

**MODUL 4**  
**PRAKTIKUM PEMROGRAMAN WEB**  
**SQL (Structured Query Language)**



**Disusun oleh :**

**NAMA : CINDI DILA APRILIANA**

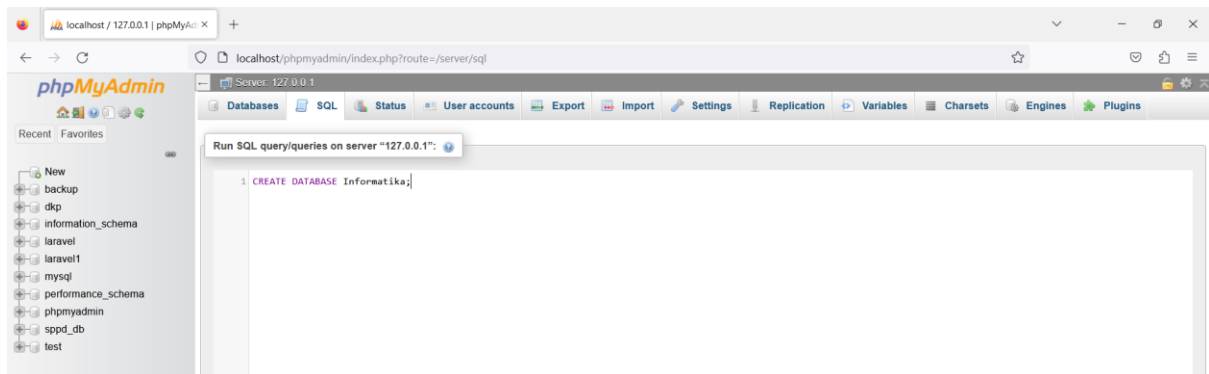
**NIM : L200200106**

**KELAS : C**

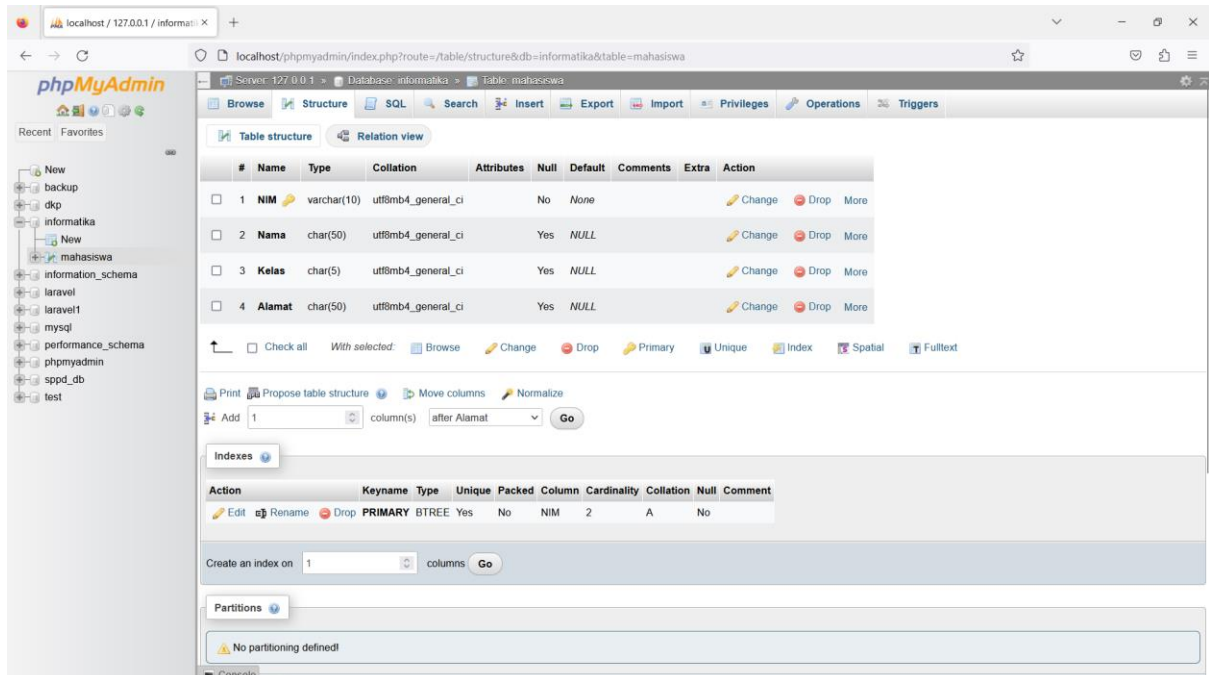
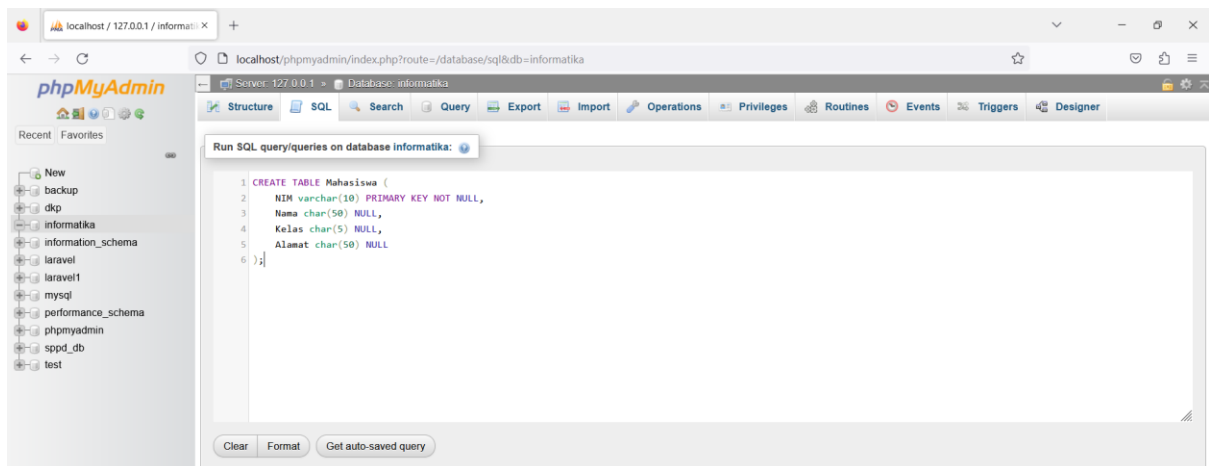
**INFORMATIKA**  
**FAKULTAS KOMUNIKASI DAN INFORMATIKA**  
**UNIVERSITAS MUHAMMADIYAH SURAKARTA**

**2023**

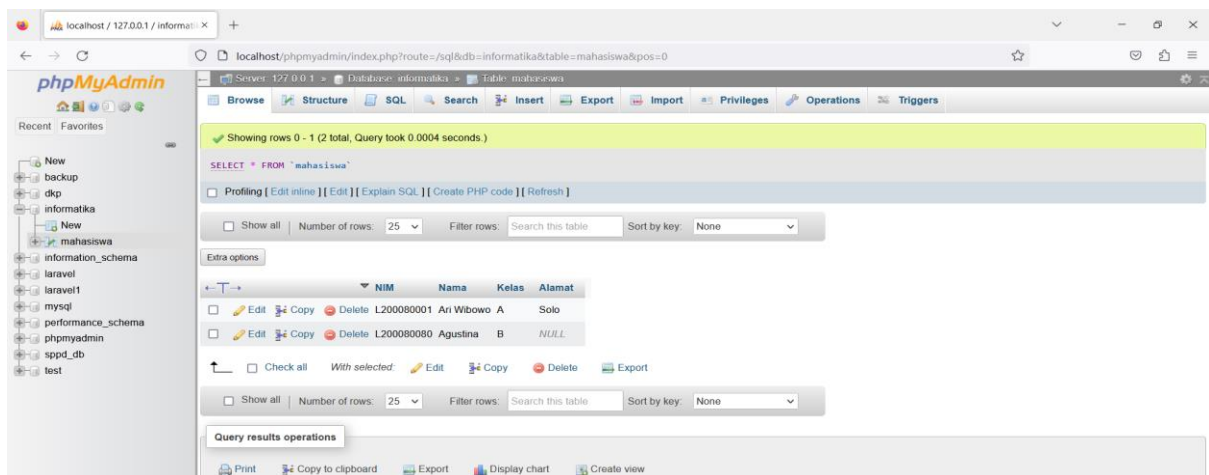
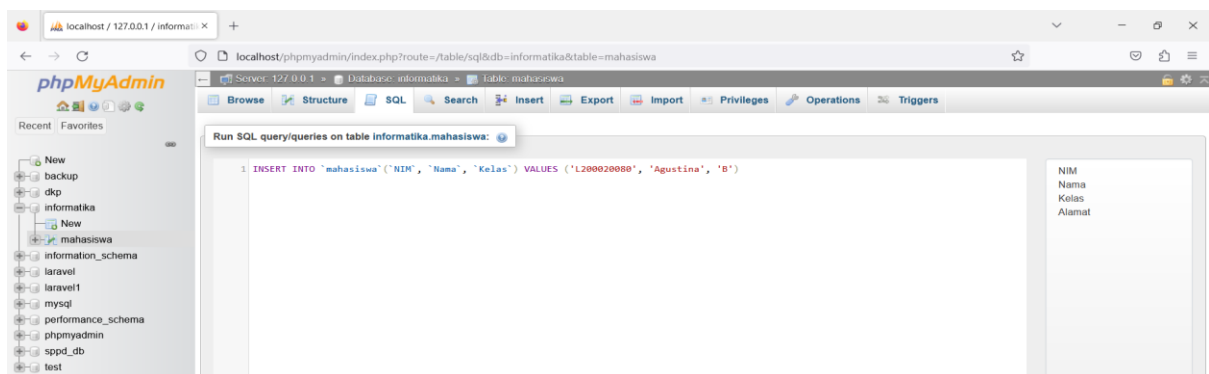
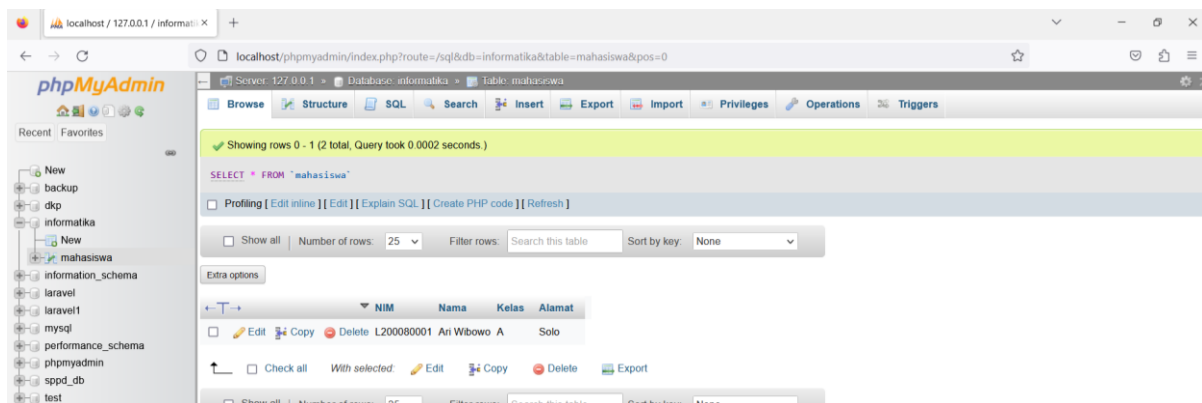
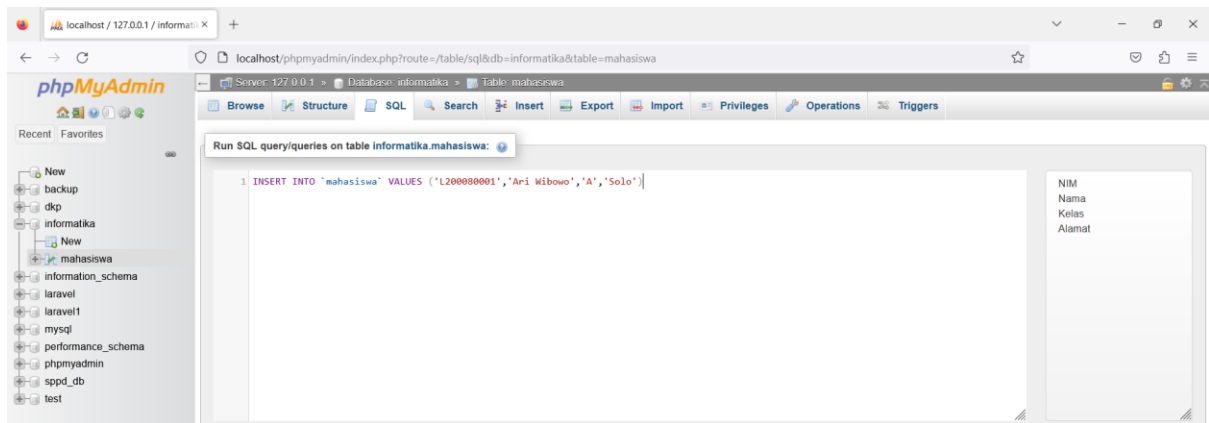
## Percobaan 1 (Membuat Database)



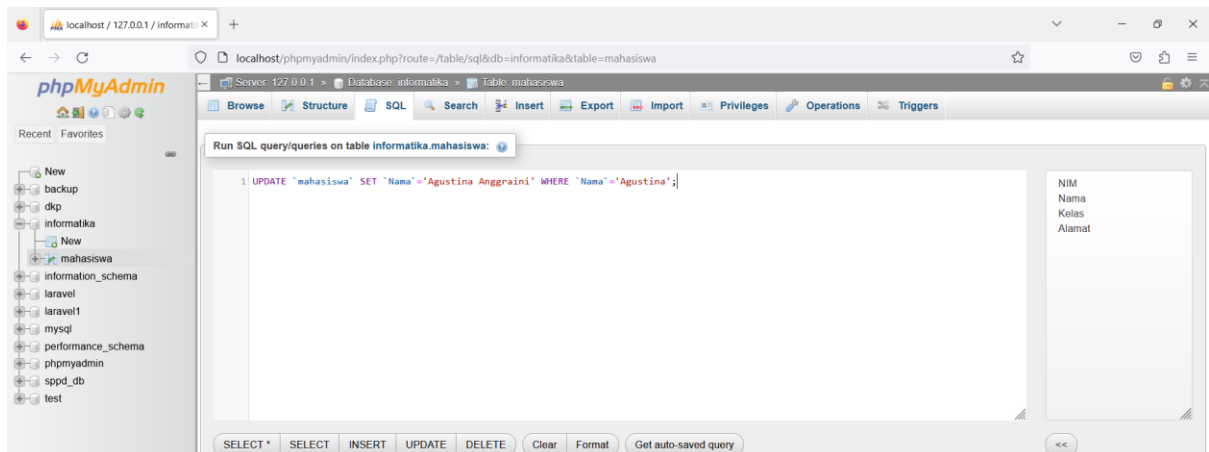
## Percobaan 2 (Membuat Tabel)



## Percobaan 3 (Memasukkan Data)



## Percobaan 4 (Mengubah Data)

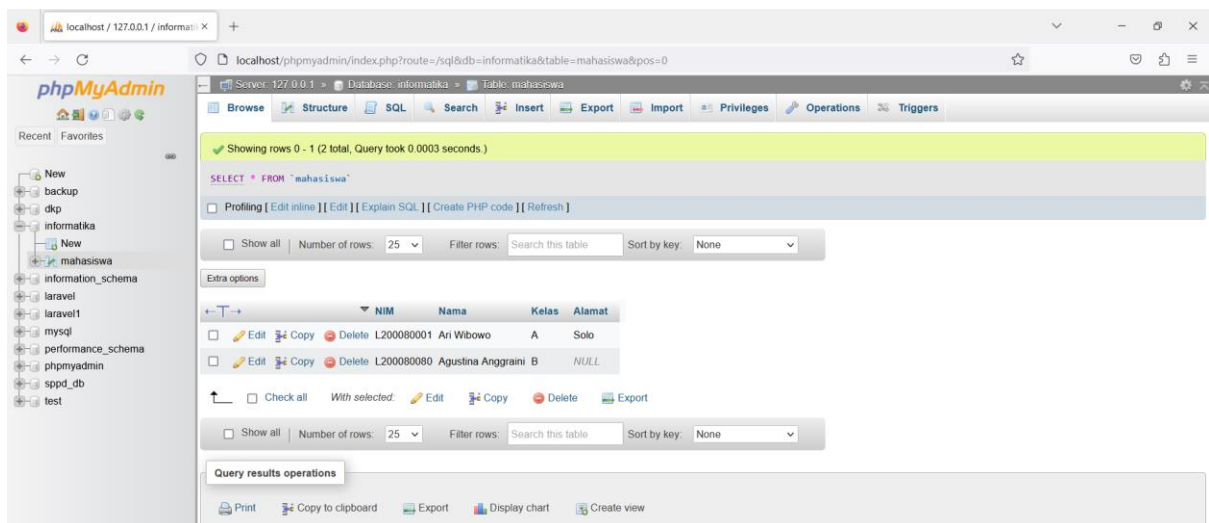


The screenshot shows the phpMyAdmin interface with the 'mahasiswa' table selected. The SQL query editor contains the following query:

```
1 UPDATE `mahasiswa` SET `Nama`='Agustina Anggraini' WHERE `Nama`='Agustina';
```

On the right side, the table structure is displayed:

NIM	Nama	Kelas	Alamat
-----	------	-------	--------



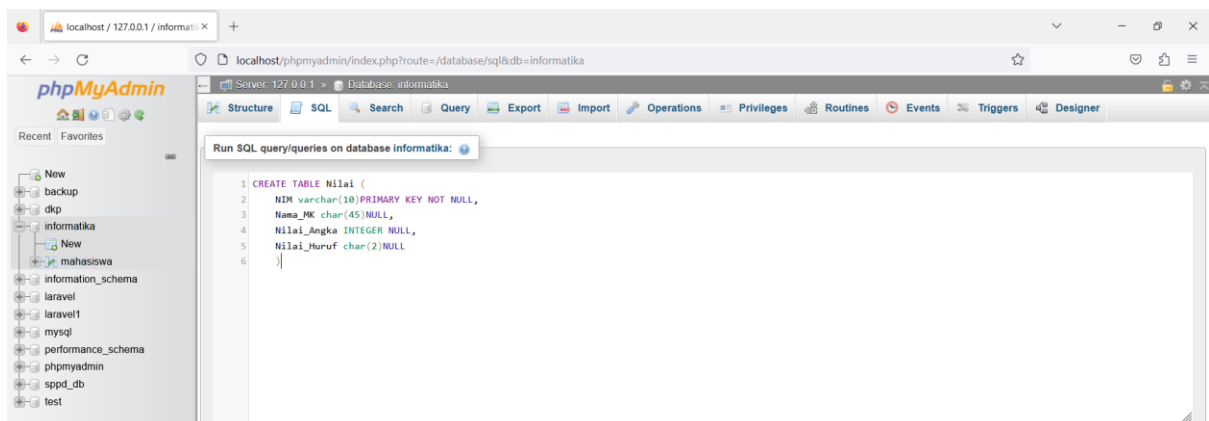
The screenshot shows the phpMyAdmin interface displaying the results of the query. The message indicates that 2 rows were affected. The table structure is shown as:

```
SELECT * FROM `mahasiswa`
```

The table data is displayed as follows:

NIM	Nama	Kelas	Alamat
L200080001	Ari Wibowo	A	Solo
L200080080	Agustina Anggraini	B	NULL

## Join



The screenshot shows the phpMyAdmin interface with the 'CREATE TABLE' query editor. The query is as follows:

```
1 CREATE TABLE Nilai (  
2   NIM varchar(10) PRIMARY KEY NOT NULL,  
3   Nama_JK char(45) NULL,  
4   Nilai_Angka INTEGER NULL,  
5   Nilai_Huruf char(2) NULL  
6 )
```

localhost / 127.0.0.1 / informatika

localhost/phpmyadmin/index.php?route=/table/structure&db=informatika&table=nilai

Server: 127.0.0.1 > Database: informatika > Table: nilai

Table structure

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	NIM	varchar(10)	utf8mb4_general_ci		No	None			Change Drop More
2	Nama_MK	char(45)	utf8mb4_general_ci		Yes	NULL			Change Drop More
3	Nilai_Angka	int(11)			Yes	NULL			Change Drop More
4	Nilai_Huruf	char(2)	utf8mb4_general_ci		Yes	NULL			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext

Print Propose table structure Move columns Normalize

Add 1 column(s) after Nilai\_Huruf Go

localhost / 127.0.0.1 / informatika

localhost/phpmyadmin/index.php?route=/table/sql&db=informatika&table=nilai

Server: 127.0.0.1 > Database: informatika > Table: nilai

Run SQL query/queries on table informatika.nilai:

```
1 SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama_MK, nilai.Nilai_Angka, nilai.Nilai_Huruf FROM (mahasiswa JOIN nilai ON mahasiswa.NIM=nilai.NIM)
```

SELECT \* SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

Bind parameters

NIM  
Nama\_MK  
Nilai\_Angka  
Nilai\_Huruf

localhost / 127.0.0.1 / informatika

localhost/phpmyadmin/index.php?route=/table/sql&db=informatika&table=nilai

Server: 127.0.0.1 > Database: informatika > Table: nilai

Run SQL query/queries on table informatika.nilai:

```
1 INSERT INTO nilai VALUES
2 ('L200080002','Kapita Selektta',60, 'BC'),
3 ('L200080010','Pemrograman Web',87, 'A'),
4 ('L200080080','Pemrograman Web',90, 'A');
```

SELECT \* SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

NIM  
Nama\_MK  
Nilai\_Angka  
Nilai\_Huruf

localhost / 127.0.0.1 / informatika

localhost/phpmyadmin/index.php?route=/sql&pos=0&db=informatika&table=nilai

Server: 127.0.0.1 > Database: informatika > Table: nilai

Showing rows 0 - 2 (3 total, Query took 0.0003 seconds)

SELECT \* FROM "nilai"

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

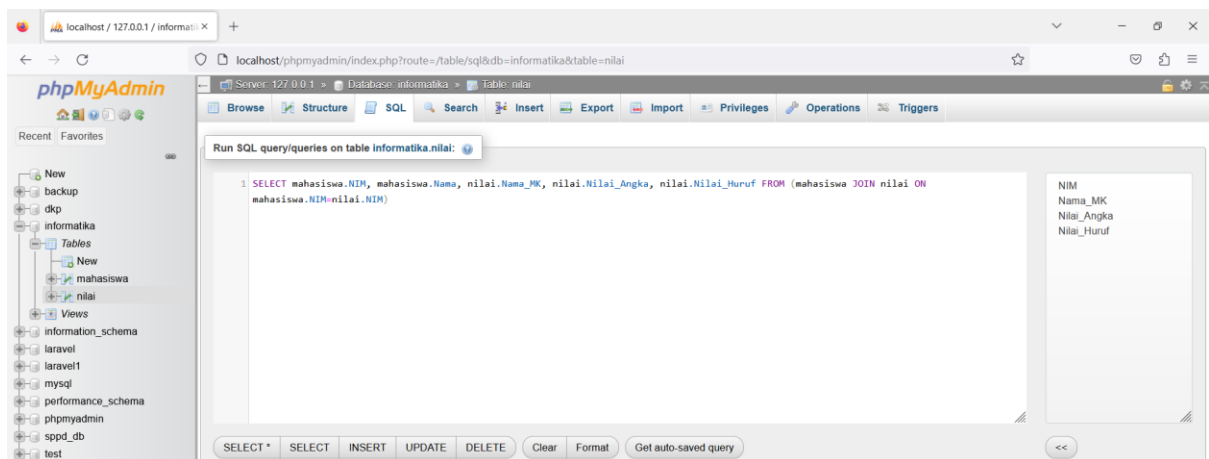
Extra options

	NIM	Nama_MK	Nilai_Angka	Nilai_Huruf
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	L200080002	Kapita Selektta	60	BC
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	L200080010	Pemrograman Web	87	A
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	L200080080	Pemrograman Web	90	A

Check all With selected: Edit Copy Delete Export

Show all Number of rows: 25 Filter rows: Search this table Sort by key: None

## Percobaan 5 (Join)

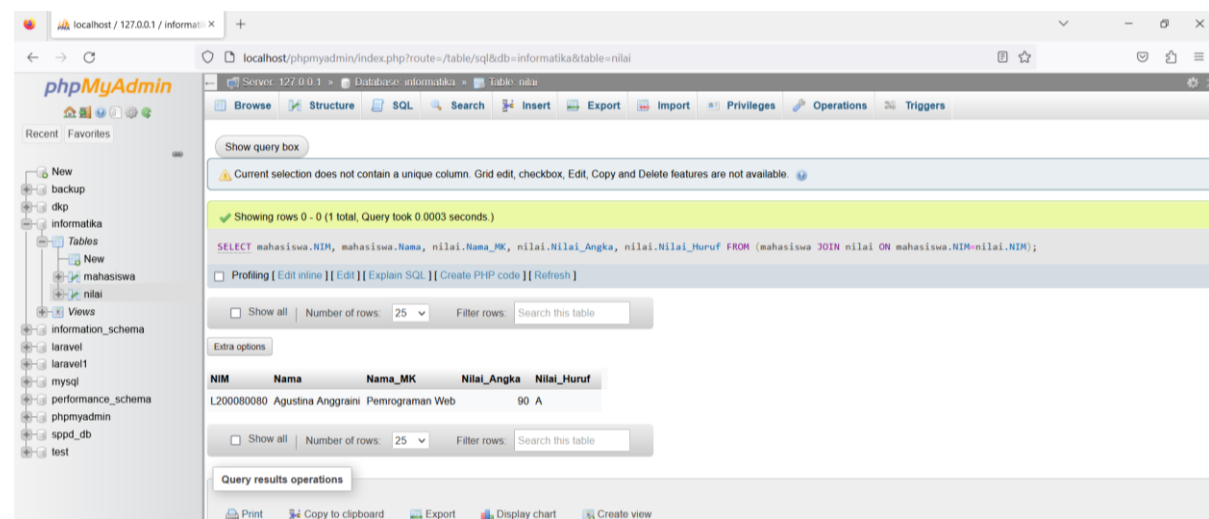


The screenshot shows the phpMyAdmin interface with the 'Run SQL query/queries on table informatika.nilai:' window open. The SQL query entered is:

```
1 SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama_MK, nilai.Nilai_Angka, nilai.Nilai_Huruf FROM (mahasiswa JOIN nilai ON mahasiswa.NIM=nilai.NIM)
```

The results pane on the right displays the following data:

NIM	Nama_MK	Nilai_Angka	Nilai_Huruf
L200080080	Agustina Anggraini	90	A



The screenshot shows the phpMyAdmin interface with the 'Showing rows 0 - 0 (1 total, Query took 0.0003 seconds)' message. The SQL query is repeated, and the results are displayed in a table format.

NIM	Nama	Nama_MK	Nilai_Angka	Nilai_Huruf
L200080080	Agustina Anggraini	Pemrograman Web	90	A

## Percobaan 6 (Left Join)



The screenshot shows the phpMyAdmin interface with the 'Run SQL query/queries on table informatika.mahasiswa:' window open. The SQL query entered is:

```
1 SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama_MK, nilai.Nilai_Angka, nilai.Nilai_Huruf FROM (mahasiswa LEFT JOIN nilai ON mahasiswa.NIM=nilai.NIM)
```

The results pane on the right displays the following data:

NIM	Nama	Kelas	Alamat
L200080080	Agustina Anggraini	Pemrograman Web	90 A

localhost / 127.0.0.1 / informasi: X

localhost/phpmyadmin/index.php?route=/table/sql&db=informatika&table=mahasiswa

Server: 127.0.0.1 > Database: informatika > Table: mahasiswa

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 1 (2 total, Query took 0.0003 seconds)

SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama\_MK, nilai.Nilai\_Angka, nilai.Nilai\_Huruf FROM (mahasiswa LEFT JOIN nilai ON mahasiswa.NIM=nilai.NIM);

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all Number of rows: 25 Filter rows: Search this table

Extra options

NIM	Nama	Nama_MK	Nilai_Angka	Nilai_Huruf
L200080001	Ari Wibowo	NULL	NULL	NULL
L200080080	Agustina Anggraini	Pemrograman Web	90	A

## Percobaan 7(Right Join)

localhost / 127.0.0.1 / informasi: X

localhost/phpmyadmin/index.php?route=/table/sql&db=informatika&table=mahasiswa

Server: 127.0.0.1 > Database: informatika > Table: mahasiswa

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Run SQL query/queries on table informatika.mahasiswa:

1 SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama\_MK, nilai.Nilai\_Angka, nilai.Nilai\_Huruf FROM (mahasiswa RIGHT JOIN nilai ON mahasiswa.NIM=nilai.NIM)

NIM  
Nama  
Kelas  
Alamat

SELECT \* SELECT INSERT UPDATE DELETE Clear Format Get auto-saved query

Bind parameters

localhost / 127.0.0.1 / informasi: X

localhost/phpmyadmin/index.php?route=/table/sql&db=informatika&table=mahasiswa

Server: 127.0.0.1 > Database: informatika > Table: mahasiswa

Browse Structure SQL Search Insert Export Import Privileges Operations Triggers

Show query box

Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.

Showing rows 0 - 2 (3 total, Query took 0.0003 seconds)

SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama\_MK, nilai.Nilai\_Angka, nilai.Nilai\_Huruf FROM (mahasiswa RIGHT JOIN nilai ON mahasiswa.NIM=nilai.NIM);

Profiling [ Edit inline ] [ Edit ] [ Explain SQL ] [ Create PHP code ] [ Refresh ]

Show all Number of rows: 25 Filter rows: Search this table

Extra options

NIM	Nama	Nama_MK	Nilai_Angka	Nilai_Huruf
NULL	NULL	Kapita Selektia	60	BC
NULL	NULL	Pemrograman Web	87	A
L200080080	Agustina Anggraini	Pemrograman Web	90	A

Show all Number of rows: 25 Filter rows: Search this table

## Percobaan 8 (Fungsi AVG)

The screenshot shows the phpMyAdmin interface with the 'nilai' table selected. The SQL query editor contains the following query:

```
1 SELECT AVG(nilai_Angka) 'Rata-rata nilai' FROM nilai;
```

The right sidebar shows the table structure with columns: NIM, Nama\_MK, Nilai\_Angka, and Nilai\_Huruf. The bottom toolbar includes buttons for SELECT, INSERT, UPDATE, DELETE, Clear, Format, and Get auto-saved query.

The screenshot shows the query results in the phpMyAdmin interface. The query executed was:

```
SELECT AVG(nilai_Angka) 'Rata-rata nilai' FROM nilai;
```

The results show 1 row with the value 79.0000. The interface includes a 'Show query box' section with a warning that the current selection does not contain a unique column. Below the results, there are options for 'Show all', 'Number of rows' (25), and 'Filter rows'.

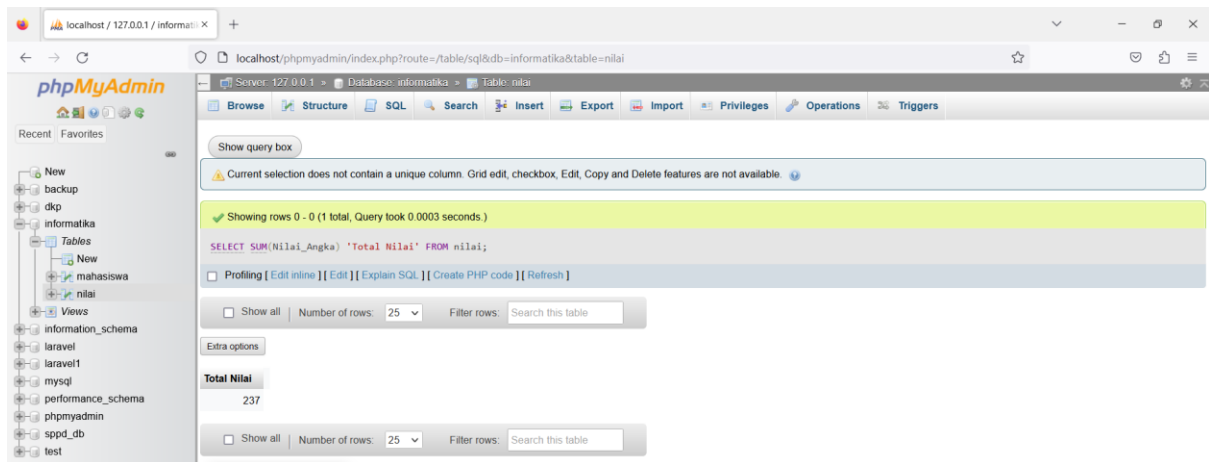
## Percobaan 9 (Fungsi SUM)

The screenshot shows the phpMyAdmin interface with the 'nilai' table selected. The SQL query editor contains the following query:

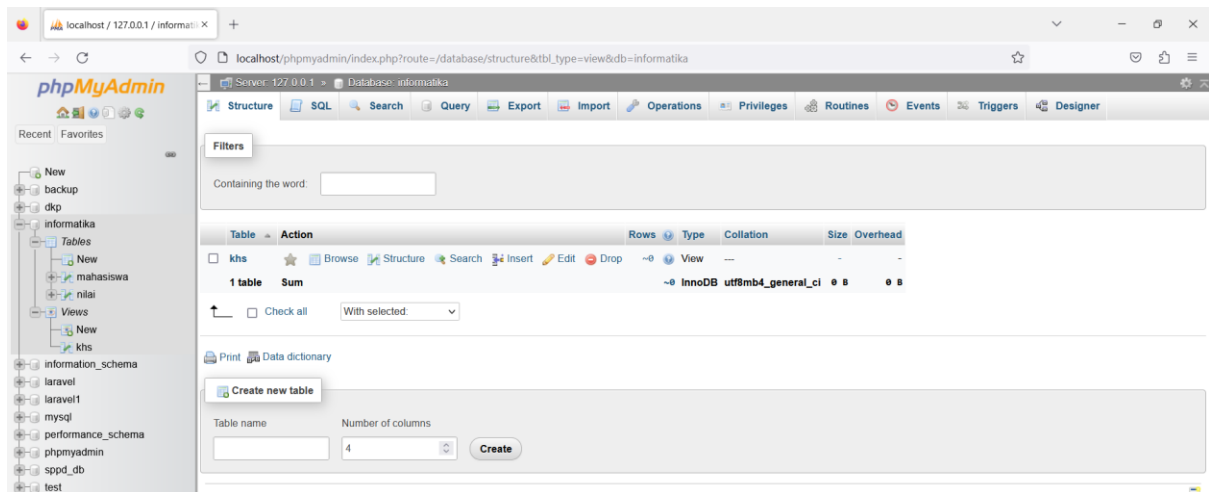
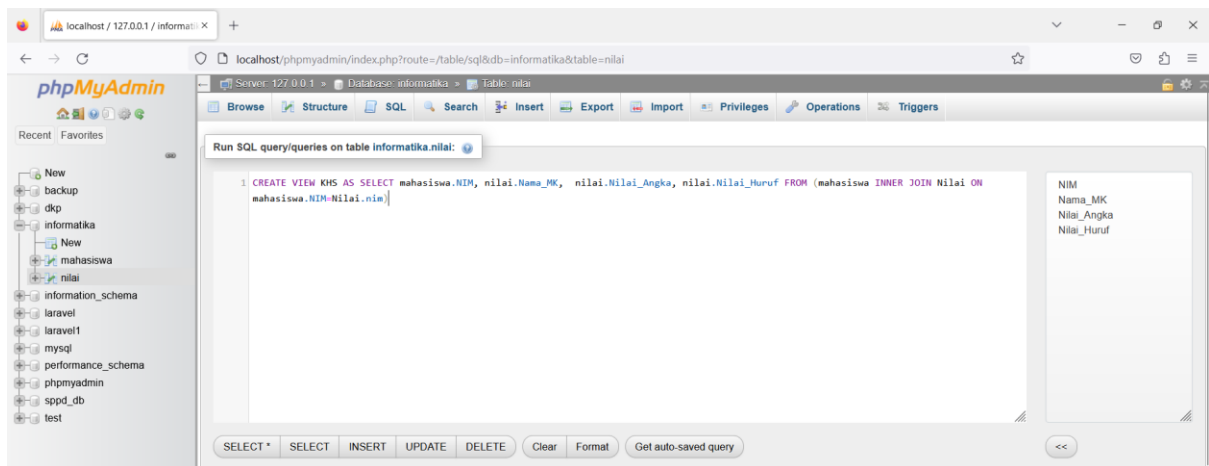
```
1 SELECT SUM(nilai_Angka) 'Total Nilai' FROM nilai;
```

The right sidebar shows the table structure with columns: NIM, Nama\_MK, Nilai\_Angka, and Nilai\_Huruf. The bottom toolbar includes buttons for SELECT, INSERT, UPDATE, DELETE, Clear, Format, and Get auto-saved query.





## Percobaan 10 (View)

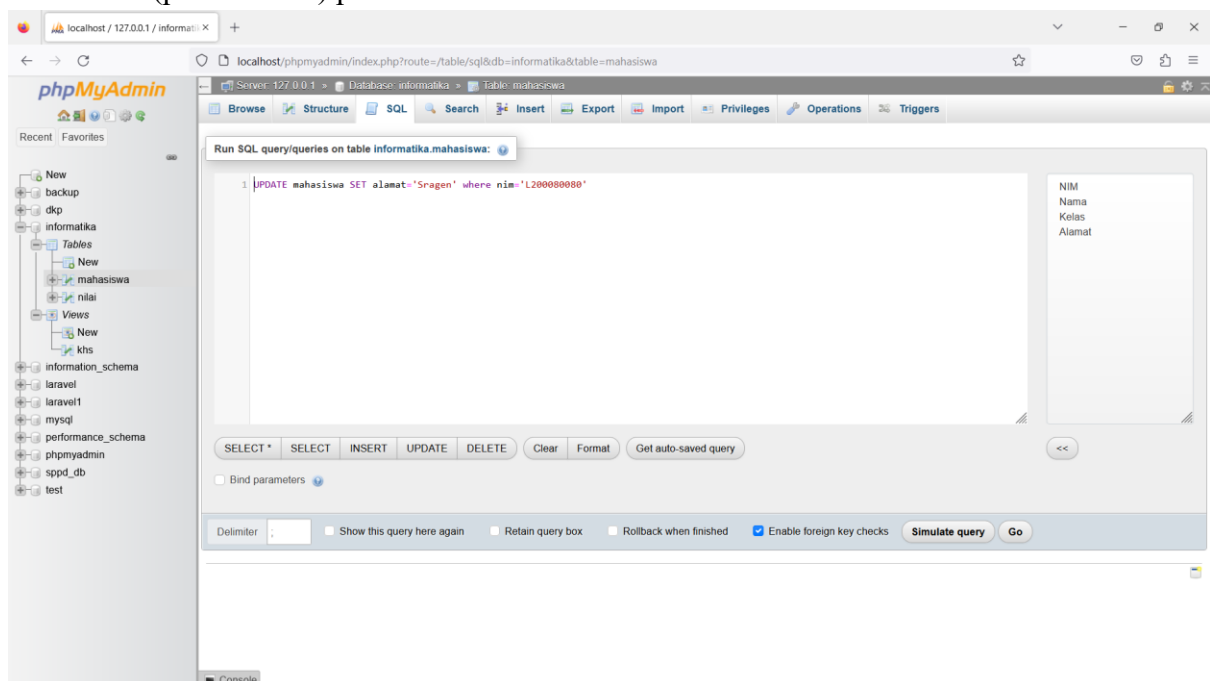


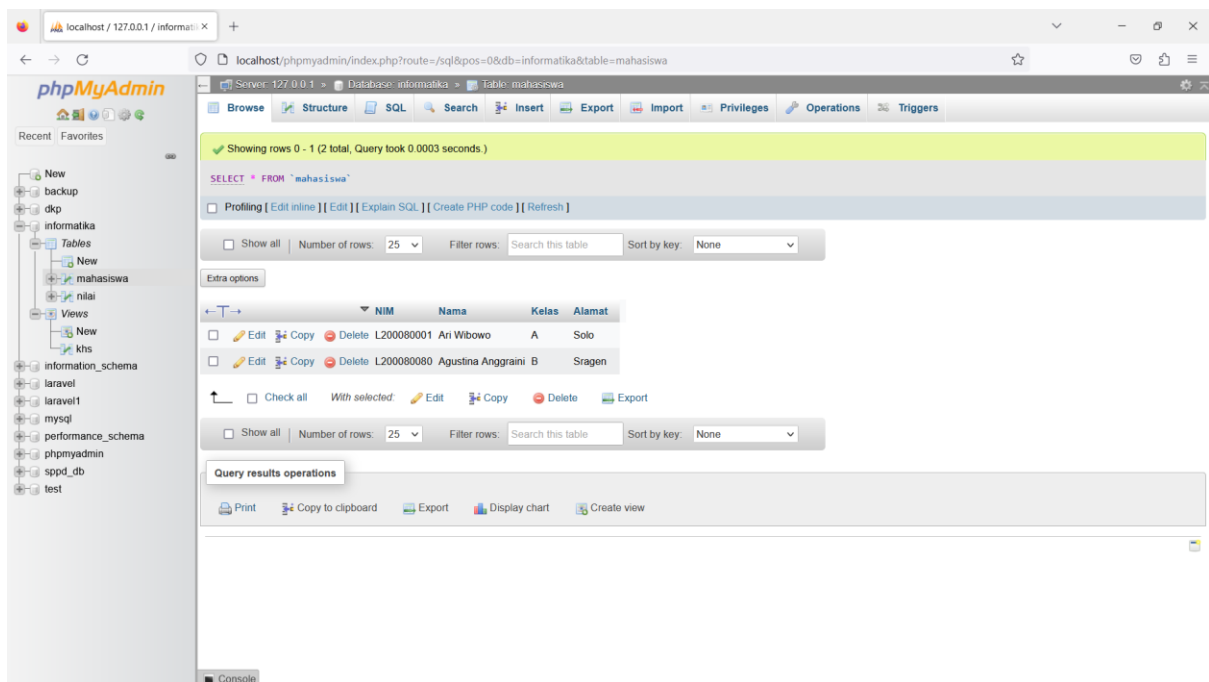
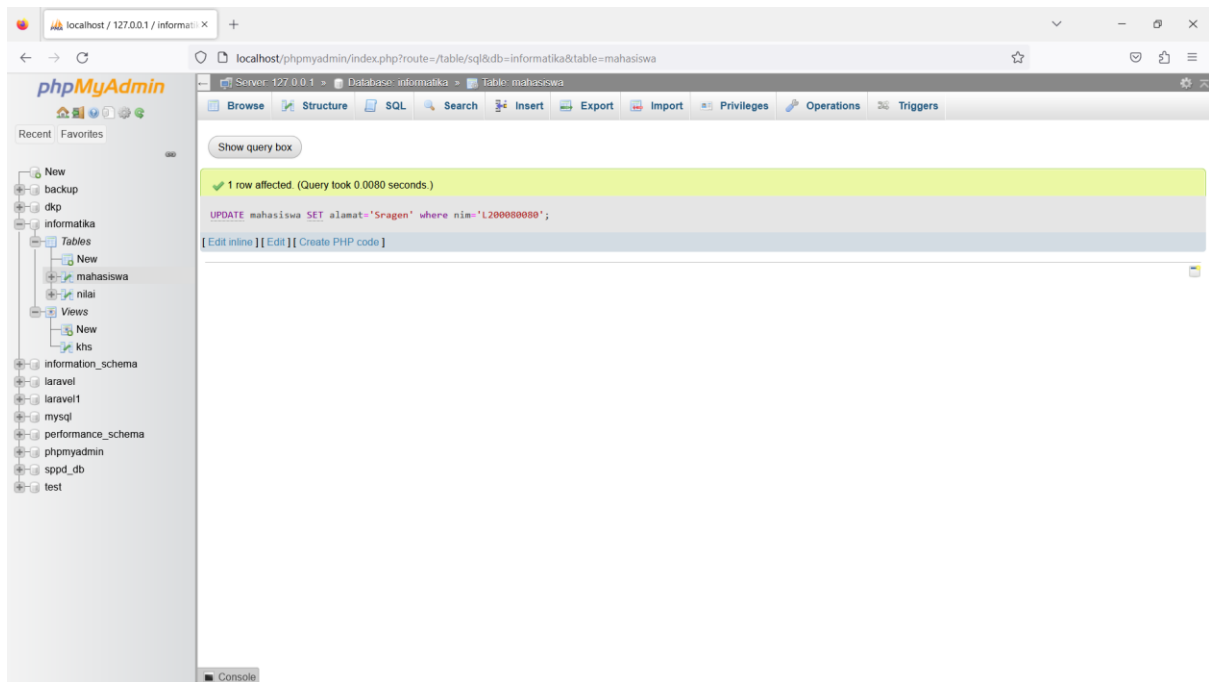
## Tugas

1. Apa fungsi dari beberapa hal berikut :

Query	Fungsi
Select	digunakan untuk menampilkan / memilih isi dari sebuah atau lebih tabel
JOIN	untuk menggabungkan tabel yang dipilih
LEFT JOIN	untuk menggabungkan 2 tabel yang dipilih lalu ditampilkan tabel yang A/kiri
RIGHT JOIN	untuk menggabungkan 2 tabel yang dipilih lalu ditampilkan tabel B/kanan
AVG	untuk menghitung rata-rata
Sum	untuk menghitung penjumlahan

2. Tuliskan Syntaks SQL untuk mengisi data Alamat “Sragen” pada tabel Mahasiswa (percobaan 3) pada NIM L200080080.





- UPDATE mahasiswa SET alamat='Sragen' where nim='L200080080'
- Penjelasan: mengganti alamat menjadi 'sragen' pada atribut alamat dimana nim yang akan diganti adalah 'L2002008080'.