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PRAKTIKUM SISTEM BASIS DATA

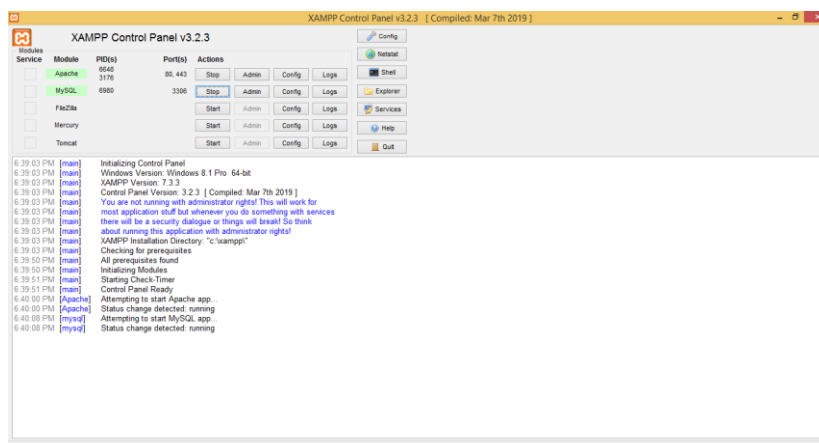
MODUL 5

DATA MANIPULATION LANGUAGE (DML)

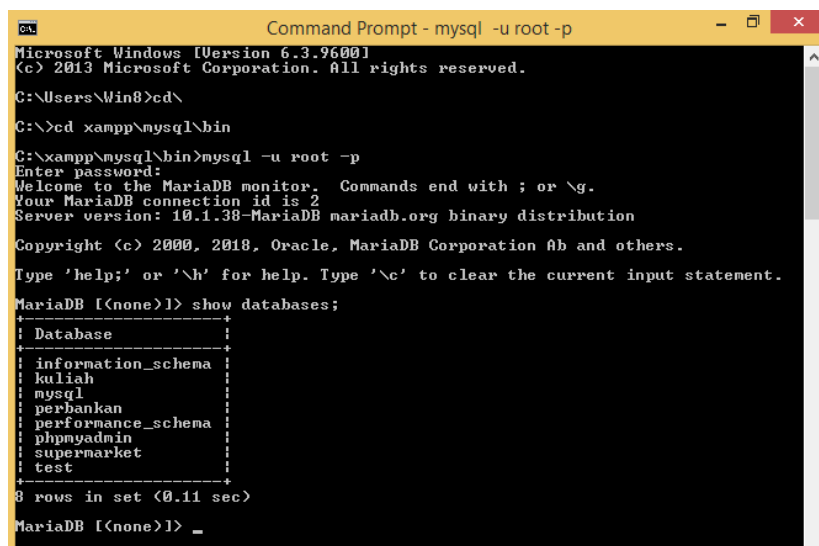
Tugas

Masukkan beberapa record ke setiap table dalam database yang telah anda buat pada modul 4. Print out hasil implementasi rancangan tersebut dan analisa hasilnya. (Masing-masing 10 record untuk table master dan 20 record untuk table transaksi)

1. Jalankan XAMPP Control Panel kemudian jalankan server Apache dan MySQL



2. Membuka command prompt dan login sebagai root ke MySQL



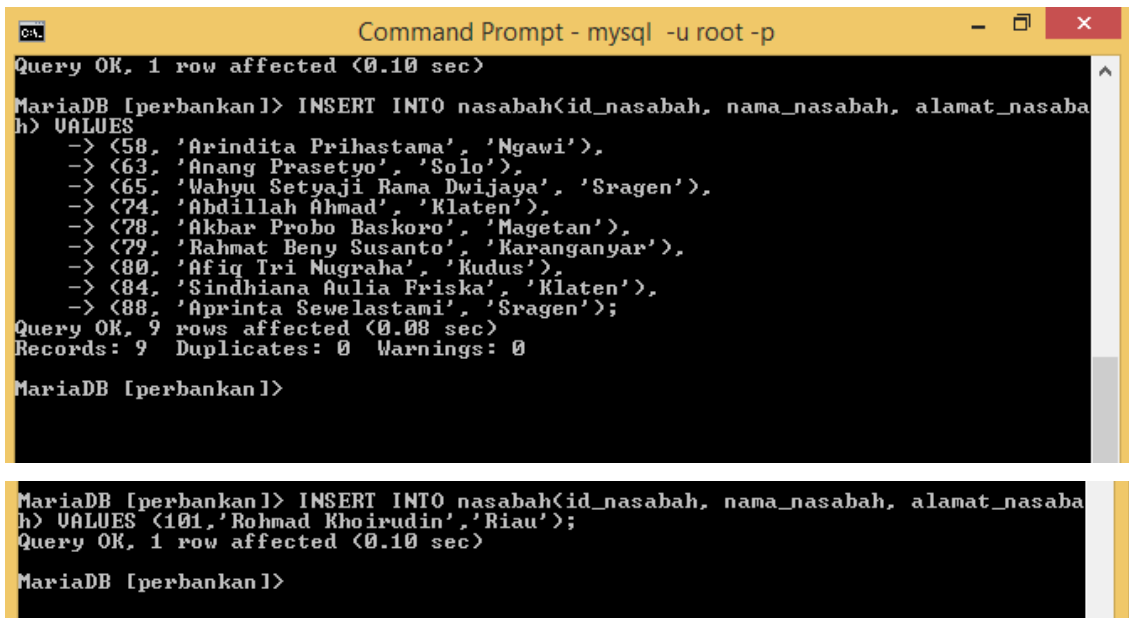
3. Memilih database perbankan dengan perintah “use perbankan”. Sehingga akan muncul pemberitahuan “database changed”

```
MariaDB [(none)]> use perbankan;  
Database changed  
MariaDB [perbankan]>
```

4. Memasukkan data-data ke dalam database perbankan

- Table nasabah dengan script berikut:

```
INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah) VALUES  
(58, 'Arindita Prihastama', 'Ngawi'),  
(63, 'Anang Prasetyo', 'Solo'),  
(65, 'Wahyu Setyaji Rama Dwijaya', 'Sragen'),  
(74, 'Abdillah Ahmad', 'Klaten'),  
(78, 'Akbar Probo Baskoro', 'Magetan'),  
(79, 'Rahmat Beny Susanto', 'Karanganyar'),  
(80, 'Afiq Tri Nugraha', 'Kudus'),  
(84, 'Sindhiana Aulia Friska', 'Klaten'),  
(88, 'Aprinta Sewelastami', 'Sragen')  
(101, 'Rohmad Khoirudin', 'Riau');
```



```
Command Prompt - mysql -u root -p  
Query OK, 1 row affected (0.10 sec)  
MariaDB [perbankan]> INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah) VALUES  
(58, 'Arindita Prihastama', 'Ngawi'),  
(63, 'Anang Prasetyo', 'Solo'),  
(65, 'Wahyu Setyaji Rama Dwijaya', 'Sragen'),  
(74, 'Abdillah Ahmad', 'Klaten'),  
(78, 'Akbar Probo Baskoro', 'Magetan'),  
(79, 'Rahmat Beny Susanto', 'Karanganyar'),  
(80, 'Afiq Tri Nugraha', 'Kudus'),  
(84, 'Sindhiana Aulia Friska', 'Klaten'),  
(88, 'Aprinta Sewelastami', 'Sragen');  
Query OK, 9 rows affected (0.08 sec)  
Records: 9 Duplicates: 0 Warnings: 0  
MariaDB [perbankan]>  
MariaDB [perbankan]> INSERT INTO nasabah(id_nasabah, nama_nasabah, alamat_nasabah) VALUES  
(101, 'Rohmad Khoirudin', 'Riau');  
Query OK, 1 row affected (0.10 sec)  
MariaDB [perbankan]>
```

- Tabel cabang_bank dengan script berikut:

```
INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_cabang) VALUES  
(BRUN, 'Bank Rut Unit Ngawi', 'Ngawi, Jawa Timur'),  
(BRUMgt, 'Bank Rut Unit Magetan', 'Magetan, Jawa Timur'),  
(BRUSgn, 'Bank Rut Unit Sragen', 'Sragen, Jawa Tengah'),
```

('BRUKra', 'Bank Rut Unit Karanganyar', 'Karanganyar, Jawa Tengah'),
 ('BRUKds', 'Bank Rut Unit Kudus', 'Kudus, Jawa Tengah'),
 ('BRUSmg', 'Bank Rut Unit Semarang', 'Semarang, Jawa Tengah'),
 ('BRUC', 'Bank Rut Unit Cilacap', 'Cilacap, Jawa Tengah'),
 ('BRUBdg', 'Bank Rut Unit Bandung', 'Bandung, Jawa Barat'),
 ('BRUJ', 'Bank Rut Unit Jakarta', 'DKI Jakarta')
 ('BRUR', 'Bank Rut Unit Riau', 'Riau');

```

Command Prompt - mysql -u root -p
Records: 9 Duplicates: 0 Warnings: 0

MariaDB [perbankan]> INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_ca
bang) VALUES
-> ('BRUN', 'Bank Rut Unit Ngawi', 'Ngawi, Jawa Timur'),
-> ('BRUMgt', 'Bank Rut Unit Magetan', 'Magetan, Jawa Timur'),
-> ('BRUSgn', 'Bank Rut Unit Sragen', 'Sragen, Jawa Tengah'),
-> ('BRUKra', 'Bank Rut Unit Karanganyar', 'Karanganyar, Jawa Tengah'),
-> ('BRUKds', 'Bank Rut Unit Kudus', 'Kudus, Jawa Tengah'),
-> ('BRUSmg', 'Bank Rut Unit Semarang', 'Semarang, Jawa Tengah'),
-> ('BRUC', 'Bank Rut Unit Cilacap', 'Cilacap, Jawa Tengah'),
-> ('BRUBdg', 'Bank Rut Unit Bandung', 'Bandung, Jawa Barat'),
-> ('BRUJ', 'Bank Rut Unit Jakarta', 'DKI Jakarta');
Query OK, 9 rows affected (0.11 sec)
Records: 9 Duplicates: 0 Warnings: 0

MariaDB [perbankan]>

MariaDB [perbankan]> INSERT INTO cabang_bank(kode_cabang, nama_cabang, alamat_ca
bang) VALUES ('BRUR', 'Bank Rut Unit Riau', 'Riau');
Query OK, 1 row affected (0.05 sec)

MariaDB [perbankan]>
  
```

- Table rekening dengan script berikut:

```

INSERT INTO rekening(no_rekening, kode_cabangFK, pin, saldo) VALUES
(114, 'BRUN', 5858, 5000000),
(115, 'BRUS', 6363, 6000000),
(116, 'BRUSgn', 6565, 7000000),
(117, 'BRUK', 7474, 8000000),
(118, 'BRUMgt', 7878, 9000000),
(119, 'BRUKra', 7979, 10000000),
(120, 'BRUKds', 8080, 11000000),
(121, 'BRUK', 8484, 12000000),
(122, 'BRUSgn', 1010, 13000000)
(123, 'BRUR', 1011, 14000000);
  
```

```
Command Prompt - mysql -u root -p
ERROR 1054 (42S22): Unknown column 'kode_cabang' in 'field list'
MariaDB [perbankan]> INSERT INTO rekening(no_rekening, kode_cabangFK, pin, saldo
) VALUES
-> (114, 'BRUN', 5858, 5000000),
-> (115, 'BRUS', 6363, 6000000),
-> (116, 'BRUSgn', 6565, 7000000),
-> (117, 'BRUK', 7474, 8000000),
-> (118, 'BRUMgt', 7878, 9000000),
-> (119, 'BRUKra', 7979, 10000000),
-> (120, 'BRUKds', 8080, 11000000),
-> (121, 'BRUK', 8484, 12000000),
-> (122, 'BRUSgn', 1010, 13000000);
Query OK, 9 rows affected (0.13 sec)
Records: 9 Duplicates: 0 Warnings: 0
MariaDB [perbankan]>

MariaDB [perbankan]> INSERT INTO rekening(no_rekening, kode_cabangFK, pin, saldo
) VALUES (123, 'BRUR', 1011, 14000000);
Query OK, 1 row affected (0.11 sec)
MariaDB [perbankan]>
```

- Tabel nasabah_has_rekening dengan script sebagai berikut:

INSERT INTO nasabah_has_rekening(id_nasabahFK, no_rekeningFK) VALUES

(58, 114),
(63, 115),
(65, 116),
(74, 117),
(78, 118),
(79, 119),
(80, 120),
(84, 121),
(88, 122)
(101, 123);

```
Command Prompt - mysql -u root -p
MariaDB [perbankan]> INSERT INTO nasabah_has_rekening(id_nasabahFK, no_rekeningFK
) VALUES
-> (58, 114),
-> (63, 115),
-> (65, 116),
-> (74, 117),
-> (78, 118),
-> (79, 119),
-> (80, 120),
-> (84, 121),
-> (88, 122);
Query OK, 9 rows affected (0.12 sec)
Records: 9 Duplicates: 0 Warnings: 0
MariaDB [perbankan]>
```

```
MariaDB [perbankan]> INSERT INTO nasabah_has_rekening(id_nasabahFK, no_rekeningFK) VALUES (101, 123);
Query OK, 1 row affected (0.07 sec)

MariaDB [perbankan]>
```

- Tabel transaksi dengan script berikut:

```
INSERT INTO transaksi(no_transaksi, no_rekeningFK, id_nasabahFK, jenis_transaksi, tanggal, jumlah) VALUES
```

```
(31, 114, 58, 'kredit', '2019-10-2', 50000),
(32, 115, 63, 'debit', '2019-10-3', 100000),
(33, 116, 65, 'kredit', '2019-10-4', 30000),
(34, 117, 74, 'kredit', '2019-10-5', 200000),
(35, 118, 78, 'debit', '2019-10-5', 60000),
(36, 119, 79, 'debit', '2019-10-5', 450000),
(37, 120, 80, 'debit', '2019-10-6', 100000),
(38, 121, 84, 'kredit', '2019-10-7', 50000),
(39, 122, 88, 'kredit', '2019-10-8', 70000),
(40, 116, 65, 'kredit', '2019-10-8', 30000),
(41, 119, 79, 'debit', '2019-10-10', 500000),
(42, 115, 63, 'debit', '2019-10-11', 45000),
(43, 120, 80, 'debit', '2019-10-12', 200000),
(44, 117, 74, 'kredit', '2019-10-12', 150000),
(45, 123, 101, 'debit', '2019-10-13', 500000),
(46, 118, 78, 'kredit', '2019-10-13', 245000),
(47, 122, 88, 'kredit', '2019-10-14', 350000),
(48, 123, 101, 'debit', '2019-10-17', 100000),
(49, 121, 84, 'kredit', '2019-10-17', 80000),
(50, 119, 79, 'kredit', '2019-10-20', 400000);
```

```

MariaDB [perbankan]> INSERT INTO transaksi(no_transaksi, no_rekeningFK, id_nasabahFK, jenis_transaksi, tanggal, jumlah) VALUES
-> (31, 114, 58, 'kredit', '2019-10-2', 500000),
-> (32, 115, 63, 'debit', '2019-10-3', 1000000),
-> (33, 116, 65, 'kredit', '2019-10-4', 300000),
-> (34, 117, 74, 'kredit', '2019-10-5', 2000000),
-> (35, 118, 78, 'debit', '2019-10-5', 600000),
-> (36, 119, 79, 'debit', '2019-10-5', 4500000),
-> (37, 120, 80, 'debit', '2019-10-6', 1000000),
-> (38, 121, 84, 'kredit', '2019-10-7', 500000),
-> (39, 122, 88, 'kredit', '2019-10-8', 700000),
-> (40, 116, 65, 'kredit', '2019-10-8', 300000),
-> (41, 119, 79, 'debit', '2019-10-10', 5000000),
-> (42, 115, 63, 'debit', '2019-10-11', 450000),
-> (43, 120, 80, 'debit', '2019-10-12', 2000000),
-> (44, 117, 74, 'kredit', '2019-10-12', 1500000),
-> (45, 123, 101, 'debit', '2019-10-13', 5000000),
-> (46, 118, 78, 'kredit', '2019-10-13', 2450000),
-> (47, 122, 88, 'kredit', '2019-10-14', 3500000),
-> (48, 123, 101, 'debit', '2019-10-17', 1000000),
-> (49, 121, 84, 'kredit', '2019-10-17', 800000),
-> (50, 119, 79, 'kredit', '2019-10-20', 4000000);
Query OK, 20 rows affected (0.13 sec)
Records: 20 Duplicates: 0 Warnings: 0

```

5. Mengecek data-data yang telah dimasukkan dalam database

- Tabel nasabah dengan perintah select * from nasabah

```

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. Kantil 30 |
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
| 10 | Budi Murtono | Jl. Merak 22 |
| 58 | Arindita Prihastama | Ngawi |
| 63 | Anang Prasetyo | Solo |
| 65 | Wahyu Setyaji Rama Dwijaya | Sragen |
| 74 | Abdillah Ahmad | Klaten |
| 78 | Akbar Probo Baskoro | Magetan |
| 79 | Rahmat Beny Susanto | Karanganyar |
| 80 | Afiq Tri Nugraha | Kudus |
| 84 | Sindhiana Aulia Friska | Klaten |
| 88 | Aprinta Sewelastami | Sragen |
| 101 | Rohmad Khoirudin | Riau |
+----+-----+-----+
19 rows in set (0.06 sec)

MariaDB [perbankan]>

```

- Tabel cabang_bank dengan perintah select * from cabang_bank

```

MariaDB [perbankan]> select * from cabang_bank;
+-----+-----+-----+
| kode_cabang | nama_cabang | alamat_cabang |
+-----+-----+-----+
| BRUB | Bank Rut Unit Boyolali | Jl. Ahmad Yani 45 |
| BRUBdg | Bank Rut Unit Bandung | Bandung, Jawa Barat |
| BRUC | Bank Rut Unit Cilacap | Cilacap, Jawa Tengah |
| BRUJ | Bank Rut Unit Jakarta | DKI Jakarta |
| BRUK | Bank Rut Unit Klaten | Jl. Suparman 23 |
| BRUKds | Bank Rut Unit Kudus | Kudus, Jawa Tengah |
| BRUKra | Bank Rut Unit Karanganyar | Karanganyar, Jawa Tengah |
| BRUMgt | Bank Rut Unit Magetan | Magetan, Jawa Timur |
| BRUN | Bank Rut Unit Ngawi | Ngawi, Jawa Timur |
| BRUR | Bank Rut Unit Riau | Riau |
| BRUS | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| BRUSgn | Bank Rut Unit Sragen | Sragen, Jawa Tengah |
| BRUSmg | Bank Rut Unit Semarang | Semarang, Jawa Tengah |
| BRUW | Bank Rut Unit Wonogiri | Jalan A. Yani No. 23 |
| BRUY | Bank Rut Unit Yogyakarta | Jl. Anggrek 21 |
+-----+-----+-----+
15 rows in set (0.00 sec)

MariaDB [perbankan]>

```

- Tabel rekening dengan script `select * from rekening;`

```
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	BRUN	5858	5000000
115	BRUS	6363	6000000
116	BRUSgn	6565	7000000
117	BRUK	7474	8000000
118	BRUMgt	7878	9000000
119	BRUKra	7979	10000000
120	BRUKds	8080	11000000
121	BRUK	8484	12000000
122	BRUSgn	1010	13000000
123	BRUR	1011	14000000

```
23 rows in set (0.00 sec)

MariaDB [perbankan]>
```

- Tabel nasabah_has_rekening dengan script `select * from nasabah_has_rekening;`

```
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
58	114
63	115
65	116
74	117
78	118
79	119
80	120
84	121
88	122
101	123

```
25 rows in set (0.00 sec)

MariaDB [perbankan]>
```

- Tabel transaksi dengan script select * from transaksi

```

|      31 |      58 |      114 | kredit | 2019-10-02 | 1
50000 |      32 |      63 |      115 | debit  | 2019-10-03 | 1
00000 |      33 |      65 |      116 | kredit | 2019-10-04 | 1
30000 |      34 |      74 |      117 | kredit | 2019-10-05 | 2
00000 |      35 |      78 |      118 | debit  | 2019-10-05 | 1
60000 |      36 |      79 |      119 | debit  | 2019-10-05 | 4
50000 |      37 |      80 |      120 | debit  | 2019-10-06 | 1
00000 |      38 |      84 |      121 | kredit | 2019-10-07 | 1
50000 |      39 |      88 |      122 | kredit | 2019-10-08 | 1
70000 |      40 |      65 |      116 | kredit | 2019-10-08 | 1
30000 |      41 |      79 |      119 | debit  | 2019-10-10 | 5
00000 |      42 |      63 |      115 | debit  | 2019-10-11 | 1
45000 |      43 |      80 |      120 | debit  | 2019-10-12 | 2
00000 |      44 |      74 |      117 | kredit | 2019-10-12 | 1
50000 |      45 |     101 |      123 | debit  | 2019-10-13 | 5
00000 |      46 |      78 |      118 | kredit | 2019-10-13 | 2
45000 |      47 |      88 |      122 | kredit | 2019-10-14 | 3
50000 |      48 |     101 |      123 | debit  | 2019-10-17 | 1
00000 |      49 |      84 |      121 | kredit | 2019-10-17 | 1
80000 |      50 |      79 |      119 | kredit | 2019-10-20 | 4
00000 |

+-----+-----+-----+-----+
50 rows in set (0.00 sec)

MariaDB [perbankan]>

```