

Nama : Angieta Putri Wahendra

NIM : L200170096

Kelas : D

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 BANDARA

1. Membuat database baru dengan nama Bandara.

```
MariaDB [(none)]> create database Bandara;  
Query OK, 1 row affected (0.05 sec)
```

2. Menghubungkan ke dalam database yang telah dibuat.

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

3. Membuat tabel Penumpang.

```
MariaDB [Bandara]> CREATE TABLE Penumpang(  
-> id_penumpang INTEGER PRIMARY KEY,  
-> nama_penumpang VARCHAR(45) NOT NULL,  
-> alamat_penumpang VARCHAR(255) NOT NULL  
-> );  
Query OK, 0 rows affected (0.27 sec)
```

4. Membuat tabel Kasir.

```
MariaDB [Bandara]> CREATE TABLE Kasir(  
-> id_kasir INTEGER PRIMARY KEY,  
-> nama_kasir VARCHAR(45) NOT NULL,  
-> alamat_kasir VARCHAR(255) NOT NULL  
-> );  
Query OK, 0 rows affected (0.23 sec)
```

5. Membuat tabel Pesawat.

```
MariaDB [Bandara]> CREATE TABLE Pesawat(  
-> kode_pesawat INTEGER PRIMARY KEY,  
-> nama_pesawat VARCHAR(45) NOT NULL  
-> );  
Query OK, 0 rows affected (0.22 sec)
```

6. Membuat tabel Tiket_Pesawat.

```
MariaDB [Bandara]> CREATE TABLE Tiket_Pesawat(  
-> kode_tiket VARCHAR(20) PRIMARY KEY,  
-> jumlah_tiket VARCHAR(20) NOT NULL,  
-> nomor_duduk VARCHAR(20) NOT NULL  
-> );  
Query OK, 0 rows affected (0.24 sec)
```

7. Membuat tabel Kasir_has_Penumpang.

```
MariaDB [Bandara]> CREATE TABLE Kasir_has_Penumpang(  
-> id_kasirFK INTEGER REFERENCES kasir(id_kasir)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> id_penumpangFK INTEGER REFERENCES penumpang(id_penumpang)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY(id_kasirFK, id_penumpangFK)  
-> );  
Query OK, 0 rows affected (0.22 sec)
```

8. Membuat tabel Penumpang_has_Pesawat.

```
MariaDB [Bandara]> CREATE TABLE Penumpang_has_Pesawat(  
-> id_penumpangFK INTEGER REFERENCES penumpang(id_penumpang)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> kode_pesawatFK INTEGER REFERENCES pesawat(kode_pesawat)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY(id_penumpangFK, kode_pesawatFK)  
-> );  
Query OK, 0 rows affected (0.22 sec)
```

9. Membuat tabel Tiket_Pesawat_has_Penumpang.

```
MariaDB [Bandara]> CREATE TABLE Tiket_Pesawat_has_Penumpang(  
-> kode_tiketFK INTEGER REFERENCES tiket_pesawat(kode_tiket)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> id_penumpangFK INTEGER REFERENCES penumpang(id_penumpang)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY(kode_tiketFK, id_penumpangFK)  
-> );  
Query OK, 0 rows affected (0.23 sec)
```

10. Membuat tabel Pesawat_has_Tiket_Pesawat.

```
MariaDB [Bandara]> CREATE TABLE Pesawat_has_Tiket_Pesawat(  
-> kode_pesawatFK INTEGER REFERENCES pesawat(kode_pesawat)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> kode_tiketFK INTEGER REFERENCES tiket_pesawat(kode_tiket)  
-> ON DELETE CASCADE ON UPDATE CASCADE,  
-> PRIMARY KEY(kode_pesawatFK, kode_tiketFK)  
-> );  
Query OK, 0 rows affected (0.28 sec)
```

11. Mengecek hasil Pembuatan Database.

```
MariaDB [Bandara]> show tables;  
+-----+  
| Tables_in_bandara |  
+-----+  
| kasir              |  
| kasir_has_penumpang |  
| penumpang         |  
| penumpang_has_pesawat |  
| pesawat           |  
| pesawat_has_tiket_pesawat |  
| tiket_pesawat     |  
| tiket_pesawat_has_penumpang |  
+-----+  
8 rows in set (0.07 sec)
```

12. Melihat Struktur tabel Penumpang.

```
MariaDB [Bandara]> describe Penumpang;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| id_penumpang   | int(11)       | NO   | PRI | NULL    |       |  
| nama_penumpang | varchar(45)   | NO   |     | NULL    |       |  
| alamat_penumpang | varchar(255) | NO   |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.18 sec)
```

13. Melihat Struktur tabel Kasir.

```
MariaDB [Bandara]> describe Kasir;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_kasir       | int(11)       | NO   | PRI | NULL    |       |
| nama_kasir     | varchar(45)   | NO   |     | NULL    |       |
| alamat_kasir   | varchar(255)  | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

14. Melihat Struktur data Pesawat.

```
MariaDB [Bandara]> describe Pesawat;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_pesawat   | int(11)       | NO   | PRI | NULL    |       |
| nama_pesawat   | varchar(45)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

15. Melihat Struktur data Tiket_Pesawat.

```
MariaDB [Bandara]> describe Tiket_Pesawat;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_tiket     | varchar(20)   | NO   | PRI | NULL    |       |
| jumlah_tiket   | varchar(20)   | NO   |     | NULL    |       |
| nomor_duduk    | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

16. Melihat Struktur data Kasir_has_Penumpang.

```
MariaDB [Bandara]> describe Kasir_has_Penumpang;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_kasirFK     | int(11)       | NO   | PRI | NULL    |       |
| id_penumpangFK | int(11)       | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

17. Melihat Struktur data Penumpang_has_Pesawat .

```
MariaDB [Bandara]> describe Penumpang_has_Pesawat;
+-----+-----+-----+-----+-----+-----+
| Field          | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_penumpangFK | int(11)       | NO   | PRI | NULL    |       |
| kode_pesawatFK | int(11)       | NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

18. Melihat Struktur data Tiket_Pesawat_has_Penumpang.

```
MariaDB [Bandara]> describe Tiket_Pesawat_has_Penumpang;
+-----+-----+-----+-----+-----+-----+
| Field          | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_tiketFK   | int(11)| NO   | PRI | NULL    |       |
| id_penumpangFK | int(11)| NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

19. Melihat Struktur data Pesawat_has_Tiket_Pesawat.

```
MariaDB [Bandara]> describe Pesawat_has_Tiket_Pesawat;
+-----+-----+-----+-----+-----+-----+
| Field          | Type   | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_pesawatFK | int(11)| NO   | PRI | NULL    |       |
| kode_tiketFK   | int(11)| NO   | PRI | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```