

**DATABASE SYSTEM
PRACTICUM REPORT
MODULE 10
SubQuery**



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PRACTICE :

```
MariaDB [(none)]> use perbankan;
Database changed
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. Heryono 31
3	Suparman	Jl. Hasanudin 81
4	Kartika Padmasari	Jl. Manggis 15
5	Budi Eko Prayogo	Jl. Kantil 30
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
9	Canka Lokananta	Jl. Tidar 86

```
7 rows in set (0.023 sec)
```

5.

6.

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah NOT IN
-> (SELECT DISTINCT transaksi.id_nasabahFK FROM transaksi);
```

id_nasabah	nama_nasabah	alamat_nasabah
8	Sari Murti	Jl. Pangandaran 11
11	Supono	Jl.Ahmad Dahlan 56
12	Suryani	Jl.Siti Walidah 31
13	Endang Sri Suyamti	Jl.Soepomo 17
14	Suwardi	Jl. Mangga 20
15	Budiyati	Jl. Kenanga 30
16	Sundari	Jl.Rambutan 17
17	Diah Saptarini	Jl.Kenangan 5
18	Murfiah	Jl.Melati 11
19	Sukamto	Jl.Mawar 5
20	Ida Dwi Hastuti	Jl.Bangau 24
21	Jokow	Jl. Solo 1

```
12 rows in set (0.001 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_cabangFK
-> GROUP BY cabang_bank.kode_cabang
-> HAVING rata2 >= ALL (SELECT AVG(saldo) FROM rekening GROUP BY kode_cabangFK);
```

kode_cabang	nama_cabang	rata2
BRUB	Bank Rut Unit Boyolali	2500000.0000

```
1 row in set (0.014 sec)
```

```
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
32	6	108	kredit	2009-12-06 00:00:00	100000
33	4	103	kredit	2009-12-07 00:00:00	250000
34	5	104	kredit	2009-12-07 00:00:00	100000
37	2	102	kredit	2009-12-08 00:00:00	100000
39	5	105	debit	2009-12-08 00:00:00	300000
40	6	102	debit	2009-12-08 00:00:00	100000
41	7	103	debit	2009-12-08 00:00:00	200000
42	5	104	kredit	2009-12-09 00:00:00	150000
45	3	103	debit	2009-12-09 00:00:00	100000
46	1	106	debit	2009-12-09 00:00:00	200000
47	1	104	kredit	2009-12-10 00:00:00	150000
49	2	106	kredit	2009-12-10 00:00:00	100000

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

```
MariaDB [perbankan]> use perbankan;_
```

8.

TASK:

1.

```
MariaDB [perbankan]> select distinct jumlah from transaksi where jumlah >= all ( select max(jumlah) from transaksi );
```

jumlah
300000

```
1 row in set (0.001 sec)
```

2.

```
MariaDB [perbankan]> select distinct jumlah from transaksi where jumlah >= all ( select min(jumlah) from transaksi );
```

jumlah
50000
40000
20000
30000
200000
150000
100000
250000
300000
60000

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

3.

```
MariaDB [perbankan]> select distinct nasabah.nama_nasabah, transaksi.jumlah from
-> transaksi, nasabah where jumlah >= all (select max(jumlah) from transaksi);
```

nama_nasabah	jumlah
Sutopo	300000
Maryati	300000
Suparman	300000
Kartika Padmasari	300000
Budi Eko Prayogo	300000
Satria Eka Jaya	300000
Sari Murti	300000
Canka Lokananta	300000
Budi Murtono	300000
Supono	300000
Suryani	300000
Endang Sri Suyamti	300000
Suwardi	300000
Budiyati	300000
Sundari	300000
Diah Saptarini	300000
Murfiah	300000
Sukamto	300000
Ida Dwi Hastuti	300000
Jokow	300000

20 rows in set (0.001 sec)

4.

```
MariaDB [(none)]> use perbankan;
Database changed
MariaDB [perbankan]> SELECT nama_cabang as "BANK 0 ACCOUNT"
-> FROM cabang_bank
-> LEFT JOIN rekening ON cabang_bank.kode_cabang = rekening.kode_cabangFK
-> WHERE rekening.kode_cabangFK IS NULL;
```

BANK 0 ACCOUNT
Bank Rut Unit Wonogiri

1 row in set (0.003 sec)

5.

```
MariaDB [perbankan]> SELECT no_rekening, saldo as "Saldo (Diatas Rata-Rata)"
-> FROM rekening
-> WHERE saldo > (SELECT AVG(saldo) FROM rekening);
```

no_rekening	Saldo (Diatas Rata-Rata)
105	2000000
106	3000000
108	5000000

3 rows in set (0.001 sec)

6. A. Make a query displaying the name of the customer with the largest balance

```
MariaDB [perbankan]> select distinct nasabah.nama_nasabah, rekening.saldo from rekening, nasabah where saldo >= all (select max(saldo) from rekening);
```

nama_nasabah	saldo
Sutopo	5000000
Maryati	5000000
Suparman	5000000
Kartika Padmasari	5000000
Budi Eko Prayogo	5000000
Satria Eka Jaya	5000000
Sari Murti	5000000
Canka Lokananta	5000000
Budi Murtono	5000000
Supono	5000000
Suryani	5000000
Endang Sri Suyanti	5000000
Suwardi	5000000
Budiyati	5000000
Sundari	5000000
Diah Saptarini	5000000
Murfiah	5000000
Sukanto	5000000
Ida Dwi Hastuti	5000000
Jokow	5000000

20 rows in set (0.002 sec)

B. Make a query displaying the name of the customer with the smallest balance

```
MariaDB [perbankan]> select distinct nasabah.nama_nasabah, rekening.saldo from rekening, nasabah where saldo >= all (select min(saldo) from rekening);
```

nama_nasabah	saldo
Sutopo	500000
Sutopo	350000
Sutopo	750000
Sutopo	900000
Sutopo	2000000
Sutopo	3000000
Sutopo	1000000
Sutopo	5000000
Sutopo	0
Sutopo	550000
Sutopo	150000
Sutopo	300000
Sutopo	255000
Maryati	500000
Maryati	350000
Maryati	750000
Maryati	900000
Maryati	2000000
Maryati	3000000
Maryati	1000000
Maryati	5000000
Maryati	0
Maryati	550000
Maryati	150000
Maryati	300000
Maryati	255000
Suparman	500000
Suparman	350000
Suparman	750000
Suparman	900000
Suparman	2000000
Suparman	3000000
Suparman	1000000
Suparman	5000000
Suparman	0
Suparman	550000

C. Make a query displaying the names of customers with a balance above the average

```
MariaDB [perbankan]> select nasabah.nama_nasabah, rekening.saldo from rekening, nasabah where saldo > (select avg (saldo) from rekening);
```

nama_nasabah	saldo
Sutopo	2000000
Sutopo	3000000
Sutopo	5000000
Maryati	2000000
Maryati	3000000
Maryati	5000000
Suparman	2000000
Suparman	3000000
Suparman	5000000
Kartika Padmasari	2000000
Kartika Padmasari	3000000
Kartika Padmasari	5000000
Budi Eko Prayogo	2000000
Budi Eko Prayogo	3000000
Budi Eko Prayogo	5000000
Satria Eka Jaya	2000000
Satria Eka Jaya	3000000
Satria Eka Jaya	5000000
Sari Murti	2000000
Sari Murti	3000000
Sari Murti	5000000
Canka Lokananta	2000000
Canka Lokananta	3000000
Canka Lokananta	5000000
Budi Murtono	2000000
Budi Murtono	3000000
Budi Murtono	5000000
Supono	2000000
Supono	3000000
Supono	5000000
Suryani	2000000
Suryani	3000000
Suryani	5000000

D. Make a query displaying the names of customers with a balance below the average

```
MariaDB [perbankan]> select nasabah.nama_nasabah, rekening.saldo from rekening, nasabah where saldo < (select avg (saldo) from rekening);
```

nama_nasabah	saldo
Sutopo	500000
Sutopo	350000
Sutopo	750000
Sutopo	900000
Sutopo	1000000
Sutopo	0
Sutopo	550000
Sutopo	150000
Sutopo	300000
Sutopo	250000
Maryati	500000
Maryati	350000
Maryati	750000
Maryati	900000
Maryati	1000000
Maryati	0
Maryati	550000
Maryati	150000
Maryati	300000
Maryati	250000
Suparman	500000
Suparman	350000
Suparman	750000
Suparman	900000
Suparman	1000000
Suparman	0
Suparman	550000
Suparman	150000
Suparman	300000
Suparman	250000
Kartika Padmasari	500000
Kartika Padmasari	350000
Kartika Padmasari	750000
Kartika Padmasari	900000

E. Make a query displaying the name of the bank branch that has the account number

```
MariaDB [perbankan]> select distinct cabang_bank.nama_cabang from cabang_bank where cabang_bank.kode_cabang in (select distinct rekening.kode_cabangFK from rekening);
```

nama_cabang
Bank Rut Unit Boyolali
Bank Rut Unit Klaten
Bank Rut Unit Surakarta
Bank Rut Unit Yogyakarta

4 rows in set (0.002 sec)

Task EXTRA

1.

```
MariaDB [informatika]> SELECT m.nama_mahasiswa
-> FROM mahasiswa m
-> WHERE m.nim_mahasiswa NOT IN (
->     SELECT mm.nim_mahasiswaFK
->     FROM mahasiswa_has_matkul mm
->     INNER JOIN matkul mk ON mm.kode_matkulFK = mk.kode_matkul
->     WHERE mk.nama_matkul = 'Jarkom');
```

nama_mahasiswa
Jaehyun

1 row in set (0.001 sec)

```
MariaDB [informatika]>
```

2.

```
MariaDB [informatika]> SELECT m.nama_mahasiswa
-> FROM mahasiswa m
-> WHERE m.nim_mahasiswa IN (
->     SELECT mm.nim_mahasiswaFK
->     FROM mahasiswa_has_matkul mm
->     INNER JOIN matkul mk ON mm.kode_matkulFK = mk.kode_matkul
->     INNER JOIN dosen d ON mk.nip_dosenFK = d.nip_dosen
->     WHERE d.nip_dosen = '123'
->     GROUP BY mm.nim_mahasiswaFK
->     HAVING COUNT(DISTINCT mm.kode_matkulFK) = (
->         SELECT COUNT(*)
->         FROM matkul
->         WHERE nip_dosenFK = '123'
->     )
-> );
```

nama_mahasiswa
Refal Hady
JK

2 rows in set (0.002 sec)

3.

```
MariaDB [informatika]> UPDATE mahasiswa_has_matkul
-> SET kode_matkulFK = '100'
-> WHERE nim_mahasiswaFK IN (
->     SELECT nim_mahasiswaFK
->     FROM mahasiswa_has_matkul
->     WHERE kode_matkulFK = '200'
-> );
```

Query OK, 1 row affected (0.006 sec)
Rows matched: 1 Changed: 1 Warnings: 0

```
MariaDB [informatika]>
```