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## Latihan 1.1

### 1. Buat tangkapan layar dari hasil tiap percobaan

```
XAMPP for Windows
Setting environment for using XAMPP for Windows.
User@LAPTOP-HGG1ETHH d:\xampp
# mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 26
Server version: 10.4.22-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)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| penggajian |
| phpmyadmin |
| tugas |
| ukk |
+-----+
5 rows in set (0.001 sec)

MariaDB [(none)]> CREATE DATABASE penggajian1;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> SHOW DATABASES;
+-----+
| Database |
+-----+
| information_schema |
| penggajian |
| penggajian1 |
| phpmyadmin |
| tugas |
| ukk |
+-----+
6 rows in set (0.001 sec)

MariaDB [(none)]> DROP DATABASE penggajian1;
Query OK, 0 rows affected, 2 warnings (0.003 sec)

MariaDB [(none)]> QUIT
```

### 2. Buat 3 basis data dan tampilkan hasilnya kemudian hapuskan salah satu di antaranya

```
MAA040MAA1 e:\xampp
# mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 9
Server version: 10.4.25-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 Muhammad;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> create database Adam;
Query OK, 1 row affected (0.031 sec)

MariaDB [(none)]> create database Alghifari;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]>
```

```

MariaDB [(none)]> drop database Algifari;
ERROR 1008 (HY000): Can't drop database 'algifari'; database doesn't exist
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| adam     |
| alghifari |
| information_schema |
| muhammad |
| mysql     |
| pembelianabcd |
| pembelianb |
| penggajian |
| performance_schema |
| phpmyadmin |
| test      |
+-----+
11 rows in set (0.107 sec)

MariaDB [(none)]> drop database alghifari;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]>

```

## Latihan 1.2

### 1. Buat tangkapan layar dari hasil tiap percobaan

```

MariaDB [(none)]> CREATE DATABASE penggajian1;
Query OK, 1 row affected (0.001 sec)

MariaDB [(none)]> USE penggajian1;
Database changed
MariaDB [penggajian1]> SHOW TABLES;
Empty set (0.001 sec)

MariaDB [penggajian1]> CREATE TABLE karyawan (
  -> nik VARCHAR(255),
  -> nama VARCHAR(255)
  -> ) Engine = InnoDB;
Query OK, 0 rows affected (0.043 sec)

MariaDB [penggajian1]> SHOW TABLES;
+-----+
| Tables_in_penggajian1 |
+-----+
| karyawan               |
+-----+
1 row in set (0.001 sec)

MariaDB [penggajian1]> DESCRIBE karyawan;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| nik   | varchar(255) | YES |  | NULL |  |
| nama  | varchar(255) | YES |  | NULL |  |
+-----+-----+-----+-----+-----+
2 rows in set (0.037 sec)

MariaDB [penggajian1]> DROP TABLE karyawan;
Query OK, 0 rows affected (0.034 sec)

MariaDB [penggajian1]> DESCRIBE karyawan;
ERROR 1146 (42502): Table 'penggajian1.karyawan' doesn't exist
MariaDB [penggajian1]>

```

## 2. Buat sebuah basis data yang berisikan 3 tabel dengan masing-masing table minimal 3 kolom

```
MariaDB [penggajian1]> CREATE TABLE karyawan(  
-> nama VARCHAR(225),  
-> nik INT(12),  
-> handphone INT(11)  
-> );  
Query OK, 0 rows affected (0.069 sec)  
  
MariaDB [penggajian1]> SHOW TABLES;  
+-----+  
| Tables_in_penggajian1 |  
+-----+  
| karyawan               |  
+-----+  
1 row in set (0.001 sec)  
  
MariaDB [penggajian1]> DESCRIBE karyawan;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nama  | varchar(225) | YES  |     | NULL    |       |  
| nik   | int(12)      | YES  |     | NULL    |       |  
| handphone | int(11)    | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.024 sec)
```

### Membuat table karyawan

```
XAMPP for Windows - mysql -u root  
MariaDB [penggajian1]> CREATE TABLE jabatan(  
-> id_jabatan INT(11),  
-> nama_jabatan VARCHAR(255),  
-> gapok_jabatan INT(11),  
-> tunjangan_jabatan INT(11),  
-> uang_makan_perhari INT(11)  
-> );  
Query OK, 0 rows affected (0.079 sec)  
  
MariaDB [penggajian1]> DESCRIBE jabatan;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| id_jabatan | int(11)  | YES  |     | NULL    |       |  
| nama_jabatan | varchar(255) | YES  |     | NULL    |       |  
| gapok_jabatan | int(11)  | YES  |     | NULL    |       |  
| tunjangan_jabatan | int(11)  | YES  |     | NULL    |       |  
| uang_makan_perhari | int(11)  | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
5 rows in set (0.024 sec)
```

### Membuat table jabatan

```
MariaDB [penggajian1]> CREATE TABLE kelas(  
-> nama VARCHAR(225),  
-> npm INT(11),  
-> prodi VARCHAR(225)  
-> );  
Query OK, 0 rows affected (0.046 sec)  
  
MariaDB [penggajian1]> DESCRIBE kelas;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nama  | varchar(225) | YES  |     | NULL    |       |  
| npm   | int(11)      | YES  |     | NULL    |       |  
| prodi | varchar(225) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.021 sec)
```

### Membuat table kelas

```
MariaDB [(none)]> use kelas  
Database changed  
MariaDB [kelas1]> create table kelas(  
-> ketua_kelas VARCHAR(255),  
-> wakil_ketua_kelas VARCHAR(255),  
-> sekretaris VARCHAR(255)  
-> );  
Query OK, 0 rows affected (0.344 sec)  
  
MariaDB [kelas1]> describe kelas  
-> ;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| ketua_kelas | varchar(255) | YES  |     | NULL    |       |  
| wakil_ketua_kelas | varchar(255) | YES  |     | NULL    |       |  
| sekretaris  | varchar(255) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.043 sec)  
MariaDB [kelas1]>
```

### 3. Eksplorasi jenis tipe data yang digunakan selain VARCHAR

```
MariaDB [penggajian1]> CREATE TABLE kelas(  
-> nama VARCHAR(225),  
-> npm INT(11),  
-> prodi VARCHAR(225)  
-> );  
Query OK, 0 rows affected (0.046 sec)  
  
MariaDB [penggajian1]> DESCRIBE kelas;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nama  | varchar(225) | YES  |     | NULL    |       |  
| npm   | int(11)      | YES  |     | NULL    |       |  
| prodi | varchar(225) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.021 sec)
```

Fungsi varchar untuk menampung data yang bertipe karakter atau alphabetic(a-z)

Fungsi integer adalah tipe data yang digunakan untuk menampung data yang bertipe angka

### 4. Hapus salah satu dari table tersebut

```
MariaDB [penggajian1]> DROP TABLE kelas;  
Query OK, 0 rows affected (0.043 sec)  
  
MariaDB [penggajian1]> SHOW TABLES;  
+-----+  
| Tables_in_penggajian1 |  
+-----+  
| jabatan                |  
| karyawan                |  
+-----+  
2 rows in set (0.001 sec)
```

Fungsi Drop table kelas adalah untuk menghapus table kelas

### Latihan 1.3

1. Jelaskan fungsi dari perintah-perintah yang sudah diketik pada percobaan 1.3

Create table adalah perintah yang digunakan untuk membuat sebuah table di database

Alter merupakan perintah untuk melakukan perubahan struktur table yg telah di buat mengganti nama Field (Change), menambah Field(Add), menghapus Field(Drop), mengubah Field(Modify).

Describe untuk mendeskripsikan struktur sebuah table

2. Terapkan pada table yang sudah dibuat pada latihan 1.2

3. Tampilkan hasil tangkapan layar

```
MariaDB [penggajian1]> CREATE TABLE karyawan2(  
-> nik VARCHAR(255),  
-> nama VARCHAR(255)  
-> ) Engine = InnoDB;  
Query OK, 0 rows affected (0.054 sec)  
  
MariaDB [penggajian1]> ALTER TABLE karyawan2 ADD alamat VARCHAR(255);  
Query OK, 0 rows affected (0.046 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
MariaDB [penggajian1]> DESCRIBE karyawan2;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nik   | varchar(255) | YES  |     | NULL    |       |  
| nama  | varchar(255) | YES  |     | NULL    |       |  
| alamat | varchar(255) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.035 sec)
```

```
MariaDB [penggajian1]> ALTER TABLE karyawan2 CHANGE COLUMN alamat alamat_lengkap TEXT;
Query OK, 0 rows affected (0.105 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [penggajian1]> ALTER TABLE karyawan2 DROP COLUMN alamat_lengkap;
Query OK, 0 rows affected (0.044 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [penggajian1]> DESCRIBE karyawan2;
```

Field	Type	Null	Key	Default	Extra
nik	varchar(255)	YES		NULL	
nama	varchar(255)	YES		NULL	

2 rows in set (0.018 sec)

```
XAMPP for Windows - mysql -u root
```

```
MariaDB [penggajian1]> ALTER TABLE karyawan2 MODIFY nik VARCHAR(255) NOT NULL PRIMARY KEY;
Query OK, 0 rows affected (0.118 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [penggajian1]> DESCRIBE karyawan2;
```

Field	Type	Null	Key	Default	Extra
nik	varchar(255)	NO	PRI	NULL	
nama	varchar(255)	YES		NULL	

2 rows in set (0.037 sec)

```
MariaDB [penggajian1]> ALTER TABLE karyawan2 DROP PRIMARY KEY;
Query OK, 0 rows affected (0.066 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [penggajian1]> DESCRIBE karyawan2;
```

Field	Type	Null	Key	Default	Extra
nik	varchar(255)	NO		NULL	
nama	varchar(255)	YES		NULL	

2 rows in set (0.021 sec)

```
MariaDB [penggajian1]> _
```