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Kelas A

TUGAS MODUL 10 SUB QUERY

1. Menampilkan jumlah transaksi terbesar.

```
MariaDB [perbankan]> SELECT jumlah FROM transaksi  
-> WHERE jumlah IN (SELECT MAX(jumlah) FROM transaksi);  
+-----+  
| jumlah |  
+-----+  
| 750000 |  
+-----+  
1 row in set (0.001 sec)
```

2. Menampilkan jumlah transaksi terkecil.

```
MariaDB [perbankan]> SELECT DISTINCT jumlah FROM transaksi  
-> WHERE jumlah IN (SELECT MIN(jumlah) FROM transaksi);  
+-----+  
| jumlah |  
+-----+  
| 20000  |  
+-----+  
1 row in set (0.050 sec)
```

3. Menampilkan nasabah dengan jumlah transaksi terbesar

```
MariaDB [perbankan]> SELECT * FROM nasabah
-> WHERE nasabah.id_nasabah
-> IN (SELECT DISTINCT transaksi.id_nasabahFK FROM transaksi
-> GROUP BY transaksi.id_nasabahFK HAVING MAX(transaksi.jumlah));
```

| 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 1 |
| 5 | budi eko prayogo | Jl. kanti 30 |
| 6 | satria eka jaya | Jl. slamet riyadi 45 |
| 7 | Indri Hapsari | Jl. Sutoyo 5 |
| 8 | sari murti | Jl. pangandaran 11 |
| 9 | canka lokananta | Jl. tidar 86 |
| 10 | budi murtono | Jl. merak 22 |
| 11 | santi indah | Jl. Permai 15 |
| 12 | Safiqah | Jl. Kemasan jaya |
| 13 | Abdurrozaq | Jl. Camden 71 |
| 14 | Khoirus Fauzi | Jl. Kenanga 14A |
| 15 | Andra | Jl. Mawar 41B |
| 16 | Mukhlis | Jl.Sananwetan 12B |
| 17 | Zahira | Jl. Sakti 12D |
| 18 | Alifah | Jl. Joho 45 |
| 19 | Nalita | Jl. Cakra tengah 8 |
| 20 | Desta | Jl. Sidan 46 |

20 rows in set (0.001 sec)

4. Menampilkan cabang bank yang tidak memiliki nomor rekening

```
MariaDB [perbankan]> SELECT * FROM cabang_bank
-> WHERE cabang_bank.kode_cabang
-> NOT IN (SELECT DISTINCT rekening.kode_cabangFK FROM rekening);
```

| kode_cabang | nama_cabang | alamat_cabang |
|-------------|---------------------|---------------|
| BRUG | Bank Rut Unit Garut | Jl. Bromo 28 |

1 row in set (0.001 sec)

5. Menampilkan nomor rekening dengan saldo diatas rata-rata

```
MariaDB [perbankan]> SELECT no_rekening FROM rekening
-> WHERE rekening.saldo>=(SELECT AVG(saldo) FROM rekening);
+-----+
| no_rekening |
+-----+
|          101 |
|          102 |
|          103 |
|          104 |
|          106 |
|          108 |
|          110 |
|          112 |
|          114 |
|          115 |
|          121 |
+-----+
11 rows in set (0.044 sec)
```

6. 5 soal beserta jawaban dengan menggunakan sub query

```
MariaDB [perbankan]> SELECT * FROM nasabah
-> WHERE nasabah.id_nasabah
-> IN (SELECT transaksi.id_nasabahFK FROM transaksi WHERE jumlah=150000);
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
|          9 | canka lokananta | Jl. tidar 86 |
|         16 | Mukhlis | Jl.Sananwetan 12B |
+-----+-----+-----+
2 rows in set (0.001 sec)
```

- a. Menampilkan nasabah dengan jumlah sebesar 150000
b. Menampilkan tabel transaksi dengan jumlah transaksi terkecil diantara tanggal 20-11-2009 s/d 29-12-2009

```
MariaDB [perbankan]> SELECT * FROM transaksi
-> WHERE transaksi.tanggal BETWEEN '2009-11-20' AND '2009-11-29'
-> AND jumlah=(SELECT MIN(jumlah) from transaksi);
+-----+-----+-----+-----+-----+-----+
| no_transaksi | no_rekeningFK | id_nasabahFK | jenis_transaksi | tanggal | jumlah |
+-----+-----+-----+-----+-----+-----+
|          16 |          111 |          4 | kredit | 2009-11-22 | 20000 |
+-----+-----+-----+-----+-----+-----+
1 row in set (0.001 sec)
```

- c. Menampilkan tabel nasabah yang memiliki nomor rekening 108

```
MariaDB [perbankan]> SELECT * FROM nasabah
-> WHERE nasabah.id_nasabah
-> IN (SELECT nasabah_has_rekening.id_nasabahFK FROM nasabah_has_rekening
WHERE no_rekeningFK=108);
```

| id_nasabah | nama_nasabah | alamat_nasabah |
|------------|--------------|----------------|
| 10 | budi murtono | Jl. merak 22 |

1 row in set (0.045 sec)

- d. Menampilkan tabel cabang bank yang memiliki saldo kurang dari 250000

```
MariaDB [perbankan]> SELECT * FROM cabang_bank
-> WHERE cabang_bank.kode_cabang
-> IN (SELECT rekening.kode_cabangFK FROM rekening WHERE saldo<=250000);
```

| kode_cabang | nama_cabang | alamat_cabang |
|-------------|-------------------------|----------------------|
| BRUB | Bank Rut Unit Boyolali | Jl. ahmad yani 45 |
| BRUBO | Bank Rut Unit Bogor | Jl. Sejahtera 09 |
| BRUK | Bank Rut Unit Klaten | Jl. suparman 23 |
| BRUM | Bank Rut Unit Magelang | Jl. Tendean 87 |
| BRUMA | Bank Rut Unit Madiun | Jl. Imam Bonjol 25 |
| BRUP | Bank Rut Unit Palembang | Jl. Mawar 35 |
| BRUS | Bank Rut Unit Surakarta | Jl. slamet riyadi 18 |
| BRUSR | Bank Rut Unit Surabaya | Jl. Sejuk 14 |
| BRUW | Bank Rut Unit Wonogiri | jalan A. yani no. 23 |

9 rows in set (0.001 sec)

- e. Menampilkan tabel transaksi dengan jenis transaksi debit dimana transaksinya diantara tanggal 1-10 desember 2009

```
MariaDB [perbankan]> SELECT * FROM transaksi
-> WHERE transaksi.jenis_transaksi='debit' AND tanggal BETWEEN '2009-12-01' AND '2009-12-10'
-> AND jumlah>(SELECT AVG(jumlah) from transaksi);
```

| no_transaksi | no_rekeningFK | id_nasabahFK | jenis_transaksi | tanggal | jumlah |
|--------------|---------------|--------------|-----------------|------------|--------|
| 31 | 120 | 11 | debit | 2009-12-08 | 250000 |

1 row in set (0.001 sec)

7. 5 soal tambahan

- 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. Satu dosen dapat mengampu lebih dari satu mata kuliah dan satu mahasiswa dapat mengambil lebih dari satu mata kuliah. 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. Karena salah satu mata kuliah A dihilangkan, seluruh mahasiswa yang mengambil mata kuliah tersebut dipindahkan untuk mengambil mata kuliah lain B. 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. Dosen A mata kuliah A sedang Thesis diluar negeri sehingga mata kuliah A digantikan dengan dosen mata kuliah B. 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)
```