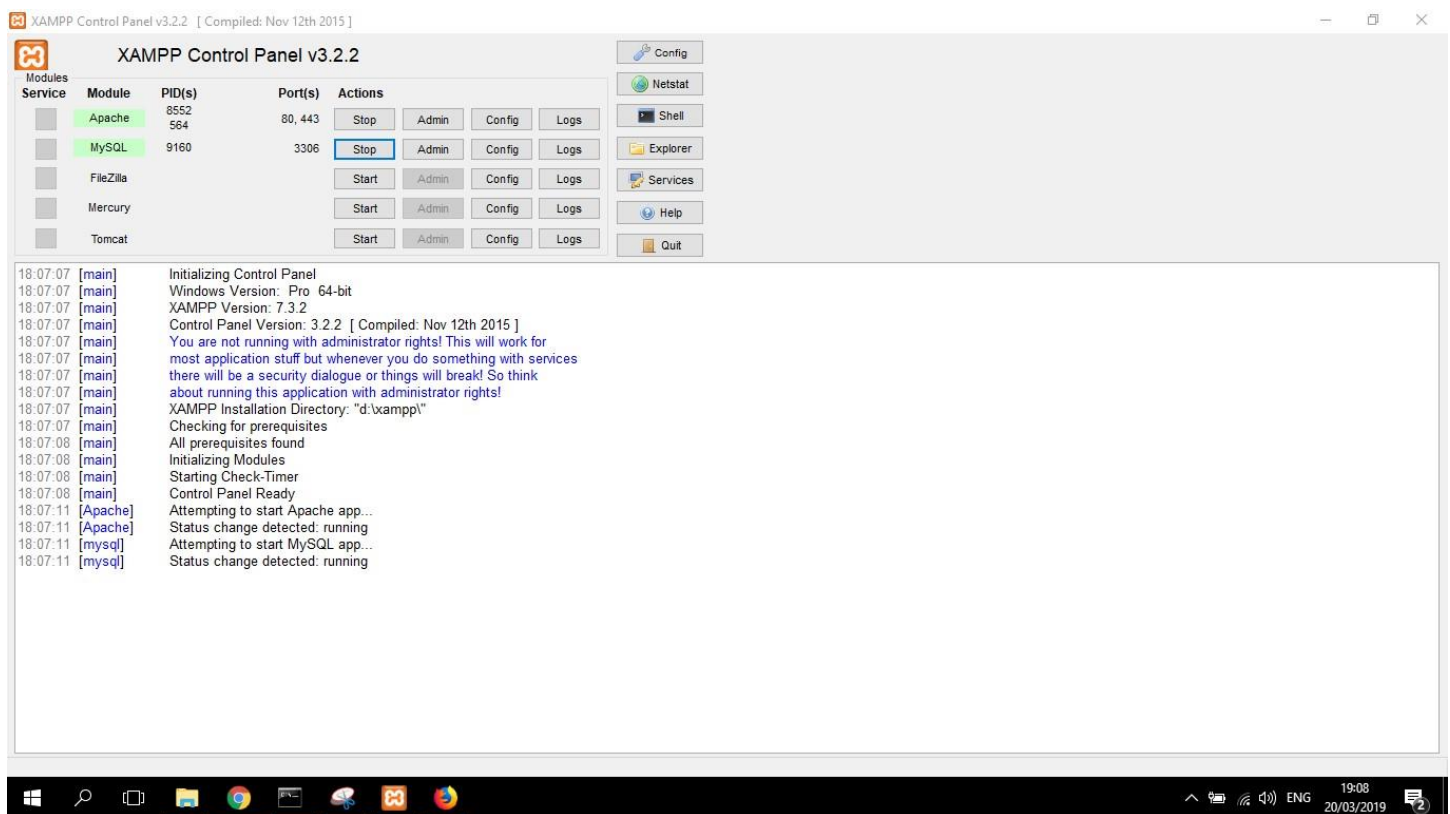


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Kelas : D

Modul 5

Data Manipulation Language (DML)

1. Menjalankan XAMPP Control Panel dan menjalankan server Apache serta MySQL.



2. Membuka CMD dan login sebagai root ke MySQL kemudian memilih database 'perbankan'.

```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.15063]
(c) 2017 Microsoft Corporation. All rights reserved.

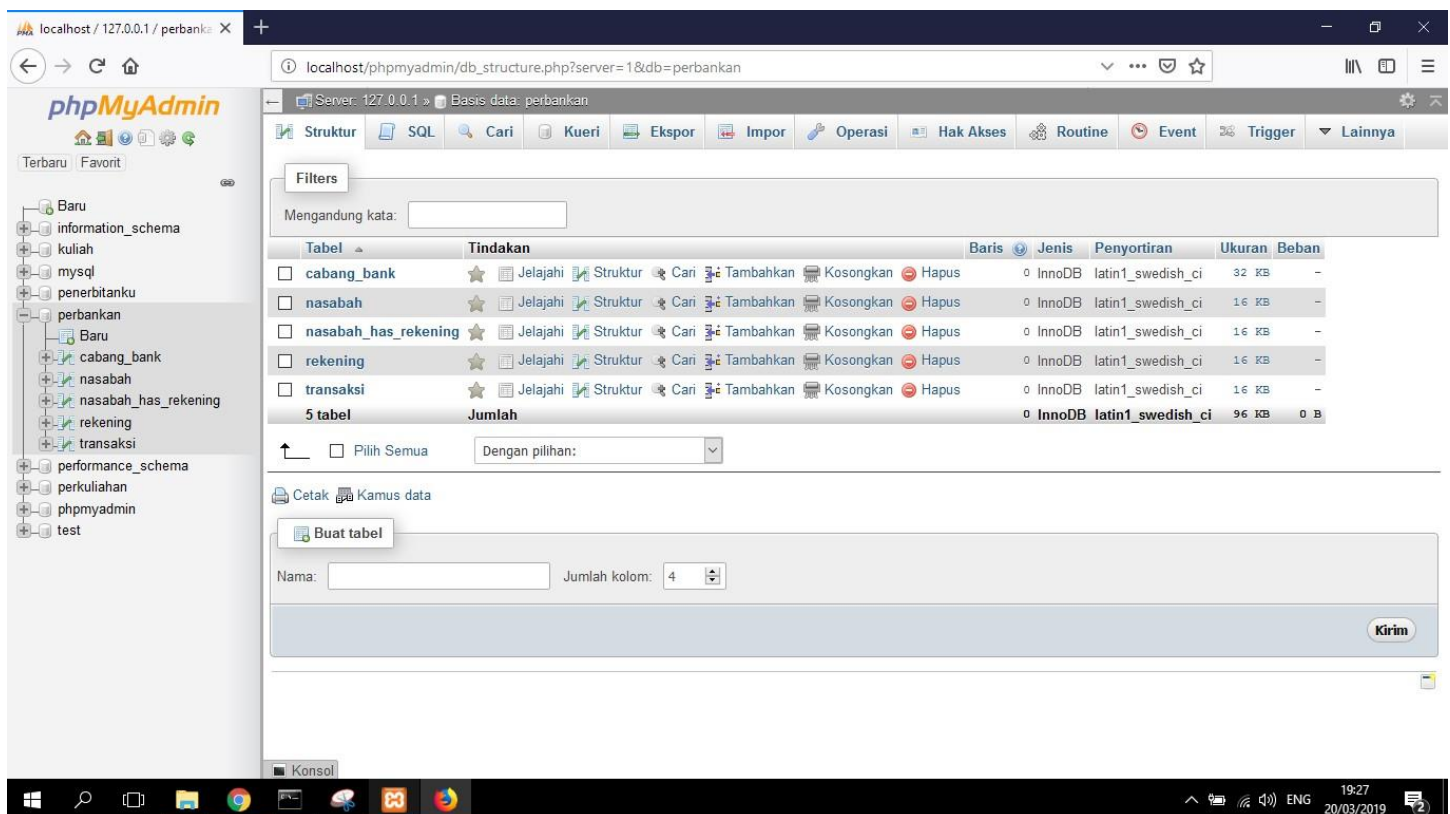
C:\Users\Asus>color 1f
C:\Users\Asus>d:
D:\>cd xampp\mysql\bin
D:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 29
Server version: 10.1.38-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi             |
+-----+
5 rows in set (0.00 sec)

MariaDB [perbankan]>
```



Gambar diatas menunjukkan table-table yang ada pada database ‘perbankan’.

3. Memasukkan data-data kedalam table ‘nasabah’.

```

Command Prompt - mysql -u root -p
+-----+
5 rows in set (0.00 sec)

MariaDB [perbankan]> desc nasabah;
+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+
| id_nasabah | int(11)       | NO   | PRI | NULL    |       |
| nama_nasabah | varchar(45)  | NO   |     | NULL    |       |
| alamat_nasabah | varchar(255) | NO   |     | NULL    |       |
+-----+
3 rows in set (0.00 sec)

MariaDB [perbankan]> INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah)
VALUES
-> (1,'Sutopo','Jl. Jendral Sudirman 12'),
-> (2,'Maryati','Jl. MT. Haryono 31'),
-> (3,'Suparman','Jl. Hasanudin 81'),
-> (4,'Kartika Padmasari','Jl. Manggis 15'),
-> (5,'Budi Eko Prayogo','Jl. Kantil 30'),
-> (6,'Satria Eka Jaya','Jl. Slamet Riyadi 45'),
-> (7,'Indri Hapsari','Jl. Sutoyo 5'),
-> (8,'Sari Murti','Jl. Pangandaran 11'),
-> (9,'Canka Lokananta','Jl. Tidar 86'),
-> (10,'Budi Murtono','Jl. Merak 22');
Query OK, 10 rows affected (0.09 sec)
Records: 10 Duplicates: 0 Warnings: 0

MariaDB [perbankan]>

```

4. Memasukkan data-data kedalam table 'cabang_bank'.

```

Command Prompt - mysql -u root -p
MariaDB [perbankan]> desc cabang_bank;
+-----+
| Field      | Type          | Null | Key | Default | Extra |
+-----+
| kode_cabang | varchar(20)   | NO   | PRI | NULL    |       |
| nama_cabang | varchar(45)   | NO   | UNI | NULL    |       |
| alamat_cabang | varchar(255) | NO   |     | NULL    |       |
+-----+
3 rows in set (0.01 sec)

MariaDB [perbankan]> INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_cabang)
VALUES
-> ('BRUS','Bank Rut Unit Surakarta','Jl. Slamet Riyadi 18'),
-> ('BRUM','Bank Rut Unit Magelang','Jl. P. Tendea 63'),
-> ('BRUB','Bank Rut Unit Boyolali','Jl. Ahmad Yani 45'),
-> ('BRUK','Bank Rut Unit Klaten','Jl. Suparman 23'),
-> ('BRUY','Bank Rut Unit Yogyakarta','Jl. Anggrek 21'),
-> ('BRUW','Bank Rut Unit Wonogiri','Jl. Untung Suropati 12');
Query OK, 6 rows affected (0.07 sec)
Records: 6 Duplicates: 0 Warnings: 0

MariaDB [perbankan]>

```


5. Memasukkan data-data kedalam table 'rekening'.

The screenshot displays two windows side-by-side. The left window is a MySQL command prompt with the following content:

```
3 rows in set (0.01 sec)

MariaDB [perbankan]> INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_cabang) VALUES
-> ('BRUS','Bank Rut Unit Surakarta','Jl. Slamet Riyadi 18'),
-> ('BRUM','Bank Rut Unit Magelang','Jl. P. Tendea 63'),
-> ('BRUB','Bank Rut Unit Boyolali','Jl. Ahmad Yani 45'),
-> ('BRUK','Bank Rut Unit Klaten','Jl. Superman 23'),
-> ('BRUY','Bank Rut Unit Yogyakarta','Jl. Anggrek 21'),
-> ('BRUM','Bank Rut Unit Wonogiri','Jl. Untung Suropati 12');
Query OK, 6 rows affected (0.07 sec)
Records: 6 Duplicates: 0 Warnings: 0

MariaDB [perbankan]> desc rekening;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| no_rekening | int(11)   | NO   | PRI | NULL    |       |
| kode_cabangFK | varchar(20) | YES  |     | NULL    |       |
| pin         | varchar(20) | NO   |     | 1234    |       |
| saldo       | int(11)   | NO   |     | 0       |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.05 sec)

MariaDB [perbankan]> INSERT INTO rekening(no_rekening, kode_cabangFK, pin, saldo) VALUES
-> (101,'BRUS','1111',500000),
-> (102,'BRUS','2222',350000),
-> (103,'BRUS','3333',750000),
-> (104,'BRUM','4444',900000),
-> (105,'BRUM','5555',2000000),
-> (106,'BRUS','6666',3000000),
-> (107,'BRUS','7777',1000000),
-> (108,'BRUB','0000',5000000),
-> (109,'BRUB','9999',0),
-> (110,'BRUY','1234',550000),
-> (111,'BRUK','4321',150000),
-> (112,'BRUK','0123',300000),
-> (113,'BRUY','8888',255000);
Query OK, 13 rows affected (0.08 sec)
Records: 13 Duplicates: 0 Warnings: 0

MariaDB [perbankan]>
```

The right window shows the phpMyAdmin interface for the 'perbankan' database. The 'rekening' table is selected, and its structure is displayed:

no_rekening	kode_cabangFK	pin	saldo
ah Salin Hapus	101 BRUS	1111	500000
ah Salin Hapus	102 BRUS	2222	350000
ah Salin Hapus	103 BRUS	3333	750000
ah Salin Hapus	104 BRUM	4444	900000
ah Salin Hapus	105 BRUM	5555	2000000
ah Salin Hapus	106 BRUS	6666	3000000
ah Salin Hapus	107 BRUS	7777	1000000
ah Salin Hapus	108 BRUB	0000	5000000
ah Salin Hapus	109 BRUB	9999	0
ah Salin Hapus	110 BRUY	1234	550000
ah Salin Hapus	111 BRUK	4321	150000
ah Salin Hapus	112 BRUK	0123	300000
ah Salin Hapus	113 BRUY	8888	255000

6. Memasukkan data-data kedalam table 'nasabah_has_rekening'.

```

Command Prompt - mysql -u root -p

D:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 176
Server version: 10.1.38-MariaDB mariadb.org binary distribution

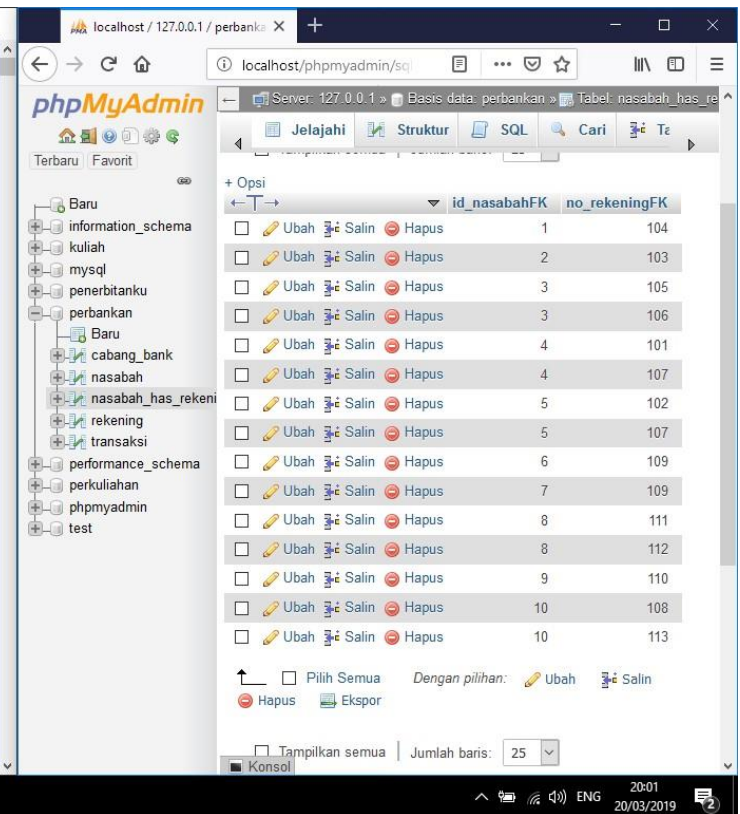
Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]>
MariaDB [perbankan]> INSERT INTO nasabah_has_rekening(id_nasabahFK, no_rekeningFK)
VALUES
-> (1,104),
-> (2,103),
-> (3,105),
-> (3,106),
-> (4,101),
-> (4,107),
-> (5,102),
-> (5,107),
-> (6,109),
-> (7,109),
-> (8,111),
-> (9,110),
-> (10,113),
-> (8,112),
-> (10,108);
Query OK, 15 rows affected (0.08 sec)
Records: 15  Duplicates: 0  Warnings: 0

MariaDB [perbankan]>

```



7. Memasukkan data-data kedalam table 'transaksi'.

```

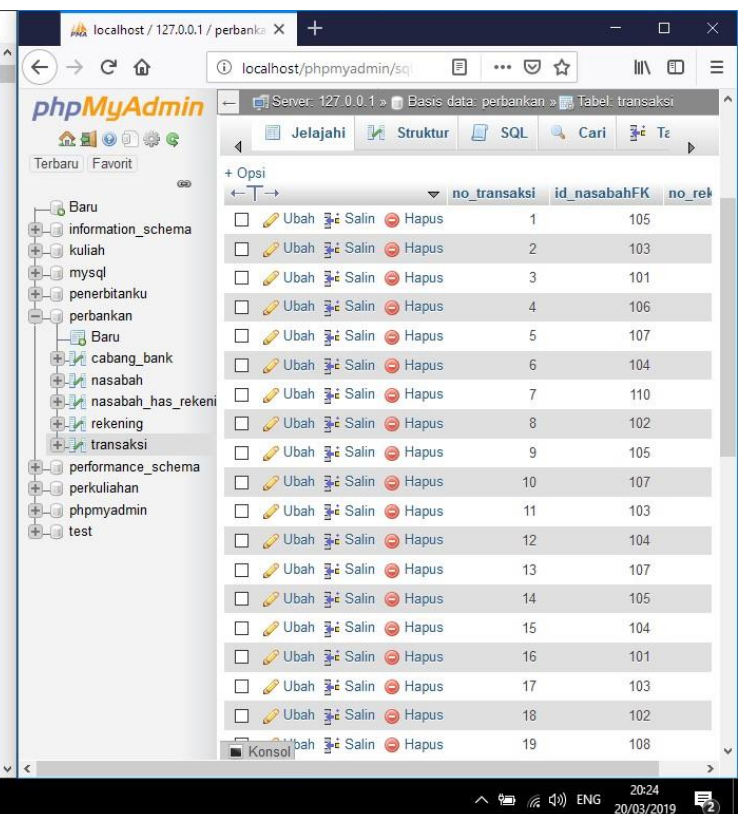
Command Prompt - mysql -u root -p

+-----+-----+-----+-----+
| jumlah | int(11) | NO | | NULL |
+-----+-----+-----+-----+
6 rows in set (0.01 sec)

MariaDB [perbankan]> INSERT INTO transaksi(no_transaksi, id_nasabahFK, no_rekeningFK, jenis_transaksi, tanggal, jumlah) VALUES
-> (1,105,3,'debit',2009-11-10,50000),
-> (2,103,2,'debit',2009-11-10,40000),
-> (3,101,4,'kredit',2009-11-12,20000),
-> (4,106,3,'debit',2009-11-13,50000),
-> (5,107,5,'kredit',2009-11-13,30000),
-> (6,104,1,'kredit',2009-11-15,20000),
-> (7,110,9,'kredit',2009-11-15,150000),
-> (8,102,5,'debit',2009-11-16,20000),
-> (9,105,3,'kredit',2009-11-18,50000),
-> (10,107,4,'debit',2009-11-19,100000),
-> (11,103,2,'debit',2009-11-19,100000),
-> (12,104,1,'debit',2009-11-19,50000),
-> (13,107,4,'kredit',2009-11-20,200000),
-> (14,105,3,'debit',2009-11-21,40000),
-> (15,104,1,'kredit',2009-11-22,100000),
-> (16,101,4,'kredit',2009-11-22,20000),
-> (17,103,2,'debit',2009-11-22,50000),
-> (18,102,5,'debit',2009-11-25,50000),
-> (19,108,10,'debit',2009-11-26,100000),
-> (20,106,3,'kredit',2009-11-27,50000),
-> (21,103,2,'kredit',2009-11-28,200000),
-> (22,105,3,'kredit',2009-11-28,100000),
-> (23,102,5,'debit',2009-11-30,100000),
-> (24,104,1,'debit',2009-12-1,50000),
-> (25,103,2,'debit',2009-12-2,40000),
-> (26,101,4,'debit',2009-12-4,50000),
-> (27,103,2,'kredit',2009-12-5,100000),
-> (28,102,5,'kredit',2009-12-5,200000),
-> (29,109,7,'debit',2009-12-5,100000),
-> (30,110,9,'debit',2009-12-6,20000);
Query OK, 30 rows affected, 30 warnings (0.08 sec)
Records: 30  Duplicates: 0  Warnings: 30

MariaDB [perbankan]>

```



8. Melakukan UPDATE terhadap alamat seorang nasabah.

The screenshot shows a MySQL command prompt window on the left and the phpMyAdmin web interface on the right. The command prompt displays a list of 30 rows from the 'nasabah' table, followed by an UPDATE query that changes the address of the customer with ID 7 (Indri Hapsari) to 'Jl. Slamet Riyadi No. 34'. The phpMyAdmin interface shows the 'nasabah' table structure and a list of 10 rows, with the updated row highlighted.

```
Command Prompt - mysql -u root -p
-> (20,106,3,'kredit',2009-11-27,50000),
-> (21,103,2,'kredit',2009-11-28,200000),
-> (22,105,3,'kredit',2009-11-28,100000),
-> (23,102,5,'debit',2009-11-30,100000),
-> (24,104,1,'debit',2009-12-1,50000),
-> (25,103,2,'debit',2009-12-2,40000),
-> (26,101,4,'debit',2009-12-4,50000),
-> (27,103,2,'kredit',2009-12-5,100000),
-> (28,102,5,'kredit',2009-12-5,200000),
-> (29,109,7,'debit',2009-12-5,100000),
-> (30,110,9,'debit',2009-12-6,20000),
Query OK, 30 rows affected, 30 warnings (0.08 sec)
Records: 30 Duplicates: 0 Warnings: 30

MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah = 'Jl. Slamet Riyadi No. 34'
WHERE nama_nasabah = 'Indri Hapsari';
Query OK, 1 row affected (0.06 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]>
```

phpMyAdmin interface showing the 'nasabah' table structure and a list of 10 rows. The updated row is highlighted.

	id_nasabah	nama_nasabah	alamat_nasabah
Salin Hapus	1	Sutopo	Jl. Jendral Sudirman 12
Salin Hapus	2	Maryati	Jl. MT. Haryono 31
Salin Hapus	3	Suparman	Jl. Hasanudin 81
Salin Hapus	4	Kartika Padmasari	Jl. Manggis 15
Salin Hapus	5	Budi Eko Prayogo	Jl. Kantil 30
Salin Hapus	6	Satria Eka Jaya	Jl. Slamet Riyadi 45
Salin Hapus	7	Indri Hapsari	Jl. Slamet Riyadi No. 34
Salin Hapus	8	Sari Murti	Jl. Pangdaran 11
Salin Hapus	9	Canka Lokananta	Jl. Tidar 86
Salin Hapus	10	Budi Murtono	Jl. Merak 22

9. Melakukan UPDATE alamat pada salah satu cabang bank.

The screenshot shows a MySQL command prompt window on the left and the phpMyAdmin web interface on the right. The command prompt displays a list of 30 rows from the 'cabang_bank' table, followed by an UPDATE query that changes the address of the branch with code 'BRUW' (Bank Rut Unit Wonogiri) to 'Jl. A. Yani No. 23'. The phpMyAdmin interface shows the 'cabang_bank' table structure and a list of 6 rows, with the updated row highlighted.

```
Command Prompt - mysql -u root -p
-> (20,106,3,'kredit',2009-11-27,50000),
-> (21,103,2,'kredit',2009-11-28,200000),
-> (22,105,3,'kredit',2009-11-28,100000),
-> (23,102,5,'debit',2009-11-30,100000),
-> (24,104,1,'debit',2009-12-1,50000),
-> (25,103,2,'debit',2009-12-2,40000),
-> (26,101,4,'debit',2009-12-4,50000),
-> (27,103,2,'kredit',2009-12-5,100000),
-> (28,102,5,'kredit',2009-12-5,200000),
-> (29,109,7,'debit',2009-12-5,100000),
-> (30,110,9,'debit',2009-12-6,20000),
Query OK, 30 rows affected, 30 warnings (0.08 sec)
Records: 30 Duplicates: 0 Warnings: 30

MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah = 'Jl. Slamet Riyadi No. 34'
WHERE nama_nasabah = 'Indri Hapsari';
Query OK, 1 row affected (0.06 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]> UPDATE cabang_bank SET alamat_cabang = 'Jl. A. Yani No. 23'
WHERE kode_cabang = 'BRUW';
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]>
```

phpMyAdmin interface showing the 'cabang_bank' table structure and a list of 6 rows. The updated row is highlighted.

	kode_cabang	nama_cabang	alamat_cabang
Ubah Salin Hapus	BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
Ubah Salin Hapus	BRUK	Bank Rut Unit Klaten	Jl. Suparman 23
Ubah Salin Hapus	BRUM	Bank Rut Unit Magelang	Jl. P. Tendean 63
Ubah Salin Hapus	BRUS	Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
Ubah Salin Hapus	BRUW	Bank Rut Unit Wonogiri	Jl. A. Yani No. 23
Ubah Salin Hapus	BRUY	Bank Rut Unit Yogyakarta	Jl. Angrek 21

10. Menghapus salah satu data pada salah satu table.

The screenshot displays two windows side-by-side. The left window is a Command Prompt running MySQL, showing a series of INSERT, UPDATE, and DELETE queries for a database named 'perbankan'. The right window is a web browser showing the phpMyAdmin interface for the 'perbankan' database, specifically the 'nasabah' table. The table contains 10 rows of customer data.

Command Prompt - MySQL:

```
mysql -u root -p
-> (20,106,3,'kredit',2009-11-27,50000),
-> (21,103,2,'kredit',2009-11-28,200000),
-> (22,105,3,'kredit',2009-11-28,100000),
-> (23,102,5,'debit',2009-11-30,100000),
-> (24,104,1,'debit',2009-12-1,50000),
-> (25,103,2,'debit',2009-12-2,40000),
-> (26,101,4,'debit',2009-12-4,50000),
-> (27,103,2,'kredit',2009-12-5,100000),
-> (28,102,5,'kredit',2009-12-5,200000),
-> (29,109,7,'debit',2009-12-5,100000),
-> (30,110,9,'debit',2009-12-6,200000);
Query OK, 30 rows affected, 30 warnings (0.08 sec)
Records: 30 Duplicates: 0 Warnings: 30

MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah = 'Jl. Slamet Riyadi No. 34'
WHERE nama_nasabah = 'Indri Hapsari';
Query OK, 1 row affected (0.06 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]> UPDATE cabang_bank SET alamat_cabang = 'Jl. A. Yani No. 23' WH
ERE kode_cabang = 'BRUW';
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]> DELETE FROM nasabah WHERE id_nasabah = 7;
Query OK, 1 row affected (0.07 sec)

MariaDB [perbankan]>
```

phpMyAdmin - nasabah table:

	id_nasabah	nama_nasabah	alamat_nasabah
<input type="checkbox"/>	1	Sutopo	Jl. Jendral Sudirman 12
<input type="checkbox"/>	2	Maryati	Jl. MT. Haryono 31
<input type="checkbox"/>	3	Suparman	Jl. Hasanudin 81
<input type="checkbox"/>	4	Kartika Padmasari	Jl. Manggis 15
<input type="checkbox"/>	5	Budi Eko Prayogo	Jl. Kantil 30
<input type="checkbox"/>	6	Satria Eka Jaya	Jl. Slamet Riyadi 45
<input type="checkbox"/>	8	Sari Murti	Jl. Pangandaran 11
<input type="checkbox"/>	9	Canka Lokananta	Jl. Tidar 86
<input type="checkbox"/>	10	Budi Murtono	Jl. Merak 22

11. Menghapus salah satu data pada table cabang bank.

```
Command Prompt - mysql -u root -p
-> (20,106,3,'kredit',2009-11-27,50000),
-> (21,103,2,'kredit',2009-11-28,200000),
-> (22,105,3,'kredit',2009-11-28,100000),
-> (23,102,5,'debit',2009-11-30,100000),
-> (24,104,1,'debit',2009-12-1,50000),
-> (25,103,2,'debit',2009-12-2,40000),
-> (26,101,4,'debit',2009-12-4,50000),
-> (27,103,2,'kredit',2009-12-5,100000),
-> (28,102,5,'kredit',2009-12-5,200000),
-> (29,109,7,'debit',2009-12-5,100000),
-> (30,110,9,'debit',2009-12-6,20000);
Query OK, 30 rows affected, 30 warnings (0.08 sec)
Records: 30 Duplicates: 0 Warnings: 30

MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah = 'Jl. Slamet Riyadi No. 34'
WHERE nama_nasabah = 'Indri Hapsari';
Query OK, 1 row affected (0.06 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]> UPDATE cabang_bank SET alamat_cabang = 'Jl. A. Yani No. 23' WH
ERE kode_cabang = 'BRUW';
Query OK, 1 row affected (0.07 sec)
Rows matched: 1 Changed: 1 Warnings: 0

MariaDB [perbankan]> DELETE FROM nasabah WHERE id_nasabah = 7;
Query OK, 1 row affected (0.07 sec)

MariaDB [perbankan]> DELETE FROM cabang_bank WHERE nama_cabang = 'Bank Rut Unit Mag
elang';
Query OK, 1 row affected (0.12 sec)

MariaDB [perbankan]>
```

localhost / 127.0.0.1 / perbankan

Server: 127.0.0.1 » Basis data: perbankan » Tabel: cabang_bank

Jelajahi Struktur SQL Cari Tambahkan Ekspor

Menampilkan baris 0 - 4 (total 5, Pencarian dilakukan dalam 0,0000 detik.)

SELECT * FROM 'cabang_bank'

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

Tampilkan semua | Jumlah baris: 25

+ Opsi

	kode_cabang	nama_cabang	alamat_cabang
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	BRUK	Bank Rut Unit Klaten	Jl. Suparman 23
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	BRUS	Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	BRUW	Bank Rut Unit Wonogiri	Jl. A. Yani No. 23
<input type="checkbox"/> Ubah <input type="checkbox"/> Salin <input type="checkbox"/> Hapus	BRUY	Bank Rut Unit Yogyakarta	Jl. Anggrek 21

Pilih Semua Dengan pilihan: Ubah Salin Hapus Ekspor

Tampilkan semua | Jumlah baris: 25

Operasi hasil kueri

Cetak Salin ke clipboard Ekspor Tampilkan bagan Buat tampilan

Markahi kueri SQL ini

Konsol ☐ Izinkan semua pengguna untuk mengakses markah ini

20:40 20/03/2019