

PRAKTIKUM SISTEM BASIS DATA

MODUL 10

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5)

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah IN (SELECT DISTINCT transaksi.id_nasabah FROM transaksi
-> WHERE jenis_transaksi = 'kredit');
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 1 | Sutopo | Jl. Jendral Sudirman 12 |
| 2 | Maryati | Jl. MT. Haryono |
| 3 | Suparman | Jl. Hasanudin 81 |
| 4 | Kartika Padmasari | Jl. Manggis 15 |
| 5 | Budi Eko Prayogo | Jl. Kantil 30 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
+-----+-----+-----+
6 rows in set (0.002 sec)
```

6)

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah NOT IN(SELECT DISTINCT transaksi.id_nasabah FROM transaksi);
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 20 | Rina | Surakarta |
+-----+-----+-----+
rows in set (0.002 sec)
```

7)

```
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 = rekening.kode_cabang GROUP BY cabang_bank.kode_cabang HAVING
-> rata2 >= ALL(SELECT AVG(saldo) FROM rekening GROUP BY kode_cabang);
+-----+-----+-----+
| kode_cabang | nama_cabang | rata2 |
+-----+-----+-----+
| BRUB | Bank Rut Unit Boyolali | 2500000.0000 |
+-----+-----+-----+
```

8)

```
MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah >(SELECT AVG(jumlah) FROM transaksi);
+-----+-----+-----+-----+-----+-----+
| no_transaksi | id_nasabah | jenis_transaksi | tanggal | jumlah | no_rekening |
+-----+-----+-----+-----+-----+-----+
| 6 | 1 | kredit | 2009-11-15 00:00:00 | 200000 | 104 |
| 7 | 9 | kredit | 2009-11-15 00:00:00 | 150000 | 110 |
| 10 | 4 | debit | 2009-11-19 00:00:00 | 100000 | 107 |
| 11 | 2 | debit | 2009-11-19 00:00:00 | 100000 | 103 |
| 13 | 4 | kredit | 2009-11-20 00:00:00 | 200000 | 107 |
| 15 | 1 | kredit | 2009-11-22 00:00:00 | 100000 | 104 |
| 19 | 10 | debit | 2009-11-26 00:00:00 | 100000 | 108 |
| 21 | 2 | kredit | 2009-11-28 00:00:00 | 200000 | 103 |
| 22 | 3 | kredit | 2009-11-28 00:00:00 | 100000 | 105 |
| 27 | 2 | kredit | 2009-12-05 00:00:00 | 100000 | 103 |
| 28 | 5 | kredit | 2009-12-05 00:00:00 | 200000 | 102 |
| 29 | 7 | debit | 2009-12-05 00:00:00 | 100000 | 109 |
+-----+-----+-----+-----+-----+-----+
12 rows in set (0.005 sec)
```

Tugas

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

no_transaksi	id_nasabah	jenis_transaksi	tanggal	jumlah	no_rekening
6	1	kredit	2009-11-15 00:00:00	200000	104
13	4	kredit	2009-11-20 00:00:00	200000	107
21	2	kredit	2009-11-28 00:00:00	200000	103
28	5	kredit	2009-12-05 00:00:00	200000	102

4 rows in set (0.002 sec)

1)

```
MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah <= ALL(SELECT jumlah FROM transaksi);
```

no_transaksi	id_nasabah	jenis_transaksi	tanggal	jumlah	no_rekening
3	4	kredit	2009-11-12 00:00:00	20000	101
8	5	debit	2009-11-16 00:00:00	20000	102
16	4	kredit	2009-11-22 00:00:00	20000	101
23	5	debit	2009-11-30 00:00:00	20000	102
30	9	debit	2009-12-06 00:00:00	20000	110

5 rows in set (0.002 sec)

2)

```
MariaDB [perbankan]> SELECT nasabah.id_nasabah,nasabah.nama_nasabah FROM nasabah,transaksi WHERE
-> nasabah.id_nasabah = transaksi.id_nasabah AND transaksi.jumlah >= ALL(SELECT jumlah FROM transaksi);
```

id_nasabah	nama_nasabah
1	Sutopo
4	Kartika Padmasari
2	Maryati
5	Budi Eko Prayogo

4 rows in set (0.002 sec)

3)

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

kode_cabang	nama_cabang	alamat_cabang
BRUW	Bank Rut Unit Wonogiri	Jl. Ahmad Yani 23

1 row in set (0.002 sec)

4)

```
MariaDB [perbankan]> SELECT no_rekening FROM rekening WHERE saldo >(SELECT AVG(saldo) FROM rekening);
```

no_rekening
105
106
108

5)

6) Data nasabah yang transaksi nya kurang dari atau sama dengan 100000

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah IN
-> (SELECT transaksi.id_nasabah FROM transaksi WHERE jumlah >=100000);
```

id_nasabah	nama_nasabah	alamat_nasabah
1	Sutopo	Jl. Jendral Sudirman 12
2	Maryati	Jl. MT. Haryono
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 Murtono	Jl. Merak 22

7 rows in set (0.002 sec)

7) Data nasabah yang jumlah transaksi nya lebih dari 200000

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah IN
-> (SELECT transaksi.id_nasabah FROM transaksi HAVING SUM(jumlah) >200000);
```

id_nasabah	nama_nasabah	alamat_nasabah
3	Suparman	Jl. Hasanudin 81

1 row in set (0.002 sec)

8) Data transaksi kredit terbesar

```
MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah >= ALL(SELECT jumlah FROM transaksi) AND jenis_transaksi = 'kredit';
```

no_transaksi	id_nasabah	jenis_transaksi	tanggal	jumlah	no_rekening
6	1	kredit	2009-11-15 00:00:00	200000	104
13	4	kredit	2009-11-20 00:00:00	200000	107
21	2	kredit	2009-11-28 00:00:00	200000	103
28	5	kredit	2009-12-05 00:00:00	200000	102

4 rows in set (0.002 sec)

9) Data transaksi kredit terkecil

```
MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah <= ALL(SELECT jumlah FROM transaksi) AND jenis_transaksi = 'kredit';
```

no_transaksi	id_nasabah	jenis_transaksi	tanggal	jumlah	no_rekening
3	4	kredit	2009-11-12 00:00:00	20000	101
16	4	kredit	2009-11-22 00:00:00	20000	101

2 rows in set (0.003 sec)

10) Menampilkan transaksi yang berada di atas rata-rata

```

MariaDB [perbankan]> SELECT * FROM transaksi WHERE jumlah > (SELECT AVG(jumlah) FROM transaksi);
+-----+-----+-----+-----+-----+-----+
| no_transaksi | id_nasabah | jenis_transaksi | tanggal           | jumlah | no_rekening |
+-----+-----+-----+-----+-----+-----+
| 6           | 1          | kredit          | 2009-11-15 00:00:00 | 200000 | 104         |
| 7           | 9          | kredit          | 2009-11-15 00:00:00 | 150000 | 110         |
| 10          | 4          | debit           | 2009-11-19 00:00:00 | 100000 | 107         |
| 11          | 2          | debit           | 2009-11-19 00:00:00 | 100000 | 103         |
| 13          | 4          | kredit          | 2009-11-20 00:00:00 | 200000 | 107         |
| 15          | 1          | kredit          | 2009-11-22 00:00:00 | 100000 | 104         |
| 19          | 10         | debit           | 2009-11-26 00:00:00 | 100000 | 108         |
| 21          | 2          | kredit          | 2009-11-28 00:00:00 | 200000 | 103         |
| 22          | 3          | kredit          | 2009-11-28 00:00:00 | 100000 | 105         |
| 27          | 2          | kredit          | 2009-12-05 00:00:00 | 100000 | 103         |
| 28          | 5          | kredit          | 2009-12-05 00:00:00 | 200000 | 102         |
| 29          | 7          | debit           | 2009-12-05 00:00:00 | 100000 | 109         |
+-----+-----+-----+-----+-----+-----+
12 rows in set (0.004 sec)

```

11) Mahasiswa yang tidak mengambil matkul Algoritma Struktur Data

```

MariaDB [kuliah]> SELECT nama FROM mahasiswa WHERE mahasiswa.NIM NOT IN
-> (SELECT DISTINCT mahasiswa_take_mata_kuliah.NIM FROM mahasiswa_take_mata_kuliah
-> WHERE kode_mk = 'ASD');
+-----+
| nama |
+-----+
| Candra |
| Dina |
| Doni |
+-----+
1 rows in set (0.044 sec)

```

12)


```
MariaDB [kuliah]> SELECT nama FROM mahasiswa NATURAL JOIN mahasiswa_take_mata_kuliah
-> WHERE kode_mk = SOME(SELECT kode_mk FROM dosen_keepup_mata_kuliah WHERE NIP = 3);
```

```
+-----+
| nama |
+-----+
| Agung
| Agung
| Agung
| Anna
| Beni
| Beni
| Candra
| Candra
| Candra
| Dina
| Dina
| Dina
| Doni
| Doni
| Fira
| Fira
| Fira
| Nadia
| Nadia
| Ridwan
| Yeni
| Yeni
+-----+
```

```
MariaDB [kuliah]> SELECT kode_mk FROM dosen_keepup_mata_kuliah WHERE NIP = 3;
```

```
+-----+
| kode_mk |
+-----+
| JRK
| SBD
| SI
+-----+
```

```
3 rows in set (0.001 sec)
```

Yang mengambil semua mata kuliah dari dosen dengan NIP 3 adalah Agung, Candra, Dina, dan Fira karena disebutkan 3 kali di situ sesuai jumlah mk yang diampu dosen dengan NIP 3

- 13)** Saya ingin menghapus mata kuliah ASD dan saya ingin memindahkan mahasiswa nya ke mata kuliah SBD

```
MariaDB [kuliah]> DELETE FROM mata_kuliah WHERE kode_mk = 'ASD';
Query OK, 1 row affected (0.099 sec)
```

```

MariaDB [kuliah]> UPDATE IGNORE mahasiswa_take_mata_kuliah SET kode_mk = 'SBD' WHERE
-> kode_mk IN (SELECT kode_mk FROM mahasiswa_take_mata_kuliah WHERE kode_mk = 'ASD');
Query OK, 7 rows affected (0.083 sec)
Rows matched: 7 Changed: 7 Warnings: 0

```

```

MariaDB [kuliah]> SELECT * FROM mahasiswa_take_mata_kuliah;

```

NIM	kode_mk
7	JRK
7	PWS
7	SBD
7	SI
9	JRK
9	SBD
9	SI
10	ASD
10	PWS
10	SBD
10	SI
12	ASD
12	JRK
12	SBD
12	SI
14	JRK
14	PWS
14	SBD
17	JRK
17	PWS
17	SI
19	ASD
19	SBD
19	SI
22	ASD
22	JRK
22	SBD
22	SI
25	PWS
25	SBD
25	SI
27	JRK
27	PWS
27	SBD
27	SI

Mahasiswa yang sudah mengambil SBD tidak diupdate supaya tidak terjadi duplikasi data

14) Kasusnya sama dengan no 13 misal SI akan kita ganti JRK

```

35 rows in set (0.002 sec)

```

```

MariaDB [kuliah]> UPDATE IGNORE mahasiswa_take_mata_kuliah SET kode_mk = 'JRK' WHERE
-> kode_mk IN (SELECT kode_mk FROM mahasiswa_take_mata_kuliah WHERE kode_mk = 'SI');
Query OK, 9 rows affected (0.148 sec)
Rows matched: 9 Changed: 9 Warnings: 0

```

```
MariaDB [kuliah]> SELECT * FROM mahasiswa_take_mata_kuliah;
```

NIM	kode_mk
7	JRK
7	PWS
7	SBD
7	SI
9	JRK
9	SBD
9	SI
10	ASD
10	PWS
10	SBD
10	SI
12	ASD
12	JRK
12	SBD
12	SI
14	JRK
14	PWS
14	SBD
17	JRK
17	PWS
17	SI
19	ASD
19	SBD
19	SI
22	ASD
22	JRK
22	SBD
22	SI
25	PWS
25	SBD
25	SI
27	JRK
27	PWS
27	SBD
27	SI

15) Misal PWS kita revisi jadi PWD (Pemrograman Web Dinamis)

```
MariaDB [kuliah]> UPDATE mahasiswa_take_mata_kuliah SET kode_mk = 'PWD' WHERE kode_mk = 'PWS';
Query OK, 6 rows affected (0.075 sec)
Rows matched: 6 Changed: 6 Warnings: 0
```

```
MariaDB [kuliah]> UPDATE mata_kuliah SET kode_mk = 'PWD',nama_mk = 'Pemrograman Web Dinamis' WHERE kode_mk = 'PWS';
Query OK, 1 row affected (0.087 sec)
Rows matched: 1 Changed: 1 Warnings: 0
```

```
MariaDB [kuliah]> select * from mata_kuliah;
```

kode_mk	nama_mk
JRK	Jaringan Komputer
PWD	Pemrograman Web Dinamis
SBD	Sistem Basis Data
SI	Sistem Informasi

rows in set (0.001 sec)

```
MariaDB [kuliah]> select * from mahasiswa_take_mata_kuliah;
```

NIM	kode_mk
7	JRK
7	PWD
7	SBD
7	SI
9	JRK
9	SBD
9	SI
10	ASD
10	JRK
10	PWD
10	SBD
12	ASD
12	JRK
12	SBD
12	SI
14	JRK
14	PWD
14	SBD
17	JRK
17	PWD
17	SI
19	ASD
19	JRK
19	SBD
22	ASD
22	JRK
22	SBD
22	SI
25	JRK
25	PWD
25	SBD
27	JRK
27	PWD
27	SBD
27	SI

35 rows in set (0.001 sec)

