



BASIS DATA

INF1123

LAPORAN PRAKTIKUM 6 : Perintah SQL Alter Table (DDL)

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Laporan Praktikum 6:

Perintah SQL Alter Table

(DDL)

Pokok Bahasan:

- ❖ Create
- ❖ Alter
- ❖ Drop

Tujuan Pembelajaran:

- ✓ Membuat database dan tabel dengan data definition language
- ✓ Mampu memodifikasi tabel

Percobaan & Latihan:

1. show databases;

```
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| dbkursus_aq |
| informatika |
| information_schema |
| latihan1 |
| mysql |
| performance_schema |
| php_mysql_crud |
| phpmyadmin |
| test |
+-----+
9 rows in set (0.002 sec)
```

2. use informatika;

```
MariaDB [(none)]> use informatika;
Database changed
```

3. create table daftar_jurusan

```
(
    kode_jurusan    char(5),
    nama_jurusan    varchar(20),
    alamat          varchar(100),
```

```
jumlah_mahasiswa smallint  
);
```

```
MariaDB [informatika]> create table daftar_jurusan  
-> (  
->     kode_jurusan      char(5),  
->     nama_jurusan      varchar(20),  
->     alamat             varchar(100),  
->     jumlah_mahasiswa  smallint  
-> );  
Query OK, 0 rows affected (0.047 sec)
```

4. alter table daftar_jurusan modify jumlah_mahasiswa mediumint;

```
MariaDB [informatika]> alter table daftar_jurusan modify jumlah_mahasiswa mediumint;  
Query OK, 0 rows affected (0.085 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

5. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| kode_jurusan   | char(5)       | YES  |     | NULL    |       |  
| nama_jurusan   | varchar(20)   | YES  |     | NULL    |       |  
| alamat         | varchar(100)  | YES  |     | NULL    |       |  
| jumlah_mahasiswa | mediumint(9) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.013 sec)
```

6. alter table daftar_jurusan change alamat alamat_jurusan varchar(100);

```
MariaDB [informatika]> alter table daftar_jurusan change alamat alamat_jurusan varchar(100);  
Query OK, 0 rows affected (0.007 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

7. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| kode_jurusan   | char(5)       | YES  |     | NULL    |       |  
| nama_jurusan   | varchar(20)   | YES  |     | NULL    |       |  
| alamat_jurusan | varchar(100)  | YES  |     | NULL    |       |  
| jumlah_mahasiswa | mediumint(9) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.003 sec)
```

8. alter table daftar_jurusan rename to tabel_jurusan;

```
MariaDB [informatika]> alter table daftar_jurusan rename to tabel_jurusan;  
Query OK, 0 rows affected (0.029 sec)
```

9. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;  
ERROR 1146 (42S02): Table 'informatika.daftar_jurusan' doesn't exist
```

10. desc tabel_jurusan;

```
MariaDB [informatika]> desc tabel_jurusan;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| kode_jurusan   | char(5)       | YES  |     | NULL    |       |  
| nama_jurusan   | varchar(20)   | YES  |     | NULL    |       |  
| alamat_jurusan | varchar(100)  | YES  |     | NULL    |       |  
| jumlah_mahasiswa | mediumint(9) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.003 sec)
```

11. rename table tabel_jurusan to daftar_jurusan;

```
MariaDB [informatika]> rename table tabel_jurusan to daftar_jurusan;  
Query OK, 0 rows affected (0.009 sec)
```

12. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;  
+-----+-----+-----+-----+-----+-----+  
| Field          | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| kode_jurusan   | char(5)       | YES  |     | NULL    |       |  
| nama_jurusan   | varchar(20)   | YES  |     | NULL    |       |  
| alamat_jurusan | varchar(100)  | YES  |     | NULL    |       |  
| jumlah_mahasiswa | mediumint(9) | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
4 rows in set (0.003 sec)
```

13. alter table daftar_jurusan add ketua_jurusan varchar(50);

```
MariaDB [informatika]> alter table daftar_jurusan add ketua_jurusan varchar(50);  
Query OK, 0 rows affected (0.012 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

14. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;
```

Field	Type	Null	Key	Default	Extra
kode_jurusan	char(5)	YES		NULL	
nama_jurusan	varchar(20)	YES		NULL	
alamat_jurusan	varchar(100)	YES		NULL	
jumlah_mahasiswa	mediumint(9)	YES		NULL	
ketua_jurusan	varchar(50)	YES		NULL	

5 rows in set (0.003 sec)

15. alter table daftar_jurusan drop ketua_jurusan;

```
MariaDB [informatika]> alter table daftar_jurusan drop ketua_jurusan;  
Query OK, 0 rows affected (0.012 sec)  
Records: 0 Duplicates: 0 Warnings: 0
```

16. desc daftar_jurusan;

```
MariaDB [informatika]> desc daftar_jurusan;
```

Field	Type	Null	Key	Default	Extra
kode_jurusan	char(5)	YES		NULL	
nama_jurusan	varchar(20)	YES		NULL	
alamat_jurusan	varchar(100)	YES		NULL	
jumlah_mahasiswa	mediumint(9)	YES		NULL	

4 rows in set (0.007 sec)

Soal Essay:

1. **Buatlah tabel database menggunakan tipe data Smallint pada kegiatan perkuliahan misalnya dosen mengajar basis data!**

```
CREATE TABLE kegiatan_perkuliahan (  
  id smallint PRIMARY KEY,  
  dosen smallint NOT NULL,  
  mata_kuliah smallint NOT NULL,  
  kelas smallint NOT NULL,  
  jumlah_mahasiswa smallint NOT NULL,  
  jam_ke smallint NOT NULL,  
  hari varchar(10) NOT NULL  
);
```

2. **Tabel dosen dan tabel matakuliah yang menggunakan Smallint harap dirubah menggunakan mediumint agar dapat menampung lebih banyak data mengajar!**

```
alter table kegiatan_perkuliahan modify dosen mediumint;  
alter table kegiatan_perkuliahan modify mata_kuliah mediumint;
```