama_barang varchar(50) not null,
  -> jenis_barang varchar(50) not null,
  -> stock_barang varchar(20) not null
  -> );
Query OK, 0 rows affected (0.23 sec)

MariaDB [penjualan]> create table pekerja_has_pesanan(
  -> id_pekerjafk integer references pekerja(id_pekerja) on delete cascade on update cascade,
  -> id_pesananfk integer references pesanan(id_pesanan) on delete cascade on update cascade
  -> );
Query OK, 0 rows affected (0.28 sec)

MariaDB [penjualan]> create table barang_has_pekerja(
  -> id_barangfk integer references barang(id_barang) on delete cascade on update cascade,
  -> id_pekerjafk integer references pekerja(id_pekerja) on delete cascade on update cascade
  -> );
Query OK, 0 rows affected (0.22 sec)

```

```

MariaDB [penjualan]> show tables;

```

```

+-----+
| Tables_in_penjualan |
+-----+
| barang               |
| barang_has_pekerja   |
| pekerja              |
| pekerja_has_pesanan  |
| pelanggan            |
| pesanan              |
+-----+

```

```

6 rows in set (0.19 sec)

```

```

MariaDB [penjualan]> describe barang;

```

Field	Type	Null	Key	Default	Extra
kode_barang	varchar(20)	NO	PRI	NULL	
nama_barang	varchar(50)	NO		NULL	
jenis_barang	varchar(50)	NO		NULL	
stock_barang	varchar(20)	NO		NULL	

```

4 rows in set (0.13 sec)

```

```

MariaDB [penjualan]> describe barang;

```