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Modul 10

tugas

1. Menampilkan jumlah transaksi terbesar

```
MariaDB [perbankan]> select max(transaksi.jumlah) from (select jumlah from transaksi) transaksi;
+-----+
| max(transaksi.jumlah) |
+-----+
|          13200000 |
+-----+
1 row in set (0.04 sec)
```

2. Menampilkan jumlah transaksi terkecil.

```
MariaDB [perbankan]> select min(transaksi.jumlah) from (select jumlah from transaksi) transaksi;
+-----+
| min(transaksi.jumlah) |
+-----+
|           20000 |
+-----+
1 row in set (0.00 sec)
```

3. Menampilkan nasabah dengan jumlah transaksi terbesar

```
MariaDB [perbankan]> select nasabah.id_nasabah,nasabah.nama_nasabah,transaksi.jumlah from transaksi JOIN nasabah on nasabah.id_nasabah=transaksi.id_nasabahFK where transaksi.jumlah IN (select max(jumlah) from transaksi);
+-----+-----+-----+
| id_nasabah | nama_nasabah | jumlah |
+-----+-----+-----+
|          16 | Ayu          | 13200000 |
+-----+-----+-----+
1 row in set (0.00 sec)

MariaDB [perbankan]>
```

4. Menampilkan cabang bank yang tidak memiliki nomor rekening

```
MariaDB [perbankan]> select * from cabang_bank where cabang_bank.kode_cabang NOT IN (select rekening.kode_cabangFK from rekening);
+-----+-----+-----+
| kode_cabang | nama_cabang      | alamat_cabang |
+-----+-----+-----+
| BRUD        | Bank Rut Unit Demak | Jl. Wali 44   |
| BRUSU       | Bank Rut Unit Subang | Jl. Cicaheum 10 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

5. Menampilkan nomor rekening dengan saldo diatas rata-rata

```
MariaDB [perbankan]> select no_rekening, saldo from rekening where saldo > (select AVG(saldo) from rekening);
+-----+-----+
| no_rekening | saldo |
+-----+-----+
|          103 | 750000 |
|          104 | 900000 |
|          105 | 2000000 |
|          106 | 3000000 |
|          107 | 1000000 |
|          108 | 5000000 |
+-----+-----+
6 rows in set (0.00 sec)
```

6. Soal mandiri

a. Saldo terkecil

```
MariaDB [perbankan]> select min(rekening.saldo) from (select saldo from rekening) rekening;
+-----+
| min(rekening.saldo) |
+-----+
| 0 |
+-----+
1 row in set (0.00 sec)
```

b. Saldo terbesar

```
MariaDB [perbankan]> select max(rekening.saldo) from (select saldo from rekening) rekening;
+-----+
| max(rekening.saldo) |
+-----+
| 5000000 |
+-----+
1 row in set (0.00 sec)
```

c. Rekening cabang brus

```
MariaDB [perbankan]> select no_rekening from rekening where kode_cabangFK IN (select kode_cabangFK from rekening where k
ode_cabangFK='BRUS');
+-----+
| no_rekening |
+-----+
| 101 |
| 102 |
| 103 |
| 106 |
| 107 |
+-----+
5 rows in set (0.00 sec)
```

d. Transaksi debit

```
MariaDB [perbankan]> select nasabah.nama_nasabah from nasabah where nasabah.id_nasabah IN (select transaksi.id_nasabahFK
from transaksi where jenis_transaksi='debit');
+-----+
| nama_nasabah |
+-----+
| Sutopo |
| Maryati |
| Suparman |
| Kartika Padmasari |
| Budi Eko Prayogo |
| Canka Lokananta |
| Budi Murtono |
| Amin |
| Amir |
| Apip |
| Ajeng |
| Ayu |
| Aisyah |
| Amar |
+-----+
14 rows in set (0.00 sec)
```

e. Transaksi tanggal 10 nov

```
MariaDB [perbankan]> select * from nasabah where nasabah.id_nasabah IN (select transaksi.id_nasabahFK from transaksi whe
re tanggal='2009-11-10');
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 2 | Maryati | Jl. MT. Haryono 31 |
| 3 | Suparman | Jl. Hasanudin 81 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

7. Soal dosen

- a. Ambil salah satu mata kuliah. Tampilkan daftar mahasiswa yang tidak mengambil mata kuliah tersebut.

```
MariaDB [perkuliahan]> SELECT *FROM mahasiswa
-> WHERE mahasiswa.NIM
-> NOT IN (SELECT mahasiswa_has_mata_kuliah.NIMFK from
mahasiswa_has_mata_kuliah WHERE kode_matkulFK='MA11');
+-----+
| NIM | nama_mahasiswa | alamat_mahasiswa |
+-----+
| 13 | Dimas          | Karanganyar      |
| 14 | Rozaq          | Sukoharjo        |
| 16 | Vian           | Wonogiri         |
| 18 | Alifa          | Sukoharjo        |
| 19 | Atifa          | Karanganyar      |
+-----+
5 rows in set (0.041 sec)
```

- b. Tampilkan daftar mahasiswa yang mengambil semua mata kuliah yang diampu oleh salah satu dosen

```
MariaDB [perkuliahan]> SELECT * FROM mahasiswa
-> WHERE mahasiswa.NIM
-> IN (SELECT mahasiswa_has_dosen.NIMFK from mahasiswa_has_dosen
WHERE id_dosenFK=1111);
+-----+
| NIM | nama_mahasiswa | alamat_mahasiswa |
+-----+
| 10 | Indah          | Sukoharjo        |
| 11 | Syaifunnisa    | Klaten           |
| 12 | Kintari        | Boyolali         |
| 15 | Sinta          | Klaten           |
| 17 | Andre          | Wonogiri         |
| 20 | Denis          | Yogyakarta       |
+-----+
6 rows in set (0.001 sec)
```

- c. Lakukan update data menggunakan sub query

```
MariaDB [perkuliahan]> SELECT* FROM mahasiswa_has_mata_kuliah;
```

kode_matkulFK	NIMFK
MA11	10
MA11	11
MA11	12
MA11	15
MA11	17
MA11	20
MA13	11
MA14	15
MA15	15
MA16	13
MA17	16
MA18	15
MA19	17
MA20	20

```
14 rows in set (0.000 sec)
```

```
MariaDB [perkuliahan]> UPDATE mahasiswa_has_mata_kuliah set kode_matkulFK  
='MA12' WHERE kode_matkulFK=(SELECT kode_matkul from mata_kuliah WHERE k  
ode_matkul='MA11');
```

```
Query OK, 6 rows affected (0.085 sec)
```

```
Rows matched: 6 Changed: 6 Warnings: 0
```

```
MariaDB [perkuliahan]> SELECT* FROM mahasiswa_has_mata_kuliah;
```

kode_matkulFK	NIMFK
MA12	10
MA12	11
MA12	12
MA12	15
MA12	17
MA12	20
MA13	11
MA14	15
MA15	15
MA16	13
MA17	16
MA18	15
MA19	17
MA20	20

```
14 rows in set (0.000 sec)
```

- d. Lakukan update pada data menggunakan sub query

```
MariaDB [perkuliahan]> SELECT* FROM mata_kuliah;
+-----+-----+-----+
| kode_matkul | id_dosenFK | nama_matkul |
+-----+-----+-----+
| MA11        | 1111       | PBO         |
| MA12        | 5555       | SISDIG      |
| MA13        | 3333       | SO          |
| MA14        | 4444       | PANCASILA   |
| MA15        | 5555       | ALGOSTRUK   |
| MA16        | 6666       | SBD         |
| MA17        | 7777       | RPL         |
| MA18        | 8888       | Jaringan Komputer |
| MA19        | 1111       | Kalkulus    |
| MA20        | 2222       | Metode Numerik |
+-----+-----+-----+
10 rows in set (0.001 sec)

MariaDB [perkuliahan]> UPDATE mata_kuliah set id_dosenFK =5555 WHERE
id_dosenFK=(SELECT id_dosen from dosen where id_dosen=1111);
Query OK, 2 rows affected (0.073 sec)
Rows matched: 2  Changed: 2  Warnings: 0

MariaDB [perkuliahan]> SELECT* FROM mata_kuliah;
+-----+-----+-----+
| kode_matkul | id_dosenFK | nama_matkul |
+-----+-----+-----+
| MA11        | 5555       | PBO         |
| MA12        | 5555       | SISDIG      |
| MA13        | 3333       | SO          |
| MA14        | 4444       | PANCASILA   |
| MA15        | 5555       | ALGOSTRUK   |
| MA16        | 6666       | SBD         |
| MA17        | 7777       | RPL         |
| MA18        | 8888       | Jaringan Komputer |
| MA19        | 5555       | Kalkulus    |
| MA20        | 2222       | Metode Numerik |
+-----+-----+-----+
10 rows in set (0.000 sec)
```

- e. Mata kuliah A tidak memenuhi standar kebijakan prodi akan pengadaan/pengelenggaraan kelas karena <10 mahasiswa disebabkan kurang minatnya mahasiswa akan mata kuliah A. Sehingga mahasiswa yang mengambil mata kuliah A diharuskan revisi ke mata kuliah lain

(atau yang sudah terselenggara).

```
MariaDB [perkuliahan]> select * from mahasiswa_has_mata_kuliah;
```

kode_matkulFK	NIMFK
MA12	10
MA12	11
MA12	12
MA12	15
MA12	17
MA13	11
MA14	15
MA15	15
MA16	13
MA17	16
MA18	15
MA19	17
MA20	20

```
13 rows in set (0.062 sec)
```

```
MariaDB [perkuliahan]> INSERT INTO mahasiswa_has_mata_kuliah VALUE ('MA12',20);
```

```
Query OK, 1 row affected (0.067 sec)
```

```
MariaDB [perkuliahan]> DELETE from mahasiswa_has_mata_kuliah  
-> WHERE kode_matkulFK=(SELECT kode_matkulFK from mahasiswa_has_mata_kuliah  
where kode_matkulFK='MA20' AND NIMFK=20);
```

```
Query OK, 1 row affected (0.340 sec)
```

```
MariaDB [perkuliahan]> SELECT * from mahasiswa_has_mata_kuliah;
```

kode_matkulFK	NIMFK
MA12	10
MA12	11
MA12	12
MA12	15
MA12	17
MA12	20
MA13	11
MA14	15
MA15	15
MA16	13
MA17	16
MA18	15
MA19	17

```
13 rows in set (0.000 sec)
```

Modul 10

Latihan

1. Menampilkan detail data nasabah yang pernah melakukan transaksi kredit

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah IN (SELECT DISTINCT transaksi.id_nasabahFK from transaksi WHERE jenis_transaksi = 'kredit');
+-----+-----+-----+
| 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 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
| 10 | Budi Martono | Jl. Merak 22 |
| 11 | Danindya | Jl. Aki Balak 22 |
| 12 | Puput | Jl. AMD 10 |
| 14 | Putri | Jl. Diponegoro 19 |
| 17 | Pandan Wangi | Jl. Imam Bonjol 20 |
+-----+-----+-----+
11 rows in set (0.252 sec)
```

```
MariaDB [perbankan]>
```

2. Menampilkan detail yang tidak pernah melakukan segala jenis transaksi.

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah NOT IN (SELECT DISTINCT transaksi.id_nasabahFK from transaksi);
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 18 | Andara | Jl. Pertama 26 |
| 19 | Rangga | Jl. Kedua 80 |
| 20 | Cinta | Jl. Ketiga 24 |
| 23 | Ilham | Pati |
+-----+-----+-----+
6 rows in set (0.086 sec)
```

3. Menampilkan cabang bank yang memiliki nilai rata-rata saldo paling besar untuk seluruh rekening dalam cabang.

```
MariaDB [perbankan]> SELECT cabang_bank.kode_cabang, cabang_bank.nama_cabang, AVG(rekening.saldo) as rata2 from cabang_bank, rekening WHERE cabang_bank.kode_cabang having rata2 >= ALL (SELECT AVG (saldo) FROM rekening GROUP BY kode_cabangFK);
Empty set, 16 warnings (0.139 sec)
```

4. Menampilkan data transaksi yang melibatkan jumlah uang lebih besar dari rata-rata nilai keseluruhan transaksi yang pernah dilakukan.

```
MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah > (SELECT AVG(jumlah) FROM transaksi);
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
6	1	104	kredit	2009-11-15 00:00:00	200000
7	9	110	kredit	2009-11-15 00:00:00	150000
10	4	107	debit	2009-11-19 00:00:00	100000
11	2	103	debit	2009-11-19 00:00:00	100000
13	4	107	kredit	2009-11-20 00:00:00	200000
15	1	104	kredit	2009-11-22 00:00:00	100000
19	10	108	debit	2009-11-26 00:00:00	100000
21	2	103	kredit	2009-11-28 00:00:00	200000
22	3	105	kredit	2009-11-28 00:00:00	100000
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
34	15	116	debit	2009-12-08 00:00:00	100000
35	11	123	debit	2009-12-08 00:00:00	200000
37	16	118	debit	2009-12-11 00:00:00	100000
40	16	118	debit	2009-12-13 00:00:00	150000
41	10	119	debit	2009-12-14 00:00:00	100000
42	12	114	kredit	2009-12-14 00:00:00	125000
43	12	121	kredit	2009-12-14 00:00:00	125000
44	16	118	debit	2009-12-15 00:00:00	200000
46	14	120	kredit	2009-12-16 00:00:00	175000
48	10	113	kredit	2009-12-18 00:00:00	130000
49	11	122	debit	2009-12-19 00:00:00	200000
50	12	114	kredit	2009-12-20 00:00:00	150000

```
24 rows in set (0.039 sec)
```

```
MariaDB [perbankan]>
```