

MySQL-2 (Data Manipulation Language)

Bahan Kuliah Informatika Bisnis

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Foreign Key

Pilih Tabel → klik structure

localhost / localhost / simpanpinjam / pinjaman | phpMyAdmin 5.2.1

Server: localhost » Database: simpanpinjam » Table: pinjaman

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Table structure Relation view

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
1	id_pinjaman	int(50)			Yes	NULL			Change Drop More
2	id_anggota	int(50)			No	None			Change Drop More
3	id_jenis_pinjaman	int(50)			No	None			Change Drop More
4	jumlah_pinjaman	int(50)			No	None			Change Drop More

Check all With selected: Browse Change Drop Primary Unique Index Spatial Fulltext Add to central columns

Remove from central columns

Print Propose table structure Track table Move columns Normalise

Add 1 column(s) after jumlah_pinjaman Go

Indexes

No index defined!

Create an index on 1 columns Go

Partitions

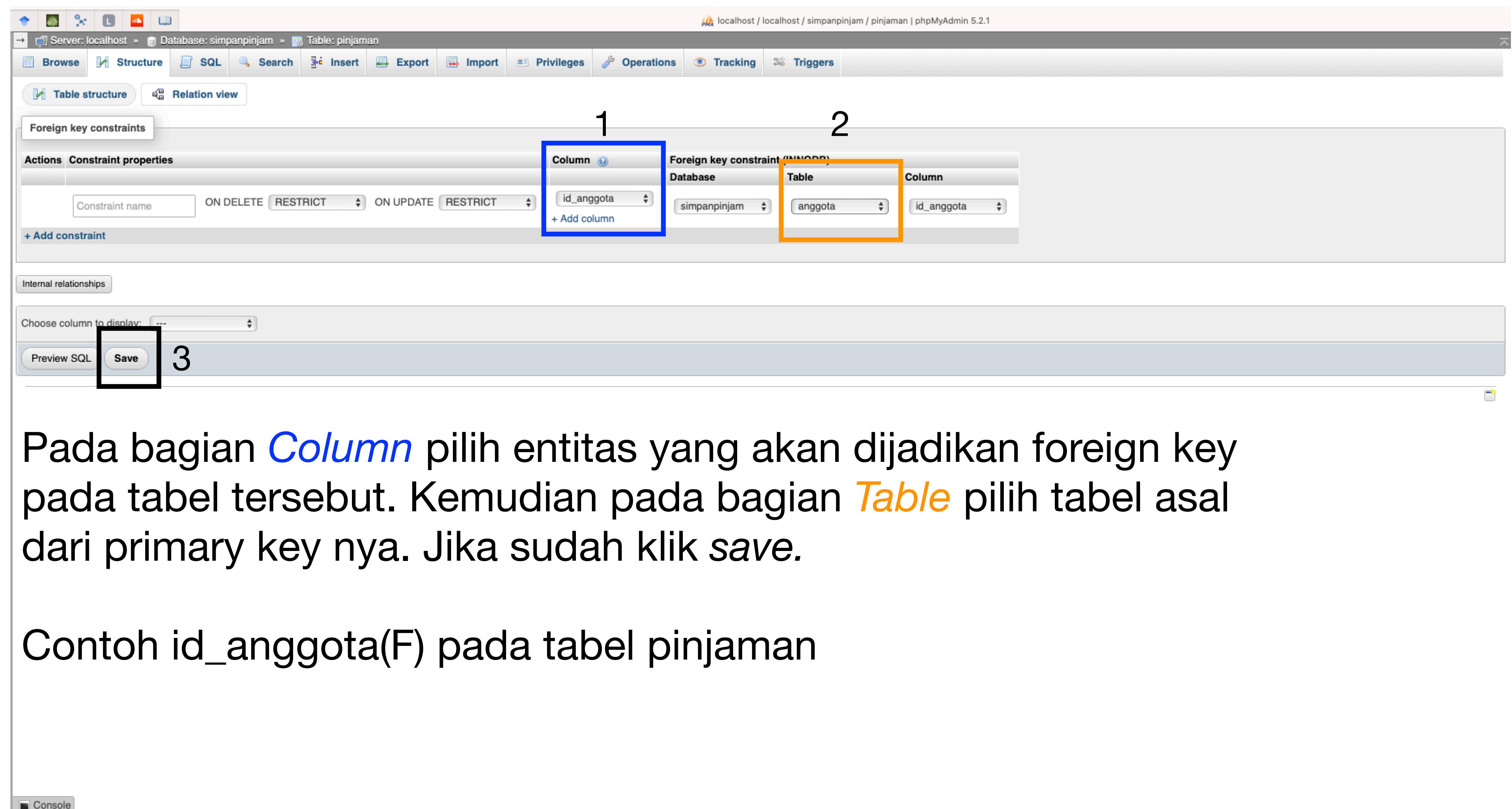
No partitioning defined!

Partition table

Information

Space usage		Row statistics	
Data	16.0 KiB	Format	dynamic
Index	0 B	Collation	utf8mb4_general_ci
Overhead	0 B	Next autoindex	0
Effective	16.0 KiB	Creation	Jan 01, 2025 at 07:36 PM
Total	16.0 KiB	Last update	Jan 01, 2025 at 03:02 PM
Optimise table		Last check	Jan 01, 2025 at 03:02 PM

klik Relation View

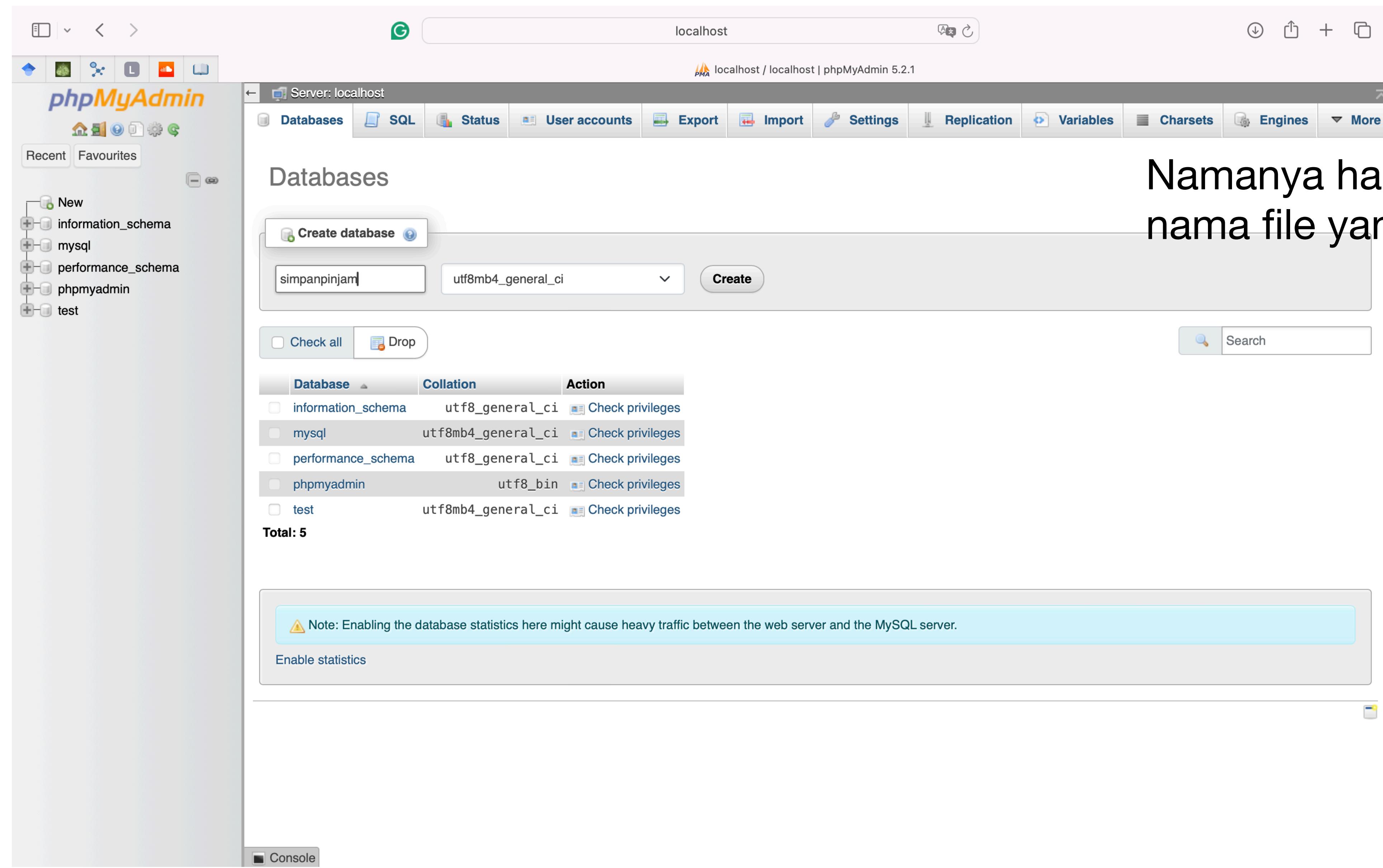


Pada bagian **Column** pilih entitas yang akan dijadikan foreign key pada tabel tersebut. Kemudian pada bagian **Table** pilih tabel asal dari primary key nya. Jika sudah klik save.

Contoh id_anggota(F) pada tabel pinjaman

IMPORT DATABASE

Pilih New → buat nama database → *create*



The screenshot shows the phpMyAdmin interface on a local host. The left sidebar lists databases: information_schema, mysql, performance_schema, phpmyadmin, and test. A 'New' button is highlighted. The main area shows a 'Create database' form with 'simpanpinjam' entered in the name field and 'utf8mb4_general_ci' selected in the collation dropdown. A 'Create' button is visible. Below the form is a table of existing databases:

Database	Collation	Action
information_schema	utf8_general_ci	Check privileges
mysql	utf8mb4_general_ci	Check privileges
performance_schema	utf8_general_ci	Check privileges
phpmyadmin	utf8_bin	Check privileges
test	utf8mb4_general_ci	Check privileges

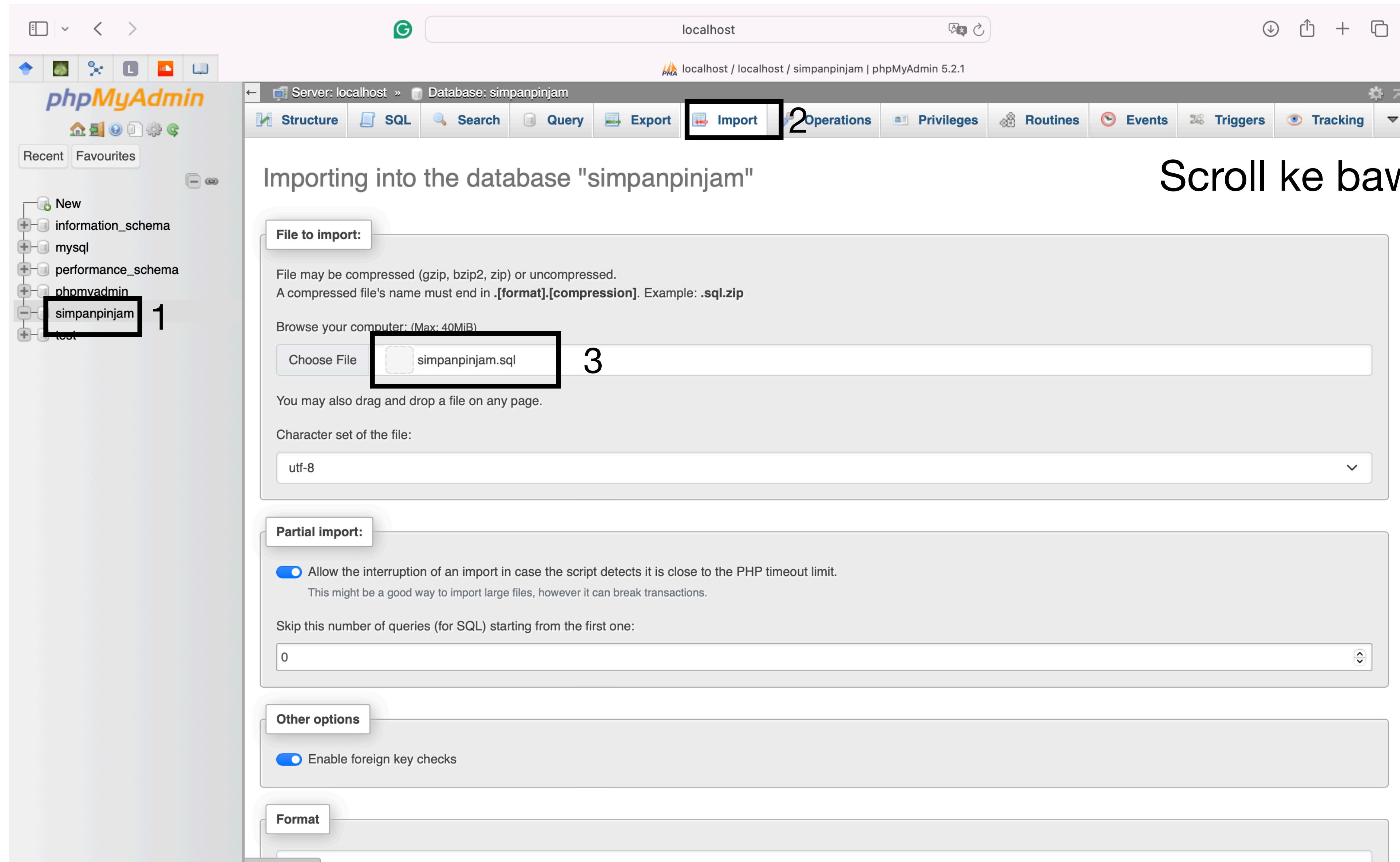
Total: 5

Note: Enabling the database statistics here might cause heavy traffic between the web server and the MySQL server.

Enable statistics

Namanya harus sama dengan
nama file yang akan di-import

Pilih nama database → Import → Pilih file



The screenshot shows the phpMyAdmin interface for importing data into the 'simpanpinjam' database. The steps are numbered as follows:

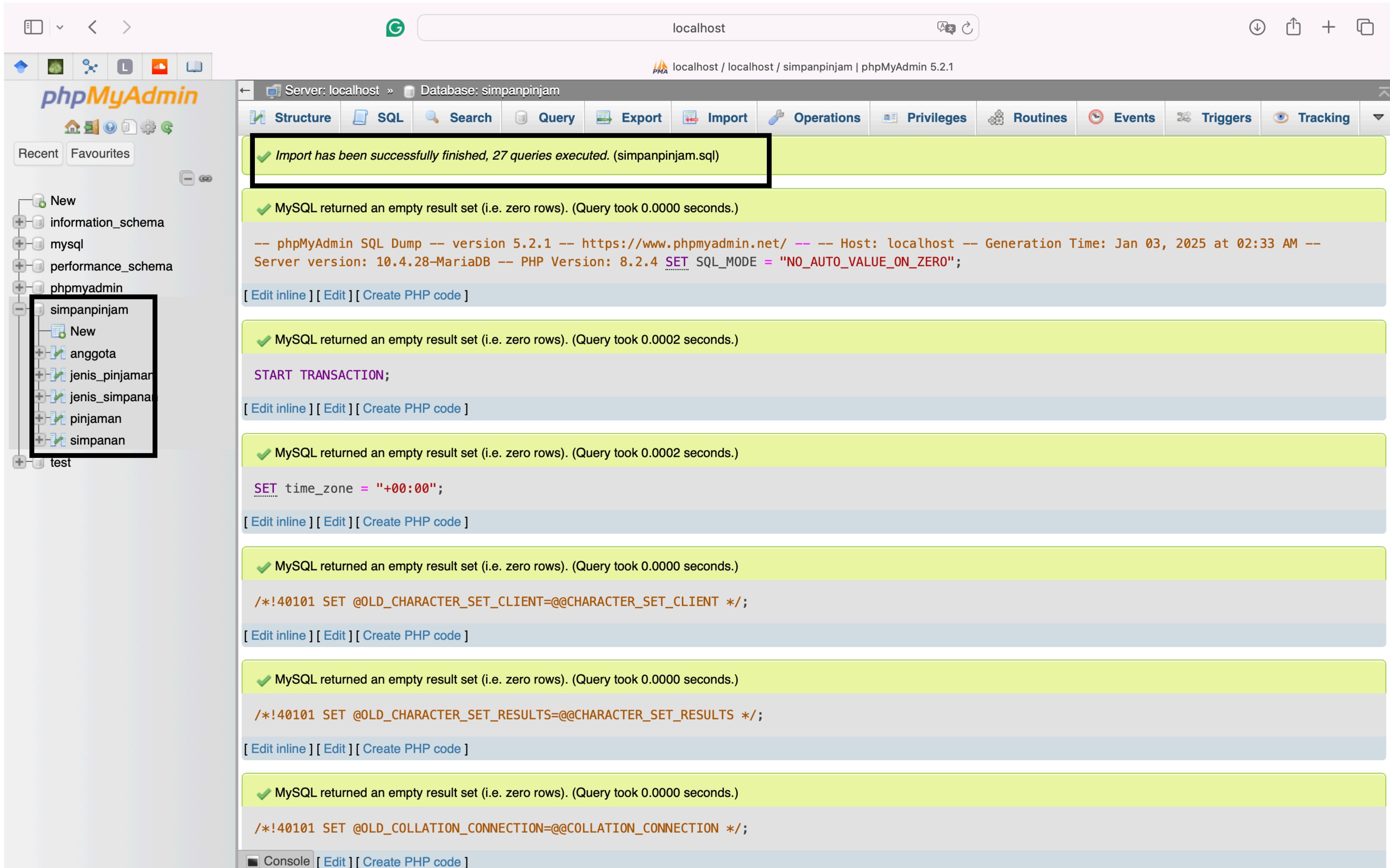
- 1**: The 'simpanpinjam' database is selected in the left sidebar.
- 2**: The 'Import' tab is selected in the top navigation bar.
- 3**: A file named 'simpanpinjam.sql' is selected in the 'Choose File' input field.

Text on the page includes:

- 'Importing into the database "simpanpinjam"
- 'File to import:'
 - File may be compressed (gzip, bzip2, zip) or uncompressed.
 - A compressed file's name must end in **.[format].[compression]**. Example: **.sql.zip**
- 'Browse your computer: (Max: 40MiB)
- 'Character set of the file:'
 - utf-8
- 'Partial import:'
 - Allow the interruption of an import in case the script detects it is close to the PHP timeout limit.
This might be a good way to import large files, however it can break transactions.
 - Skip this number of queries (for SQL) starting from the first one:
0
- 'Other options'
 - Enable foreign key checks
- 'Format'

Scroll ke bawah klik **Import**

Berhasil Import



The screenshot shows the phpMyAdmin interface on a Mac OS X system. The left sidebar shows databases: information_schema, mysql, performance_schema, phpmyadmin, simpanpinjam (selected), and test. The simpanpinjam database has tables: New, anggota, jenis_pinjaman, jenis_simpanan, pinjaman, and simpanan. The top navigation bar shows 'localhost / localhost / simpanpinjam | phpMyAdmin 5.2.1'. The main area displays the results of an import operation:

```

Structure SQL Search Query Export Import Operations Privileges Routines Events Triggers Tracking
Import has been successfully finished, 27 queries executed. (simpanpinjam.sql)
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0000 seconds.)
-- phpMyAdmin SQL Dump -- version 5.2.1 -- https://www.phpmyadmin.net/ -- Host: localhost -- Generation Time: Jan 03, 2025 at 02:33 AM --
Server version: 10.4.28-MariaDB -- PHP Version: 8.2.4 SET SQL_MODE = "NO_AUTO_VALUE_ON_ZERO";
[ Edit inline ] [ Edit ] [ Create PHP code ]
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)
START TRANSACTION;
[ Edit inline ] [ Edit ] [ Create PHP code ]
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0002 seconds.)
SET time_zone = "+00:00";
[ Edit inline ] [ Edit ] [ Create PHP code ]
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0000 seconds.)
/*!40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */;
[ Edit inline ] [ Edit ] [ Create PHP code ]
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0000 seconds.)
/*!40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */;
[ Edit inline ] [ Edit ] [ Create PHP code ]
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0000 seconds.)
/*!40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */;
[ Edit ] [ Create PHP code ]

```

INSERT INTO

INSERT INTO

Perintah `INSERT INTO` digunakan dalam SQL untuk MENAMBAHKAN data baru ke dalam tabel di database.

Struktur dasar perintah:

```
INSERT INTO nama_tabel  
VALUES (nilai1, nilai2, nilai3, ...);
```

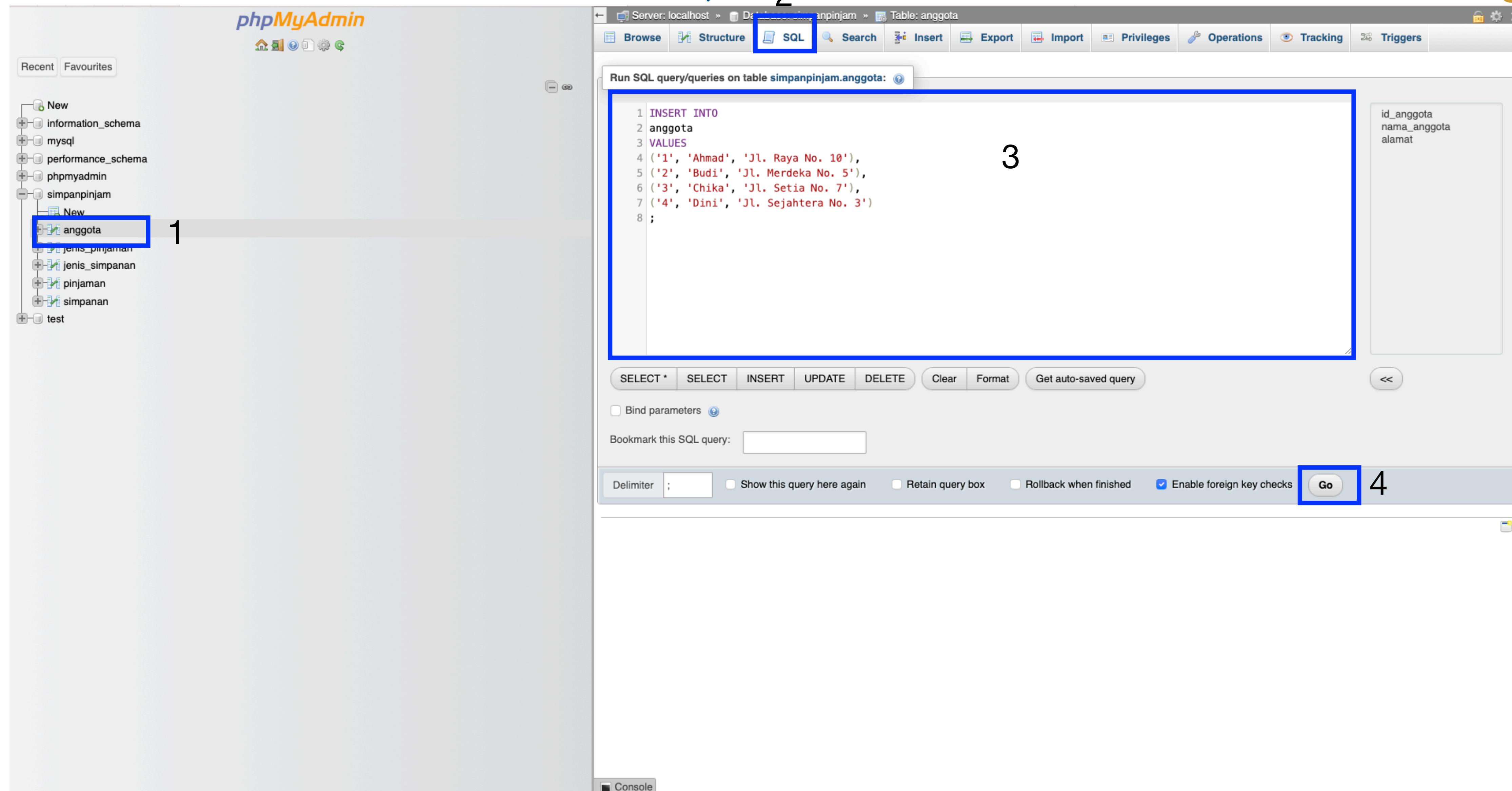
Atau

```
INSERT INTO anggota  
VALUES ('1', 'Ahmad', 'Jl. Raya No.10');
```

```
INSERT INTO nama_tabel  
VALUES (nilai1, nilai2, nilai3, ...),  
(nilai11, nilai22, nilai33, ...);
```

```
INSERT INTO anggota  
VALUES ('1', 'Ahmad', 'Jl. Raya No.10'),  
(‘2’, ‘Budi’, ‘Jl. Merdeka No.5’);
```

Pilih Tabel → klik SQL



The screenshot illustrates the steps to insert data into the 'anggota' table using phpMyAdmin:

- 1**: In the database tree on the left, the 'anggota' table under the 'simpanpinjam' schema is selected and highlighted with a blue box.
- 2**: The 'SQL' tab is selected in the top navigation bar, also highlighted with a blue box.
- 3**: The SQL query editor contains the following INSERT INTO statement:

```
1 INSERT INTO
2 anggota
3 VALUES
4 ('1', 'Ahmad', 'Jl. Raya No. 10'),
5 ('2', 'Budi', 'Jl. Merdeka No. 5'),
6 ('3', 'Chika', 'Jl. Setia No. 7'),
7 ('4', 'Dini', 'Jl. Sejahtera No. 3')
8 ;
```
- 4**: The 'Go' button at the bottom right of the SQL editor is highlighted with a blue box.

Hasilnya: klik Browse

Server: localhost » Database: simpanpinjam » Table: anggota

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 3 (4 total, Query took 0.0002 seconds.)

```
SELECT * FROM `anggota`
```

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

	id_anggota	nama_anggota	alamat
<input type="checkbox"/>	1	Ahmad	Jl. Raya No. 10
<input type="checkbox"/>	2	Budi	Jl. Merdeka No. 5
<input type="checkbox"/>	3	Chika	Jl. Setia No. 7
<input type="checkbox"/>	4	Dini	Jl. Sejahtera No. 3

Check all With selected: Edit Copy Delete Export

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Console

Latihan

id_anggota	nama_anggota	Alamat
5	Bagas	Jl. Sayang No 20
6	Rian	Jl. Jatinangor No 111
7	Amel	Jl. Merdeka No 12

Latihan

id_anggota	nama_anggota	Alamat
5	Bagas	Jl. Sayang No 20
6	Rian	Jl. Jatinangor No 111
7	Amel	Jl. Merdeka No 12

SELECT

SELECT

Perintah SELECT digunakan dalam SQL untuk MENGAMBIL/MENAMPILKAN data dari tabel.

Struktur dasar perintah:

`SELECT kolom1, kolom2 FROM nama_tabel;`

Contoh:

`SELECT nama_anggota, alamat FROM anggota;`

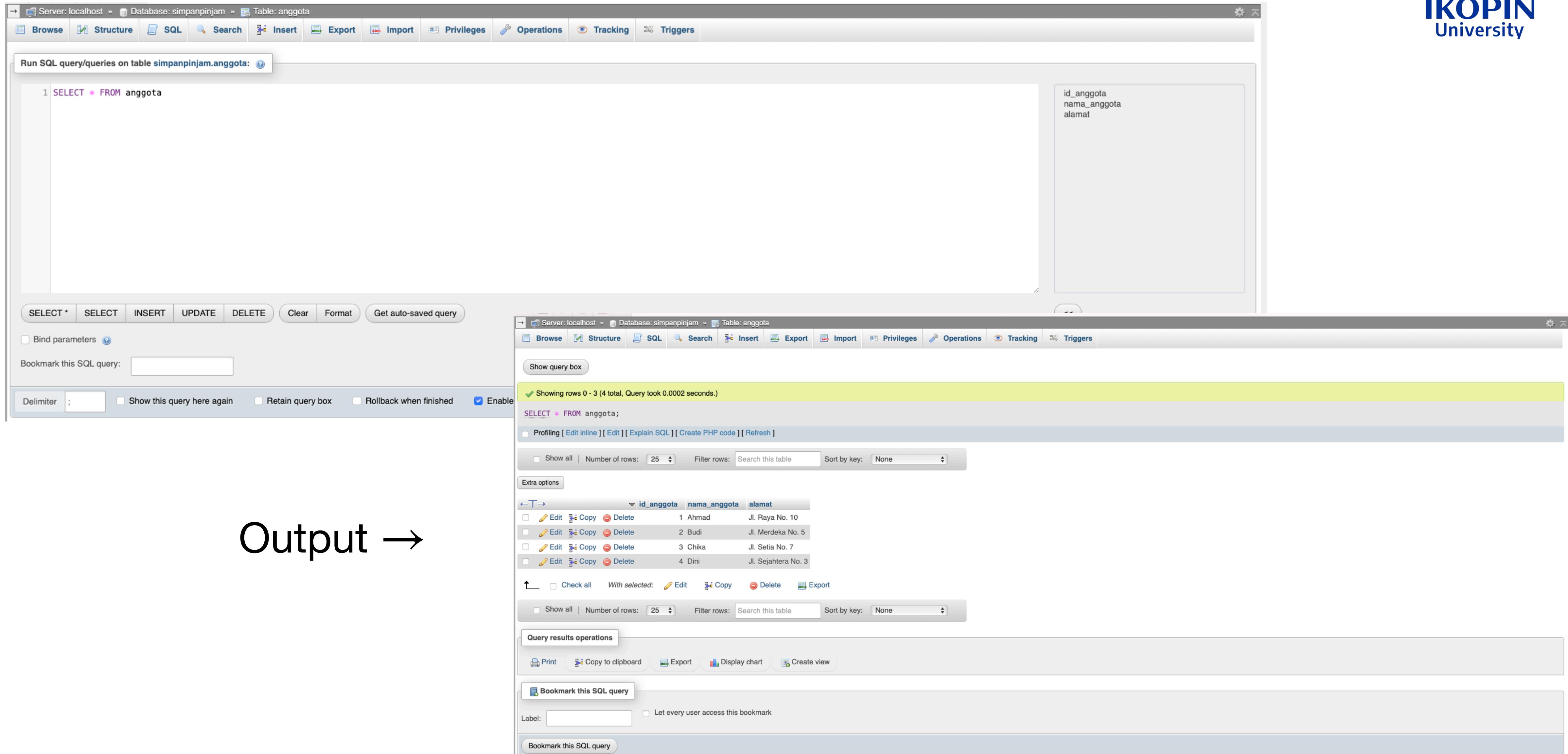
`SELECT * FROM nama_tabel;`

Atau

`SELECT * FROM anggota;`

Pilih Tabel → klik SQL

Output →



The screenshot shows two instances of MySQL Workbench. The top instance displays the SQL query `SELECT * FROM anggota` in the SQL editor, with the results pane showing the table structure:

	<code>id_anggota</code>	<code>nama_anggota</code>	<code>alamat</code>
--	-------------------------	---------------------------	---------------------

The bottom instance shows the results of the query, displaying four rows of data:

	<code>id_anggota</code>	<code>nama_anggota</code>	<code>alamat</code>
1	Ahmad	Jl. Raya No. 10	
2	Budi	Jl. Merdeka No. 5	
3	Chika	Jl. Setia No. 7	
4	Dini	Jl. Sejahtera No. 3	

Pilih Tabel → klik SQL

Run SQL query/queries on table simpanpinjam.anggota:

```
1 | SELECT nama_anggota, alamat FROM anggota
```

id_anggota	nama_anggota	alamat

Show query box

Showing rows 0 - 3 (4 total, Query took 0.0001 seconds.)

```
SELECT nama_anggota, alamat FROM anggota;
```

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

nama_anggota	alamat
Ahmad	Jl. Raya No. 10
Budi	Jl. Merdeka No. 5
Chika	Jl. Setia No. 7
Dini	Jl. Sejahtera No. 3

Check all With selected: Edit Copy Delete Export

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Output →

Latihan

Tampilkan `id_pinjaman`, `id_anggota`, dan `jumlah_pinjaman`
dari tabel pinjaman

UPDATE

UPDATE

Perintah UPDATE digunakan dalam SQL untuk MENGUBAH data dalam tabel.

Struktur dasar perintah:

UPDATE nama_tabel

SET kolom1 = nilai_baru1, kolom2 = nilai_baru2

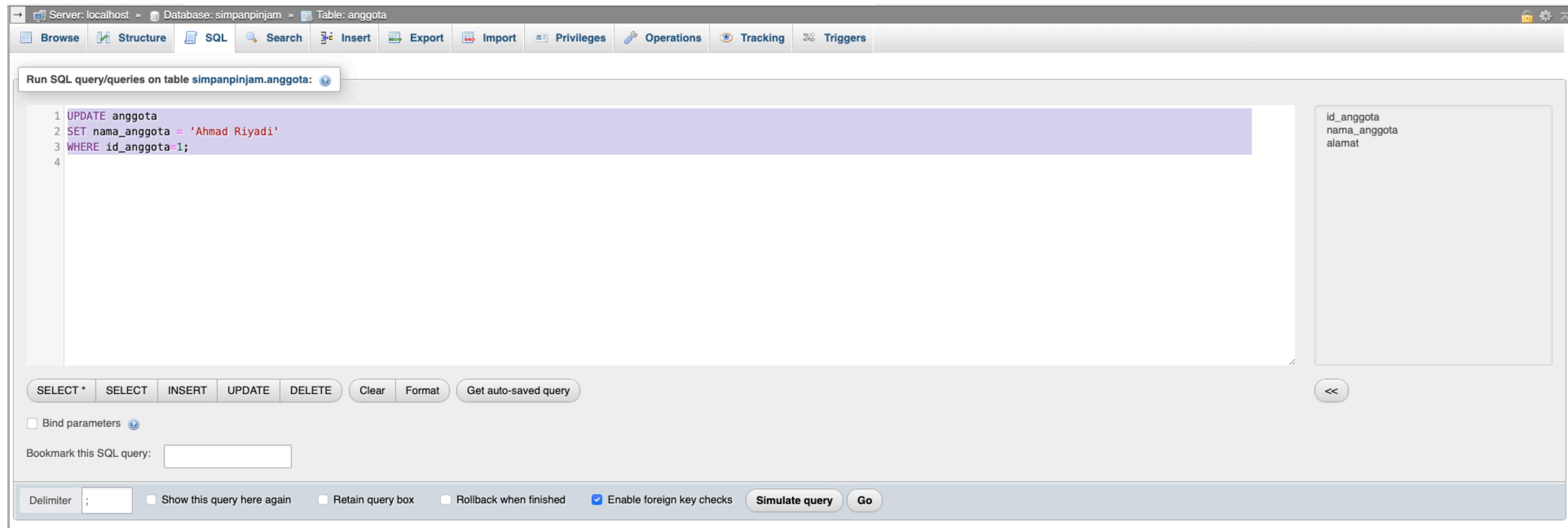
WHERE kondisi;

UPDATE anggota

SET nama_anggota = 'Ahmad Riyadi'

WHERE id_anggota=1;

Pilih Tabel → klik SQL



The screenshot shows the MySQL Workbench interface. The title bar indicates the connection is to 'localhost' database 'simpanpinjam' table 'anggota'. The toolbar has tabs for Browse, Structure, SQL, Search, Insert, Export, Import, Privileges, Operations, Tracking, and Triggers. The main area is titled 'Run SQL query/queries on table simpanpinjam.anggota:' and contains the following SQL code:

```
1 UPDATE anggota
2 SET nama_anggota = 'Ahmad Riyadi'
3 WHERE id_anggota=1;
4
```

To the right of the code editor is a results pane showing the table structure:

id_anggota	nama_anggota	alamat
------------	--------------	--------

Below the code editor are several buttons: SELECT *, SELECT, INSERT, UPDATE, DELETE, Clear, Format, Get auto-saved query, Bind parameters, and a bookmark field. At the bottom are settings for Delimiter (set to ;), Show this query here again (unchecked), Retain query box (unchecked), Rollback when finished (unchecked), Enable foreign key checks (checked), Simulate query, and Go.

Hasilnya: klik Browse

Server: localhost » Database: simpanpinjam » Table: anggota

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 3 (4 total, Query took 0.0001 seconds.)

```
SELECT * FROM `anggota`
```

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

	id_anggota	nama_anggota	alamat
<input type="checkbox"/>	1	Ahmad Riyadi	Jl. Raya No. 10
<input type="checkbox"/>	2	Budi	Jl. Merdeka No. 5
<input type="checkbox"/>	3	Chika	Jl. Setia No. 7
<input type="checkbox"/>	4	Dini	Jl. Sejahtera No. 3

Check all With selected: Edit Copy Delete Export

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Label: Let every user access this bookmark

Bookmark this SQL query

Latihan

id_anggota	nama_anggota	Alamat
0001	Ahmad Aryadi	Jl. Raya No. 10
0002	Budi Ilhamsyah	Jl. Merdeka No. 5
0003	Chika Infisiah	Jl. Setia No. 7
0004	Dini Safitri	Jl. Sejahtera No. 3
0005	Bagas Ramadhan	Jl. Sayang No 20
0006	Rian Setiawan	Jl. Jatinangor No 111
0007	Amel Putri	Jl. Merdeka No 12

DELETE

DELETE

Perintah DELETE digunakan dalam SQL untuk MENGHAPUS data dalam tabel.

Struktur dasar perintah:

```
DELETE FROM nama_tabel  
WHERE kondisi;
```

```
UPDATE anggota  
SET nama_anggota = 'Ahmad Riyadi'  
WHERE id_anggota=1;
```

Pilih Tabel → klik SQL

Server: localhost » Database: simpanpinjam » Table: anggota

Browse Structure SQL Search Insert Export Privileges Operations Tracking Triggers

Run SQL query/queries on table simpanpinjam.anggota:

```
1 DELETE from anggota where nama_anggota='Budi'
```

id_anggota
nama_anggota
alamat

Server: localhost » Database: simpanpinjam » Table: anggota

Browse Structure SQL Search Insert Export Import Privileges Operations Tracking Triggers

Showing rows 0 - 2 (3 total, Query took 0.0001 seconds.)

```
SELECT * FROM `anggota`
```

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

	id_anggota	nama_anggota	alamat
<input type="checkbox"/>	1	Ahmad Riyadi	Jl. Raya No. 10
<input type="checkbox"/>	3	Chika	Jl. Setia No. 7
<input type="checkbox"/>	4	Dini	Jl. Sejahtera No. 3

Check all With selected: Edit Copy Delete Export

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

Query results operations

Print Copy to clipboard Export Display chart Create view

Bookmark this SQL query

Output →

Latihan



Hapus id_anggota 0005 dan 0006 dari tabel anggota

**SELAMAT
BELAJAR**