

Nama : Titis Ulfa Mustikawati

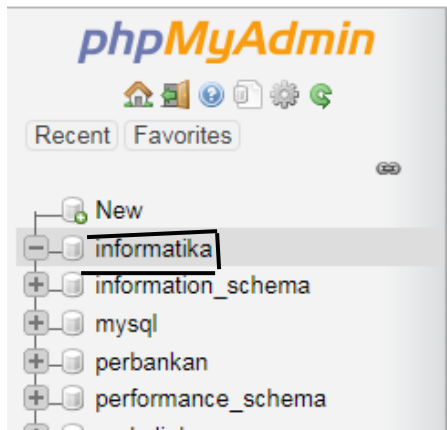
NIM : L200170057

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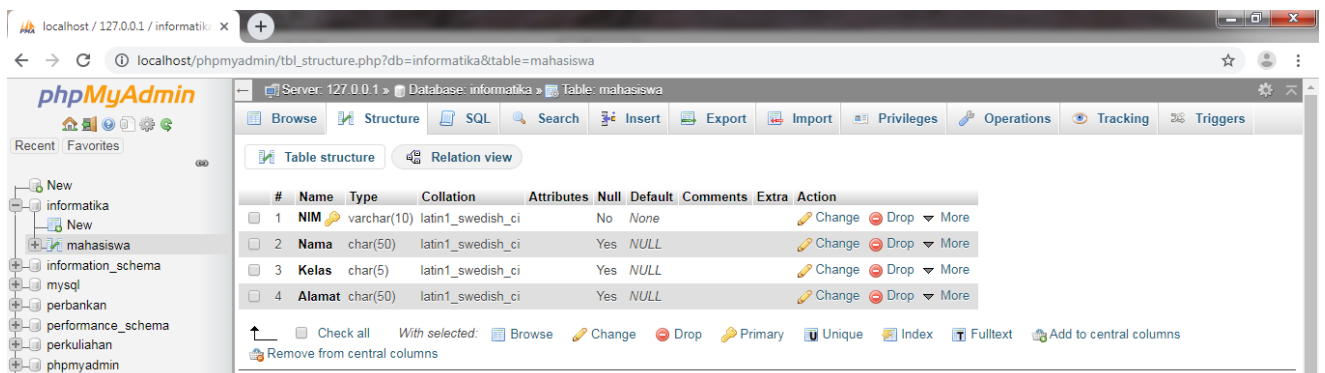
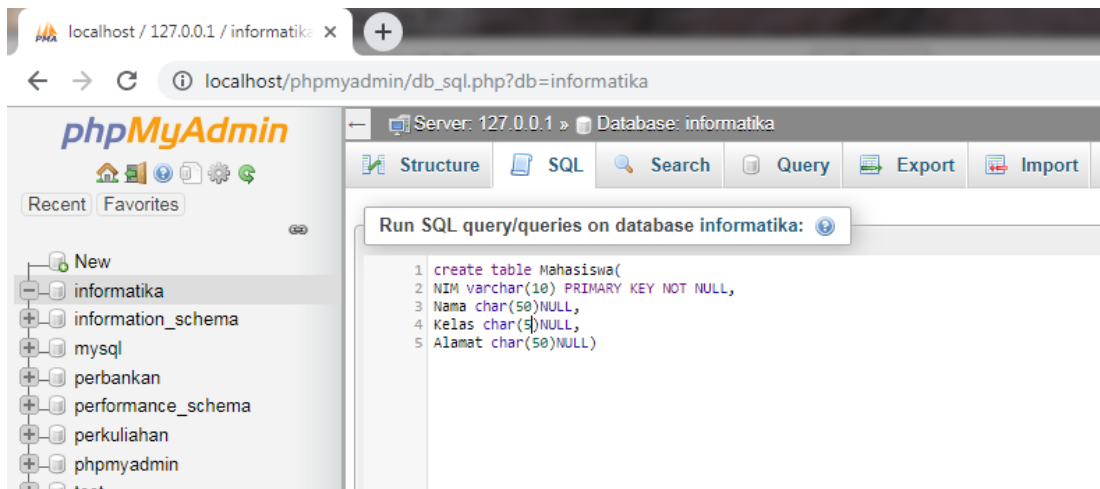
MODUL 4

SQL (Structured Query Language)

Percobaan 1



Percobaan 2



Percobaan 3

Server: 127.0.0.1 » Basis data: informatika » Tabel: mahasiswa

Jelajahi Struktur SQL Cari Tambahkan Ekspor

Run SQL query/queries on table informatika.mahasiswa: ?

```
1 INSERT INTO Mahasiswa VALUES ('L200080001', 'Ari Wibowo', 'A', 'Solo')
```

Server: 127.0.0.1 » Basis data: informatika » Tabel: mahasiswa

Jelajahi Struktur SQL Cari Tambahkan

Run SQL query/queries on table informatika.mahasiswa: ?

```
1 SELECT * FROM Mahasiswa
```

Server: 127.0.0.1 » Basis data: informatika » Tabel: mahasiswa

Jelajahi Struktur SQL Cari Tambahkan Ekspor

✓ Menampilkan baris 0 - 0 (total 1, Pencarian dilakukan dalam 0,0000 detik.)

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

☐ Tampilkan semua | Jumlah baris: 25 Saring baris: Cari di tabel ini

+ Opsi

	NIM	Nama	Kelas	Alamat
<input type="checkbox"/> Ubah <input type="button" value="Salin"/> <input type="button" value="Hapus"/>	L200080001	Ari Wibowo	A	Solo

Server: 127.0.0.1 » Basis data: informatika » Tabel: Mahasiswa

Jelajahi Struktur SQL Cari Tambahkan Ekspor Impor

Run SQL query/queries on table informatika.Mahasiswa: ?

```
1 INSERT INTO Mahasiswa(`NIM`, `Nama`, `Kelas`) VALUES ('L200080080', 'Agustina', 'B')
```

← Server: 127.0.0.1 » Basis data: informatika » Tabel: Mahasiswa

Jelajahi Struktur SQL Cari Tambahkan

Run SQL query/queries on table informatika.Mahasiswa: ⓘ

```
1 SELECT * FROM Mahasiswa
```

← Server: 127.0.0.1 » Basis data: informatika » Tabel: Mahasiswa

Jelajahi Struktur SQL Cari Tambahkan Ekspor

Tampilkan kotak kueri

✓ Menampilkan baris 0 - 1 (total 2, Pencarian dilakukan dalam 0,0000 detik.)

```
SELECT * FROM Mahasiswa
```

☐ Tampilkan semua | Jumlah baris: 25 Saring baris: Cari di tabel ini

+ Opsi

			NIM	Nama	Kelas	Alamat
<input type="checkbox"/>	Ubah	Salin	Hapus	L200080001	Ari Wibowo	A Solo
<input type="checkbox"/>	Ubah	Salin	Hapus	L200080080	Agustina	B NULL

Percobaan 4

The screenshot shows the phpMyAdmin interface for a local server at 127.0.0.1. The database 'informatika' is selected, and the table 'Mahasiswa' is open. The SQL query editor contains the following query:

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

The columns listed on the right are NIM, Nama, Kelas, and Alamat. The interface includes buttons for SELECT, INSERT, UPDATE, DELETE, Bersihkan, and Format. Below the query editor, there are checkboxes for 'Bind parameters', 'Markahi kueri SQL ini:', and 'Tampilkan ulang perintah SQL'. The 'Simulasikan query' button is visible.

The screenshot shows the phpMyAdmin interface for a local server at 127.0.0.1. The database 'informatika' is selected, and the table 'Mahasiswa' is open. The SQL query editor contains the following query:

```
1 SELECT * FROM `Mahasiswa` ;
```

The columns listed on the right are NIM, Nama, Kelas, and Alamat. The interface includes buttons for SELECT, INSERT, UPDATE, DELETE, Bersihkan, and Format. Below the query editor, there are checkboxes for 'Bind parameters', 'Markahi kueri SQL ini:', and 'Tampilkan ulang perintah SQL'. The 'Kirim' button is visible.

localhost / 127.0.0.1 / informatika X

localhost/phpmyadmin/tbl_sql.php?db=informatika&table=Mahasiswa

Server: 127.0.0.1 > Basis data: informatika > Tabel: Mahasiswa

Jelajahi Struktur SQL Cari Tambahkan Ekspor Impor Hak Akses Operasi Pelacakan Trigger

Tampilkan kotak kueri

✓ Menampilkan baris 0 - 1 (total 2, Pencarian dilakukan dalam 0,0000 detik.)

SELECT * FROM 'Mahasiswa'

Profil [Edit kotak] [Ubah] [Jelaskan SQL] [Buat kode PHP] [Segarkan]

Tampilkan semua | Jumlah baris: 25 | Saring baris: Cari di tabel ini | Urut berdasarkan kunci: Tidak ada

+ Opsi

	NIM	Nama	Kelas	Alamat
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	L200080001	Ari Wibowo	A	Solo
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	L200080080	Agustina Anggraini	B	NULL

Pilih Semua Dengan pilihan: ☐ Ubah ☐ Salin ☐ Hapus ☐ Ekspor

Tampilkan semua | Jumlah baris: 25 | Saring baris: Cari di tabel ini | Urut berdasarkan kunci: Tidak ada

Operasi hasil kueri

Cetak ☐ Salin ke clipboard ☐ Ekspor ☐ Tampilkan bagan ☐ Buat tampilan

Markahi kueri SQL ini

Judul: ☐ Izinkan semua pengguna untuk mengakses markah ini

Konsol

15:47 01/10/2019

Membuat Tabel Nilai

The screenshot shows the phpMyAdmin interface for a database named 'informatika'. The left sidebar shows the database structure, including 'informatika', 'mahasiswa', 'information_schema', 'mysql', 'perbankan', 'perbankanbaru', 'performance_schema', 'perkuliahan', 'phpmyadmin', 'susi', and 'test'. The main panel displays the 'Jalankan perintah SQL pada basis data informatika:' (Execute SQL command on the informatika database) section. The SQL query editor contains the following code:

```
1 CREATE TABLE Nilai(  
2   NIM varchar(10) PRIMARY KEY NOT NULL,  
3   Nama_MK char(50) NULL,  
4   Nilai_Angka INT NULL,  
5   Nilai_Huruf char(5) NULL  
6 )  
7
```

Below the query editor, there are buttons for 'Bersihkan' (Clear), 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters' and a text input for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' (Send) button.

The screenshot shows the phpMyAdmin interface for the 'informatika' database, specifically for the 'Tabel: nilai' (Table: nilai) section. The left sidebar shows the database structure, including 'informatika', 'mahasiswa', 'information_schema', 'mysql', 'perbankan', 'perbankanbaru', 'performance_schema', 'perkuliahan', 'phpmyadmin', 'susi', and 'test'. The main panel displays the 'Run SQL query/queries on table informatika.nilai:' (Run SQL query/queries on table informatika.nilai) section. The SQL query editor contains the following code:

```
1 INSERT INTO `nilai` (`NIM`, `Nama_MK`, `Nilai_Angka`, `Nilai_Huruf`) VALUES ('L200080002', 'Kapita Selekt', 60, 'BC')
```

Below the query editor, there are buttons for 'SELECT *', 'SELECT', 'INSERT', 'UPDATE', 'DELETE', 'Bersihkan' (Clear), and 'Format'. There is also a checkbox for 'Bind parameters' and a text input for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' (Send) button.

A red error message is displayed at the bottom of the interface:

Galat
Query SQL:

INSERT INTO `nilai` (`NIM`, `Nama_MK`, `Nilai_Angka`, `Nilai_Huruf`) VALUES ('L200080002', 'Kapita Selekt', 60, 'BC')

localhost / 127.0.0.1 / informatika X

localhost/phpmyadmin/tbl_sql.php?db=informatika&table=nilai

Server: 127.0.0.1 > Basis data: informatika > Tabel: nilai

Jelajahi Struktur SQL Cari Tambahkan Ekspor Impor Hak Akses Operasi Pelacakan Trigger

Run SQL query/queries on table informatika.nilai:

```
1 INSERT INTO 'nilai' ('NIM', 'Nama_MK', 'Nilai_Angka', 'Nilai_Huruf') VALUES ('1200080010', 'Pemrograman Web', 87, 'A')
```

Kolom

NIM
Nama_MK
Nilai_Angka
Nilai_Huruf

SELECT * SELECT INSERT UPDATE DELETE Bersihkan Format

Get auto-saved query

☐ Bind parameters

Markahi kueri SQL ini:

[Pembatas :] ☒ Tampilkan ulang perintah SQL ☐ Menahan kotak kueri ☐ Rollback when finished ☒ Perbolehkan cek foreign key **Kirim**

Konsol

15:58 01/10/2019

localhost / 127.0.0.1 / informatika X

localhost/phpmyadmin/tbl_sql.php?db=informatika&table=nilai

Server: 127.0.0.1 > Basis data: informatika > Tabel: nilai

Jelajahi Struktur SQL Cari Tambahkan Ekspor Impor Hak Akses Operasi Pelacakan Trigger

Run SQL query/queries on table informatika.nilai:

```
1 INSERT INTO 'nilai' ('NIM', 'Nama_MK', 'Nilai_Angka', 'Nilai_Huruf') VALUES ('1200080080', 'Pemrograman Web', 50, 'A')
```

Kolom

NIM
Nama_MK
Nilai_Angka
Nilai_Huruf

SELECT * SELECT INSERT UPDATE DELETE Bersihkan Format

Get auto-saved query

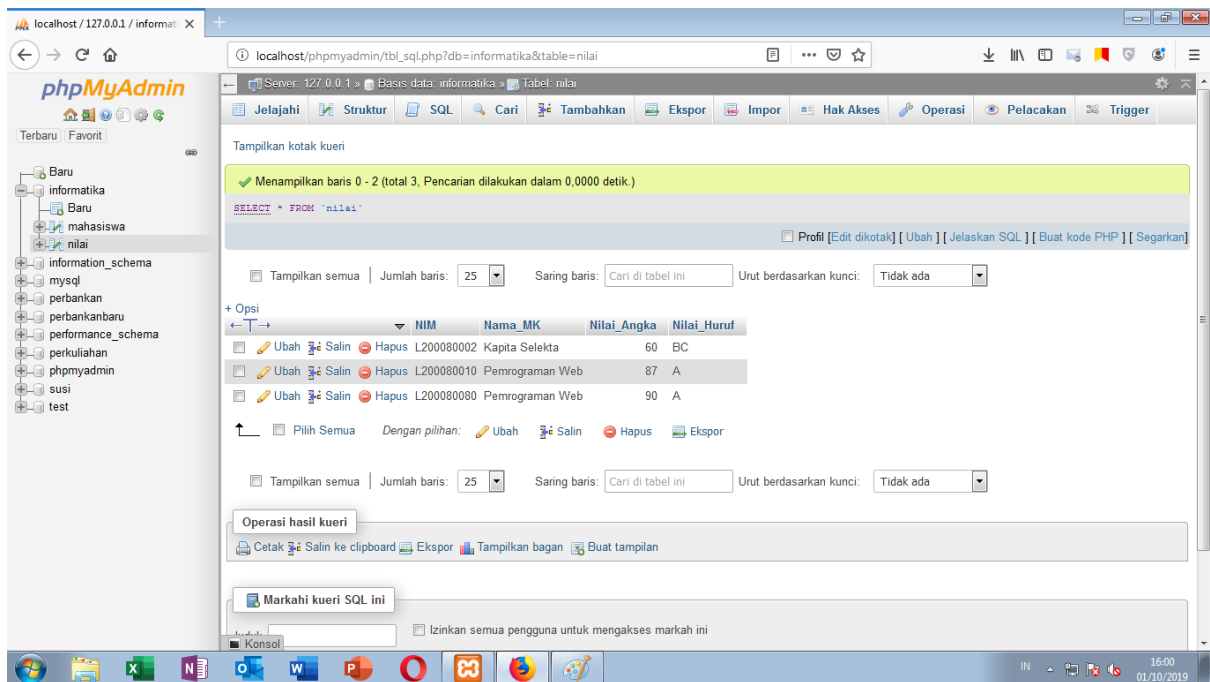
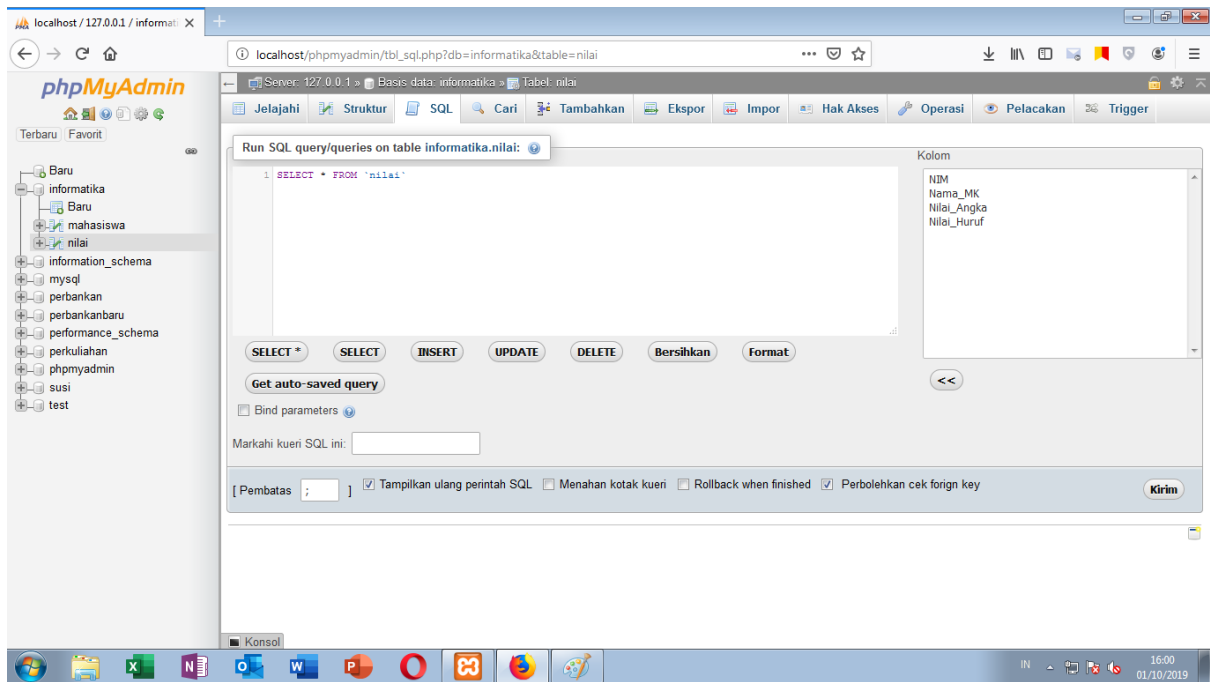
☐ Bind parameters

Markahi kueri SQL ini:

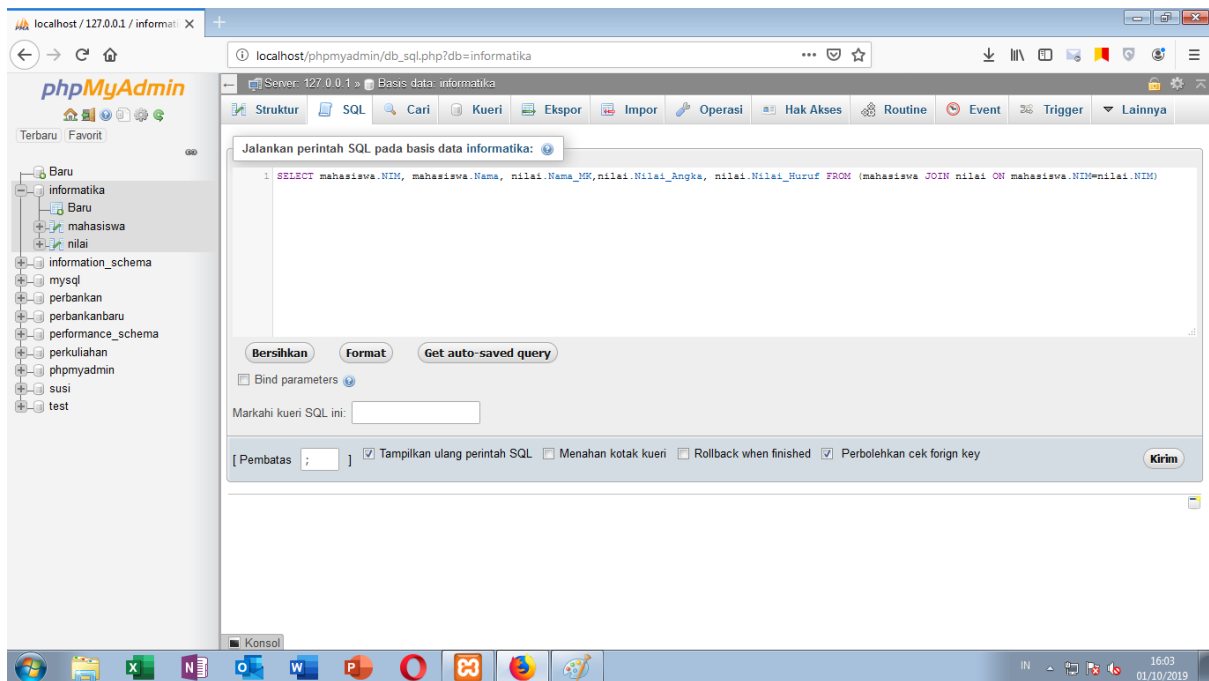
[Pembatas :] ☒ Tampilkan ulang perintah SQL ☐ Menahan kotak kueri ☐ Rollback when finished ☒ Perbolehkan cek foreign key **Kirim**

Konsol

16:00 01/10/2019



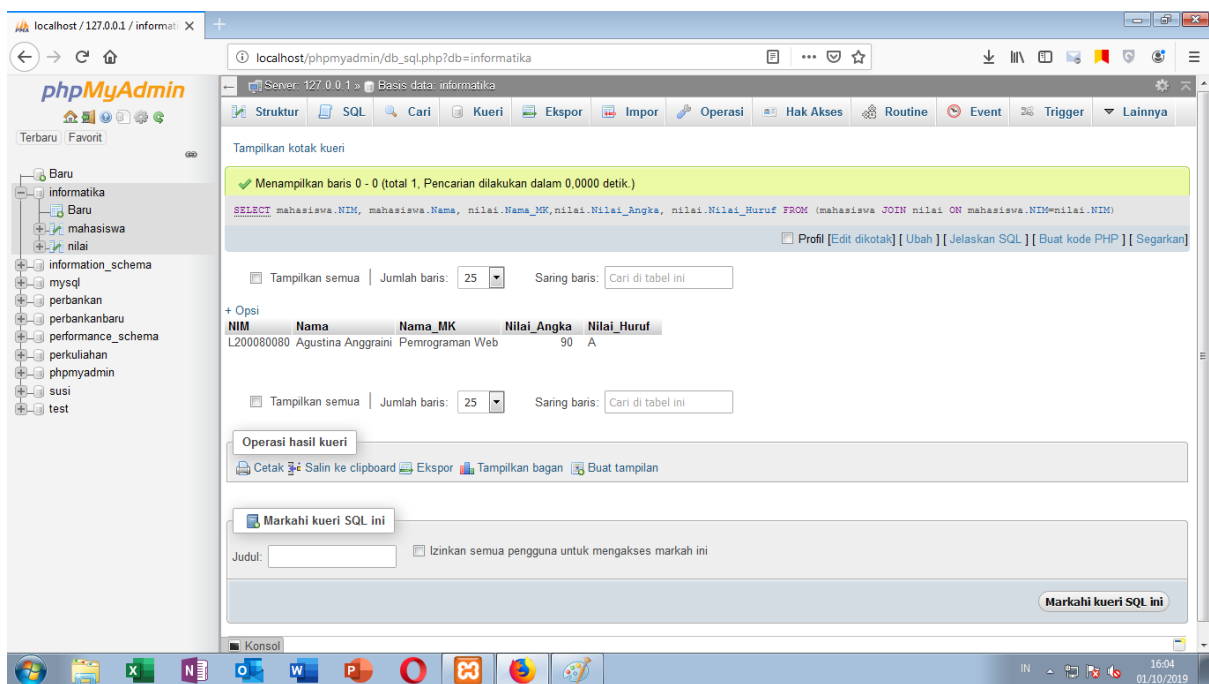
Percobaan 5



The screenshot shows the phpMyAdmin interface with the SQL tab selected. The left sidebar displays a database structure for 'informatika' with tables like 'mahasiswa' and 'nilai'. The main area contains a SQL query editor with the following query:

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

Below the query editor, there are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters' and a text field for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button.



The screenshot shows the phpMyAdmin interface displaying the results of the SQL query. The top section shows a message: 'Menampilkan baris 0 - 0 (total 1, Pencarian dilakukan dalam 0,0000 detik)'. Below this, the query is repeated. The results are displayed in a table with the following data:

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

Below the table, there are buttons for 'Operasi hasil kueri' including 'Cetak', 'Salin ke clipboard', 'Ekspor', 'Tampilkan bagan', and 'Buat tampilan'. There is also a section for 'Markahi kueri SQL ini' with a 'Judul:' field and a checkbox for 'Izinkan semua pengguna untuk mengakses markahi ini', along with a 'Markahi kueri SQL ini' button.

Percobaan 6

The screenshot shows the phpMyAdmin interface in a web browser. The left sidebar displays the database structure for 'informatika', including tables like 'mahasiswa' and 'nilai'. The main panel is titled 'Jalankan perintah SQL pada basis data informatika:'. It contains a text area with the following SQL query:

```
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)
```

Below the query area are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters' and a text input for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button.

The screenshot shows the phpMyAdmin interface displaying the results of the SQL query. The main panel is titled 'Tampilkan kotak kueri'. It shows a green message: 'Menampilkan baris 0 - 1 (total 2, Pencarian dilakukan dalam 0,0000 detik)'. Below this is the SQL query and a table of results:

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

Below the table, there are buttons for 'Operasi hasil kueri' (Cetak, Salin ke clipboard, Ekspor, Tampilkan bagan, Buat tampilan) and a section for 'Markahi kueri SQL ini' with a text input for 'Judul:' and a checkbox for 'Izinkan semua pengguna untuk mengakses markah ini'. A 'Markahi kueri SQL ini' button is at the bottom right.

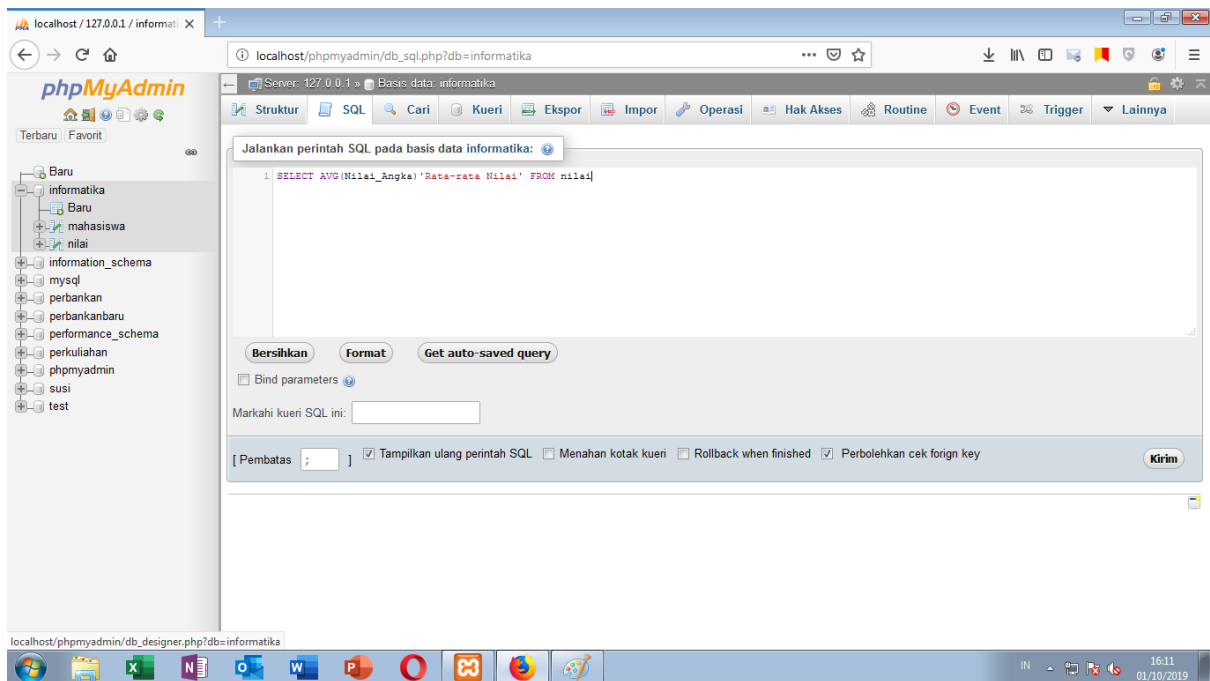
Percobaan 7

The screenshot shows the phpMyAdmin interface for a database named 'informatika'. The left sidebar displays the database structure, including tables like 'mahasiswa' and 'nilai'. The main area is the 'SQL' tab, where a query is entered: `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)`. Below the query editor, there are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There are also checkboxes for 'Bind parameters', 'Markahi kueri SQL ini', and 'Tampilkan ulang perintah SQL'. The bottom status bar shows the server is 'localhost / 127.0.0.1 / informatika' and the time is 16:09 on 01/10/2019.

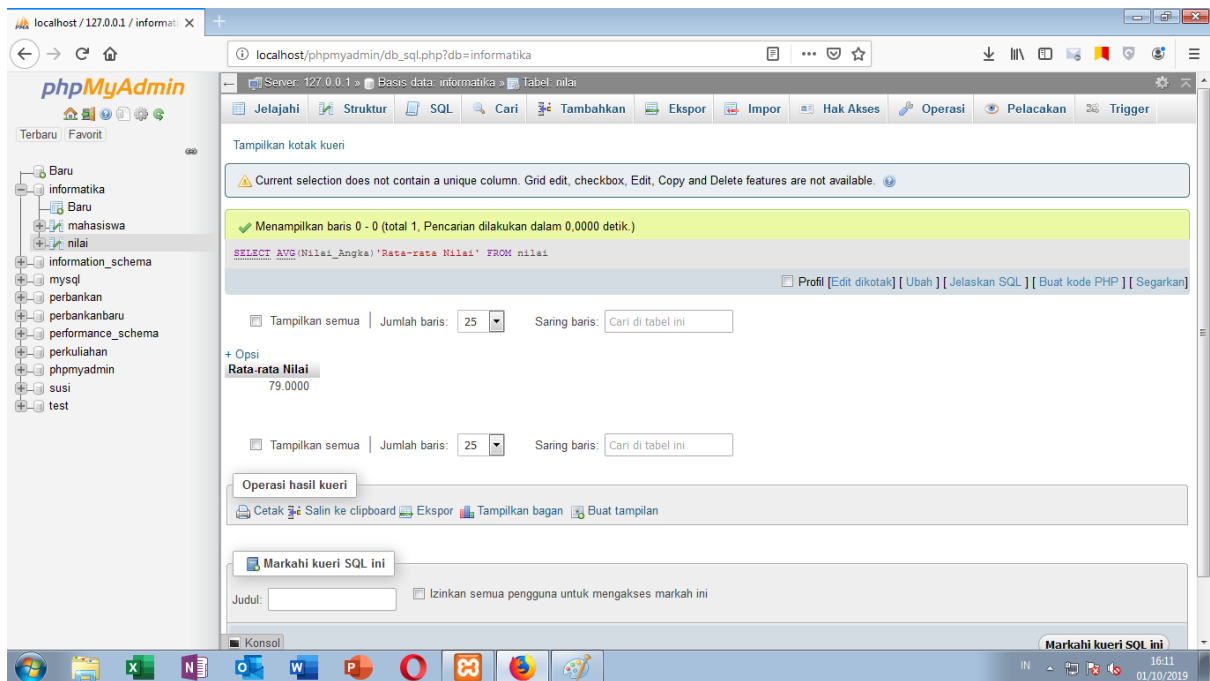
The screenshot shows the phpMyAdmin interface displaying the results of the SQL query. A green message bar indicates 'Menampilkan baris 0 - 2 (total 3, Pencarian dilakukan dalam 0,0000 detik)'. Below this, the query is repeated: `SELECT mahasiswa.NIM, mahasiswa>Nama, nilai>Nama_MK, nilai.Nilai_Angka, nilai.Nilai_Huruf FROM (mahasiswa RIGHT JOIN nilai ON mahasiswa.NIM=nilai.NIM)`. The results are shown in a table with columns: NIM, Nama, Nama_MK, Nilai_Angka, and Nilai_Huruf. The table contains three rows of data. Below the table, there are buttons for 'Operasi hasil kueri' (Cetak, Salin ke clipboard, Ekspor, Tampilkan bagan, Buat tampilan) and 'Markahi kueri SQL ini' (Judul, Izinkan semua pengguna untuk mengakses markah ini). The bottom status bar shows the server is 'localhost / 127.0.0.1 / informatika' and the time is 16:09 on 01/10/2019.

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

Percobaan 8

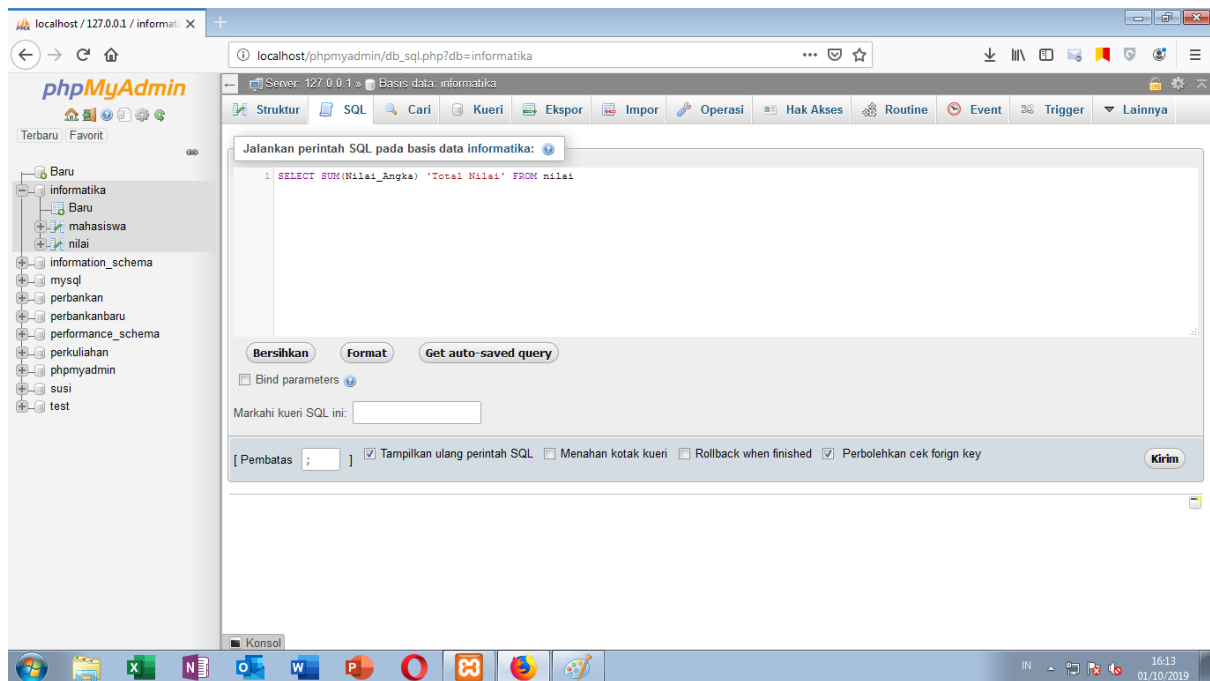


The screenshot shows the phpMyAdmin interface in a web browser. The left sidebar displays the database structure, including a database named 'informatika' with tables 'mahasiswa' and 'nilai'. The main panel is titled 'Jalankan perintah SQL pada basis data informatika:'. It contains a text area with the SQL query: `1 SELECT AVG(Nilai_Angka) 'Rata-rata Nilai' FROM nilai;`. Below the query area are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is a checkbox for 'Bind parameters' and a text input for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button. The browser's address bar shows 'localhost/phpmyadmin/db_sql.php?db=informatika'.

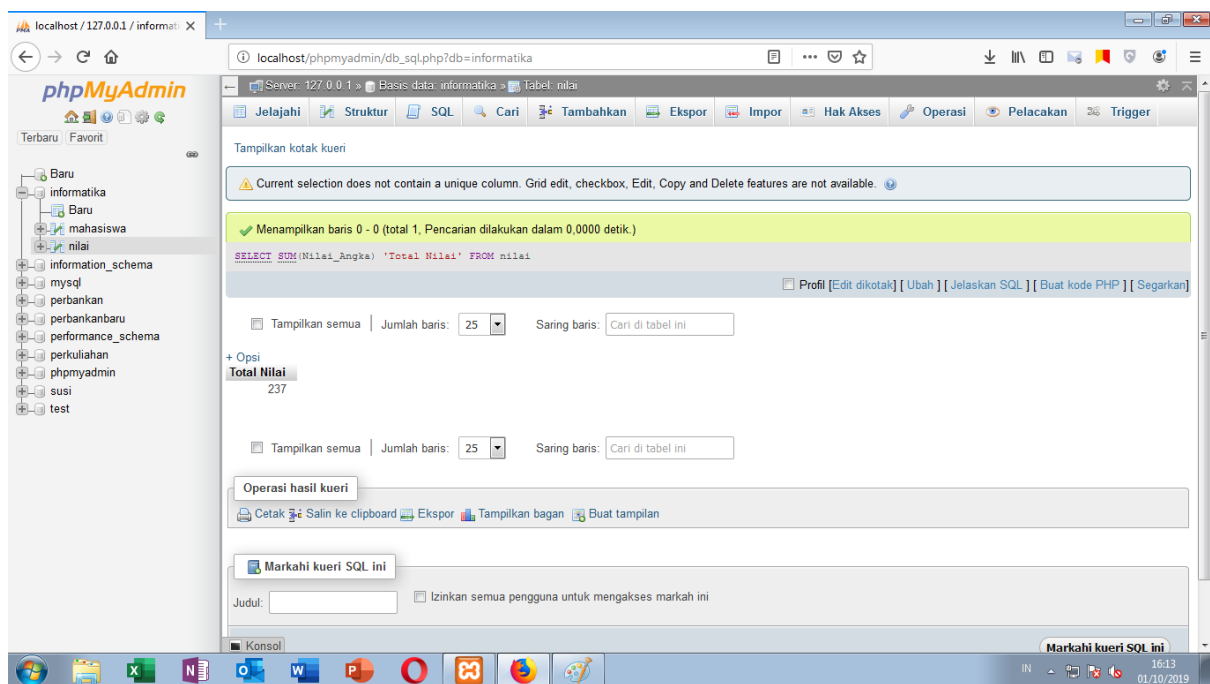


The screenshot shows the phpMyAdmin interface displaying the results of the SQL query. The main panel is titled 'Tampilkan kotak kueri'. It shows a message: 'Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available.' Below this, a green banner indicates 'Menampilkan baris 0 - 0 (total 1, Pencarian dilakukan dalam 0,0000 detik.)'. The query `SELECT AVG(Nilai_Angka) 'Rata-rata Nilai' FROM nilai;` is displayed. Below the query, there are checkboxes for 'Tampilkan semua', 'Jumlah baris: 25', and 'Saring baris: Cari di tabel ini'. A table with one row is shown, with the column 'Rata-rata Nilai' and the value '79.0000'. Below the table, there are buttons for 'Operasi hasil kueri', including 'Cetak', 'Salin ke clipboard', 'Ekspor', 'Tampilkan bagan', and 'Buat tampilan'. At the bottom, there is a section for 'Markahi kueri SQL ini' with a text input for 'Judul:' and a checkbox for 'Izinkan semua pengguna untuk mengakses markah ini'. The browser's address bar shows 'localhost/phpmyadmin/db_sql.php?db=informatika'.

Percobaan 9



The screenshot shows the phpMyAdmin web interface in a browser window. The address bar displays 'localhost/phpmyadmin/db_sql.php?db=informatika'. The left sidebar shows a database structure with 'informatika' selected, containing tables like 'mahasiswa' and 'nilai'. The main panel is titled 'Jalankan perintah SQL pada basis data informatika:'. It contains a text area with the SQL query: `1 SELECT SUM(Nilai_Angka) 'Total Nilai' FROM nilai`. Below the query area are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is a checkbox for 'Bind parameters' and a text input for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button.

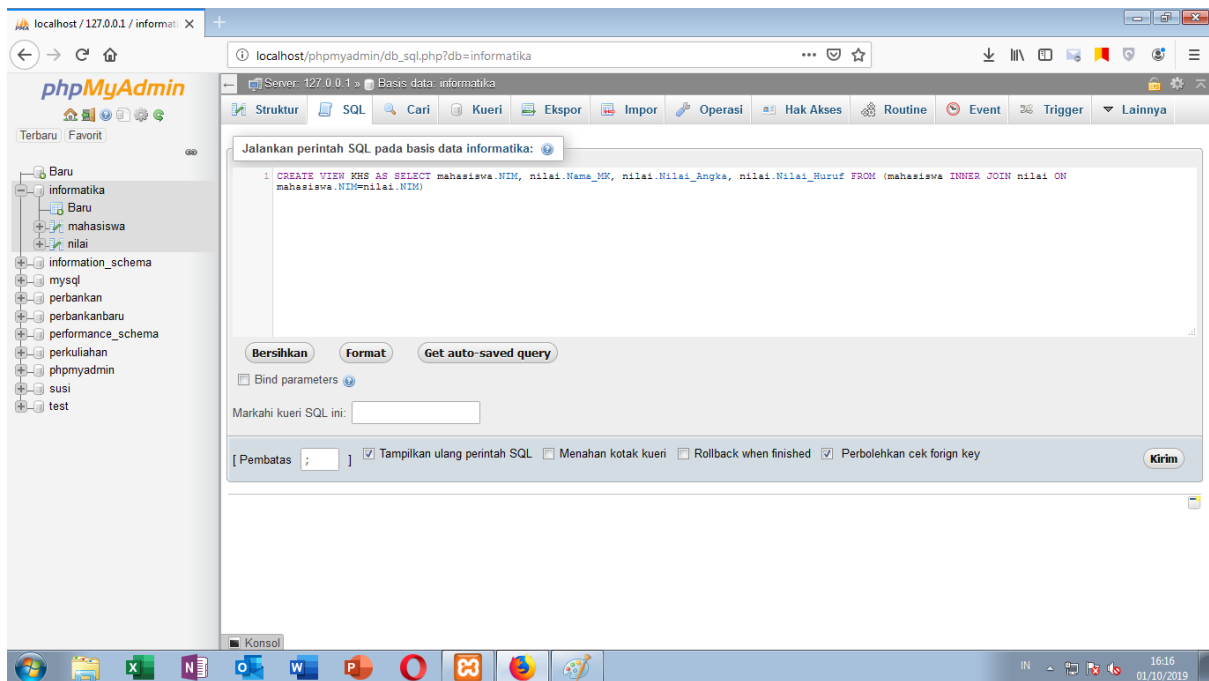


The screenshot shows the phpMyAdmin web interface displaying the results of the SQL query. The address bar is the same. The main panel shows a message: 'Menampilkan baris 0 - 0 (total 1, Pencarian dilakukan dalam 0,0000 detik.)'. Below this is the same SQL query: `SELECT SUM(Nilai_Angka) 'Total Nilai' FROM nilai`. There are buttons for 'Profil', 'Edit dikotak', 'Ubah', 'Jelaskan SQL', 'Buat kode PHP', and 'Segarkan'. Below the query, there are checkboxes for 'Tampilkan semua' and a dropdown for 'Jumlah baris' set to '25'. A search bar is also present. The results are shown in a table with one row:

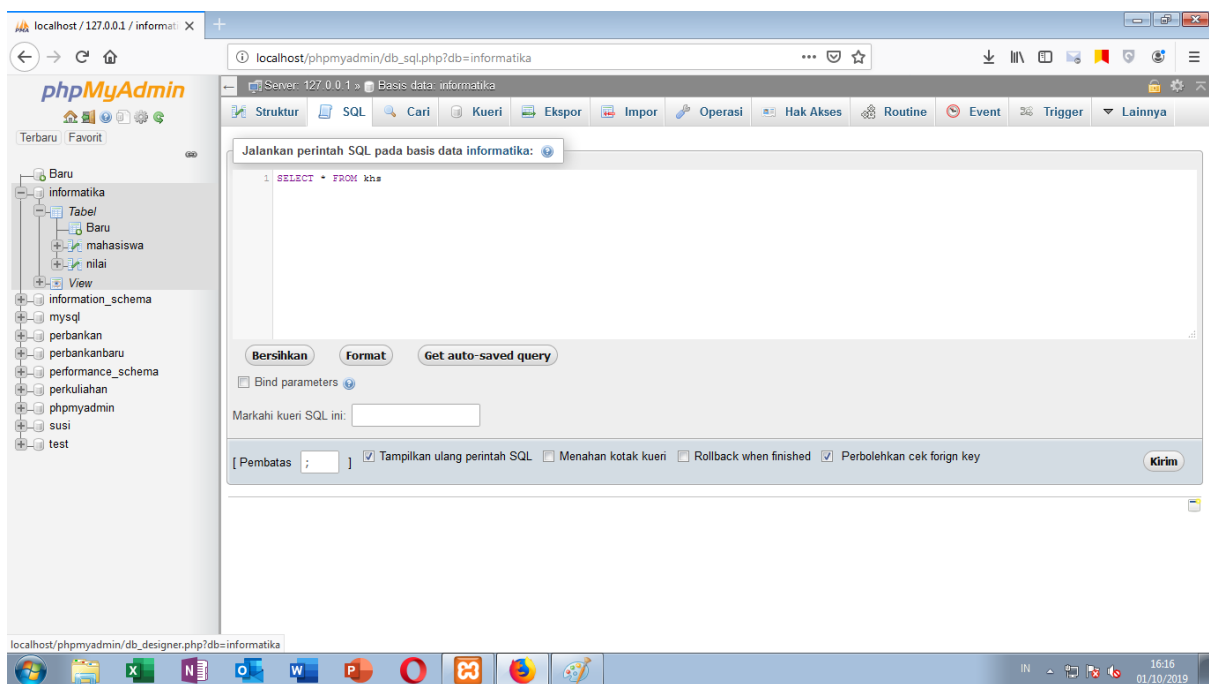
Total Nilai
237

. At the bottom, there are buttons for 'Operasi hasil kueri' including 'Cetak', 'Salin ke clipboard', 'Ekspor', 'Tampilkan bagan', and 'Buat tampilan'. There is also a section for 'Markahi kueri SQL ini' with a 'Judul:' input and a checkbox for 'Izinkan semua pengguna untuk mengakses markah ini'. A 'Markahi kueri SQL ini' button is at the bottom right.

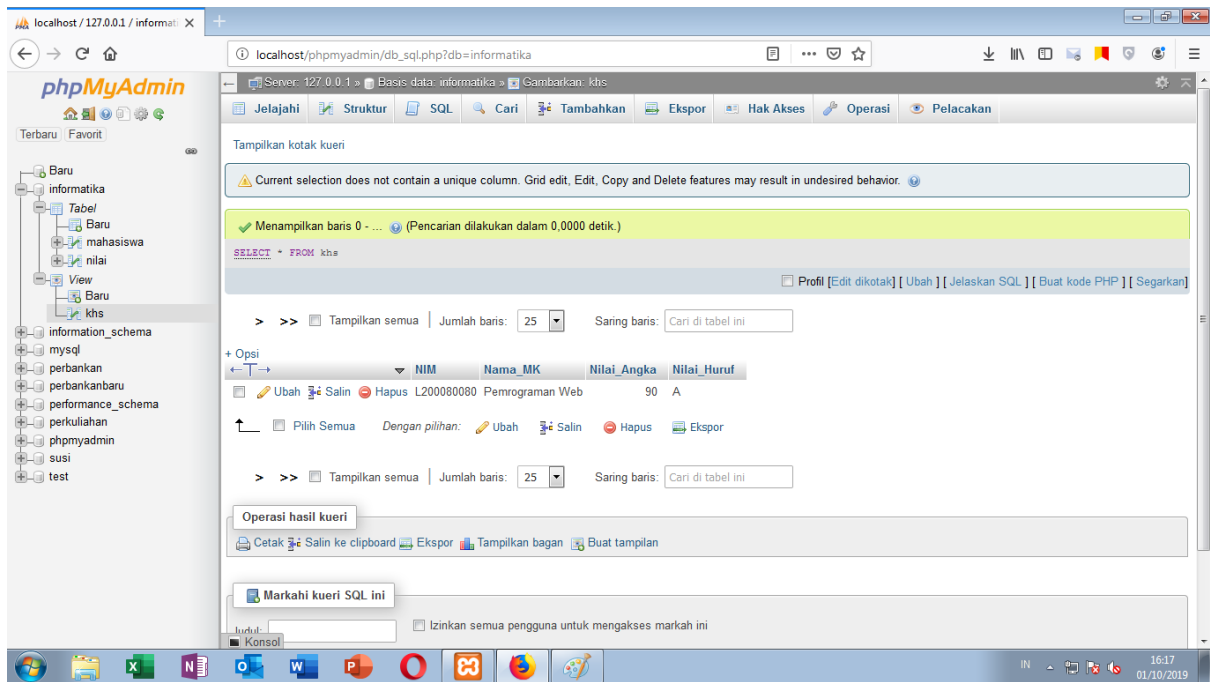
Percobaan 10



The screenshot shows the phpMyAdmin interface for a database named 'informatika'. The left sidebar displays the database structure, including tables like 'mahasiswa' and 'nilai'. The main panel is the SQL editor, titled 'Jalankan perintah SQL pada basis data informatika:'. It contains a SQL query: `1 CREATE VIEW KHS AS SELECT mahasiswa.NIM, nilai.Name_MK, nilai.Nilai_Angka, nilai.Nilai_Huruf FROM (mahasiswa INNER JOIN nilai ON mahasiswa.NIM=nilai.NIM)`. Below the query, there are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters' and a text field for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button.



The screenshot shows the phpMyAdmin interface for the same database 'informatika'. The left sidebar shows the database structure, including a 'View' entry. The main panel is the SQL editor, titled 'Jalankan perintah SQL pada basis data informatika:'. It contains a SQL query: `1 SELECT * FROM khs`. Below the query, there are buttons for 'Bersihkan', 'Format', and 'Get auto-saved query'. There is also a checkbox for 'Bind parameters' and a text field for 'Markahi kueri SQL ini:'. At the bottom, there are checkboxes for 'Tampilkan ulang perintah SQL', 'Menahan kotak kueri', 'Rollback when finished', and 'Perbolehkan cek foreign key', along with a 'Kirim' button.

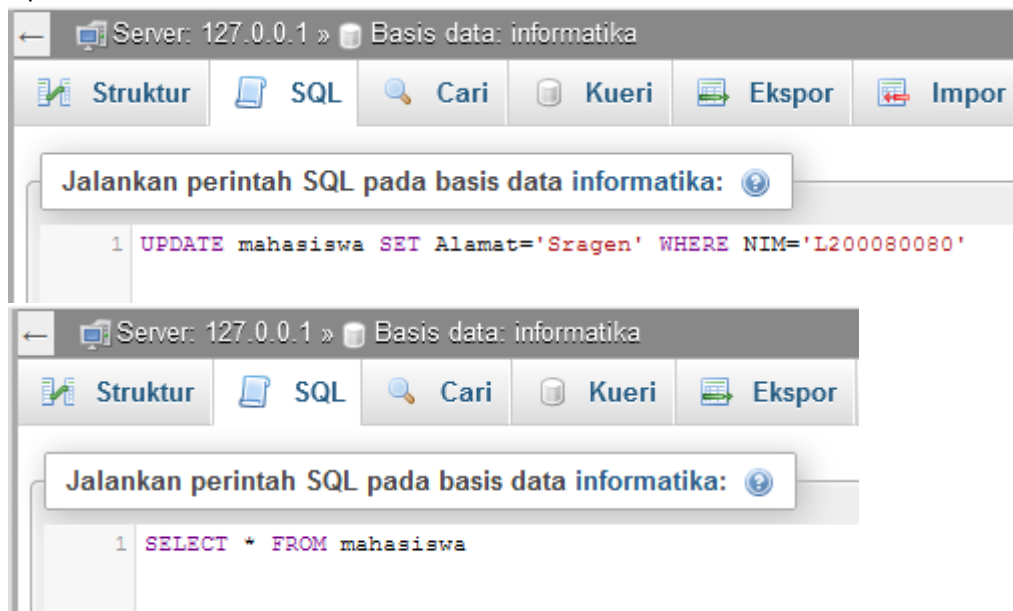


TUGAS

1. Fungsi

- **SELECT** adalah perintah yang paling sering digunakan pada SQL, sehingga kadang-kadang istilah query dirujuk pada perintah SELECT. SELECT digunakan untuk menampilkan data dari satu atau lebih tabel, biasanya dalam sebuah basis data yang sama.
- **Join** adalah variasi dari Query select yang digunakan ketika ingin mengkombinasikan record dari satu atau lebih tabel berdasarkan field yang ada.
- **Left join** digunakan apabila ingin menampilkan semua data pada tabel kiri dan data yang berhubungan atau berkaitan saja.
- **Right join** digunakan apabila ingin menampilkan semua data pada tabel kanan dan data yang berhubungan atau berkaitan saja.
- **AVG** Digunakan untuk menampilkan nilai rata-rata dari suatu kolom
- **SUM** Digunakan untuk menghitung total nilai dari kolom tertentu

2. Update



← Server: 127.0.0.1 » Basis data: informatika » Tabel: mahasiswa

JelajahiStrukturSQLCariTambahkanEkspor

Tampilkan kotak kueri

✓ Menampilkan baris 0 - 1 (total 2, Pencarian dilakukan dalam 0,0000 detik.)

SELECT * FROM mahasiswa

☐ Tampilkan semua | Jumlah baris: 25 Saring baris: Cari di tabel ini

+ Opsi

← T →

NIMNamaKelasAlamat

☐ Ubah Salin Hapus L200080001 Ari Wibowo A Solo

☐ Ubah Salin Hapus L200080080 Agustina Anggraini B Sragen