

**Harvest Walukow**  
**164231104**  
**Praktikum PBD**

1. Membuat database dengan nama PBD\_HARVEST

```
MariaDB [(none)]> CREATE DATABASE PBD_HARVEST;  
Query OK, 1 row affected (0.005 sec)
```

2. Membuat model database sesuai struktur yang diberikan

```
MariaDB [(none)]> USE PBD_HARVEST;  
Database changed  
MariaDB [PBD_HARVEST]> CREATE TABLE M_FAKULTAS (  
-> K_FAKULTAS VARCHAR(3) PRIMARY KEY,  
-> SINGKAT VARCHAR(10),  
-> CONTENT VARCHAR(45)  
-> );  
Query OK, 0 rows affected (0.007 sec)  
  
MariaDB [PBD_HARVEST]> CREATE TABLE M_JENJANG (  
-> K_JENJANG VARCHAR(3) PRIMARY KEY,  
-> SINGKAT VARCHAR(10),  
-> CONTENT VARCHAR(30)  
-> );  
Query OK, 0 rows affected (0.008 sec)  
  
MariaDB [PBD_HARVEST]> CREATE TABLE M_JURUSAN (  
-> K_JURUSAN VARCHAR(3) PRIMARY KEY,  
-> K_JENJANG VARCHAR(3),  
-> K_FAKULTAS VARCHAR(3),  
-> SINGKAT VARCHAR(10),  
-> CONTENT VARCHAR(45),  
-> FOREIGN KEY (K_JENJANG) REFERENCES M_JENJANG(K_JENJANG),  
-> FOREIGN KEY (K_FAKULTAS) REFERENCES M_FAKULTAS(K_FAKULTAS)  
-> );  
Query OK, 0 rows affected (0.038 sec)  
  
MariaDB [PBD_HARVEST]> CREATE TABLE M_PROG_STUDI (  
-> K_PROG_STUDI VARCHAR(3) PRIMARY KEY,  
-> K_FAKULTAS VARCHAR(3),  
-> K_JENJANG VARCHAR(3),  
-> SINGKAT VARCHAR(10),  
-> CONTENT VARCHAR(100),  
-> FOREIGN KEY (K_FAKULTAS) REFERENCES M_FAKULTAS(K_FAKULTAS),  
-> FOREIGN KEY (K_JENJANG) REFERENCES M_JENJANG(K_JENJANG)  
-> );  
Query OK, 0 rows affected (0.039 sec)  
  
MariaDB [PBD_HARVEST]> CREATE TABLE M_KELAS (  
-> K_KELAS VARCHAR(3) PRIMARY KEY,  
-> CONTENT VARCHAR(45)  
-> );  
Query OK, 0 rows affected (0.009 sec)
```

```

MariaDB [PBD_HARVEST]> CREATE TABLE M_SELEKSI (
->     K_SELEKSI VARCHAR(3) PRIMARY KEY,
->     CONTENT VARCHAR(45)
-> );
Query OK, 0 rows affected (0.012 sec)

MariaDB [PBD_HARVEST]> CREATE TABLE M_CABANG (
->     K_CABANG VARCHAR(3) PRIMARY KEY,
->     SINGKAT VARCHAR(10),
->     CONTENT VARCHAR(45)
-> );
Query OK, 0 rows affected (0.016 sec)

MariaDB [PBD_HARVEST]> CREATE TABLE M_NEGARA (
->     K_NEGARA VARCHAR(9) PRIMARY KEY,
->     CONTENT VARCHAR(45)
-> );
Query OK, 0 rows affected (0.015 sec)

MariaDB [PBD_HARVEST]> CREATE TABLE M_PROPINSI (
->     K_PROPINSI VARCHAR(9) PRIMARY KEY,
->     K_NEGARA VARCHAR(9),
->     CONTENT VARCHAR(100),
->     FOREIGN KEY (K_NEGARA) REFERENCES M_NEGARA(K_NEGARA)
-> );
Query OK, 0 rows affected (0.031 sec)

MariaDB [PBD_HARVEST]> CREATE TABLE M_KOTA (
->     K_KOTA VARCHAR(9) PRIMARY KEY,
->     K_PROPINSI VARCHAR(9),
->     K_NEGARA VARCHAR(9),
->     CONTENT VARCHAR(100),
->     FOREIGN KEY (K_PROPINSI) REFERENCES M_PROPINSI(K_PROPINSI),
->     FOREIGN KEY (K_NEGARA) REFERENCES M_NEGARA(K_NEGARA)
-> );
Query OK, 0 rows affected (0.033 sec)

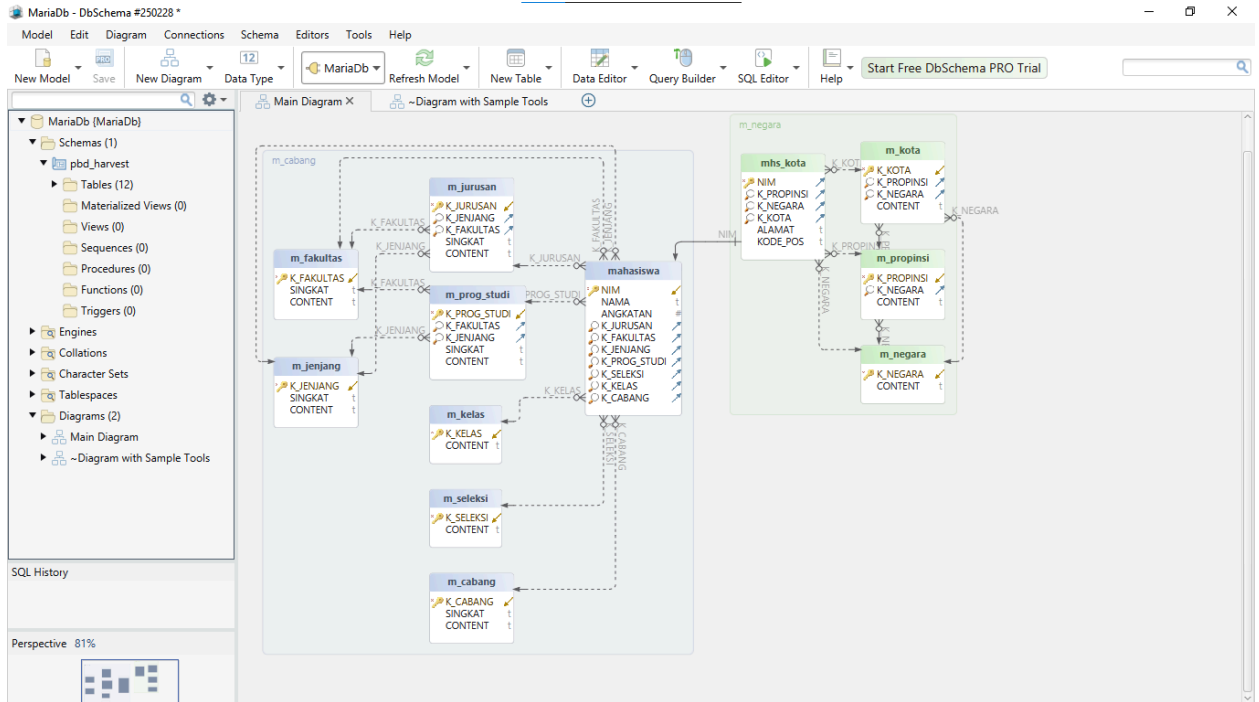
```

```

MariaDB [PBD_HARVEST]> CREATE TABLE MAHASISWA (
->     NIM VARCHAR(15) PRIMARY KEY,
->     NAMA VARCHAR(60),
->     ANGKATAN INT,
->     K_JURUSAN VARCHAR(3),
->     K_FAKULTAS VARCHAR(3),
->     K_JENJANG VARCHAR(3),
->     K_PROG_STUDI VARCHAR(3),
->     K_SELEKSI VARCHAR(3),
->     K_KELAS VARCHAR(3),
->     K_CABANG VARCHAR(3),
->     FOREIGN KEY (K_JURUSAN) REFERENCES M_JURUSAN(K_JURUSAN),
->     FOREIGN KEY (K_FAKULTAS) REFERENCES M_FAKULTAS(K_FAKULTAS),
->     FOREIGN KEY (K_JENJANG) REFERENCES M_JENJANG(K_JENJANG),
->     FOREIGN KEY (K_PROG_STUDI) REFERENCES M_PROG_STUDI(K_PROG_STUDI),
->     FOREIGN KEY (K_SELEKSI) REFERENCES M_SELEKSI(K_SELEKSI),
->     FOREIGN KEY (K_KELAS) REFERENCES M_KELAS(K_KELAS),
->     FOREIGN KEY (K_CABANG) REFERENCES M_CABANG(K_CABANG)
-> );
Query OK, 0 rows affected (0.093 sec)

MariaDB [PBD_HARVEST]> CREATE TABLE MHS_KOTA (
->     NIM VARCHAR(15),
->     K_PROPINSI VARCHAR(9),
->     K_NEGARA VARCHAR(9),
->     K_KOTA VARCHAR(9),
->     ALAMAT VARCHAR(100),
->     KODE_POS VARCHAR(10),
->     PRIMARY KEY (NIM),
->     FOREIGN KEY (NIM) REFERENCES MAHASISWA(NIM),
->     FOREIGN KEY (K_PROPINSI) REFERENCES M_PROPINSI(K_PROPINSI),
->     FOREIGN KEY (K_NEGARA) REFERENCES M_NEGARA(K_NEGARA),
->     FOREIGN KEY (K_KOTA) REFERENCES M_KOTA(K_KOTA)
-> );
Query OK, 0 rows affected (0.041 sec)

```



### 3. Modifikasi pada table MHS\_KOTA

```
MariaDB [PBD_HARVEST]> ALTER TABLE MHS_KOTA
  -> MODIFY NIM VARCHAR(15) NOT NULL,
  -> MODIFY ALAMAT VARCHAR(110),
  -> MODIFY KODE_POS VARCHAR(6);
Query OK, 0 rows affected (0.060 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [PBD_HARVEST]> DESC MHS_KOTA;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM        | varchar(15)   | NO   | PRI | NULL    |       |
| K_PROPINSI | varchar(9)    | YES  | MUL | NULL    |       |
| K_NEGARA   | varchar(9)    | YES  | MUL | NULL    |       |
| K_KOTA     | varchar(9)    | YES  | MUL | NULL    |       |
| ALAMAT     | varchar(110)  | YES  |     | NULL    |       |
| KODE_POS   | varchar(6)    | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.023 sec)
```

4. Membuat tabel MHS\_KOTA2 dengan struktur sama seperti MHS\_KOTA

```
MariaDB [PBD_HARVEST]> CREATE TABLE MHS_KOTA2 LIKE MHS_KOTA;
Query OK, 0 rows affected (0.041 sec)

MariaDB [PBD_HARVEST]> DESC MHS_KOTA2;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NIM        | varchar(15)   | NO   | PRI | NULL    |       |
| K_PROPINSI | varchar(9)    | YES  | MUL | NULL    |       |
| K_NEGARA   | varchar(9)    | YES  | MUL | NULL    |       |
| K_KOTA     | varchar(9)    | YES  | MUL | NULL    |       |
| ALAMAT     | varchar(110)  | YES  |     | NULL    |       |
| KODE_POS   | varchar(6)    | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.015 sec)
```

5. Menghapus table MHS\_KOTA

```
MariaDB [PBD_HARVEST]> DROP TABLE MHS_KOTA;
Query OK, 0 rows affected (0.011 sec)

MariaDB [PBD_HARVEST]> SHOW TABLES;
+-----+
| Tables_in_pbd_harvest |
+-----+
| m_cabang               |
| m_fakultas             |
| m_jenjang              |
| m_jurusan              |
| m_kelas                |
| m_kota                 |
| m_negara               |
| m_prog_studi           |
| m_propinsi             |
| m_seleksi              |
| mahasiswa              |
| mhs_kota2              |
+-----+
12 rows in set (0.001 sec)
```

6. Mengubah nama tabel MHS\_KOTA2 menjadi MHS\_KOTA

```
MariaDB [PBD_HARVEST]> RENAME TABLE MHS_KOTA2 TO MHS_KOTA;
Query OK, 0 rows affected (0.013 sec)
```

7. Mengubah nama tabel dengan menghapus awalan MHS\_ dan M\_

```
MariaDB [PBD_HARVEST]> RENAME TABLE
-> M_FAKULTAS TO FAKULTAS,
-> M_JENJANG TO JENJANG,
-> M_JURUSAN TO JURUSAN,
-> M_PROG_STUDI TO PROG_STUDI,
-> M_KELAS TO KELAS,
-> M_SELEKSI TO SELEKSI,
-> M_CABANG TO CABANG,
-> M_NEGARA TO NEGARA,
-> M_PROPINSI TO PROPINSI,
-> M_KOTA TO KOTA,
-> MHS_KOTA TO KOTA_MAHASISWA; -- Biar ga double
Query OK, 0 rows affected (0.290 sec)

MariaDB [PBD_HARVEST]> SHOW TABLES;
+-----+
| Tables_in_pbd_harvest |
+-----+
| cabang                 |
| fakultas               |
| jenjang                |
| jurusan                |
| kelas                  |
| kota                   |
| kota_mahasiswa         |
| mahasiswa              |
| negara                 |
| prog_studi              |
| propinsi               |
| seleksi                 |
+-----+
12 rows in set (0.002 sec)
```