Database System Practicum

Modul 5 - Data Manipulation Language (DML)



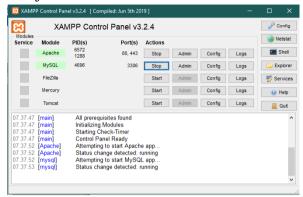
By:

Azie Melasari / L200183174

FACULTY OF COMMUNICATION AND INFORMATICS MUHAMMADIYAH UNIVERSITY OF SURAKARTA 2020

PRACTICE

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



2. Login sebagai root ke MySQL di Command Propmpt

```
Microsoft Windows [Version 10.0.18363.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Win10>cd\

C:\>cd C:\xampp\mysql\bin

C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.11-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.
```

3. Memilih database perbankan

```
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 (0.053 sec)
```

4. Nasabah

```
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 Eko Prayogo', '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 (0.376 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

```
riaDB [perbankan]> SELECT*FROM nasabah;
 id nasabah | nama nasabah
                                       alamat_nasabah
               Maryati
                                        Jl. MT. Haryono 31
               Suparman
                                       Jl. Hasanudin 81
                                       Jl. Manggis 15
Jl. Kantil 30
               Kartika Padmasari
               Budi Eko Prayogo
               Satria Eko Prayogo
               Indri Hapsari
               Sari Murti
                                       Jl. Pangandaran 11
              Canka Lokananta
Budi Murtono
                                       Jl. Tidar 86
Jl. Merak 22
          10 I
0 rows in set (0.001 sec)
```

5. Cabang_bank

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. 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 (0.087 sec)
Records: 6 Duplicates: 0 Warnings: 0

kode_cabang	nama_cabang	alamat_cabang
BRUB	Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
BRUK	Bank Rut Unit Klaten	J1. Suparman 23
BRUM	Bank Rut Unit Magelang	J1. 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		+ Activ

6. Rekening

MariaDB [perbankan]> INSERT INTO rekening (no_rekening, kode_cabangFK, pin, saldo) VALUES (10 1, 'BRUS', 1111, 500000),(102, 'BRUS', 2222, 350000),(103, 'BRUS', 3333, 750000),(104, 'BRUM', 4444, 900000),(105, 'BRUM', 5555, 20000000),(106, 'BRUS', 6666, 30000000),(107, 'BRUS', 7777, 10000000),(108, 'BRUB', 0000, 50000000),(109, 'BRUB', 9999, 0),(110, 'BRUY', 1234, 550000),(11 1, 'BRUK', 4321, 150000),(112, 'BRUK', 0123, 300000),(113, 'BRUY', 8888, 255000);
Query OK, 13 rows affected (0.075 sec)
Records: 13 Duplicates: 0 Warnings: 0

```
MariaDB [perbankan]> SELECT*FROM rekening;
 no_rekening | kode_cabangFK |
                                        saldo
                BRUS
                                         500000
                BRUS
                                         350000
                BRUS
                                         750000
         104
                BRUM
                                4444
                                         900000
                                        2000000
                BRUM
                BRUS
                                        3000000
                                        1000000
                BRUS
         107
                                        5000000
         108
                BRUB
                BRUB
                                 9999
         110
                BRUY
                                 1234
                                         550000
                                         150000
                BRUK
                BRUK
                                         300000
                                 123
                BRUY
                                 8888
                                         255000
3 rows in set (0.001 sec)
```

7. Nasabah_has_rekening

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, 1 11),(9, 110),(10, 113),(8, 112),(10, 108);
Query OK, 15 rows affected (0.088 sec)
Records: 15 Duplicates: 0 Warnings: 0

8. Transaksi

```
MariaDB [perbankan]> INSERT INTO transaksi (no_transaksi, no_rekeningFK, id_nasabahFK, 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, 104, 1, 'kredit', '2009-11-12', 50000),(13, 107, 4, 'kredit', '2009-11-20', 200000),(14, 105, 3, 'debit', '2009-11-21', 40000),(15, 104, 1, 'kredit', '2009-11-22', 10000
0),(16, 101, 4, 'kredit', '2009-11-22', 20000),(17, 103, 2, 'debit', '2009-11-21', 50000),(18, 102, 5, 'debit', '2009-11-25', 500
00),(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', 20000),(24, 104, 1, 'debit', '2009-11-28',
100000),(25, 103, 2, 'debit', '2009-12-2', 40000),(26, 101, 4, 'debit', '2009-11-30', 20000),(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 (0.042 sec)
Records: 30 Duplicates: 0 Warnings: 0
```

_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
1		105	debit	2009-11-10 00:00:00	50000
2		103	debit	2009-11-10 00:00:00	40000
3		101	kredit	2009-11-12 00:00:00	20000
4		106	debit	2009-11-13 00:00:00	50000
5		107	kredit	2009-11-13 00:00:00	30000
6		104	kredit	2009-11-15 00:00:00	200000
7		110	kredit	2009-11-15 00:00:00	150000
8		102	debit	2009-11-16 00:00:00	20000
9		105	kredit	2009-11-18 00:00:00	50000
10		107	debit	2009-11-19 00:00:00	100000
11		103	debit	2009-11-19 00:00:00	100000
12		104	debit	2009-11-19 00:00:00	50000
13		107	kredit	2009-11-20 00:00:00	200000
14		105	debit	2009-11-21 00:00:00	40000
15		104	kredit	2009-11-22 00:00:00	100000
16		101	kredit	2009-11-22 00:00:00	20000
17		103	debit	2009-11-22 00:00:00	50000
18		102	debit	2009-11-25 00:00:00	50000
19		108	debit	2009-11-26 00:00:00	100000
20		106	kredit	2009-11-27 00:00:00	50000
21		103	kredit	2009-11-28 00:00:00	200000
22		105	kredit	2009-11-28 00:00:00	100000
23		102	debit	2009-11-30 00:00:00	20000
24		104	debit	2009-12-01 00:00:00	50000
25		103	debit	2009-12-02 00:00:00	40000
26		101	debit	2009-12-04 00:00:00	50000
27		103	kredit	2009-12-05 00:00:00	100000
28		102	kredit	2009-12-05 00:00:00	200000
29		109	debit	2009-12-05 00:00:00	100000
30		110	debit	2009-12-06 00:00:00	20000

9. Melakukan update

a. Nasabah dengan nama "Indri Hapsari" pindah alamat ke "Jalan Slamet Riyadi No 34"

```
MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah='Jalan Slamet Riyadi No.34' WHERE nama_nasabah = 'In
dri Hapsari';
Query OK, 1 row affected (0.120 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

Cek:

```
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 Prayogo | Jl. Slamet Riyadi 45 |
7 | Indri Hapsari | Jalan Slamet Riyadi No.34 |
8 | Sari Murti | Jl. Pangandaran 11 |
9 | Canka Lokananta | Jl. Tidar 86 |
10 | Budi Murtono | Jl. Merak 22 |
```

b. Cabang dengan kode "BRUW" pindah ke alamat "Jalan A. Yani No.23"

```
MariaDB [perbankan]> UPDATE cabang_bank SET alamat_cabang='Jalan A. Yani No.23' WHERE kode_cabang = 'BRUW';
Query OK, 1 row affected (0.108 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

Cek:

10. Melakukan penghapusan

a. Nasabah dengan id "7" menutup rekeningnya

b. Cabang dengan nama_cabang "Bank Rut Unit Magelang" menutup kantornya

```
MariaDB [perbankan]> DELETE FROM cabang_bank WHERE nama_cabang = 'Bank Rut Unit Magelang';
Query OK, 1 row affected (0.087 sec)

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 |
| BRUS | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| BRUW | Bank Rut Unit Wonogiri | Jalan A. Yani No.23 |
| BRUY | Bank Rut Unit Yogyakarta | Jl. Anggrek 21 |
| 5 rows in set (0.001 sec)
```

ASSIGNMENT

#Table Master

1. Nasabah

```
MariaDB [perbankan]> INSERT INTO nasabah (id_nasabah, nama_nasabah, alamat_nasabah) VALUES (11, 'Azie', 'Jl. Apel 01'),(12, 'Mela', 'Jl. Naga 02'),(13, 'Sari', 'Jl. Duren 03'),(14, 'Hafshah', 'Jl. Manggis 04'),(15, 'Fitri', 'Jl. Duku 05'),(16, 'Afifah', 'Jl. Sukowati 06'),(17, 'Aulia', 'Jl. Pattimura 07'),(18, 'Septin', 'Jl. Cut Nya Din 08'),(19, 'Cahya', 'Jl. Mawar 09'),(20, 'Wahyu', 'Jl. Hassanudin 10');
Query OK, 10 rows affected (1.261 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 Prayogo | Jl. Slamet Riyadi 45 |
7 | Indri Hapsari | Jalan Slamet Riyadi 45 |
7 | Indri Hapsari | Jl. Pangandaran 11 |
9 | Canka Lokananta | Jl. Tidar 86 |
10 | Budi Murtono | Jl. Merak 22 |
11 | Azie | Jl. Apel 01 |
12 | Mela | Jl. Naga 02 |
13 | Sari | Jl. Duren 03 |
14 | Hafshah | Jl. Manggis 04 |
15 | Fitri | Jl. Duku 05 |
16 | Afifah | Jl. Sukowati 06 |
17 | Aulia | Jl. Pattimura 07 |
18 | Septin | Jl. Cut Nya Din 08 |
19 | Cahya | Jl. Mawar 09 |
20 | Wahyu | Jl. Hassanudin 10 |

20 rows in set (0.113 sec)
```

2. Cabang_bank

MariaDB [perbankan]> INSERT INTO cabang_bank (kode_cabang, nama_cabang, alamat_cabang) VALUES ('BRUA', 'Bank Rut Unit Ambon', 'Jl. Raya Sukowati 99'),('BRUC', 'Bank Rut Unit Ciamis', 'Jl. pegangsaan 34'),('BRUD', 'Bank Rut Depok', 'Jl. Kemanga 45'),('BRUD', 'Bank Rut Tasikmalaya', 'Jl. Kenanga 45'),('BRUP', 'Bank Rut Pekalongan', 'Jl. Soekarno 7'),('BRUL', 'Bank Rut Lubuklinggau', 'Jl. Ir.Juanda 22'),('BRUJ', 'Bank Rut Jay apura', 'Jl. Tulip 39'),('BRUG', 'Bank Rut Gorontalo', 'Jl. Kasih Ibu 34'),('BRUR', 'Bank Rut Makassar', 'Jl. Sutopo 55'),('BRUO', 'Bank Rut Cilegon', 'Jl. Jendral Sudirman');
Query OK, 10 rows affected (0.150 sec)
Records: 10 Duplicates: 0 Warnings: 0

```
MariaDB [perbankan]> SELECT*FROM cabang bank;
 kode cabang | nama cabang
                                             alamat cabang
 BRUA
                Bank Rut Unit Ambon
                                              Jl. Raya Sukowati 99
                Bank Rut Unit Boyolali
                                              Jl. Ahmad Yani 45
 BRUB
 BRUC
                Bank Rut Unit Ciamis
                                             Jl. pegangsaan 34
                Bank Rut Depok
 BRUD
                                              Jl. Kemayoran 90
 BRUG
                Bank Rut Gorontalo
                                             Jl. Kasih Ibu 34
                                             Jl. Tulip 39
Jl. Suparman 23
                Bank Rut Jayapura
Bank Rut Unit Klaten
 BRUJ
 BRUK
                                             Jl. Ir.Juanda 22
                Bank Rut Lubuklinggau
                                             Jl. Jendral Sudirman
Jl. Soekarno 7
                Bank Rut Cilegon
 BRUO
                Bank Rut Pekalongan
 BRUP
                Bank Rut Makassar
                                             Jl. Sutopo 55
 BRUR
 BRUS
                Bank Rut Unit Surakarta
                                             Jl. Slamet Riyadi 18
                Bank Rut Tasikmalaya
                                             Jl. Kenanga 45
 BRUT
                Bank Rut Unit Wonogiri
                                             Jalan A. Yani No.23
 BRUW
 BRUY
                Bank Rut Unit Yogyakarta
                                             Jl. Anggrek 21
15 rows in set (0.001 sec)
```

3. Rekening

```
MariaDB [perbankan]> INSERT INTO rekening (no_rekening, kode_cabangFK, pin, saldo) VALUES (114, 'BRUO', 999 9, 50000),(115, 'BRUR', 1122, 50000),(116, 'BRUG', 2211, 100000),(117, 'BRUJ', 2143, 150000),(118, 'BRUL', 6767, 1000000),(119, 'BRUP', 9090, 100000),(120, 'BRUT', 5656, 350000),(121, 'BRUD', 3434, 50000),(122, 'BRUC', 8787, 150000),(123, 'BRUA', 6543, 200000);
Query OK, 10 rows affected (0.208 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	5000000		
109	BRUB	9999	0		
110	BRUY	1234	550000		
111	BRUK	4321	150000		
112	BRUK	123	300000		
113	BRUY	8888	255000		
114	BRUO	9999	50000		
115	BRUR	1122	50000		
116	BRUG	2211	100000		
117	BRUJ	2143	150000		
118	BRUL	6767	1000000		
119	BRUP	9090	100000		
120	BRUT	5656	350000		
121	BRUD	3434	50000		
122	BRUC	8787	150000		
123	BRUA	6543	200000		
3 rows in set	(0.071 sec)	+	++		

4. Nasabah_has_rekening

```
MariaDB [perbankan]> INSERT INTO nasabah_has_rekening (id_nasabahFK, no_rekeningFK) VALUES (11, 114), (12, 115), (13, 116), (14, 117), (15, 118), (16, 119), (17, 120),(18, 121), (19, 122), (20, 123); Query OK, 10 rows affected (0.118 sec)
Records: 10 Duplicates: 0 Warnings: 0
```

#Table Transaksi

1. Transaksi

MariaDB [perbankan]> INSERT INTO transaksi (no_transaksi, no_rekeningFK, id_nasabahFK, jenis_transaksi, tanggal, jumlah) VALUES (
31, 114, 11, 'debit', '2009-12-7', 100000), (32, 104, 1, 'debit', '2009-12-8', 50000), (33, 107, 4, 'kredit', '2009-12-9', 200000), (
34, 105, 3, 'debit', '2009-12-9', 40000), (35, 114, 11, 'kredit', '2009-12-10', 100000), (36, 101, 4, 'kredit', '2009-12-11', 2000
0), (37, 123, 20, 'debit', '2009-12-12', 50000), (38, 102, 5, 'debit', '2009-12-13', 50000), (39, 108, 10, 'debit', '2009-12-14', 10
0000), (40, 106, 3, 'kredit', '2009-12-15', 50000), (41, 123, 20, 'kredit', '2009-12-16', 200000), (42, 105, 3, 'kredit', '2009-12-1
7', 100000), (43, 102, 5, 'debit', '2009-12-18', 20000), (44, 114, 11, 'debit', '2009-12-19', 50000), (45, 123, 20, 'debit', '2009-12-20', 40000), (46, 101, 4, 'debit', '2009-12-21', 50000), (47, 123, 20, 'kredit', '2009-12-22', 100000), (48, 102, 5, 'kredit', '2009-12-23', 200000), (49, 120, 17, 'debit', '2009-12-24', 100000), (50, 122, 19, 'debit', '2009-12-25', 20000);

Query OK, 20 rows affected (0.164 sec)

Records: 20 Duplicates: 0 Warnings: 0

_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	2009-11-12 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	200006
22	3	105	kredit	2009-11-28 00:00:00	100006
23	5	102	debit	2009-11-30 00:00:00	20006
24	1	104	debit	2009-12-01 00:00:00	50000
25	2	103	debit	2009-12-02 00:00:00	40000
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	11	114	debit	2009-12-07 00:00:00	100000
32	1	104	debit	2009-12-08 00:00:00	50000
33	4	107	kredit	2009-12-09 00:00:00	20000
34	3	105	debit	2009-12-09 00:00:00	4000
35	11	114	kredit	2009-12-10 00:00:00	10000
36	4	101	kredit	2009-12-11 00:00:00	2000
37	20	123	debit	2009-12-12 00:00:00	5000
38	5	102	debit	2009-12-13 00:00:00	5000
39	10	108	debit	2009-12-14 00:00:00	10000
40	3	106	kredit	2009-12-15 00:00:00	5000
41	20	123	kredit	2009-12-16 00:00:00	20000
42	3	105	kredit	2009-12-17 00:00:00	10000
43	5	102	debit	2009-12-18 00:00:00	2000
44	11	114	debit	2009-12-19 00:00:00	5000
45	20	123	debit	2009-12-20 00:00:00	4000
46	4	101	debit	2009-12-21 00:00:00	5000
47	20	123	kredit	2009-12-22 00:00:00	10000
48	5	102	kredit	2009-12-23 00:00:00	20000
49	17	120	debit	2009-12-24 00:00:00	10000
50	19	122	debit	2009-12-25 00:00:00	2000