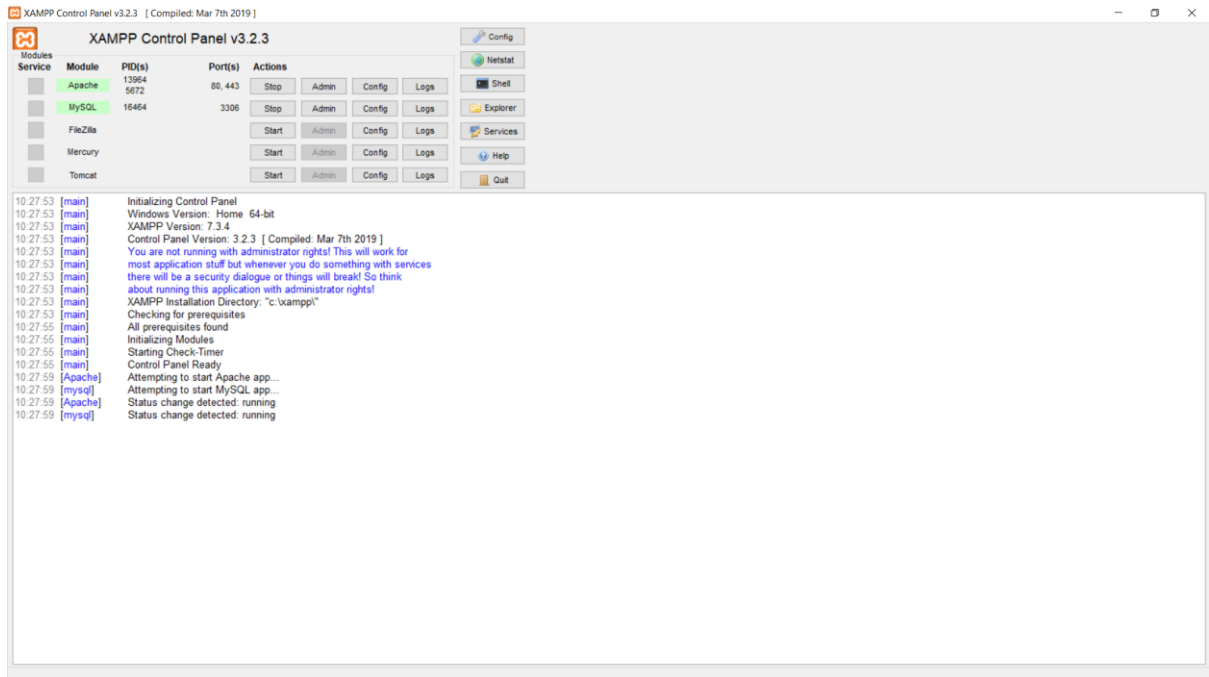


Nama : Rayhan Nurfalah Lukman  
NIM : L200180100  
Kelas : D

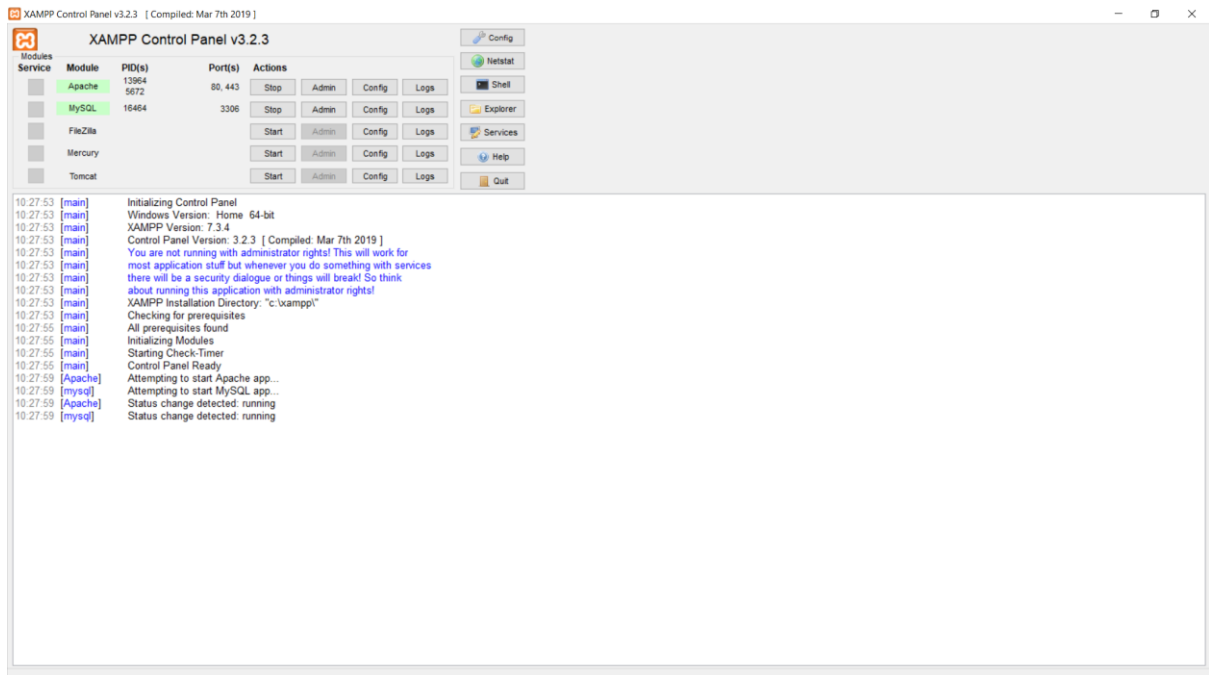
## Modul 6

### Latihan

#### 1. Jalankan XAMPP Control Panel



#### 2. Jalankan server Apache dan MySQL



### 3. Buka CMD dan login root ke MySQL

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Mayhan Nurfalah L>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 5
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)]>
```

### 4. Use database 'perbankan'

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Mayhan Nurfalah L>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 5
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]>
```

## 5. Tampilkan nama bank dan alamat bank

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Mayhan Nurfalih L>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 5
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]> SELECT nama_cabang, alamat_cabang FROM cabang_bank ORDER BY nama_cabang;
+-----+-----+
| nama_cabang | alamat_cabang |
+-----+-----+
| Bank Rut Unit Boyolali | Jl. Ahmad Yani 45 |
| Bank Rut Unit Klaten | Jl. Suparman 23 |
| Bank Rut Unit Magelang | Jl. P. Tendean 63 |
| Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| Bank Rut Unit Wonogiri | Jl. Untung Surapati 12 |
| Bank Rut Unit Yogyakarta | Jl. Anggrek 21 |
+-----+-----+
6 rows in set (0.00 sec)

MariaDB [perbankan]>
```

## 6. Tampilkan no\_rekening, pin, dan jumlah saldo

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
Microsoft Windows [Version 10.0.18362.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Mayhan Nurfalih L>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 5
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]> SELECT nama_cabang, alamat_cabang FROM cabang_bank ORDER BY nama_cabang;
+-----+-----+
| nama_cabang | alamat_cabang |
+-----+-----+
| Bank Rut Unit Boyolali | Jl. Ahmad Yani 45 |
| Bank Rut Unit Klaten | Jl. Suparman 23 |
| Bank Rut Unit Magelang | Jl. P. Tendean 63 |
| Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| Bank Rut Unit Wonogiri | Jl. Untung Surapati 12 |
| Bank Rut Unit Yogyakarta | Jl. Anggrek 21 |
+-----+-----+
6 rows in set (0.00 sec)

MariaDB [perbankan]> SELECT no_rekening, pin, saldo FROM rekening ORDER BY saldo DESC;
+-----+-----+-----+
| no_rekening | pin | saldo |
+-----+-----+-----+
| 108 | 0 | 5000000 |
| 106 | 6666 | 3000000 |
| 105 | 5555 | 2000000 |
| 107 | 7777 | 1000000 |
| 104 | 4444 | 900000 |
| 103 | 3333 | 750000 |
| 110 | 1234 | 550000 |
| 101 | 1111 | 500000 |
| 102 | 2222 | 350000 |
| 112 | 123 | 300000 |
| 113 | 8888 | 250000 |
| 111 | 4321 | 150000 |
| 109 | 9999 | 0 |
+-----+-----+-----+
13 rows in set (0.00 sec)

MariaDB [perbankan]>
```

## Tugas

### 1. Mengurutkan nama\_nasabah

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

10 rows in set (0.00 sec)

MariaDB [perbankan]> SELECT * FROM nasabah ORDER BY nama_nasabah;
+----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+----+-----+-----+
| 5 | Budi Eko Prayogo | Jl. Kantil 30 |
| 10 | Budi Purtono | Jl. Merak 22 |
| 9 | Caska Iokananta | Jl. Tidar 86 |
| 7 | Indri Hapsari | Jl. Sutoyo 5 |
| 4 | Kartika Padmasari | Jl. Manggis 15 |
| 2 | Maryati | Jl. MT. Haryono 31 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |
| 3 | Suparman | Jl. Hasanudin 81 |
| 1 | Sutopo | Jl. Jendral Sudirman 12 |
+----+-----+-----+
10 rows in set (0.01 sec)

MariaDB [perbankan]> _
```

### 2. Menampilkan hanya transaksi yang berjenis 'kredit'

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

13 rows in set (0.01 sec)

MariaDB [perbankan]> SELECT no_transaksi, jenis_transaksi, jumlah FROM transaksi WHERE jenis_transaksi='kredit';
+-----+-----+-----+
| no_transaksi | jenis_transaksi | jumlah |
+-----+-----+-----+
| 3 | kredit | 20000 |
| 5 | kredit | 30000 |
| 6 | kredit | 200000 |
| 7 | kredit | 150000 |
| 9 | kredit | 50000 |
| 13 | kredit | 200000 |
| 15 | kredit | 100000 |
| 16 | kredit | 20000 |
| 20 | kredit | 50000 |
| 21 | kredit | 100000 |
| 22 | kredit | 100000 |
| 27 | kredit | 100000 |
| 28 | kredit | 200000 |
+-----+-----+-----+
13 rows in set (0.00 sec)

MariaDB [perbankan]> _
```

3. Tampilkan jenis transaksi dan jumlah transaksi yang melakukan transaksi pada tanggal 21 November 2009 dan diurutkan berdasarkan jumlah transaksi

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

1 row in set (0.00 sec)

MariaDB [perbankan]> SELECT tanggal, jumlah FROM transaksi WHERE tanggal='2009-11-21';

+-----+-----+
| tanggal | jumlah |
+-----+-----+
| 2009-11-21 | 40000 |
+-----+-----+

1 row in set (0.00 sec)

MariaDB [perbankan]>
```

4. Tampilkan nama nasabah, jenis transaksi, dan jumlah transaksi dimana jumlah transaksi = Rp 20.000

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

+-----+-----+-----+
| nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+
| Sutopo       | kredit          | 20000 |
| Maryati      | kredit          | 20000 |
| Superman     | kredit          | 20000 |
| Kartika Padmasari | kredit        | 20000 |
| Budi Eko Prayogo | kredit        | 20000 |
| Satria Eka Jaya | kredit        | 20000 |
| Indri Hapsari | kredit        | 20000 |
| Sari Murti   | kredit        | 20000 |
| Canka Lokananta | kredit        | 20000 |
| Budi Murtomo | kredit        | 20000 |
| Sutopo       | debit          | 20000 |
| Maryati      | debit          | 20000 |
| Superman     | debit          | 20000 |
| Kartika Padmasari | debit        | 20000 |
| Budi Eko Prayogo | debit        | 20000 |
| Satria Eka Jaya | debit        | 20000 |
| Indri Hapsari | debit        | 20000 |
| Sari Murti   | debit        | 20000 |
| Canka Lokananta | debit        | 20000 |
| Budi Murtomo | debit        | 20000 |
| Sutopo       | kredit          | 20000 |
| Maryati      | kredit          | 20000 |
| Superman     | kredit          | 20000 |
| Kartika Padmasari | kredit        | 20000 |
| Budi Eko Prayogo | kredit        | 20000 |
| Satria Eka Jaya | kredit        | 20000 |
| Indri Hapsari | kredit        | 20000 |
| Sari Murti   | kredit        | 20000 |
| Canka Lokananta | kredit        | 20000 |
| Budi Murtomo | kredit        | 20000 |
| Sutopo       | debit          | 20000 |
| Maryati      | debit          | 20000 |
| Superman     | debit          | 20000 |
| Kartika Padmasari | debit        | 20000 |
| Budi Eko Prayogo | debit        | 20000 |
| Satria Eka Jaya | debit        | 20000 |
| Indri Hapsari | debit        | 20000 |
| Sari Murti   | debit        | 20000 |
| Canka Lokananta | debit        | 20000 |
| Budi Murtomo | debit        | 20000 |
```

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

Indri Hapsari | debit | 20000
Sari Murti | debit | 20000
Canka Lokamanta | debit | 20000
Budi Murtomo | debit | 20000
Sutopo | kredit | 20000
Maryati | kredit | 20000
Suparman | kredit | 20000
Kartika Padmasari | kredit | 20000
Budi Eko Prayogo | kredit | 20000
Satria Eka Jaya | kredit | 20000
Indri Hapsari | kredit | 20000
Sari Murti | kredit | 20000
Canka Lokamanta | kredit | 20000
Budi Murtomo | kredit | 20000
Sutopo | debit | 20000
Maryati | debit | 20000
Suparman | debit | 20000
Kartika Padmasari | debit | 20000
Budi Eko Prayogo | debit | 20000
Satria Eka Jaya | debit | 20000
Indri Hapsari | debit | 20000
Sari Murti | debit | 20000
Canka Lokamanta | debit | 20000
Budi Murtomo | debit | 20000
Sutopo | debit | 20000
Maryati | debit | 20000
Suparman | debit | 20000
Kartika Padmasari | debit | 20000
Budi Eko Prayogo | debit | 20000
Satria Eka Jaya | debit | 20000
Indri Hapsari | debit | 20000
Sari Murti | debit | 20000
Canka Lokamanta | debit | 20000
Budi Murtomo | debit | 20000
-----
88 rows in set (0.01 sec)

MariaDB [perbankan]:
```

5. Tampilkan nama dan alamat\_nasabah yang berawal huruf 'Su'

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

MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE 'Su%';

nama_nasabah | alamat_nasabah
-----
Sutopo | Jl. Jendral Sudirman 12
Suparman | Jl. Hasanudin 81
-----
2 rows in set (0.01 sec)

MariaDB [perbankan]:
```

6. Tampilkan no\_rekening dan saldo pada kode\_cabang yang memiliki saldo 5000000!

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
MariaDB [perbankan]> SELECT no_rekening, saldo FROM rekening WHERE kode_cabang = 'BRUB' AND saldo = '5000000';
+-----+-----+
| no_rekening | saldo |
+-----+-----+
| 108 | 5000000 |
+-----+-----+
1 row in set (0.00 sec)

MariaDB [perbankan]>
```

7. Tampilkan no\_rekening, kode\_cabang, dan saldo dimana kode\_cabang 'BRUB' atau saldo = 0 dan saldo 500000!

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
1 row in set (0.00 sec)

MariaDB [perbankan]> SELECT no_rekening, kode_cabang, saldo FROM rekening WHERE kode_cabang = 'BRUB' OR saldo = '0' AND saldo='500000';
+-----+-----+-----+
| no_rekening | kode_cabang | saldo |
+-----+-----+-----+
| 108 | BRUB | 5000000 |
| 109 | BRUB | 0 |
+-----+-----+-----+
2 rows in set (0.00 sec)

MariaDB [perbankan]>
```

8. Tampilkan no\_transaksi, jenis\_transaksi, dengan jenis transaksi hanya 'debit' dan transaksi terjadi pada 2009-11-22!

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

MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY no_transaksi LIMIT 16 OFFSET 15;
+-----+-----+-----+-----+-----+-----+
| no_transaksi | no_rekeningFK | id_nasabahFK | jenis_transaksi | tanggal       | jumlah |
+-----+-----+-----+-----+-----+-----+
| 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    | 100000 |
| 22          | 105           | 3             | kredit          | 2009-11-28    | 100000 |
| 23          | 102           | 5             | debit          | 2009-11-30    | 20000  |
| 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  |
+-----+-----+-----+-----+-----+-----+
15 rows in set (0.00 sec)

MariaDB [perbankan]> _
```

9. Tampilkan nama\_nasabah 'Maryati' didalam table rekening apabila ada kode\_cabang yang NOT NULL

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

13 rows in set (0.00 sec)

MariaDB [perbankan]> SELECT*FROM nasabah WHERE nama_nasabah LIKE "Maryati";
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 2          | Maryati      | Jl. Mt. Haryono 31 |
+-----+-----+-----+
1 row in set (0.00 sec)

MariaDB [perbankan]> SELECT*FROM rekening WHERE kode_cabang IS NOT NULL;
+-----+-----+-----+-----+
| no_rekening | kode_cabang | pin      | saldo |
+-----+-----+-----+-----+
| 101         | BRUS        | 1111    | 500000 |
| 102         | BRUS        | 2222    | 350000 |
| 103         | BRUS        | 3333    | 750000 |
| 104         | BRUP        | 4444    | 900000 |
| 105         | BRUP        | 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 |
+-----+-----+-----+-----+
13 rows in set (0.00 sec)

MariaDB [perbankan]> _
```



10. Tampilkan pada baris pertama setelah melewati baris pertama, yg ditampilkan no rekening , jenis transaksi tanggal dan saldo, dimana transaksi terjadi pada 2019 desember dan no rekeningnya NULL

```
MariaDB [perbankan]> select no_rekeningFK,jenis_transaksi,tanggal,jumlah from transaksi where tanggal LIKE "2009-12%" AND no_rekeningFK IS NULL ORDER BY no_transaksi LIMIT 1 OFFSET 1;
```

no_rekeningFK	jenis_transaksi	tanggal	jumlah
NULL	debit	2009-12-30 00:00:00	3000000

1 row in set (0.00 sec)

11. Tampilkan nama\_nasabah yang berawalan huruf 'S'!

```
MariaDB [perbankan]> SELECT nama_nasabah FROM nasabah WHERE nama_nasabah LIKE 'S%';
```

nama_nasabah
Sutopo
Suparman
Satria Eka Jaya
Sari Murti

4 rows in set (0.00 sec)

```
MariaDB [perbankan]>
```

12. Urutkan table transaksi dari tanggal terbaru!

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY no_transaksi DESC;
ERROR 1054 (42S22): Unknown column 'no_transaksi' in 'order clause'
MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY tanggal DESC;
```

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

30 rows in set (0.00 sec)

```
MariaDB [perbankan]>
```

13. Urutkan no\_rekeningFK pada table transaksi!

```
C:\WINDOWS\system32\cmd.exe - mysql -u root
38 rows in set (0.00 sec)

MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY no_rekeningFK;
+-----+-----+-----+-----+-----+
| no_transaksi | no_rekeningFK | id_nasabahFK | jenis_transaksi | tanggal | jumlah |
+-----+-----+-----+-----+-----+
| 15 | 101 | 4 | kredit | 2009-11-22 | 20000 |
| 3 | 101 | 4 | kredit | 2009-11-12 | 20000 |
| 26 | 101 | 4 | debit | 2009-12-4 | 50000 |
| 23 | 102 | 5 | debit | 2009-11-30 | 20000 |
| 18 | 102 | 5 | debit | 2009-11-25 | 50000 |
| 8 | 102 | 5 | debit | 2009-11-16 | 20000 |
| 28 | 102 | 5 | kredit | 2009-12-5 | 200000 |
| 2 | 103 | 2 | debit | 2009-11-10 | 40000 |
| 27 | 103 | 2 | kredit | 2009-12-5 | 100000 |
| 25 | 103 | 2 | debit | 2009-12-2 | 40000 |
| 11 | 103 | 2 | debit | 2009-11-19 | 100000 |
| 17 | 103 | 2 | debit | 2009-11-22 | 50000 |
| 21 | 103 | 2 | kredit | 2009-11-28 | 100000 |
| 15 | 104 | 1 | kredit | 2009-11-22 | 100000 |
| 6 | 104 | 1 | kredit | 2009-11-15 | 200000 |
| 12 | 104 | 1 | debit | 2009-11-19 | 50000 |
| 24 | 104 | 1 | debit | 2009-12-1 | 50000 |
| 22 | 105 | 3 | kredit | 2009-11-28 | 100000 |
| 9 | 105 | 3 | kredit | 2009-11-18 | 50000 |
| 1 | 105 | 3 | debit | 2009-11-10 | 50000 |
| 14 | 105 | 3 | debit | 2009-11-21 | 40000 |
| 20 | 106 | 3 | kredit | 2009-11-27 | 50000 |
| 4 | 106 | 3 | debit | 2009-11-13 | 50000 |
| 13 | 107 | 4 | kredit | 2009-11-20 | 200000 |
| 10 | 107 | 4 | debit | 2009-11-19 | 100000 |
| 5 | 107 | 5 | kredit | 2009-11-13 | 30000 |
| 19 | 108 | 10 | debit | 2009-11-26 | 100000 |
| 29 | 109 | 7 | debit | 2009-12-5 | 100000 |
| 7 | 110 | 9 | kredit | 2009-11-15 | 150000 |
| 30 | 110 | 9 | debit | 2009-12-6 | 20000 |
+-----+-----+-----+-----+-----+
38 rows in set (0.00 sec)

MariaDB [perbankan]>
```

14. Tampilkan no\_rekening, kode\_cabang, saldo yang mana kode\_cabang = 'BRUS'!

```
MariaDB [perbankan]> SELECT no_rekening,kode_cabang,saldo FROM rekening WHERE kode_cabang LIKE 'BRUS';
+-----+-----+-----+
| no_rekening | kode_cabang | saldo |
+-----+-----+-----+
| 101 | BRUS | 500000 |
| 102 | BRUS | 350000 |
| 103 | BRUS | 750000 |
| 106 | BRUS | 3000000 |
| 107 | BRUS | 1000000 |
+-----+-----+-----+
5 rows in set (0.00 sec)

MariaDB [perbankan]>
```

15. Cari nama\_nasabah yang berawalan huruf 'B'!

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE 'B%'
-> ;
+-----+-----+
| nama_nasabah | alamat_nasabah |
+-----+-----+
| Budi Eko Prayogo | Jl. Kantil 30 |
| Budi Murtono | Jl. Merak 22 |
+-----+-----+
2 rows in set (0.00 sec)

MariaDB [perbankan]>
```