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Tugas : Database



1. Buat sebuah database dengan nama **latihan1**!

- create database latihan01;

```
Setting environment for using XAMPP for Windows.
Windows 8.1@ASUS d:\xampp
# cd mysql/bin

Windows 8.1@ASUS d:\xampp\mysql\bin
# mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 67
Server version: 10.1.10-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2015, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> create database latihan01;
Query OK, 1 row affected (0.00 sec)
```

2. Buat sebuah tabel dengan nama **biodata** dengan field nama dan alamat pada database **latihan1**!

```
use latihan01;
create table biodata (
  nama varchar (15) not null,
  alamat varchar (50) not null );
```

```
MariaDB [(none)]> use latihan01;
Database changed
MariaDB [latihan01]> create table biodata
-> ( nama varchar (15) not null,
-> alamat varchar (20) not null );
Query OK, 0 rows affected (0.28 sec)
```

ketik desc biodata;

```
MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nama  | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

3. Tambahkan sebuah kolom **keterangan** (varchar 15), sebagai kolom terakhir!

```
alter table biodata
add keterangan varchar (15) not null;
```

```
MariaDB [latihan01]> alter table biodata
-> add keterangan varchar (15) not null;
Query OK, 0 rows affected (0.58 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
ketik desc biodata;
```

```
MariaDB [latihan01]> alter table biodata
-> add keterangan varchar (15) not null;
Query OK, 0 rows affected (0.58 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nama  | varchar(15) | NO | | NULL | |
| alamat | varchar(20) | NO | | NULL | |
| keterangan | varchar(15) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)
```

4. Tambahkan kolom **id** (int 11) di awal (sebagai kolom pertama)!

```
alter table biodata
add id int (11) null first;
```

```
MariaDB [latihan01]> alter table biodata
-> add id int (11) null
-> first;
Query OK, 0 rows affected (0.61 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
ketik desc biodata;
```

```
MariaDB [latihan01]> alter table biodata
-> add id int (11) null
-> first;
Query OK, 0 rows affected (0.61 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int(11) | YES | | NULL | |
| nama  | varchar(15) | NO | | NULL | |
| alamat | varchar(20) | NO | | NULL | |
| keterangan | varchar(15) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

5. Sisipkan sebuah kolom dengan nama **phone** (varchar 15) setelah kolom alamat!

```
alter table biodata
add column
phone varchar (15) not null
after alamat;
```

```
MariaDB [latihan01]> alter table biodata
-> add column
-> phone varchar (15) not null
-> after alamat;
Query OK, 0 rows affected (0.60 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc biodata;

```
MariaDB [latihan01]> alter table biodata
-> add column
-> phone varchar (15) not null
-> after alamat;
Query OK, 0 rows affected (0.60 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | int(11) | YES | | NULL | |
| nama  | varchar(15) | NO | | NULL | |
| alamat | varchar(20) | NO | | NULL | |
| phone | varchar(15) | NO | | NULL | |
| keterangan | varchar(15) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

6. Ubah kolom id menjadi char(11)!

```
alter table biodata
modify id char (11) null;
```

```
MariaDB [latihan01]> alter table biodata
-> modify id char (11) null;
Query OK, 0 rows affected (0.00 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc biodata;

```
MariaDB [latihan01]> alter table biodata
-> modify id char (11) null;
Query OK, 0 rows affected (0.00 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | char(11) | YES | | NULL | |
| nama  | varchar(15) | NO | | NULL | |
| alamat | varchar(20) | NO | | NULL | |
| phone | varchar(15) | NO | | NULL | |
| keterangan | varchar(15) | NO | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

7. Ubah nama kolom **phone** menjadi **hp** (varchar 20)!

```
alter table biodata
change phone hp varchar (20) not null;
```

```
MariaDB [latihan01]> alter table biodata
-> change phone hp varchar (20) not null;
Query OK, 0 rows affected (0.81 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc biodata;

```
MariaDB [latihan01]> alter table biodata
-> change phone hp varchar (20) not null;
Query OK, 0 rows affected (0.81 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id     | char(11)      | YES  |     | NULL    |       |
| nama   | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
| hp     | varchar(20)   | NO   |     | NULL    |       |
| keterangan | varchar(15) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.01 sec)
```

8. Hapus kolom **keterangan** dari tabel!

```
alter table biodata
drop keterangan;
```

```
MariaDB [latihan01]> alter table biodata
-> drop keterangan;
Query OK, 0 rows affected (0.84 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc biodata;

```
MariaDB [latihan01]> alter table biodata
-> drop keterangan;
Query OK, 0 rows affected (0.84 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id     | char(11)      | YES  |     | NULL    |       |
| nama   | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
| hp     | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

9. Ganti nama tabel menjadi **data\_mahasiswa**!

```
rename table biodata to data_mahasiswa;
```

```
MariaDB [latihan01]> rename table biodata to data_mahasiswa;
Query OK, 0 rows affected (0.23 sec)
```

ketik desc data\_mahasiswa;

```
MariaDB [latihan01]> rename table biodata to data_mahasiswa;
Query OK, 0 rows affected (0.23 sec)

MariaDB [latihan01]> desc data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id     | char(11)      | YES  |     | NULL    |       |
| nama   | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
| hp     | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

10. Ganti nama **field** id menjadi **nim**!

```
alter table data_mahasiswa  
change id nim char (11) null;
```

```
MariaDB [latihan01]> alter table data_mahasiswa  
-> change id nim char (11) null;  
Query OK, 0 rows affected (0.10 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc data\_mahasiswa;

```
MariaDB [latihan01]> alter table data_mahasiswa
-> change id nim char (11) null;
Query OK, 0 rows affected (0.10 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim    | char(11)      | YES  |     | NULL    |       |
| nama   | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
| hp     | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```

11. Jadikan nim sebagai primary key!

alter table data\_mahasiswa add primary key (nim);

```
MariaDB [latihan01]> alter table data_mahasiswa add primary key (nim);
Query OK, 0 rows affected (1.24 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

ketik desc data\_mahasiswa;

```
MariaDB [latihan01]> alter table data_mahasiswa add primary key (nim);
Query OK, 0 rows affected (1.24 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan01]> desc data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim    | char(11)      | NO   | PRI | NULL    |       |
| nama   | varchar(15)   | NO   |     | NULL    |       |
| alamat | varchar(20)   | NO   |     | NULL    |       |
| hp     | varchar(20)   | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.01 sec)
```