

## Tugas 1

### Nomor 1 dan 2 Buat dan aktifkan database Tugas1:

```
Command Prompt - mysql -u root
C:\Users\asus>cd/
C:\> cd xampp
C:\xampp>cd bin
The system cannot find the path specified.
C:\xampp>cd mysql
The system cannot find the path specified.
C:\xampp>cd mysql
C:\xampp\mysql>cd bin
C:\xampp\mysql\bin>mysql -u root
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 Tugas1;
Query OK, 1 row affected (0.841 sec)
MariaDB [(none)]> use Tugas1;
Database changed
MariaDB [Tugas1]>
```

-Untuk membuat data base sbb: CREATE DATABASE Tugas1;

-Untuk mengaktifkan data base sbb: use Tugas1 (Tugas1 merupakan nama DATABASE.)

Diatas tampil database changed maksud dari itu adalah bahwa database yang awalnya kosong(none) berubah menjadi Tugas1.

### Nomor 3 Buat 3 tabel:

```
MariaDB [Tugas1]> INSERT into MAHASISWA (NPM>Nama>Alamat) VALUES
-> (201143500439,'Andi','Jakarta'),
-> (201143500121,'Desi','Bekasi'),
-> (201143500234,'Endah','Depok'),
-> (201143500165,'Firdaus','Jakarta'),
-> (201143500228,'Gandi','Depok'),
-> (201143500326,'Hilda','Bogor');
Query OK, 6 rows affected, 6 warnings (0.059 sec)
Records: 6 Duplicates: 0 Warnings: 6

MariaDB [Tugas1]> DESC Tugas1;
ERROR 1146 (42502): Table 'tugas1.tugas1' doesn't exist
MariaDB [Tugas1]> DESC MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM   | int(20) | NO   |     | NULL    |       |
| Nama  | varchar(20) | YES |     | NULL    |       |
| Alamat | varchar(20) | YES |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.034 sec)

MariaDB [Tugas1]> select*from MAHASISWA;
+-----+-----+-----+
| NPM   | Nama  | Alamat |
+-----+-----+-----+
| 2147483647 | Andi  | Jakarta |
| 2147483647 | Desi  | Bekasi  |
| 2147483647 | Endah | Depok   |
| 2147483647 | Firdaus | Jakarta |
| 2147483647 | Gandi | Depok   |
| 2147483647 | Hilda | Bogor   |
+-----+-----+-----+
6 rows in set (0.001 sec)

MariaDB [Tugas1]>
```

### 3.1 Table Mahasiswa:

Terdapat error diatas dikarenakan salah input ,yang seharusnya DESC MAHASISWA tetapi DESC Tugas1(database).

- DESC MAHASISWA; untuk menampilkan struktur Table dan field tanpa ada data didalamnya,
- Insert into MAHASISWA (NPM>Nama,Alamat) Values yang berarti memasukkan sesuatu kedalam table mahasiswa yg terdapat field(kolom) didalamnya.Kemudian masukkan isi datanya.
- Select\*from MAHASISWA; untuk menampilkan semua table mahasiswa beserta isi datanya.

```

Command Prompt - mysql -u root
+-----+
6 rows in set (0.001 sec)

MariaDB [Tugas1]> Create Table Mata_Kuliah(
  -> KD_MK varchar(10),
  -> Nama_MK varchar(30),
  -> SKS int(10));
Query OK, 0 rows affected (0.244 sec)

MariaDB [Tugas1]> DESC Mata_Kuliah;
+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+
| KD_MK | varchar(10) | YES | | NULL | |
| Nama_MK | varchar(30) | YES | | NULL | |
| SKS | int(10) | YES | | NULL | |
+-----+
3 rows in set (0.025 sec)

MariaDB [Tugas1]> Insert into Mata_Kuliah (KD_MK>Nama_MK,SKS) VALLUES
  -> ('KK021','Sistem Basis Data',2),
  -> ('KK132','Interaksi Manusia Komputer',3),
  -> ('KU122','Ilmu Budaya Dasar',2);
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 'VALLUES
('KK021','Sistem Basis Data',2),
('KK132','Interaksi Manusia Komputer',3' at line 1
MariaDB [Tugas1]> Insert into Mata_Kuliah (KD_MK>Nama_MK,SKS) VALUES
  -> ('KK021','Sistem Basis Data',2),
  -> ('KK132','Interaksi Manusia Komputer',3),
  -> ('KU122','Ilmu Budaya Dasar',2);
Query OK, 3 rows affected (0.036 sec)
Records: 3 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> select*from Mata_Kuliah;
+-----+
| KD_MK | Nama_MK | SKS |
+-----+
| KK021 | Sistem Basis Data | 2 |
| KK132 | Interaksi Manusia Komputer | 3 |
| KU122 | Ilmu Budaya Dasar | 2 |
+-----+
3 rows in set (0.000 sec)

MariaDB [Tugas1]>

```

### 3.2 Table Mata\_Kuliah

Terdapat kesalahan juga ketika ingin memasukkan data. Kesalahannya dikarenakan salah ketik VALLUES seharusnya VALUES yang artinya nilai(isi).

```
Command Prompt - mysql -u root
--> (201143500326,'KD123',80,0),
--> (201143500439,'KD123',40,30);
Query OK, 4 rows affected (0.121 sec)
Records: 4  Duplicates: 0  Warnings: 0

MariaDB [Tugas1]> Select*from Nilai;
+----+-----+-----+-----+
| NPM | KD_MK | UTS | UAS |
+----+-----+-----+-----+
| 2147483647 | KK021 | 60 | 75 |
| 2147483647 | KD123 | 70 | 90 |
| 2147483647 | KK021 | 50 | 40 |
| 2147483647 | KU122 | 90 | 80 |
| 2147483647 | KU122 | 75 | 75 |
| 2147483647 | KD123 | 80 | 0 |
| 2147483647 | KD123 | 40 | 30 |
| 201143500439 | KK021 | 60 | 75 |
| 201143500121 | KD123 | 70 | 90 |
| 201143500234 | KK021 | 50 | 40 |
| 201143500165 | KU122 | 90 | 80 |
| 201143500228 | KU122 | 75 | 75 |
| 201143500326 | KD123 | 80 | 0 |
| 201143500439 | KD123 | 40 | 30 |
+----+-----+-----+-----+
14 rows in set (0.000 sec)

MariaDB [Tugas1]> delete from Nilai where NPM=2147483647;
Query OK, 7 rows affected (0.077 sec)

MariaDB [Tugas1]> select*from Nilai;
+----+-----+-----+-----+
| NPM | KD_MK | UTS | UAS |
+----+-----+-----+-----+
| 201143500439 | KK021 | 60 | 75 |
| 201143500121 | KD123 | 70 | 90 |
| 201143500234 | KK021 | 50 | 40 |
| 201143500165 | KU122 | 90 | 80 |
| 201143500228 | KU122 | 75 | 75 |
| 201143500326 | KD123 | 80 | 0 |
| 201143500439 | KD123 | 40 | 30 |
+----+-----+-----+-----+
7 rows in set (0.000 sec)

MariaDB [Tugas1]>
```

### 3.3 Table Nilai

Ada beberapa error sebelum hasil ini terjadi yaitu

-yang tampil bukan npm yang sudah di input,itu dikarenakan Npm bertype data Integer yang ada batasan nilainya..maka dari itu saya ubah menjadi bertype data varchar(20).

-Kemudian untuk menghapus npm yang salah dengan mengetik:

DELETE FROM Nilai where NPM=214748647; maka data yang Npm nya bernilai berikut akan terhapus.

### Nomor 4 Menampilkan seluruh database:

```
ERROR 1106 (HY000): Table 'tugas1.tugas1' doesn't exist
MariaDB [Tugas1]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| mahasiswa |
| mysql |
| performance_schema |
| phpmyadmin |
| test |
| tugas1 |
+-----+
7 rows in set (0.103 sec)
```

Dengan mengetik SHOW DATABASES;

### Nomor 5 Menampilkan seluruh Table:

```
MariaDB [Tugas1]> SHOW TABLES;
+-----+
| Tables_in_tugas1 |
+-----+
| mahasiswa        |
| mata_kuliah       |
| nilai            |
+-----+
3 rows in set (0.001 sec)
```

Dengan mengetik SHOW TABLES;

### Nomor 6 menampilkan struktur table Mata\_Kuliah:

```
MariaDB [Tugas1]> desc Mata_Kuliah;
+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+
| KD_MK | varchar(10)   | YES  |     | NULL    |       |
| Nama_MK | varchar(30)  | YES  |     | NULL    |       |
| SKS   | int(10)       | YES  |     | NULL    |       |
+-----+
3 rows in set (0.022 sec)

MariaDB [Tugas1]> _
```

Dengan mengetik DESC Mata\_Kuliah; dimana Mata\_Kuliah adalah nama salah satu table.

### Nomor 7 Menghapus Tabel Mata\_Kuliah:

```
MariaDB [Tugas1]> desc Mata_Kuliah;
+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+
| KD_MK | varchar(10)   | YES  |     | NULL    |       |
| Nama_MK | varchar(30)  | YES  |     | NULL    |       |
| SKS   | int(10)       | YES  |     | NULL    |       |
+-----+
3 rows in set (0.022 sec)

MariaDB [Tugas1]> DROP TABLE Mata_Kuliah;
Query OK, 0 rows affected (0.231 sec)

MariaDB [Tugas1]> select*from Mata_Kuliah;
ERROR 1146 (42502): Table 'tugas1.mata_kuliah' doesn't exist
MariaDB [Tugas1]>
```

Dengan mengetik DROP TABLE Mata\_Kuliah;

Itu akan menghapus table matakuliah

## Nomor 8 membuat table Mata\_Kuliah

```
MariaDB [Tugas1]> Create Table Mata_Kuliah(
  -> KD_MK varchar(10),
  -> Nama_MK varchar(30),
  -> SKS int(10));
Query OK, 0 rows affected (0.244 sec)

MariaDB [Tugas1]> DESC Mata_Kuliah;
+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| KD_MK | varchar(10)   | YES  |     | NULL    |       |
| Nama_MK | varchar(30)  | YES  |     | NULL    |       |
| SKS   | int(10)       | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+
3 rows in set (0.025 sec)

MariaDB [Tugas1]> Insert into Mata_Kuliah (KD_MK,Nama_MK,SKS) VALUES
  -> ('KK021','Sistem Basis Data',2),
  -> ('KK132','Interaksi Manusia Komputer',3),
  -> ('KU122','Ilmu Budaya Dasar',2);
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 'VALUES ('KK021','Sistem Basis Data',2), ('KK132','Interaksi Manusia Komputer',3) at line 1
MariaDB [Tugas1]> Insert into Mata_Kuliah (KD_MK,Nama_MK,SKS) VALUES
  -> ('KK021','Sistem Basis Data',2),
  -> ('KK132','Interaksi Manusia Komputer',3),
  -> ('KU122','Ilmu Budaya Dasar',2);
Query OK, 3 rows affected (0.036 sec)
Records: 3  Duplicates: 0  Warnings: 0

MariaDB [Tugas1]> select*from Mata_Kuliah;
+-----+-----+-----+
| KD_MK | Nama_MK                | SKS |
+-----+-----+-----+
| KK021 | Sistem Basis Data      | 2   |
| KK132 | Interaksi Manusia Komputer | 3   |
| KU122 | Ilmu Budaya Dasar      | 2   |
+-----+-----+-----+
3 rows in set (0.000 sec)
```

CREATE: membuat Tabel

INSERT INTO TABLE: Memasukkan data kedalam Tabel.

## Nomor 9 mengganti nama table matakuliah menjadi MT\_Kuliah:

```
MariaDB [Tugas1]> select*from matakuliah;
+-----+-----+-----+
| KD_MK | Nama_MK                | SKS |
+-----+-----+-----+
| KK021 | Sistem Basis Data      | 2   |
| KD132 | Interaksi Manusia Komputer | 3   |
| KU122 | Ilmu Budaya Dasar      | 2   |
+-----+-----+-----+
3 rows in set (0.000 sec)

MariaDB [Tugas1]> ALTER TABLE matakuliah rename MT_Kuliah;
Query OK, 0 rows affected (0.317 sec)

MariaDB [Tugas1]> _
```

Dengan mengetik ALTER TABLE matakuliah rename MT\_Kuliah;

## Nomor 10 mengganti nama field Nama\_MK menjadi NM\_MK dgn panjang field 30

```
MariaDB [Tugas1]> ALTER TABLE MT_Kuliah change Nama_MK
  -> NM_MK varchar(30);
Query OK, 0 rows affected (0.145 sec)
Records: 0  Duplicates: 0  Warnings: 0

MariaDB [Tugas1]> select*from MT_Kuliah;
+-----+-----+-----+
| KD_MK | NM_MK                | SKS |
+-----+-----+-----+
| KK021 | Sistem Basis Data      | 2   |
| KD132 | Interaksi Manusia Komputer | 3   |
| KU122 | Ilmu Budaya Dasar      | 2   |
+-----+-----+-----+
3 rows in set (0.000 sec)

MariaDB [Tugas1]>
```

**Nomor 11 dan 12 menambahkan dan menghapus coloumn tanggal lahir pada table mahasiswa:**

```
MariaDB [Tugas1]> ALTER TABLE MAHASISWA ADD column Tgl_lahir varchar(30);
Query OK, 0 rows affected (0.188 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> desc MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM   | int(20) | NO | | NULL | |
| Nama  | varchar(20) | YES | | NULL | |
| Alamat | varchar(20) | YES | | NULL | |
| Tgl_lahir | varchar(30) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.024 sec)

MariaDB [Tugas1]> ALTER TABLE MAHASISWA DROP Tgl_lahir;
Query OK, 0 rows affected (0.183 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM   | int(20) | NO | | NULL | |
| Nama  | varchar(20) | YES | | NULL | |
| Alamat | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.146 sec)

MariaDB [Tugas1]> _
```

**Nomor 13 menambahkan column tgl lahir di awal field:**

Dengan mengetik ALTER TABLE MAHASISWA ADD column Tgl\_Lahir varchar(30) first;

Add column berarti menambah column yaitu Tgl\_lahir dengan panjang field(30);

First berarti Menempatkan field tersebut Diawal field.

```
MariaDB [Tugas1]> ALTER TABLE MAHASISWA ADD column Tgl_lahir varchar(30) first;
Query OK, 0 rows affected (0.183 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| Tgl_lahir | varchar(30) | YES | | NULL | |
| NPM   | int(20) | NO | | NULL | |
| Nama  | varchar(20) | YES | | NULL | |
| Alamat | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.024 sec)

MariaDB [Tugas1]> _
```

**Nomor 14 menghapus column tgl Lahir:**

Dengan Mengetik ALTER TABLE MAHASISWA DROP Tgl\_Lahir;

Berarti menghapus field Tgl\_Lahir.

```
MariaDB [Tugas1]> ALTER TABLE MAHASISWA DROP Tgl_lahir;
Query OK, 0 rows affected (0.183 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM   | int(20) | NO | | NULL | |
| Nama  | varchar(20) | YES | | NULL | |
| Alamat | varchar(20) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.146 sec)
```

### Nomor 15 menambahkan column tgl\_lahir setelah column nama:

Dengan mengetik ALTER TABLE MAHASISWA ADD column Tgl\_Lahir varchar(30)

->after nama;

Add column berarti menambah column yaitu Tgl\_lahir dengan panjang field(30);

After nama berarti Menempatkan field tersebut setelah field Nama.

```
MariaDB [Tugas1]> ALTER TABLE MAHASISWA ADD column Tgl_lahir varchar(30)
-> after Nama;
Query OK, 0 rows affected (0.200 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC MAHASISWA;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM   | int(20)       | NO   |     | NULL    |       |
| Nama  | varchar(20)   | YES  |     | NULL    |       |
| Tgl_lahir | varchar(30)  | YES  |     | NULL    |       |
| Alamat | varchar(20)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.030 sec)

MariaDB [Tugas1]>
```