

Tugas 1 Praktikum Sistem Basis Data

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Mahasiswa

NPM	Nama	Alamat
201143500439	Andi	Jakarta
201143500121	Desi	Bekasi
201143500234	Endah	Depok
201143500165	Firdaus	Jakarta
201143500228	Gandi	Depok
201143500326	Hilda	Bogor

Matakuliah

KD_MK	Nama_MK	SKS
KK021	Sistem Basis Data	2
KD132	Interaksi Manusia Komputer	3
KU122	Ilmu Budaya Dasar	2

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

1. Buatlah Database Tugas1

Begin

cd/ -> cd xampp -> cd bin -> mysql -u root

CREATE DATABASE Tugas1

End

```
Microsoft Windows [Version 10.0.18362.778]
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C:\Users\FFF>cd/

C:\>cd xampp

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 10
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 (0.002 sec)
```

2. Aktifkan database

Begin

USE Tugas1;

End

```
MariaDB [(none)]> USE Tugas1;
Database changed
```

3. Buatlah 3 buah tabel diatas

Begin

CREATE TABLE Mahasiswa(NPM varchar(13),Nama varchar (15),Alamat varchar(9));

INSERT INTO Mahasiswa ('xxxxxxxxxxxxx','xxxxxx','xxxxx');

SELECT*FROM Mahasiswa;

CREATE TABLE Matakuliah (KD_MK varchar(6),Nama_MK varchar(40),SKS Integer (1));

INSERT INTO Matakuliah ('xxxxxxxxxxxxx','xxxxxx','xxxxx');

SELECT*FROM Matakuliah;

CREATE TABLE Nilai(NPM varchar(13),KD_MK varchar (),UTS integer(3),UAS Integer (1));

INSERT INTO Nilai ('xxxxxxxxxxxxx','xxxxxx','xxxxx');

SELECT*FROM Nilai;

```
MariaDB [Tugas1]> CREATE TABLE Mahasiswa(
  -> NPM varchar(13),
  -> Nama varchar(15),
  -> Alamat varchar(9));
Query OK, 0 rows affected (0.304 sec)
```

```
MariaDB [Tugas1]> INSERT INTO Mahasiswa VALUES
  -> ('201143500439','Andi','Jakarta');
```

```
MariaDB [Tugas1]> SELECT*FROM Mahasiswa;
```

NPM	Nama	Alamat
201143500439	Andi	Jakarta
201143500121	Desi	Bekasi
201143500234	Endah	Depok
201143500165	Firdaus	Jakarta
201143500228	Gandi	Depok
201843500326	Hilda	Bogor

```
6 rows in set (0.041 sec)
```

```
MariaDB [Tugas1]> CREATE TABLE Matakuliah;
ERROR 1113 (42000): A table must have at least 1 column
```

```
MariaDB [Tugas1]> CREATE TABLE Matakuliah(
  -> KD_MK varchar(6),
  -> Nama_MK varchar(40),
  -> SKS integer(1));
```

```
Query OK, 0 rows affected (0.375 sec)
```

```
MariaDB [Tugas1]> INSERT into Matakuliah VALUES
  -> ('KK021','Sistem Basis Data','2');
```

```
Query OK, 1 row affected (0.033 sec)
```

```
MariaDB [Tugas1]> SELECT*FROM Matakuliah;
```

KD_MK	Nama_MK	SKS
KK021	Sistem Basis Data	2
KD132	Interaksi Manusia Dan Komputer	3
KU122	Ilmu Budaya Dasar	2

```
3 rows in set (0.001 sec)
```

```
MariaDB [Tugas1]> CREATE TABLE Nilai(
  -> NPM varchar (13),
  -> KD_MK varchar (6),
  -> UTS integer(3),
  -> UAS integer(3));
```

```
Query OK, 0 rows affected (0.275 sec)
```

```
MariaDB [Tugas1]> INSERT into Nilai VALUES
  -> ('201143500439','KK021','60','75');
```

```
Query OK, 1 row affected (0.070 sec)
```

```
MariaDB [Tugas1]> SELECT*FROM Nilai;
```

NPM	KD_MK	UTS	UAS
201143500439	KK021	60	75
201143500121	KD123	70	90
201143500121	KD123	70	90
201143500234	KK021	50	40
201143500165	KU122	90	80
201143500228	KU122	75	75
201143500326	KD123	80	0
201143500439	KD123	40	30

```
8 rows in set (0.001 sec)
```

4. Tampilkan seluruh database

Begin

SHOW DATABASES;

End

```
MariaDB [Tugas1]> SHOW DATABASES;
```

Database
information_schema
kelasku
mysql
performance_schema
phpmyadmin
test
tugas1

```
7 rows in set (0.002 sec)
```

5. Tampilkan seluruh tabel

Begin

SHOW TABLES;

End

```
MariaDB [Tugas1]> SHOW TABLES;
```

Tables_in_tugas1
mahasiswa
matakuliah
nilai

```
3 rows in set (0.001 sec)
```

6. Tampilkan struktur tabel Matakuliah

Begin

DESC Matakuliah

End

```
MariaDB [Tugas1]> DESC Matakuliah;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| KD_MK | varchar(6)    | YES  |     | NULL    |       |
| Nama_MK | varchar(40)   | YES  |     | NULL    |       |
| SKS    | int(1)        | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.035 sec)
```

7. Hapus tabel Matakuliah

Begin

DROP TABLE Matakuliah

SHOW Tables

End

```
MariaDB [Tugas1]> DROP TABLE Matakuliah;
Query OK, 0 rows affected (0.166 sec)

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

8. Buat tabel Matakuliah

Begin

CREATE TABLE Matakuliah (KD_MK varchar(6),Nama_MK varchar(40),SKS Integer (1));

End

```
MariaDB [Tugas1]> CREATE TABLE Matakuliah(
-> KD_MK varchar(6),
-> Nama_MK varchar(40),
-> SKS integer(1));
Query OK, 0 rows affected (0.260 sec)
```

9. Ganti tabel Matakuliah dengan MT_Kuliah

Begin

ALTER TABLE Matakuliah RENAME MT_Kuliah;

End

```
MariaDB [Tugas1]> ALTER TABLE Matakuliah RENAME MT_Kuliah;
Query OK, 0 rows affected (0.208 sec)

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

10. Ganti nama field Nama_MK dengan NM_MK dan panjang field 30

Begin

ALTER TABLE MT_Kuliah CHANGE Nama_MK

NM_MK varchar(30);

End

```
MariaDB [Tugas1]> ALTER TABLE MT_Kuliah change Nama_MK
-> NM_MK varchar(30);
Query OK, 0 rows affected (0.869 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC MT_Kuliah;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| KD_MK | varchar(6)    | YES  |     | NULL    |       |
| NM_MK | varchar(30)   | YES  |     | NULL    |       |
| SKS   | int(1)        | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.032 sec)
```

11. Tambahkan kolom Tgl_lahir pada tabel Mahasiswa

Begin

ALTER TABLE Mahasiswa ADD COLUMN Tgl_lahir date;

DESC Mahasiswa

End

```
MariaDB [Tugas1]> ALTER TABLE Mahasiswa ADD COLUMN Tgl_lahir date;
Query OK, 0 rows affected (0.156 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [Tugas1]> DESC Mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| NPM        | varchar(13)   | YES  |     | NULL    |       |
| Nama       | varchar(15)   | YES  |     | NULL    |       |
| Alamat     | varchar(9)    | YES  |     | NULL    |       |
| Tgl_lahir  | date          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.033 sec)
```

12. Hapus kolom Tgl_lahir

Begin

ALTER TABLE Mahasiswa DROP Tgl_lahir;

DESC Mahasiswa;

End

```
MariaDB [Tugas1]> ALTER TABLE Mahasiswa DROP Tgl_lahir;
Query OK, 0 rows affected (0.127 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [Tugas1]> DESC Mahasiswa;
```

Field	Type	Null	Key	Default	Extra
NPM	varchar(13)	YES		NULL	
Nama	varchar(15)	YES		NULL	
Alamat	varchar(9)	YES		NULL	

3 rows in set (0.028 sec)

13. Tambahkan kolom Tgl_Lahir pada tabel Mahasiswa pada awal field

Begin

ALTER TABLE Mahasiswa add column Tgl_lahir date first;

DESC Mahasiswa;

End

```
MariaDB [Tugas1]> ALTER TABLE Mahasiswa ADD COLUMN Tgl_lahir date first;
Query OK, 0 rows affected (0.109 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [Tugas1]> DESC Mahasiswa;
```

Field	Type	Null	Key	Default	Extra
Tgl_lahir	date	YES		NULL	
NPM	varchar(13)	YES		NULL	
Nama	varchar(15)	YES		NULL	
Alamat	varchar(9)	YES		NULL	

4 rows in set (0.034 sec)

14. Hapus kolom Tgl_Lahir

Begin

ALTER TABLE Mahasiswa DROP Tgl_lahir;

DESC Mahasiswa;

End

```
MariaDB [Tugas1]> ALTER TABLE Mahasiswa DROP Tgl_lahir;
Query OK, 0 rows affected (0.108 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [Tugas1]> DESC Mahasiswa;
```

Field	Type	Null	Key	Default	Extra
NPM	varchar(13)	YES		NULL	
Nama	varchar(15)	YES		NULL	
Alamat	varchar(9)	YES		NULL	

3 rows in set (0.030 sec)

15. Tambahkan kolom Tgl_Lahir pada tabel Mahasiswa setelah kolom nama

Begin

```
ALTER TABLE Mahasiswa ADD COLUMN Tgl_lahir date
```

AFTER Nama;

```
DESC Mahasiswa;
```

End

```
MariaDB [Tugas1]> ALTER TABLE Mahasiswa ADD COLUMN Tgl_lahir date
-> AFTER Nama;
```

```
Query OK, 0 rows affected (0.119 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [Tugas1]> DESC Mahasiswa;
```

Field	Type	Null	Key	Default	Extra
NPM	varchar(13)	YES		NULL	
Nama	varchar(15)	YES		NULL	
Tgl_lahir	date	YES		NULL	
Alamat	varchar(9)	YES		NULL	

4 rows in set (0.095 sec)