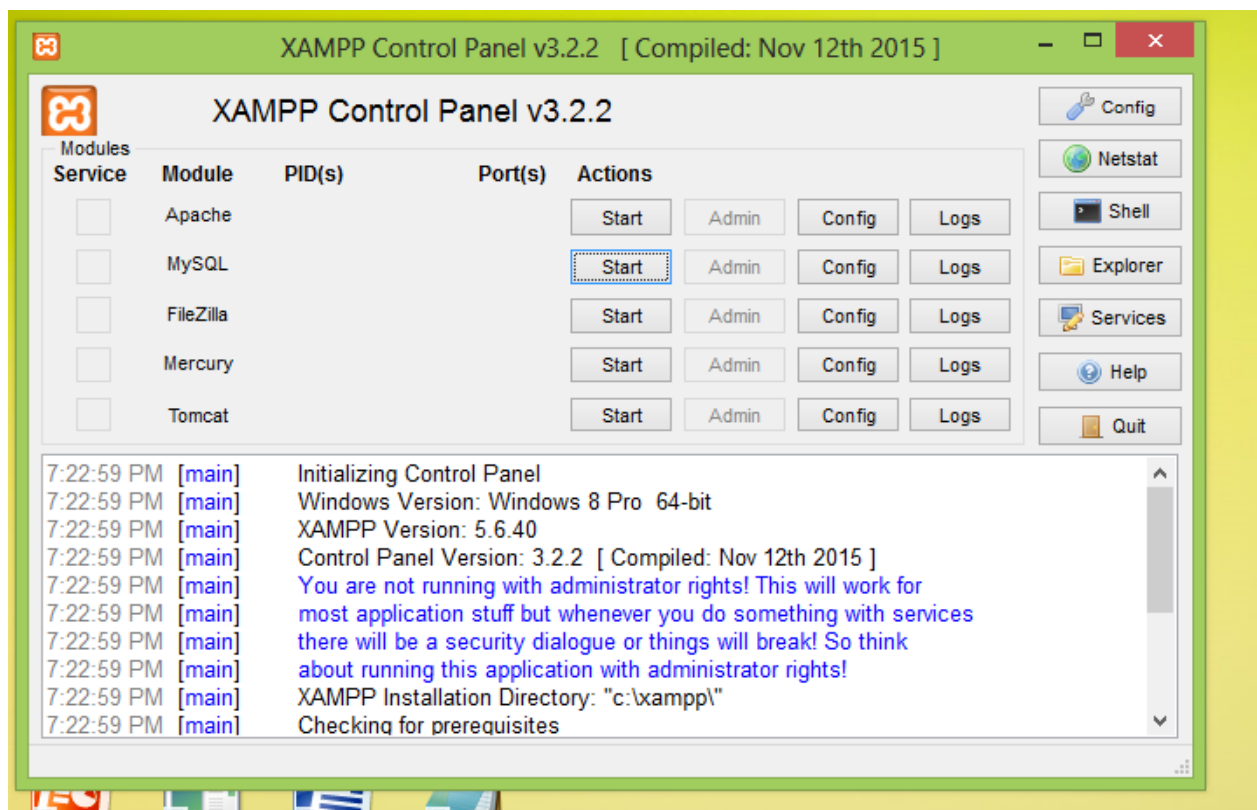Hesti Putri Utami
L200170009
Kelas A

MODUL 5
DATA MANIPULATION LANGUAGE (DML)

Langkah-langkah praktikum

1. Jalankan XAMPP Control Panel
2. Jalankan server Apache dan MySQL

3. Buka Command Prompt dan login sebagai root ke MySQL

4. Pilih database perbankan dengan perintah "use perbankan". Sehingga akan muncul pemberitahuan "database changed"

5. Kemudian masukan data-data berikut ini ke dalam database perbankan

Tabel : nasabah

```
C:\Windows\system32\cmd.exe - mysql -u root -p

Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation.  All rights reserved.

C:\Users\LABSI-14>cd/

C:\>cd xampp/mysql/bin

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 42
Server version: 10.1.37-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]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) value
    -> (1,'Sutopo', 'Jl. Jendral Sudirman'),
    -> (2, 'Maryati', 'Jl. MT. Haryono'),
    -> (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 (0.04 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from nasabah;
+------------+-------------------+----------------------+
| id_nasabah | nama_nasabah      | alamat_nasabah       |
+------------+-------------------+----------------------+
|          1 | Sutopo            | Jl. Jendral Sudirman |
|          2 | Maryati           | Jl. MT. Haryono      |
|          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         |
+------------+-------------------+----------------------+
10 rows in set (0.00 sec)
```

Tabel : cabang_bank

```
MariaDB [perbankan]> describe 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 (0.00 sec)
```

```
C:\Windows\system32\cmd.exe - mysql  -u root -p

    -> ('BRUW', 'Bank Rut Unit Wonogiri', 'Jl. Untung Suropati 12');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MariaDB server version for the right syntax to use near '-ca
bang, alamat_cabang) value
('BRUS', 'Bank Rut Unit Surakarta', 'Jl. Slamet Ri' at line 1
MariaDB [perbankan]> insert into cabang_bank(kode_cabang, nama_cabang, alamat_ca
bang) value
    -> ('BRUS', 'Bank Rut Unit Surakarta', 'Jl. Slamet Riyadi 18'),
    -> ('BRUM', 'Bank Rut Unit Magelang', 'Jl. P. Tendean 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 (0.04 sec)
Records: 6  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select* from cabang_bank;
+-------------+--------------------------+------------------------+
| kode_cabang | nama_cabang              | alamat_cabang          |
+-------------+--------------------------+------------------------+
| BRUB        | Bank Rut Unit Boyolali   | Jl. Ahmad Yani 45      |
| BRUK        | Bank Rut Unit Klaten     | Jl. Suparman 23        |
| BRUM        | Bank Rut Unit Magelang   | Jl. P. Tendean 63      |
| BRUS        | Bank Rut Unit Surakarta  | Jl. Slamet Riyadi 18   |
| BRUW        | Bank Rut Unit Wonogiri   | Jl. Untung Suropati 12 |
| BRUY        | Bank Rut Unit Yogyakarta | Jl. Anggrek 21         |
+-------------+--------------------------+------------------------+
6 rows in set (0.00 sec)
```

Tabel : rekening

```
MariaDB [perbankan]> insert into cabang_bank(no_rekening, kode_cabang, pin, sald
o) value
    -> (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);
```

```
C:\Windows\system32\cmd.exe - mysql  -u root -p
    -> (113, 'BRUY', '8888', 255000);
Query OK, 13 rows affected (0.04 sec)
Records: 13  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from rekening;
+------------+--------------+------+---------+
| no_rekening | kode_cabangFK | pin  | saldo   |
+------------+--------------+------+---------+
|        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 |
+------------+--------------+------+---------+
13 rows in set (0.00 sec)

MariaDB [perbankan]> describe nasabah_has_rekening;
```

Tabel : nasabah_has_rekening

```
MariaDB [perbankan]> describe nasabah_has_rekening;
+-------------+---------+------+-----+---------+-------+
| Field       | Type    | Null | Key | Default | Extra |
+-------------+---------+------+-----+---------+-------+
| id_nasabahFK | int(11) | NO   | PRI | NULL    |       |
| no_rekeningFK | int(11) | NO   | PRI | NULL    |       |
+-------------+---------+------+-----+---------+-------+
2 rows in set (0.00 sec)

MariaDB [perbankan]> insert into nasabah_has_rekening(id_nasabahFK, no_rekeningF
K) value
    -> (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 (0.05 sec)
Records: 15  Duplicates: 0  Warnings: 0
```

```
C:\Windows\system32\cmd.exe - mysql  -u root -p
|        9 | Canka Lokananta | Jl.Tidar 86    |
|       10 | Budi Murtono    | Jl. Merak 22   |
+----------+-----------------+----------------+
10 rows in set (0.00 sec)

MariaDB [perbankan]> select*nasabah_has_rekening;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MariaDB server version for the right syntax to use near 'nas
abah_has_rekening' at line 1
MariaDB [perbankan]> select*from nasabah_has_rekening;
+-------------+---------------+
| id_nasabahFK | no_rekeningFK |
+-------------+---------------+
|           1 |           104 |
|           2 |           103 |
|           3 |           105 |
|           3 |           106 |
|           4 |           101 |
|           4 |           107 |
|           5 |           102 |
|           5 |           107 |
|           6 |           109 |
|           7 |           109 |
|           8 |           111 |
|           8 |           112 |
|           9 |           110 |
|          10 |           108 |
|          10 |           113 |
+-------------+---------------+
15 rows in set (0.00 sec)
```

Tabel : transaksi

```
MariaDB [perbankan]> describe transaksi;
+----------------+---------------------+------+-----+-------------------+----------------+
| Field          | Type                | Null | Key | Default           | Extra          |
+----------------+---------------------+------+-----+-------------------+----------------+
| no_transaksi   | bigint(20) unsigned | NO   | PRI | NULL              | auto_increment |
| id_nasabahFK   | int(11)             | YES  |     | NULL              |                |
| no_rekeningFK  | int(11)             | YES  |     | NULL              |                |
| jenis_transaksi| varchar(20)         | NO   |     | debit             |                |
| tanggal        | datetime            | NO   |     | CURRENT_TIMESTAMP |                |
| jumlah         | int(11)             | NO   |     | NULL              |                |
+----------------+---------------------+------+-----+-------------------+----------------+
6 rows in set (0.01 sec)

MariaDB [perbankan]>
```

```
    -> (23,102,5,'debit','2009-12-1','50000'),
    -> (24,104,1,'debit','2009-12-2','40000'),
    -> (25,103,2,'debit','2009-12-4','50000'),
    -> (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');
ERROR 1054 (42S22): Unknown column 'no_rekening' in 'field list'
MariaDB [perbankan]> Insert into transaksi(no_transaksi,no_rekeningFK,id_nasabahFK,jenis_transaksi,tanggal,jumlah) value
    -> (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','200000'),
    -> (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','20000'),
    -> (22,105,3,'kredit','2009-11-30','20000'),
    -> (23,102,5,'debit','2009-12-1','50000'),
    -> (24,104,1,'debit','2009-12-2','40000'),
    -> (25,103,2,'debit','2009-12-4','50000'),
    -> (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 (0.10 sec)
Records: 30  Duplicates: 0  Warnings: 0

MariaDB [perbankan]>
```

```
    -> (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 (0.10 sec)
Records: 30  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from transaksi;
+--------------+--------------+---------------+-----------------+---------------------+--------+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal             | jumlah |
+--------------+--------------+---------------+-----------------+---------------------+--------+
|            1 |            3 |           105 | debit           | 2009-11-10 00:00:00 |  50000 |
|            2 |            2 |           103 | debit           | 2009-11-10 00:00:00 |  40000 |
|            3 |            4 |           101 | kredit          | 2009-11-12 00:00:00 |  20000 |
|            4 |            3 |           106 | debit           | 2009-11-13 00:00:00 |  50000 |
|            5 |            5 |           107 | kredit          | 2009-11-13 00:00:00 |  30000 |
|            6 |            1 |           104 | kredit          | 2009-11-15 00:00:00 | 200000 |
|            7 |            9 |           110 | kredit          | 2009-11-15 00:00:00 | 150000 |
|            8 |            5 |           102 | debit           | 2009-11-16 00:00:00 |  20000 |
|            9 |            3 |           105 | kredit          | 2009-11-18 00:00:00 |  50000 |
|           10 |            4 |           107 | debit           | 2009-11-19 00:00:00 | 100000 |
|           11 |            2 |           103 | debit           | 2009-11-19 00:00:00 | 100000 |
|           12 |            1 |           104 | debit           | 2009-11-19 00:00:00 |  50000 |
|           13 |            4 |           107 | kredit          | 2009-11-20 00:00:00 | 200000 |
|           14 |            3 |           105 | debit           | 2009-11-21 00:00:00 |  40000 |
|           15 |            1 |           104 | kredit          | 2009-11-22 00:00:00 | 100000 |
|           16 |            4 |           101 | kredit          | 2009-11-22 00:00:00 |  20000 |
|           17 |            2 |           103 | debit           | 2009-11-22 00:00:00 |  50000 |
|           18 |            5 |           102 | debit           | 2009-11-25 00:00:00 |  50000 |
|           19 |           10 |           108 | debit           | 2009-11-26 00:00:00 | 100000 |
|           20 |            3 |           106 | kredit          | 2009-11-27 00:00:00 |  50000 |
|           21 |            2 |           103 | kredit          | 2009-11-28 00:00:00 |  20000 |
|           22 |            3 |           105 | kredit          | 2009-11-30 00:00:00 |  20000 |
|           23 |            5 |           102 | debit           | 2009-12-01 00:00:00 |  50000 |
|           24 |            1 |           104 | debit           | 2009-12-02 00:00:00 |  40000 |
|           25 |            2 |           103 | debit           | 2009-12-04 00:00:00 |  50000 |
|           26 |            4 |           101 | debit           | 2009-12-04 00:00:00 |  50000 |
|           27 |            2 |           103 | kredit          | 2009-12-05 00:00:00 | 100000 |
|           28 |            5 |           102 | kredit          | 2009-12-05 00:00:00 | 200000 |
|           29 |            7 |           109 | debit           | 2009-12-05 00:00:00 | 100000 |
|           30 |            9 |           110 | debit           | 2009-12-06 00:00:00 |  20000 |
+--------------+--------------+---------------+-----------------+---------------------+--------+
30 rows in set (0.06 sec)

MariaDB [perbankan]>
```

TUGAS

Tabel : Nasabah

```
10 rows in set (0.00 sec)

MariaDB [perbankan]> insert into nasabah(id_nasabah,nama_nasabah,alamat_nasabah) value
    -> (11,'Jessica','Jl, Gayam 2'),
    -> (12,'Rahajeng','Jl, MT. Merbabu 9'),
    -> (13,'Ilham','Jl, Rambutan 76'),
    -> (14,'Nabila','Jl, Cermai 5'),
    -> (15,'Abida','Jl, Munggur 13'),
    -> (16,'Haidar','Jl, Lawu 43'),
    -> (17,'Dheandita','Jl, Utara 7'),
    -> (18,'Fahri','Jl, Akhir 1'),
    -> (19,'Rian','Jl, Buntu 20'),
    -> (20,'Gustin','Jl, Tanjung 32');
Query OK, 10 rows affected (0.12 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from nasabah;
+------------+------------------+------------------------+
| id_nasabah | nama_nasabah     | alamat_nasabah         |
+------------+------------------+------------------------+
|          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 Prayoga | Jl, Kantil 30          |
|          6 | Satria Eka Jaya  | Jl, Salmat Riyadi 45   |
|          7 | Indri Hapsari    | Jl, Sutoyo5            |
|          8 | Sari Murti       | Jl, Pangandaran 11     |
|          9 | Canka Lokananta  | Jl, Tidar 86           |
|         10 | Budi Martono     | Jl, Merak 22           |
|         11 | Jessica          | Jl, Gayam 2            |
|         12 | Rahajeng         | Jl, MT. Merbabu 9      |
|         13 | Ilham            | Jl, Rambutan 76        |
|         14 | Nabila           | Jl, Cermai 5           |
|         15 | Abida            | Jl, Munggur 13         |
|         16 | Haidar           | Jl, Lawu 43            |
|         17 | Dheandita        | Jl, Utara 7            |
|         18 | Fahri            | Jl, Akhir 1            |
|         19 | Rian             | Jl, Buntu 20           |
|         20 | Gustin           | Jl, Tanjung 32         |
+------------+------------------+------------------------+
20 rows in set (0.00 sec)

MariaDB [perbankan]>
```

Tabel : cabang_bank

```
    -> ('BRUT', 'Bank Rut Unit Turki', 'Jl. Suropati 12'),
    -> ('BRUL', 'Bank Rut Unit Los Angeles', 'Jl. Raya 8'),
    -> ('BRUK', 'Bank Rut Unit Kanada', 'Jl. Imam Bonjol 2'),
    -> ('BRUV', 'Bank Rut Unit Venezuela', 'Jl. Suara 21'),
    -> ('BRUP', 'Bank Rut Unit Pakistan', 'Jl. Papua 456');
ERROR 1062 (23000): Duplicate entry 'BRUK' for key 'PRIMARY'
MariaDB [perbankan]> insert into cabang_bank(kode_cabang, nama_cabang, alamat_cabang) value
    -> ('BRUA', 'Bank Rut Unit Arab', 'Jl. Slamet 18'),
    -> ('BRUI', 'Bank Rut Unit Indonesia', 'Jl. Soekarno 3'),
    -> ('BRUU', 'Bank Rut Unit USA', 'Jl. Ahmad 5'),
    -> ('BRUE', 'Bank Rut Unit Etiopia', 'Jl. Abadi 2'),
    -> ('BRUO', 'Bank Rut Unit Oman', 'Jl. Mawar 21'),
    -> ('BRUT', 'Bank Rut Unit Turki', 'Jl. Suropati 12'),
    -> ('BRUL', 'Bank Rut Unit Los Angeles', 'Jl. Raya 8'),
    -> ('BRUZ', 'Bank Rut Unit Ziggy', 'Jl. Imam Bonjol 2'),
    -> ('BRUV', 'Bank Rut Unit Venezuela', 'Jl. Suara 21'),
    -> ('BRUP', 'Bank Rut Unit Pakistan', 'Jl. Papua 456');
Query OK, 10 rows affected (0.17 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from cabang_bank;
+-------------+---------------------------+-------------------------+
| kode_cabang | nama_cabang               | alamat_cabang           |
+-------------+---------------------------+-------------------------+
| BRUA        | Bank Rut Unit Arab        | Jl. Slamet 18           |
| BRUB        | Bank Rut Unit Boyolali    | Jl. Ahmad Yani 45       |
| BRUE        | Bank Rut Unit Etiopia     | Jl. Abadi 2             |
| BRUI        | Bank Rut Unit Indonesia   | Jl. Soekarno 3          |
| BRUK        | Bank Rut Unit Klaten      | Jl. Suparman 23         |
| BRUL        | Bank Rut Unit Los Angeles | Jl. Raya 8              |
| BRUM        | Bank Rut Unit Magelang    | Jl. P. Tendean 63       |
| BRUO        | Bank Rut Unit Oman        | Jl. Mawar 21            |
| BRUP        | Bank Rut Unit Pakistan    | Jl. Papua 456           |
| BRUS        | Bank Rut Unit Surakarta   | Jl. Slamet Riyadi 18    |
| BRUT        | Bank Rut Unit Turki       | Jl. Suropati 12         |
| BRUU        | Bank Rut Unit USA         | Jl. Ahmad 5             |
| BRUV        | Bank Rut Unit Venezuela   | Jl. Suara 21            |
| BRUW        | Bank Rut Unit Wonogiri    | Jl. Untung Suropti 12   |
| BRUY        | Bank Rut Unit Yogyakarta  | Jl. Anggrek 21          |
| BRUZ        | Bank Rut Unit Ziggy       | Jl. Imam Bonjol 2       |
+-------------+---------------------------+-------------------------+
16 rows in set (0.00 sec)

MariaDB [perbankan]>
```

Tabel : rekening

```
Query OK, 1 row affected (0.10 sec)

MariaDB [perbankan]> Delete from rekening
    -> where no_rekening = '123';
Query OK, 1 row affected (0.10 sec)

MariaDB [perbankan]> insert into rekening(no_rekening, kode_cabangFK, pin, saldo) value
    -> (114, 'BRUA', '4511', 570000),
    -> (115, 'BRUI', '1222', 350000),
    -> (116, 'BRUU', '3893', 750000),
    -> (117, 'BRUE', '2344', 2300000),
    -> (118, 'BRUO', '6755', 290000),
    -> (119, 'BRUT', '6996', 3000000),
    -> (120, 'BRUL', '7577', 1670000),
    -> (121, 'BRUV', '0880', 556000),
    -> (122, 'BRUP', '9119', 90000),
    -> (123, 'BRUZ', '1234', 550000);
Query OK, 10 rows affected (0.11 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from rekening;
+------------+---------------+------+----------+
| no_rekening | kode_cabangFK | pin  | saldo    |
+------------+---------------+------+----------+
|        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          | 0    | 50000000 |
|        109 | BRUB          | 9999 |        0 |
|        110 | BRUY          | 1234 |   550000 |
|        111 | BRUK          | 4321 |   150000 |
|        112 | BRUK          | 123  |   300000 |
|        113 | BRUY          | 8888 |   255000 |
|        114 | BRUA          | 4511 |   570000 |
|        115 | BRUI          | 1222 |   350000 |
|        116 | BRUU          | 3893 |   750000 |
|        117 | BRUE          | 2344 |  2300000 |
|        118 | BRUO          | 6755 |   290000 |
|        119 | BRUT          | 6996 |  3000000 |
|        120 | BRUL          | 7577 |  1670000 |
```

```
    -> (120, 'BRUL', '7577', 1670000),
    -> (121, 'BRUV', '0880', 556000),
    -> (122, 'BRUP', '9119', 90000),
    -> (123, 'BRUZ', '1234', 550000);
Query OK, 10 rows affected (0.11 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from rekening;
+------------+---------------+------+----------+
| no_rekening | kode_cabangFK | pin  | saldo    |
+------------+---------------+------+----------+
|        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          | 0    | 50000000 |
|        109 | BRUB          | 9999 |        0 |
|        110 | BRUY          | 1234 |   550000 |
|        111 | BRUK          | 4321 |   150000 |
|        112 | BRUK          | 123  |   300000 |
|        113 | BRUY          | 8888 |   255000 |
|        114 | BRUA          | 4511 |   570000 |
|        115 | BRUI          | 1222 |   350000 |
|        116 | BRUU          | 3893 |   750000 |
|        117 | BRUE          | 2344 |  2300000 |
|        118 | BRUO          | 6755 |   290000 |
|        119 | BRUT          | 6996 |  3000000 |
|        120 | BRUL          | 7577 |  1670000 |
|        121 | BRUV          | 0880 |   556000 |
|        122 | BRUP          | 9119 |    90000 |
|        123 | BRUZ          | 1234 |   550000 |
+------------+---------------+------+----------+
23 rows in set (0.00 sec)

MariaDB [perbankan]>
```

Tabel : nasabah_has_rekening

```
       104 | BRUM          | 4444 |    900000 |
       105 | BRUM          | 5555 |   2000000 |
       106 | BRUS          | 6666 |   3000000 |
       107 | BRUS          | 7777 |   1000000 |
       108 | BRUB          |    0 |  50000000 |
       109 | BRUB          | 9999 |         0 |
       110 | BRUY          | 1234 |    550000 |
       111 | BRUK          | 4321 |    150000 |
       112 | BRUK          |  123 |    300000 |
       113 | BRUY          | 8888 |    255000 |
       114 | BRUA          | 4511 |    570000 |
       115 | BRUI          | 1222 |    350000 |
       116 | BRUU          | 3893 |    750000 |
       117 | BRUE          | 2344 |   2300000 |
       118 | BRUO          | 6755 |    290000 |
       119 | BRUT          | 6996 |   3000000 |
       120 | BRUL          | 7577 |   1670000 |
       121 | BRUV          | 0880 |    556000 |
       122 | BRUP          | 9119 |     90000 |
       123 | BRUZ          | 1234 |    550000 |
+-------------+---------------+------+-----------+
23 rows in set (0.00 sec)

MariaDB [perbankan]> insert into nasabah_has_rekening(id_nasabahFK,no_rekeningFK) value
    -> (10,111),
    -> (5,123),
    -> (3,115),
    -> (6,117),
    -> (4,119),
    -> (7,121),
    -> (7,120),
    -> (5,116),
    -> (2,115),
    -> (9,118);
Query OK, 10 rows affected (0.07 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from nasabah_has_rekening;
+-------------+---------------+
| id_nasabahFK | no_rekeningFK |
+-------------+---------------+
            1 |           104 |
            2 |           103 |
            2 |           115 |
```

```
    -> (3,115),
    -> (6,117),
    -> (4,119),
    -> (7,121),
    -> (7,120),
    -> (5,116),
    -> (2,115),
    -> (9,118);
Query OK, 10 rows affected (0.07 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from nasabah_has_rekening;
+-------------+---------------+
| id_nasabahFK | no_rekeningFK |
+-------------+---------------+
            1 |           104 |
            2 |           103 |
            2 |           115 |
            3 |           105 |
            3 |           106 |
            3 |           115 |
            4 |           101 |
            4 |           107 |
            4 |           119 |
            5 |           102 |
            5 |           107 |
            5 |           116 |
            5 |           123 |
            6 |           109 |
            6 |           117 |
            7 |           109 |
            7 |           120 |
            7 |           121 |
            8 |           111 |
            8 |           112 |
            9 |           110 |
            9 |           118 |
           10 |           108 |
           10 |           111 |
           10 |           113 |
+-------------+---------------+
25 rows in set (0.00 sec)

MariaDB [perbankan]>
```

Tabel : rekening

```
        5 |        102 |
        5 |        107 |
        5 |        116 |
        5 |        123 |
        6 |        109 |
        6 |        117 |
        7 |        109 |
        7 |        120 |
        7 |        121 |
        8 |        111 |
        8 |        112 |
        9 |        110 |
        9 |        118 |
       10 |        108 |
       10 |        111 |
       10 |        113 |
+------------+--------------+
25 rows in set (0.00 sec)

MariaDB [perbankan]> insert into transaksi(no_transaksi,no_rekeningFK,id_nasabahFK,jenis_transaksi,tanggal,jumlah) value
    -> (31,107,1,'debit','2010-01-11','500000'),
    -> (32,104,3,'debit','2010-01-11','4000'),
    -> (33,105,5,'kredit','2010-01-12','330000'),
    -> (34,106,5,'debit','2010-01-13','30000'),
    -> (35,107,5,'kredit','2010-01-13','45000'),
    -> (36,104,1,'kredit','2010-01-15','230000'),
    -> (37,110,7,'kredit','2010-01-15','220000'),
    -> (38,106,5,'debit','2010-01-16','20000'),
    -> (39,105,3,'kredit','2010-01-18','50000'),
    -> (40,109,9,'debit','2010-01-19','100000'),
    -> (41,104,7,'debit','2010-02-10','100000'),
    -> (42,104,1,'debit','2010-02-11','50000'),
    -> (43,104,4,'kredit','2010-02-11','200000'),
    -> (44,108,3,'debit','2010-02-23','40000'),
    -> (45,102,1,'kredit','2010-02-24','100000'),
    -> (46,101,5,'kredit','2010-02-24','4000000'),
    -> (47,103,3,'debit','2010-02-27','560000'),
    -> (48,102,7,'debit','2010-03-10','53000'),
    -> (49,106,3,'debit','2010-03-11','100000'),
    -> (50,107,4,'kredit','2010-03-11','340000');
Query OK, 20 rows affected (0.13 sec)
Records: 20  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select*from transaksi
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
1	3	105	debit	2009-11-10 00:00:00	50000
2	2	103	debit	2009-11-10 00:00:00	40000
3	4	101	kredit	2009-11-12 00:00:00	20000
4	3	106	debit	2009-11-13 00:00:00	50000
5	5	107	kredit	2009-11-13 00:00:00	30000
6	1	104	kredit	2009-11-15 00:00:00	200000
7	9	110	kredit	2009-11-15 00:00:00	150000
8	5	102	debit	2009-11-16 00:00:00	20000
9	3	105	kredit	2009-11-18 00:00:00	50000
10	4	107	debit	2009-11-19 00:00:00	100000
11	2	103	debit	2009-11-19 00:00:00	100000
12	1	104	debit	2009-11-19 00:00:00	50000
13	4	107	kredit	2009-11-20 00:00:00	200000
14	3	105	debit	2009-11-21 00:00:00	40000
15	1	104	kredit	2009-11-22 00:00:00	100000
16	4	101	kredit	2009-11-22 00:00:00	20000
17	2	103	debit	2009-11-22 00:00:00	50000
18	5	102	debit	2009-11-25 00:00:00	50000
19	10	108	debit	2009-11-26 00:00:00	100000
20	3	106	kredit	2009-11-27 00:00:00	50000
21	2	103	kredit	2009-11-28 00:00:00	20000
22	3	105	kredit	2009-11-30 00:00:00	20000
23	5	102	debit	2009-12-01 00:00:00	50000
24	1	104	debit	2009-12-02 00:00:00	40000
25	2	103	debit	2009-12-04 00:00:00	50000
26	4	101	debit	2009-12-04 00:00:00	50000
27	2	103	kredit	2009-12-05 00:00:00	100000
28	5	102	kredit	2009-12-05 00:00:00	200000
29	7	109	debit	2009-12-05 00:00:00	100000
30	9	110	debit	2009-12-06 00:00:00	20000
31	1	107	debit	2010-01-11 00:00:00	500000
32	3	104	debit	2010-01-11 00:00:00	4000
33	5	105	kredit	2010-01-12 00:00:00	330000
34	5	106	debit	2010-01-13 00:00:00	30000
35	5	107	kredit	2010-01-13 00:00:00	45000
36	1	104	kredit	2010-01-15 00:00:00	230000
37	7	110	kredit	2010-01-15 00:00:00	220000
38	5	106	debit	2010-01-16 00:00:00	20000
39	3	105	kredit	2010-01-18 00:00:00	50000
40	9	109	debit	2010-01-19 00:00:00	100000
41	7	104	debit	2010-02-10 00:00:00	100000
42	1	104	debit	2010-02-11 00:00:00	50000

```
|     13 |      4 |     107 | kredit | 2009-11-20 00:00:00 |  200000 |
|     14 |      3 |     105 | debit  | 2009-11-21 00:00:00 |   40000 |
|     15 |      1 |     104 | kredit | 2009-11-22 00:00:00 |  100000 |
|     16 |      4 |     101 | kredit | 2009-11-22 00:00:00 |   20000 |
|     17 |      2 |     103 | debit  | 2009-11-22 00:00:00 |   50000 |
|     18 |      5 |     102 | debit  | 2009-11-25 00:00:00 |   50000 |
|     19 |     10 |     108 | debit  | 2009-11-26 00:00:00 |  100000 |
|     20 |      3 |     106 | kredit | 2009-11-27 00:00:00 |   50000 |
|     21 |      2 |     103 | kredit | 2009-11-28 00:00:00 |   20000 |
|     22 |      3 |     105 | kredit | 2009-11-30 00:00:00 |   20000 |
|     23 |      5 |     102 | debit  | 2009-12-01 00:00:00 |   50000 |
|     24 |      1 |     104 | debit  | 2009-12-02 00:00:00 |   40000 |
|     25 |      2 |     103 | debit  | 2009-12-04 00:00:00 |   50000 |
|     26 |      4 |     101 | debit  | 2009-12-04 00:00:00 |   50000 |
|     27 |      2 |     103 | kredit | 2009-12-05 00:00:00 |  100000 |
|     28 |      5 |     102 | kredit | 2009-12-05 00:00:00 |  200000 |
|     29 |      7 |     109 | debit  | 2009-12-05 00:00:00 |  100000 |
|     30 |      9 |     110 | debit  | 2009-12-06 00:00:00 |   20000 |
|     31 |      1 |     107 | debit  | 2010-01-11 00:00:00 |  500000 |
|     32 |      3 |     104 | debit  | 2010-01-11 00:00:00 |    4000 |
|     33 |      5 |     105 | kredit | 2010-01-12 00:00:00 |  330000 |
|     34 |      5 |     106 | debit  | 2010-01-13 00:00:00 |   30000 |
|     35 |      5 |     107 | kredit | 2010-01-13 00:00:00 |   45000 |
|     36 |      1 |     104 | kredit | 2010-01-15 00:00:00 |  230000 |
|     37 |      7 |     110 | kredit | 2010-01-15 00:00:00 |  220000 |
|     38 |      5 |     106 | debit  | 2010-01-16 00:00:00 |   20000 |
|     39 |      3 |     105 | kredit | 2010-01-18 00:00:00 |   50000 |
|     40 |      9 |     109 | debit  | 2010-01-19 00:00:00 |  100000 |
|     41 |      7 |     104 | debit  | 2010-02-10 00:00:00 |  100000 |
|     42 |      1 |     104 | debit  | 2010-02-11 00:00:00 |   50000 |
|     43 |      4 |     104 | kredit | 2010-02-11 00:00:00 |  200000 |
|     44 |      3 |     108 | debit  | 2010-02-23 00:00:00 |   40000 |
|     45 |      1 |     102 | kredit | 2010-02-24 00:00:00 |  100000 |
|     46 |      5 |     101 | kredit | 2010-02-24 00:00:00 | 4000000 |
|     47 |      3 |     103 | debit  | 2010-02-27 00:00:00 |  560000 |
|     48 |      7 |     102 | debit  | 2010-03-10 00:00:00 |   53000 |
|     49 |      3 |     106 | debit  | 2010-03-11 00:00:00 |  100000 |
|     50 |      4 |     107 | kredit | 2010-03-11 00:00:00 |  340000 |
+--------+--------+---------+--------+---------------------+---------+
50 rows in set (0.00 sec)
```