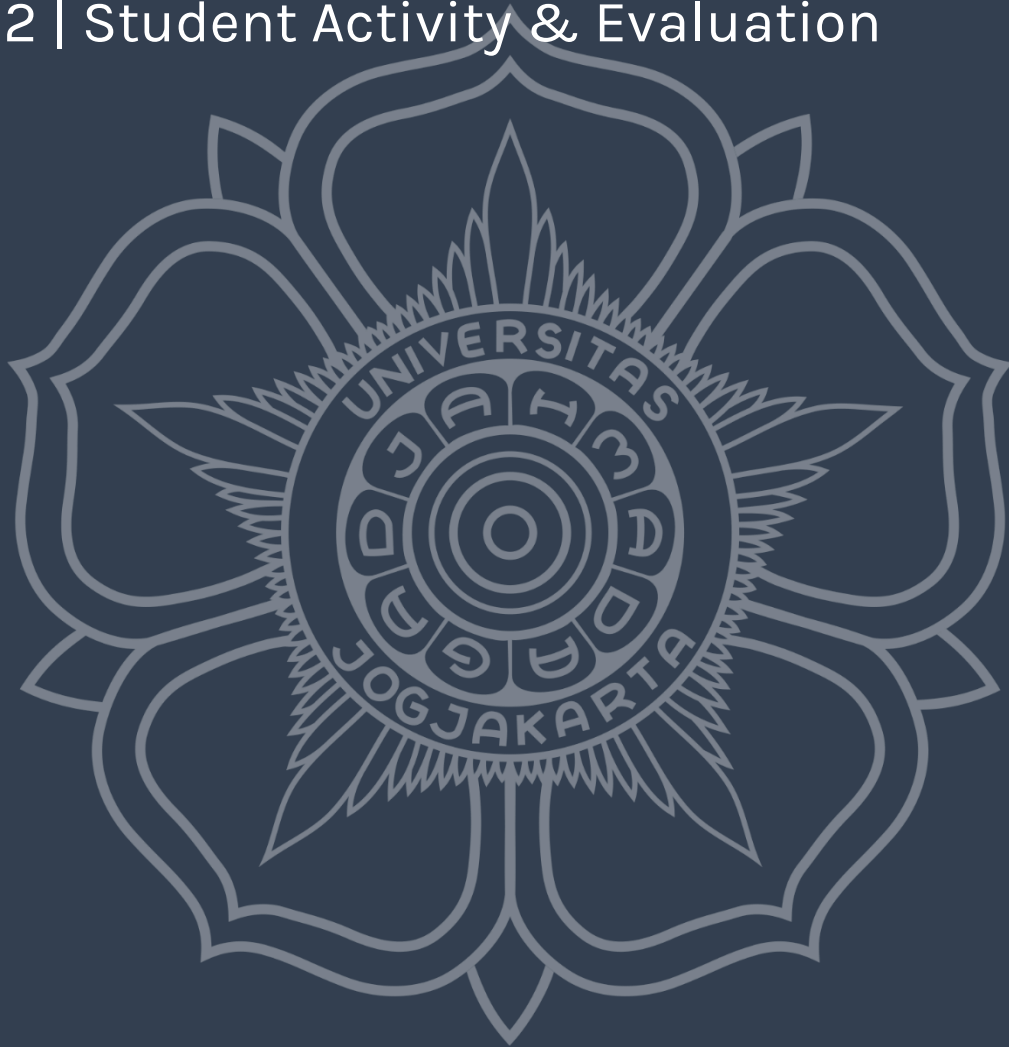


# Praktikum Basis Data (MII2502)

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## Bab 2 | Student Activity & Evaluation



Chrystian

18/430257/PA/18770

NO

SQL STATEMENT IN MYSQL

SCREENSHOT

```
1.3. CREATE DATABASE academic;
USE academic;
CREATE TABLE `student` (
  `nim` int NOT NULL
  AUTO_INCREMENT,
  `nama` text NOT NULL,
  `gender` text NOT NULL,
  `birth_place` text NOT NULL,
  `birth_date` date NOT NULL,
  `telephone` text NOT NULL,
  `counselor` int NOT NULL,
  PRIMARY KEY (nim)
);
DESCRIBE student;
```

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```
MariaDB [(none)]>
MariaDB [(none)]> CREATE DATABASE academic;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]> USE academic;
Database changed
MariaDB [academic]> CREATE TABLE `student` (
  -> `nim` int NOT NULL AUTO_INCREMENT,
  -> `nama` text NOT NULL,
  -> `gender` text NOT NULL,
  -> `birth_place` text NOT NULL,
  -> `birth_date` date NOT NULL,
  -> `telephone` text NOT NULL,
  -> `counselor` int NOT NULL,
  -> PRIMARY KEY (nim)
  -> );
Query OK, 0 rows affected (0.34 sec)

MariaDB [academic]> DESCRIBE student;
```

Field	Type	Null	Key	Default	Extra
nim	int(11)	NO	PRI	NULL	auto_increment
nama	text	NO		NULL	
gender	text	NO		NULL	
birth_place	text	NO		NULL	
birth_date	date	NO		NULL	
telephone	text	NO		NULL	
counselor	int(11)	NO		NULL	

```
7 rows in set (0.00 sec)
```

```
CREATE TABLE `lecturer` (
  `nip` INT NOT NULL
  AUTO_INCREMENT,
  `name` text NOT NULL,
  `gender` text NOT NULL,
  `occupation` text NOT NULL,
  `interest` text NOT NULL,
  `telephone` text NOT NULL,
  PRIMARY KEY (nip)
);
DESCRIBE lecturer;
```

```
MariaDB [academic]> CREATE TABLE `lecturer` (
  -> `nip` INT NOT NULL AUTO_INCREMENT,
  -> `name` text NOT NULL,
  -> `gender` text NOT NULL,
  -> `occupation` text NOT NULL,
  -> `interest` text NOT NULL,
  -> `telephone` text NOT NULL,
  -> PRIMARY KEY (nip)
  -> );
Query OK, 0 rows affected (0.29 sec)

MariaDB [academic]> DESCRIBE lecturer;
```

Field	Type	Null	Key	Default	Extra
nip	int(11)	NO	PRI	NULL	auto_increment
name	text	NO		NULL	
gender	text	NO		NULL	
occupation	text	NO		NULL	
interest	text	NO		NULL	
telephone	text	NO		NULL	

```
6 rows in set (0.01 sec)
```

```
CREATE TABLE `subject` (
  `course_code` int NOT NULL
  AUTO_INCREMENT,
  `course_name` text NOT NULL,
  `credits` int NOT NULL,
  `lecturer` text NOT NULL,
  `day` text NOT NULL,
  `hour` time NOT NULL,
  `class_room` text NOT NULL,
  PRIMARY KEY (course_code)
);
DESCRIBE subject;
```

```
MariaDB [academic]> CREATE TABLE `subject` (
-> `course_code` int NOT NULL AUTO_INCREMENT,
-> `course_name` text NOT NULL,
-> `credits` int NOT NULL,
-> `lecturer` text NOT NULL,
-> `day` text NOT NULL,
-> `hour` time NOT NULL,
-> `class_room` text NOT NULL,
-> PRIMARY KEY (course_code)
-> );
```

Query OK, 0 rows affected (0.26 sec)

```
MariaDB [academic]> DESCRIBE subject;
```

Field	Type	Null	Key	Default	Extra
course_code	int(11)	NO	PRI	NULL	auto_increment
course_name	text	NO		NULL	
credits	int(11)	NO		NULL	
lecturer	text	NO		NULL	
day	text	NO		NULL	
hour	time	NO		NULL	
class_room	text	NO		NULL	

7 rows in set (0.00 sec)

```
CREATE TABLE `krs` (
  `krs_id` int NOT NULL
  AUTO_INCREMENT,
  `course_code` text NOT NULL,
  `nim` int NOT NULL,
  `year` int NOT NULL,
  `semester` text NOT NULL,
  `value` text NOT NULL,
  PRIMARY KEY (krs_id)
);
DESCRIBE krs;
```

```
MariaDB [academic]> CREATE TABLE `krs` (
-> `krs_id` int NOT NULL AUTO_INCREMENT,
-> `course_code` text NOT NULL,
-> `nim` int NOT NULL,
-> `year` int NOT NULL,
-> `semester` text NOT NULL,
-> `value` text NOT NULL,
-> PRIMARY KEY (krs_id)
-> );
```

Query OK, 0 rows affected (0.32 sec)

```
MariaDB [academic]> DESCRIBE krs;
```

Field	Type	Null	Key	Default	Extra
krs_id	int(11)	NO	PRI	NULL	auto_increment
course_code	text	NO		NULL	
nim	int(11)	NO		NULL	
year	int(11)	NO		NULL	
semester	text	NO		NULL	
value	text	NO		NULL	

6 rows in set (0.00 sec)

```
MariaDB [academic]> 
```

2. SHOW TABLES;

```
MariaDB [academic]> SHOW tables;
+-----+
| Tables_in_academic |
+-----+
| krs                  |
| lecturer             |
| student             |
| subject             |
+-----+
4 rows in set (0.00 sec)
```

Notes:

4. ALTER TABLE `lecturer`  
A MODIFY `nip` int NOT NULL,  
DROP PRIMARY KEY;

```
MariaDB [academic]> ALTER TABLE `lecturer`
-> MODIFY `nip` int NOT NULL,
-> DROP PRIMARY KEY;
Query OK, 0 rows affected (0.67 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [academic]> describe lecturer;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip   | int(11) | NO   |     | NULL    |       |
| name  | text   | NO   |     | NULL    |       |
| gender | text   | NO   |     | NULL    |       |
| occupation | text | NO   |     | NULL    |       |
| interest | text | NO   |     | NULL    |       |
| telephone | text | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

4. ALTER TABLE `lecturer`  
B MODIFY `nip` int NOT NULL  
C AUTO\_INCREMENT,  
ADD PRIMARY KEY (nip);  
DESCRIBE lecturer

```
MariaDB [academic]> ALTER TABLE `lecturer`
-> MODIFY `nip` int NOT NULL AUTO_INCREMENT,
-> ADD PRIMARY KEY (nip);
Query OK, 0 rows affected (0.74 sec)
Records: 0 Duplicates: 0 Warnings: 0

MariaDB [academic]> describe lecturer;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| nip   | int(11) | NO   | PRI | NULL    | auto_increment |
| name  | text   | NO   |     | NULL    |       |
| gender | text   | NO   |     | NULL    |       |
| occupation | text | NO   |     | NULL    |       |
| interest | text | NO   |     | NULL    |       |
| telephone | text | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)

MariaDB [academic]>
```



4. D `RENAME TABLE lecturer to professor;`

```
MariaDB [academic]> RENAME TABLE lecturer to professor;
ERROR 2006 (HY000): MySQL server has gone away
No connection. Trying to reconnect...
Connection id: 2
Current database: academic
```

Query OK, 0 rows affected (0.15 sec)

```
MariaDB [academic]>
```

4. E `ALTER TABLE `professor`  
CHANGE `name` `lec_name` text  
NOT NULL;`

```
MariaDB [academic]> ALTER TABLE `professor`  
-> CHANGE `name` `lec_name` text NOT NULL;
Query OK, 0 rows affected (1.02 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [academic]> describe professor;
```

Field	Type	Null	Key	Default	Extra
nip	int(11)	NO	PRI	NULL	auto_increment
lec_name	text	NO		NULL	
gender	text	NO		NULL	
occupation	text	NO		NULL	
interest	text	NO		NULL	
telephone	text	NO		NULL	

6 rows in set (0.01 sec)

```
MariaDB [academic]>
```

4. F `ALTER TABLE `professor`  
MODIFY `gender` ENUM('male',  
'female') NOT NULL;`

`ALTER TABLE `student`  
MODIFY `gender` ENUM('male',  
'female') NOT NULL;`

```
MariaDB [academic]> ALTER TABLE `student`  
-> MODIFY `gender` ENUM('male', 'female') NOT NULL;
Query OK, 0 rows affected (0.65 sec)
Records: 0 Duplicates: 0 Warnings: 0
```

```
MariaDB [academic]> describe student; describe professor;
```

Field	Type	Null	Key	Default	Extra
nim	int(11)	NO	PRI	NULL	auto_increment
nama	text	NO		NULL	
gender	enum('male','female')	NO		NULL	
birth_place	text	NO		NULL	
birth_date	date	NO		NULL	
telephone	text	NO		NULL	
counselor	int(11)	NO		NULL	

7 rows in set (0.00 sec)

Field	Type	Null	Key	Default	Extra
nip	int(11)	NO	PRI	NULL	auto_increment
lec_name	text	NO		NULL	
gender	enum('male','female')	NO		NULL	
occupation	text	NO		NULL	
interest	text	NO		NULL	
telephone	text	NO		NULL	

6 rows in set (0.01 sec)

4.  
G

```
ALTER TABLE `professor`  
  MODIFY `telephone` int NOT NULL;  
  
ALTER TABLE `student`  
  MODIFY `telephone` int NOT NULL;
```

```
MariaDB [academic]> ALTER TABLE `professor`  
-> MODIFY `telephone` int NOT NULL;  
Query OK, 0 rows affected (0.00 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
MariaDB [academic]>  
MariaDB [academic]> ALTER TABLE `student`  
-> MODIFY `telephone` int NOT NULL;  
Query OK, 0 rows affected (0.00 sec)  
Records: 0 Duplicates: 0 Warnings: 0  
  
MariaDB [academic]> describe student; describe professor;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nim | int(11) | NO | PRI | NULL | auto_increment |  
| nama | text | NO | | NULL | |  
| gender | enum('male','female') | NO | | NULL | |  
| birth_place | text | NO | | NULL | |  
| birth_date | date | NO | | NULL | |  
| telephone | int(11) | NO | | NULL | |  
| counselor | int(11) | NO | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
7 rows in set (0.01 sec)  
  
+-----+-----+-----+-----+-----+-----+  
| Field | Type | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| nip | int(11) | NO | PRI | NULL | auto_increment |  
| lec_name | text | NO | | NULL | |  
| gender | enum('male','female') | NO | | NULL | |  
| occupation | text | NO | | NULL | |  
| interest | text | NO | | NULL | |  
| telephone | int(11) | NO | | NULL | |  
+-----+-----+-----+-----+-----+-----+  
6 rows in set (0.00 sec)  
  
MariaDB [academic]>
```

## 2.8 Evaluation Question

1. Perbedaan Create, Alter, Drop dalam DDL adalah dari artinya sendiri Create membuat Database/ Table baru sedangkan Alter merubah definisi dari Database/ Table sedangkan Drop melepaskan Database/ Table yang telah ada (menghapus).
2. Definisi atau kata lainnya mendefinisikan objek tergantung apakah objek tersebut sudah terdata atau belum, jika ingin mengubahkan/ redefine ulang data maka data bisa di ALTER, sedangkan data baru saja akan di define maka dapat menggunakan CREATE.
3. **RENAME DATABASE** old\_db\_name **TO** new\_db\_name;