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Modul 8 Praktikum Sistem Basis Data

1. **Praktikum**

   a)

   ```
   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.

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

   B)

   ```
   MariaDB [perbankan]> select transaksi.tanggal, transaksi.jenis_transaksi, transa
   ksi.jumlah from nasabah, transaksi where nasabah.id_nasabah=transaksi.id_nasabah
   FK and nasabah.nama_nasabah in ('Sutopo','Canka Lokananta') order by transaksi.t
   anggal;
   +---------------------+-----------------+--------+
   | tanggal             | jenis_transaksi | jumlah |
   +---------------------+-----------------+--------+
   | 2009-11-15 00:00:00 | kredit          | 200000 |
   | 2009-11-15 00:00:00 | kredit          | 150000 |
   | 2009-11-19 00:00:00 | debit           |  50000 |
   | 2009-11-22 00:00:00 | kredit          | 100000 |
   | 2009-12-01 00:00:00 | debit           |  50000 |
   | 2009-12-06 00:00:00 | debit           |  20000 |
   +---------------------+-----------------+--------+
   6 rows in set (0.889 sec)
   ```

   C)

   ```
   MariaDB [perbankan]> select transaksi.tanggal, nasabah.nama_nasabah, transaksi.j
   enis_transaksi, transaksi.jumlah from nasabah, transaksi where transaksi.tanggal
    between '2009-11-15' and '2009-11-20' and nasabah.id_nasabah=transaksi.id_nasab
   ahFK order by transaksi.tanggal, nasabah.nama_nasabah;
   +---------------------+------------------+-----------------+--------+
   | tanggal             | nama_nasabah     | jenis_transaksi | jumlah |
   +---------------------+------------------+-----------------+--------+
   | 2009-11-15 00:00:00 | Canka Lokananta  | kredit          | 150000 |
   | 2009-11-15 00:00:00 | Sutopo           | kredit          | 200000 |
   | 2009-11-16 00:00:00 | Budi Eko Prayogo | debit           |  20000 |
   | 2009-11-18 00:00:00 | Suparman         | kredit          |  50000 |
   | 2009-11-19 00:00:00 | Kartika Padmasari| debit           | 100000 |
   | 2009-11-19 00:00:00 | Maryati          | debit           | 100000 |
   | 2009-11-19 00:00:00 | Sutopo           | debit           |  50000 |
   | 2009-11-20 00:00:00 | Kartika Padmasari| kredit          | 200000 |
   +---------------------+------------------+-----------------+--------+
   8 rows in set (0.060 sec)
   ```

   D)

   ```
   MariaDB [perbankan]> select transaksi.jenis_transaksi as 'Jenis Transaksi', sum(
   jumlah) as 'Jumlah (Rp)' from transaksi group by transaksi.jenis_transaksi order
    by transaksi.jenis_transaksi;
   +-----------------+-------------+
   | Jenis Transaksi | Jumlah (Rp) |
   +-----------------+-------------+
   | debit           |      930000 |
   | kredit          |     1420000 |
   +-----------------+-------------+
   2 rows in set (0.073 sec)
   ```

   E)

   ```
   MariaDB [perbankan]> select jenis_transaksi as "Jenis Transaksi", max(jumlah) as
    "Transaksi Terbesar", min(jumlah) as "Transaksi Terkecil" from transaksi group
   by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
   +-----------------+--------------------+--------------------+
   | Jenis Transaksi | Transaksi Terbesar | Transaksi Terkecil |
   +-----------------+--------------------+--------------------+
   | debit           |             100000 |              20000 |
   | kredit          |             200000 |              20000 |
   +-----------------+--------------------+--------------------+
   2 rows in set (0.001 sec)
   ```

   F)

```
MariaDB [perbankan]> select jenis_transaksi as "Jenis Transaksi", sum(jumlah) as
"Jumlah (Rp)", count(jumlah) as "Jumlah Transaksi" from transaksi where tanggal
 between '2009-11-1' and '2009-11-30' group by transaksi.jenis_transaksi order b
y transaksi.jenis_transaksi;
+------------------+-------------+------------------+
| Jenis Transaksi  | Jumlah (Rp) | Jumlah Transaksi |
+------------------+-------------+------------------+
| debit            |      670000 |               12 |
| kredit           |     1120000 |               11 |
+------------------+-------------+------------------+
2 rows in set (0.001 sec)
```

2. Tugas

A)

```
MariaDB [perbankan]> select jenis_transaksi, sum(jumlah) as "Jumlah (Rp)" from t
ransaksi, nasabah where nasabah.nama_nasabah in ('Kartika Padmasari') group by t
ransaksi.jenis_transaksi;
+-----------------+-------------+
| jenis_transaksi | Jumlah (Rp) |
+-----------------+-------------+
| debit           |      930000 |
| kredit          |     1420000 |
+-----------------+-------------+
2 rows in set (0.002 sec)
```

B)

```
MariaDB [perbankan]> select sum(saldo) as "Jumlah Total Saldo" from rekening, na
sabah where rekening.no_rekening=103;
+--------------------+
| Jumlah Total Saldo |
+--------------------+
|            6750000 |
+--------------------+
1 row in set (0.065 sec)
```

C)

```
MariaDB [perbankan]> select count(jumlah) from transaksi, cabang_bank;
+---------------+
| count(jumlah) |
+---------------+
|           150 |
+---------------+
1 row in set (0.058 sec)
```

D)

```
MariaDB [perbankan]> select nasabah.nama_nasabah, saldo from nasabah, rekening w
here saldo between 500000 and 2000000;
+------------------+--------+
| nama_nasabah     | saldo  |
+------------------+--------+
| Sutopo           | 500000 |
| Maryati          | 500000 |
| Suparman         | 500000 |
| Kartika Padmasari| 500000 |
| Budi Eko Prayogo | 500000 |
| Satria Eka Jaya  | 500000 |
| Sari Murti       | 500000 |
| Canka Lokananta  | 500000 |
| Budi Murtono     | 500000 |
| Sutopo           | 750000 |
| Maryati          | 750000 |
| Suparman         | 750000 |
| Kartika Padmasari| 750000 |
| Budi Eko Prayogo | 750000 |
| Satria Eka Jaya  | 750000 |
| Sari Murti       | 750000 |
| Canka Lokananta  | 750000 |
| Budi Murtono     | 750000 |
| Sutopo           | 900000 |
| Maryati          | 900000 |
| Suparman         | 900000 |
| Kartika Padmasari| 900000 |
| Budi Eko Prayogo | 900000 |
| Satria Eka Jaya  | 900000 |
| Sari Murti       | 900000 |
```

```
┊ Canka Lokananta  ┊   900000 ┊
┊ Budi Murtono     ┊   900000 ┊
┊ Sutopo           ┊  2000000 ┊
┊ Maryati          ┊  2000000 ┊
┊ Suparman         ┊  2000000 ┊
┊ Kartika Padmasari ┊ 2000000 ┊
┊ Budi Eko Prayogo ┊  2000000 ┊
┊ Satria Eka Jaya  ┊  2000000 ┊
┊ Sari Murti       ┊  2000000 ┊
┊ Canka Lokananta  ┊  2000000 ┊
┊ Budi Murtono     ┊  2000000 ┊
┊ Sutopo           ┊  1000000 ┊
┊ Maryati          ┊  1000000 ┊
┊ Suparman         ┊  1000000 ┊
┊ Kartika Padmasari ┊ 1000000 ┊
┊ Budi Eko Prayogo ┊  1000000 ┊
┊ Satria Eka Jaya  ┊  1000000 ┊
┊ Sari Murti       ┊  1000000 ┊
┊ Canka Lokananta  ┊  1000000 ┊
┊ Budi Murtono     ┊  1000000 ┊
┊ Sutopo           ┊   550000 ┊
┊ Maryati          ┊   550000 ┊
┊ Suparman         ┊   550000 ┊
┊ Kartika Padmasari ┊  550000 ┊
┊ Budi Eko Prayogo ┊   550000 ┊
┊ Satria Eka Jaya  ┊   550000 ┊
┊ Sari Murti       ┊   550000 ┊
┊ Canka Lokananta  ┊   550000 ┊
┊ Budi Murtono     ┊   550000 ┊
+──────────────────+──────────+
```

E)

```
MariaDB [perbankan]> select nasabah.nama_nasabah, transaksi.tanggal, transaksi.j
umlah from nasabah, transaksi where jumlah>100000 order by transaksi.jumlah desc
;
+──────────────────+─────────────────────+────────+
┊ nama_nasabah     ┊ tanggal             ┊ jumlah ┊
+──────────────────+─────────────────────+────────+
┊ Suparman         ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Sari Murti       ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Sutopo           ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Budi Eko Prayogo ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Budi Murtono     ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Kartika Padmasari ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Canka Lokananta  ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Suparman         ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Sari Murti       ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Maryati          ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Satria Eka Jaya  ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Kartika Padmasari ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Canka Lokananta  ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Suparman         ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Sari Murti       ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Maryati          ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Satria Eka Jaya  ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Budi Eko Prayogo ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Budi Murtono     ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Suparman         ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Sari Murti       ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Maryati          ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Satria Eka Jaya  ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Sutopo           ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Budi Eko Prayogo ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Budi Murtono     ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Sutopo           ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Kartika Padmasari ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Canka Lokananta  ┊ 2009-11-15 00:00:00 ┊ 200000 ┊
┊ Maryati          ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Satria Eka Jaya  ┊ 2009-11-20 00:00:00 ┊ 200000 ┊
┊ Sutopo           ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Budi Eko Prayogo ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Budi Murtono     ┊ 2009-11-28 00:00:00 ┊ 200000 ┊
┊ Kartika Padmasari ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Canka Lokananta  ┊ 2009-12-05 00:00:00 ┊ 200000 ┊
┊ Maryati          ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Satria Eka Jaya  ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Sutopo           ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Budi Eko Prayogo ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Budi Murtono     ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Kartika Padmasari ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Canka Lokananta  ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Suparman         ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
┊ Sari Murti       ┊ 2009-11-15 00:00:00 ┊ 150000 ┊
+──────────────────+─────────────────────+────────+
45 rows in set (0.064 sec)
```

F)

i. Tampilkan nomor transaksi dan jenis transaksi pada tanggal '2009-11-19'

```
MariaDB [perbankan]> select transaksi.no_transaksi, transaksi.jenis_transaksi fr
om transaksi where tanggal = '2009-11-19';
+--------------+------------------+
| no_transaksi | jenis_transaksi  |
+--------------+------------------+
|           10 | debit            |
|           11 | debit            |
|           12 | debit            |
+--------------+------------------+
3 rows in set (0.001 sec)
```

ii. Tampilkan nama nasabah dan jenis transaksi dimana jenis transaksi adalah debit

```
MariaDB [perbankan]> select distinct nasabah.nama_nasabah, transaksi.jenis_trans
aksi from nasabah,transaksi where jenis_transaksi='debit';
+------------------+------------------+
| nama_nasabah     | jenis_transaksi  |
+------------------+------------------+
| Sutopo           | debit            |
| Maryati          | debit            |
| Suparman         | debit            |
| Kartika Padmasari| debit            |
| Budi Eko Prayogo | debit            |
| Satria Eka Jaya  | debit            |
| Sari Murti       | debit            |
| Canka Lokananta  | debit            |
| Budi Murtono     | debit            |
+------------------+------------------+
9 rows in set (0.001 sec)
```

iii. Tampilkan nama nasabah dan jenis transaksi dimana nama nasabah adalah Suparman

```
MariaDB [perbankan]> select nasabah.nama_nasabah, transaksi.jenis_transaksi from
 nasabah,transaksi where nasabah.nama_nasabah in ('Suparman');
+--------------+------------------+
| nama_nasabah | jenis_transaksi  |
+--------------+------------------+
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | debit            |
| Suparman     | kredit           |
| Suparman     | kredit           |
| Suparman     | debit            |
| Suparman     | debit            |
+--------------+------------------+
30 rows in set (0.001 sec)
```

iv. Tampilkan jumlah saldo yang dimiliki Suparman

```
MariaDB [perbankan]> select sum(saldo) from rekening where no_rekening=105;
+------------+
| sum(saldo) |
+------------+
|    2000000 |
+------------+
1 row in set (0.001 sec)
```

v. Tampilkan total jumlah transaksi yang dilakukan oleh nasabah dengan id nasabah adalah 3

```
MariaDB [perbankan]> select sum(jumlah) from transaksi where id_nasabahFK=3;
+-------------+
| sum(jumlah) |
+-------------+
|      340000 |
+-------------+
1 row in set (0.001 sec)
```

G) Tidak ada soal yang diberikan