

TUGAS PRAKTIKUM 1

LANGKAH – LANGKAH :

1. Buat sebuah database dengan nama latihan2!

```
C:\WINDOWS\system32\cmd.exe - mysql -u root -p

MariaDB [(none)]> CREATE DATABASE latihan2;
Query OK, 1 row affected (0.031 sec)
```

2. Buat sebuah table dengan nama biodata (nama, alamat) di dalam database latihan2!

```
MariaDB [(none)]> CREATE DATABASE latihan2;
Query OK, 1 row affected (0.031 sec)

MariaDB [(none)]> USE latihan2;
Database changed
MariaDB [latihan2]> CREATE TABLE biodata (nama VARCHAR(100), alamat TEXT);
Query OK, 0 rows affected (0.537 sec)

MariaDB [latihan2]> DESC biodata;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nama  | varchar(100)  | YES  |     | NULL    |       |
| alamat| text          | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
2 rows in set (0.113 sec)
```

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

```
MariaDB [latihan2]> ALTER TABLE biodata ADD COLUMN keterangan VARCHAR(15) AFTER alamat;
Query OK, 0 rows affected (0.099 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nama       | varchar(100)  | YES  |     | NULL    |       |
| alamat     | text          | YES  |     | NULL    |       |
| keterangan | varchar(15)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.050 sec)
```

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

```
MariaDB [latihan2]> ALTER TABLE biodata ADD COLUMN id INT(11) FIRST;
Query OK, 0 rows affected (0.095 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | YES  |     | NULL    |       |
| nama       | varchar(100)  | YES  |     | NULL    |       |
| alamat     | text          | YES  |     | NULL    |       |
| keterangan | varchar(15)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.029 sec)
```

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

```
MariaDB [latihan2]> ALTER TABLE biodata ADD COLUMN phone VARCHAR(15) AFTER alamat;
Query OK, 0 rows affected (0.111 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | int(11)       | YES  |     | NULL    |       |
| nama       | varchar(100)  | YES  |     | NULL    |       |
| alamat     | text          | YES  |     | NULL    |       |
| phone      | varchar(15)   | YES  |     | NULL    |       |
| keterangan | varchar(15)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.030 sec)
```

6. Ubah tipe data kolom id menjadi char(11)!

```
MariaDB [latihan2]> ALTER TABLE biodata MODIFY id CHAR(11);
Query OK, 0 rows affected (0.598 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
+-----+-----+-----+-----+-----+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id         | char(11)      | YES  |     | NULL    |       |
| nama       | varchar(100)  | YES  |     | NULL    |       |
| alamat     | text          | YES  |     | NULL    |       |
| phone      | varchar(15)   | YES  |     | NULL    |       |
| keterangan | varchar(15)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.014 sec)
```

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

```
MariaDB [latihan2]> ALTER TABLE biodata CHANGE phone hp VARCHAR(20);
Query OK, 0 rows affected (0.143 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
```

Field	Type	Null	Key	Default	Extra
id	char(11)	YES		NULL	
nama	varchar(100)	YES		NULL	
alamat	text	YES		NULL	
hp	varchar(20)	YES		NULL	
keterangan	varchar(15)	YES		NULL	

```
5 rows in set (0.020 sec)
```

8. Tambahkan kolom email setelah kolom hp

```
MariaDB [latihan2]> ALTER TABLE biodata ADD COLUMN email VARCHAR(50) AFTER hp;
Query OK, 0 rows affected (0.058 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
```

Field	Type	Null	Key	Default	Extra
id	char(11)	YES		NULL	
nama	varchar(100)	YES		NULL	
alamat	text	YES		NULL	
hp	varchar(20)	YES		NULL	
email	varchar(50)	YES		NULL	
keterangan	varchar(15)	YES		NULL	

```
6 rows in set (0.035 sec)
```

9. Hapus kolom keterangan dari table!

```
MariaDB [latihan2]> ALTER TABLE biodata DROP keterangan;
Query OK, 0 rows affected (0.056 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC biodata;
```

Field	Type	Null	Key	Default	Extra
id	char(11)	YES		NULL	
nama	varchar(100)	YES		NULL	
alamat	text	YES		NULL	
hp	varchar(20)	YES		NULL	
email	varchar(50)	YES		NULL	

```
5 rows in set (0.087 sec)
```

10. Ganti nama table menjadi data_mahasiswa!

```
MariaDB [latihan2]> RENAME TABLE biodata TO data_mahasiswa;
Query OK, 0 rows affected (0.069 sec)

MariaDB [latihan2]> DESC data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id    | char(11)      | YES  |     | NULL    |       |
| nama  | varchar(100)  | YES  |     | NULL    |       |
| alamat | text          | YES  |     | NULL    |       |
| hp    | varchar(20)   | YES  |     | NULL    |       |
| email | varchar(50)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.082 sec)
```

11. Ganti nama field id menjadi nim!

```
MariaDB [latihan2]> ALTER TABLE data_mahasiswa CHANGE id nim CHAR(11);
Query OK, 0 rows affected (0.137 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim   | char(11)      | YES  |     | NULL    |       |
| nama  | varchar(100)  | YES  |     | NULL    |       |
| alamat | text          | YES  |     | NULL    |       |
| hp    | varchar(20)   | YES  |     | NULL    |       |
| email | varchar(50)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.182 sec)
```

12. Jadikan nim sebagai primary key!

```
MariaDB [latihan2]> ALTER TABLE data_mahasiswa ADD PRIMARY KEY(nim);
Query OK, 0 rows affected (0.241 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC data_mahasiswa;
+-----+-----+-----+-----+-----+-----+
| Field | Type          | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nim   | char(11)      | NO   | PRI | NULL    |       |
| nama  | varchar(100)  | YES  |     | NULL    |       |
| alamat | text          | YES  |     | NULL    |       |
| hp    | varchar(20)   | YES  |     | NULL    |       |
| email | varchar(50)   | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.335 sec)
```

13. Jadikan kolom email sebagai unique key

```
MariaDB [latihan2]> ALTER TABLE data_mahasiswa ADD UNIQUE KEY(email);
Query OK, 0 rows affected (0.259 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [latihan2]> DESC data_mahasiswa;
```

Field	Type	Null	Key	Default	Extra
nim	char(11)	NO	PRI	NULL	
nama	varchar(100)	YES		NULL	
alamat	text	YES		NULL	
hp	varchar(20)	YES		NULL	
email	varchar(50)	YES	UNI	NULL	

```
5 rows in set (0.052 sec)
```

Evaluasi dan Pertanyaan :

1. Apa maksud dari int (11)?
2. Ketika melihat struktur table dengan perintah desc, ada kolom null yang berisi yes dan no. apa maksudnya?

Jawaban :

1. Int(11) adalah nama tipe datanya yaitu integer dan memiliki panjang 11 karakter
2. Maksud dari kata yes dan no pada kolom null adalah untuk menjelaskan bahwa pada record yang no harus di isi sedangkan yes bisa tidak di isi