DATABASE SYSTEMS

PRACTICUM 6

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Activity

```
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 Aceh       | Aceh                 |
| Bank Rut Unit Boyolali   | Jl. Ahmad Yani 45    |
| Bank Rut Unit Calang     | Calang               |
| Bank Rut Unit Gorontalo  | Gorontalo            |
| Bank Rut Unit Idi Rayeuk | Idi Rayeuk           |
| Bank Rut Unit Jakarta    | Jakarta              |
| Bank Rut Unit Klaten     | Jl. Suparman 23      |
| Bank Rut Unit Lamongan   | Lamongan             |
| Bank Rut Unit NTT        | Nusa Tenggara Timur  |
| Bank Rut Unit Pekalongan | Pekalongan           |
| Bank Rut Unit Rembang    | Rembang              |
| Bank Rut Unit Surakarta  | Jl. Slamet Riyadi 18 |
| Bank Rut Unit Takengon   | Takengon             |
| Bank Rut Unit Wonogiri   | Jalan A. Yani No. 23 |
| Bank Rut Unit Yogyakarta | Jl. Anggrek 21       |
+--------------------------+----------------------+
15 rows in set (0.001 sec)
```

Show name and addres of bank sorted by name of the bank

```
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 |
|         116 | 5395 |  900000 |
|         104 | 4444 |  900000 |
|         118 | 5332 |  890000 |
|         103 | 3333 |  750000 |
|         121 | 1233 |  750000 |
|         122 | 1457 |  670000 |
|         120 | 3243 |  600000 |
|         117 | 5394 |  560000 |
|         110 | 1234 |  550000 |
|         114 | 2345 |  500000 |
|         101 | 1111 |  500000 |
|         102 | 2222 |  350000 |
|         123 | 1534 |  320000 |
|         112 | 123  |  300000 |
|         113 | 8888 |  255000 |
|         119 | 5123 |  230000 |
|         111 | 4321 |  150000 |
|         115 | 5345 |  100000 |
|         109 | 9999 |       0 |
+-------------+------+---------+
23 rows in set (0.001 sec)
```

Show account number, pin, amount from account sorted by amount from biggest to lowest

Assignment

1. Show name and address of customer sorted by name of the customer

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah ORDER BY nama_nasabah;
+-------------------+-------------------------+
| nama_nasabah      | alamat_nasabah          |
+-------------------+-------------------------+
| Budi Eko Prayogo  | Jl. Kantil 30           |
| Budi Murtono      | Jl. Merak 22            |
| Canka Lokananta   | Jl. Tidar 86            |
| Chaterina         | Wonogiri                |
| Damar             | Solo                    |
| Dila              | Wonogiri                |
| Hanifah           | Solo                    |
| Kartika Padmasari | Jl. Manggis 15          |
| Maryati           | Jl. MT. Haryono 31      |
| Pasha             | Wonogiri                |
| Retno             | Wonogiri                |
| Rohana            | Solo                    |
| Saidah            | Solo                    |
| Sari Murti        | Jl. Pangandaran 11      |
| Satria Eka Jaya   | Jl. Slamet Riyadi 45    |
| Siti              | Wonogiri                |
| Srinatun          | Wonogiri                |
| Suparman          | Jl. Hasanudin 81        |
| Sutopo            | Jl. Jendral Sudirman 12 |
+-------------------+-------------------------+
19 rows in set (0.001 sec)
```

2. Show transaction type and transaction amount where type of the transaction is credit

```
MariaDB [perbankan]> SELECT jenis_transaksi, jumlah FROM transaksi WHERE jenis_transaksi = "kredit";
+-----------------+---------+
| jenis_transaksi | jumlah  |
+-----------------+---------+
| kredit          |   20000 |
| kredit          |   30000 |
| kredit          |  200000 |
| kredit          |  150000 |
| kredit          |   50000 |
| kredit          |  200000 |
| kredit          |  100000 |
| kredit          |   20000 |
| kredit          |   50000 |
| kredit          |  200000 |
| kredit          |  100000 |
| kredit          |  100000 |
| kredit          |  200000 |
| kredit          | 7890000 |
| kredit          | 4650000 |
| kredit          |  430000 |
| kredit          |  100000 |
| kredit          |   90000 |
| kredit          |  100000 |
| kredit          |  200000 |
| kredit          |  300000 |
| kredit          |  400000 |
| kredit          |  500000 |
+-----------------+---------+
23 rows in set (0.001 sec)
```

3. Show transaction type and transaction amount which did the transaction on 21 november 2009 and sorted by transaction amount

```
MariaDB [perbankan]> SELECT jenis_transaksi, jumlah FROM transaksi WHERE tanggal = "2009-11-21" ORDER BY jumlah;
+-----------------+--------+
| jenis_transaksi | jumlah |
+-----------------+--------+
| debit           |  40000 |
+-----------------+--------+
1 row in set (0.001 sec)
```

4. Show customer name,transaction type, and transaction amount where account of transaction is Rp 20.000

```
MariaDB [perbankan]> SELECT nasabah.nama_nasabah, transaksi.jenis_transaksi, transaksi.jumlah FROM nasabah, transaksi
    -> WHERE nasabah.id_nasabah = transaksi.id_nasabahFK AND transaksi.jumlah = 20000;
+-------------------+-----------------+--------+
| nama_nasabah      | jenis_transaksi | jumlah |
+-------------------+-----------------+--------+
| Kartika Padmasari | kredit          |  20000 |
| Budi Eko Prayogo  | debit           |  20000 |
| Kartika Padmasari | kredit          |  20000 |
| Budi Eko Prayogo  | debit           |  20000 |
| Canka Lokananta   | debit           |  20000 |
+-------------------+-----------------+--------+
5 rows in set (0.001 sec)
```

5. Show customer name and address where customer name begins with "Su"

```
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 (0.000 sec)
```

Question

Display the customer's name and customer's address where the client's ID is 1 and the customers' name is Sutopo.

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE id_nasabah = 1 AND nama_nasabah = "Sutopo";
+--------------+------------------------+
| nama_nasabah | alamat_nasabah         |
+--------------+------------------------+
| Sutopo       | Jl. Jendral Sudirman 12 |
+--------------+------------------------+
1 row in set (0.001 sec)
```

Show no transaction and no account where no accounts are 104, customer ID 1, and transaction type credit.

```
MariaDB [perbankan]> SELECT no_transaksi, no_rekeningFK FROM transaksi WHERE no_rekeningFK = 104 AND id_nasabahFK = 1
    -> AND jenis_transaksi = "kredit";
+--------------+---------------+
| no_transaksi | no_rekeningFK |
+--------------+---------------+
|            6 |           104 |
|           15 |           104 |
+--------------+---------------+
2 rows in set (0.001 sec)
```

Show no transaction, Account No, type of transaction showing 10 lines after passing 5 lines and sorted by transaction No.

```
MariaDB [perbankan]> SELECT no_transaksi, no_rekeningFK, jenis_transaksi FROM transaksi
    -> ORDER BY no_transaksi LIMIT 10 OFFSET 5;
+--------------+---------------+-----------------+
| no_transaksi | no_rekeningFK | jenis_transaksi |
+--------------+---------------+-----------------+
|            6 |           104 | kredit          |
|            7 |           110 | kredit          |
|            8 |           102 | debit           |
|            9 |           105 | kredit          |
|           10 |           107 | debit           |
|           11 |           103 | debit           |
|           12 |           104 | debit           |
|           13 |           107 | kredit          |
|           14 |           105 | debit           |
|           15 |           104 | kredit          |
+--------------+---------------+-----------------+
10 rows in set (0.000 sec)
```

Show no account and pin where the branch code is brub and the balance cannot be empty.

```
MariaDB [perbankan]> SELECT no_rekening, pin FROM rekening WHERE saldo IS NOT NULL AND kode_cabangFK = "BRUK";
+-------------+------+
| no_rekening | pin  |
+-------------+------+
|         111 | 4321 |
|         112 | 123  |
|         117 | 5394 |
+-------------+------+
3 rows in set (0.000 sec)
```

Show no transactions and no accounts where the credit transaction type and amount cannot be null. Sort by no transaction and display 10 lines after passing 3 lines.

```
MariaDB [perbankan]> SELECT no_transaksi, no_rekeningFK FROM transaksi WHERE jenis_transaksi = "kredit"
    -> AND jumlah IS NOT NULL ORDER BY no_transaksi LIMIT 10 OFFSET 3;
+--------------+---------------+
| no_transaksi | no_rekeningFK |
+--------------+---------------+
|            7 |           110 |
|            9 |           105 |
|           13 |           107 |
|           15 |           104 |
|           16 |           101 |
|           20 |           106 |
|           21 |           103 |
|           22 |           105 |
|           27 |           103 |
|           28 |           102 |
+--------------+---------------+
10 rows in set (0.001 sec)
```

Show search nama_nasabah with "Su" string

```
MariaDB [perbankan]> SELECT nama_nasabah FROM nasabah WHERE nama_nasabah LIKE '%Su%';
+--------------+
| nama_nasabah |
+--------------+
| Sutopo       |
| Suparman     |
+--------------+
2 rows in set (0.001 sec)
```

Show nama_nasabah coming from the same cabang_bank

```
MariaDB [perbankan]> SELECT nasabah.nama_nasabah FROM nasabah, nasabah_has_rekening, rekening WHERE
    -> nasabah.id_nasabah = nasabah_has_rekening.id_nasabahFK AND
    -> nasabah_has_rekening.no_rekeningFK = rekening.no_rekening AND
    -> rekening.kode_cabangFK = "BRUS";
+-------------------+
| nama_nasabah      |
+-------------------+
| Maryati           |
| Suparman          |
| Kartika Padmasari |
| Kartika Padmasari |
| Budi Eko Prayogo  |
| Budi Eko Prayogo  |
+-------------------+
6 rows in set (0.001 sec)
```

Show nama_nasabah that come from the same cabang_bank, and have a credit or debit jenis_transaksi

```
MariaDB [perbankan]> SELECT nasabah.nama_nasabah, transaksi.jenis_transaksi FROM nasabah, nasabah_has_rekening, rekening, transaksi WHERE
    -> nasabah.id_nasabah = nasabah_has_rekening.id_nasabahFK AND
    -> nasabah_has_rekening.no_rekeningFK = rekening.no_rekening AND
    -> rekening.kode_cabangFK = "BRUM" AND
    -> rekening.no_rekening = transaksi.no_rekeningFK AND
    -> (transaksi.jenis_transaksi = "kredit" OR transaksi.jenis_transaksi = "debit");
+--------------+----------------+
| nama_nasabah | jenis_transaksi |
+--------------+----------------+
| Suparman     | debit          |
| Sutopo       | kredit         |
| Suparman     | kredit         |
| Sutopo       | debit          |
| Suparman     | debit          |
| Sutopo       | kredit         |
| Suparman     | kredit         |
| Sutopo       | debit          |
| Srinatun     | debit          |
| Srinatun     | kredit         |
+--------------+----------------+
10 rows in set (0.001 sec)
```

Show customer transactions originating from the same cabang_bank

```
MariaDB [perbankan]> SELECT * FROM transaksi, rekening WHERE
    -> transaksi.no_rekeningFK = rekening.no_rekening AND
    -> rekening.kode_cabangFK = "BRUM";
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal             | jumlah | no_rekening | kode_cabangFK | pin  | saldo   |
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
|            1 |            3 |          105 | debit           | 2009-11-10 00:00:00 |  50000 |         105 | BRUM         | 5555 | 2000000 |
|            6 |            1 |          104 | kredit          | 2009-11-15 00:00:00 | 200000 |         104 | BRUM         | 4444 |  900000 |
|            9 |            3 |          105 | kredit          | 2009-11-18 00:00:00 |  50000 |         105 | BRUM         | 5555 | 2000000 |
|           12 |            1 |          104 | debit           | 2009-11-19 00:00:00 |  50000 |         104 | BRUM         | 4444 |  900000 |
|           14 |            3 |          105 | debit           | 2009-11-21 00:00:00 |  40000 |         105 | BRUM         | 5555 | 2000000 |
|           15 |            1 |          104 | kredit          | 2009-11-22 00:00:00 | 100000 |         104 | BRUM         | 4444 |  900000 |
|           22 |            3 |          105 | kredit          | 2009-11-28 00:00:00 | 100000 |         105 | BRUM         | 5555 | 2000000 |
|           24 |            1 |          104 | debit           | 2009-12-01 00:00:00 |  50000 |         104 | BRUM         | 4444 |  900000 |
|           41 |           16 |          119 | debit           | 2020-03-29 00:00:00 | 100000 |         119 | BRUM         | 5123 |  230000 |
|           42 |           16 |          119 | kredit          | 2020-03-30 00:00:00 | 100000 |         119 | BRUM         | 5123 |  230000 |
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
10 rows in set (0.001 sec)
```

Show customer transactions originating from cabang_bank Boyolali and Surakarta

```
MariaDB [perbankan]> SELECT * FROM transaksi, rekening WHERE
    -> transaksi.no_rekeningFK = rekening.no_rekening AND
    -> (rekening.kode_cabangFK = "BRUS" OR rekening.kode_cabangFK = "BRUB");
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal             | jumlah | no_rekening | kode_cabangFK | pin  | saldo   |
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
|            2 |            2 |          103 | debit           | 2009-11-10 00:00:00 |  40000 |         103 | BRUS         | 3333 |  750000 |
|            3 |            4 |          101 | kredit          | 2009-11-12 00:00:00 |  20000 |         101 | BRUS         | 1111 |  500000 |
|            4 |            3 |          106 | debit           | 2009-11-13 00:00:00 |  50000 |         106 | BRUS         | 6666 | 3000000 |
|            5 |            5 |          107 | kredit          | 2009-11-13 00:00:00 |  30000 |         107 | BRUS         | 7777 | 1000000 |
|            8 |            5 |          102 | debit           | 2009-11-16 00:00:00 |  20000 |         102 | BRUS         | 2222 |  350000 |
|           10 |            4 |          107 | debit           | 2009-11-19 00:00:00 | 100000 |         107 | BRUS         | 7777 | 1000000 |
|           11 |            2 |          103 | debit           | 2009-11-19 00:00:00 | 100000 |         103 | BRUS         | 3333 |  750000 |
|           13 |            4 |          107 | kredit          | 2009-11-20 00:00:00 | 200000 |         107 | BRUS         | 7777 | 1000000 |
|           16 |            4 |          101 | kredit          | 2009-11-22 00:00:00 |  20000 |         101 | BRUS         | 1111 |  500000 |
|           17 |            2 |          103 | debit           | 2009-11-22 00:00:00 |  50000 |         103 | BRUS         | 3333 |  750000 |
|           18 |            5 |          102 | debit           | 2009-11-25 00:00:00 |  50000 |         102 | BRUS         | 2222 |  350000 |
|           19 |           10 |          108 | debit           | 2009-11-26 00:00:00 | 100000 |         108 | BRUB         |    0 | 5000000 |
|           20 |            3 |          106 | kredit          | 2009-11-27 00:00:00 |  50000 |         106 | BRUS         | 6666 | 3000000 |
|           21 |            2 |          103 | kredit          | 2009-11-28 00:00:00 | 200000 |         103 | BRUS         | 3333 |  750000 |
|           23 |            5 |          102 | debit           | 2009-11-30 00:00:00 |  20000 |         102 | BRUS         | 2222 |  350000 |
|           25 |            2 |          103 | debit           | 2009-12-02 00:00:00 |  40000 |         103 | BRUS         | 3333 |  750000 |
|           26 |            4 |          101 | debit           | 2009-12-04 00:00:00 |  50000 |         101 | BRUS         | 1111 |  500000 |
|           27 |            2 |          103 | kredit          | 2009-12-05 00:00:00 | 100000 |         103 | BRUS         | 3333 |  750000 |
|           28 |            5 |          102 | kredit          | 2009-12-05 00:00:00 | 200000 |         102 | BRUS         | 2222 |  350000 |
|           29 |            7 |          109 | debit           | 2009-12-05 00:00:00 | 100000 |         109 | BRUB         | 9999 |       0 |
|           47 |           19 |          122 | debit           | 2020-04-01 00:00:00 | 400000 |         122 | BRUB         | 1457 |  670000 |
|           48 |           19 |          122 | kredit          | 2020-04-02 00:00:00 | 400000 |         122 | BRUB         | 1457 |  670000 |
|           49 |           19 |          122 | debit           | 2020-04-02 00:00:00 | 500000 |         122 | BRUB         | 1457 |  670000 |
+--------------+--------------+--------------+-----------------+---------------------+--------+-------------+--------------+------+---------+
23 rows in set (0.001 sec)
```