

UAS Praktikum Sistem Basis Data

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1. Tampilkan no_rek, nama_nasabah yang melakukan transaksi di atas tanggal '1 Desember 2009' diurutkan berdasarkan id_nasabah.

Nb: masing2 id_nasabah menampilkan satu transaksi, tidak boleh berulang.

- a) Dengan USING, INNER, DISTINCT

```
MariaDB [perbankan]> SELECT DISTINCT transaksi.no_rekening, nama_nasabah
-> FROM transaksi INNER JOIN nasabah
-> USING(id_nasabah)
-> WHERE tanggal > '2009-12-01'
-> ORDER BY id_nasabah;
```

no_rekening	nama_nasabah
103	Maryati
101	Kartika Padmasari
102	Budi Eko Prayoga
110	Canka Lokananta

- b) Dengan NATURAL, Inner, Distinct

```
MariaDB [perbankan]>
MariaDB [perbankan]> SELECT DISTINCT transaksi.no_rekening, nama_nasabah
-> FROM transaksi NATURAL INNER JOIN nasabah
-> WHERE tanggal > '2009-12-01'
-> ORDER BY id_nasabah;
```

no_rekening	nama_nasabah
103	Maryati
101	Kartika Padmasari
102	Budi Eko Prayoga
110	Canka Lokananta

- c) Dengan ON, OUTER, Distinct

```
MariaDB [perbankan]> SELECT DISTINCT transaksi.no_rekening, nama_nasabah
-> FROM transaksi RIGHT OUTER JOIN nasabah
-> ON transaksi.id_nasabah = nasabah.id_nasabah
-> WHERE tanggal > '2009-12-01'
-> ORDER BY nasabah.id_nasabah;
```

no_rekening	nama_nasabah
103	Maryati
101	Kartika Padmasari
102	Budi Eko Prayoga
110	Canka Lokananta

2. Having, Group By, Distinct

```
MariaDB [perbankan]> SELECT DISTINCT nhs.id_nasabah, cb.nama_cabang,  
-> SUM(r.saldo - 75000) AS 'Sisa Saldo'  
-> FROM nasabah_has_rekening nhs  
-> JOIN rekening r ON nhs.no_rekening = r.no_rekening  
-> JOIN cabang_bank cb ON r.kode_cabangFK = cb.kode_cabang  
-> GROUP BY id_nasabah HAVING SUM(r.saldo > 0);
```

id_nasabah	nama_cabang	Sisa Saldo
2	Bank Rut Unit Surakarta	675000
3	Bank Rut Unit Surakarta	2925000
4	Bank Rut Unit Surakarta	1350000
5	Bank Rut Unit Surakarta	1200000
8	Bank Rut Unit Klaten	300000
9	Bank Rut Unit Yogyakarta	475000
10	Bank Rut Unit Boyolali	5105000
11	Bank Rut Unit Cirebon	375000
12	Bank Rut Unit Bandung	525000
13	Bank Rut Unit Semarang	0
14	Bank Rut Unit Kendal	775000
15	Bank Rut Unit Klaten	5000
16	Bank Rut Unit Surakarta	1425000
17	Bank Rut Unit Kendal	75000
18	Bank Rut Unit Tegal	9925000
19	Bank Rut Unit Tasikmalaya	875000
20	Bank Rut Unit Jakarta	825000

3. Membuat user '014'

```
MariaDB [mysql]> CREATE USER '014'@'localhost' identified by '014';  
Query OK, 0 rows affected (0.03 sec)
```

```
MariaDB [mysql]> |
```

```
gdkawf@Debian12: ~  
> /opt/lampp/bin/mysql -u 014 -p  
Enter password:  
Welcome to the MariaDB monitor.  Commands end with ; or \g.  
Your MariaDB connection id is 18  
Server version: 10.1.40-MariaDB Source distribution
```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement

```
MariaDB [(none)]> |
```

Memberi privilege

```
MariaDB [mysql]> GRANT CREATE, INSERT, SELECT, UPDATE, DELETE  
-> ON perbankan.* TO '014'@'localhost';  
Query OK, 0 rows affected (0.00 sec)
```

```
MariaDB [mysql]> FLUSH PRIVILEGES;  
Query OK, 0 rows affected (0.00 sec)
```


Contoh CRUD

Create/Insert

```
MariaDB [perbankan]> INSERT INTO cabang_bank  
-> VALUES('BTes', 'Bank Unit Tes', 'Jl.Mana');  
Query OK, 1 row affected (0.07 sec)  
  
MariaDB [perbankan]> INSERT INTO cabang_bank  
-> VALUES('BTes2', 'Bank Unit Tes2', 'Jl.Mana Lagi');  
Query OK, 1 row affected (0.07 sec)
```

Read/Select

```
MariaDB [perbankan]> SELECT * FROM cabang_bank;  
+-----+-----+-----+  
| kode_cabang | nama_cabang          | alamat_cabang          |  
+-----+-----+-----+  
| BRUB        | Bank Rut Unit Boyolali | Jl.Ahmad Yani 45       |  
| BRUBA       | Bank Rut Unit Bandung  | Jl.Perintis Kemerdekaan 65 |  
| BRUCI       | Bank Rut Unit Cirebon  | Jl.Sriwijaya 63        |  
| BRUG        | Bank Rut Unit Garut     | Jl.Bromo 23           |  
| BRUJ        | Bank Rut Unit Jakarta   | Jl.Pattimura 65        |  
| BRUK        | Bank Rut Unit Klaten    | Jl.Suparman 23         |  
| BRUKN       | Bank Rut Unit Kendal    | Jl.Brantas 3           |  
| BRUP        | Bank Rut Unit Pekalongan | Jl.Toba 31            |  
| BRUS        | Bank Rut Unit Surakarta  | Jl.Slamet Riyadi 18     |  
| BRUSB       | Bank Rut Unit Surabaya  | Jl.Mawar 101           |  
| BRUSE       | Bank Rut Unit Semarang  | Jl.Gajah Mada 45       |  
| BRUT        | Bank Rut Unit Tegal     | Jl.Cut Nyak Dien 170   |  
| BRUTS       | Bank Rut Unit Tasikmalaya | Jl.Hasanuddin 105      |  
| BRUW        | Bank Rut Unit Wonogiri   | Jl.Ahmad Yani No.23    |  
| BRUY        | Bank Rut Unit Yogyakarta | Jl.Anggrek 21          |  
| BTes        | Bank Unit Tes           | Jl.Mana                |  
| BTes2       | Bank Unit Tes2          | Jl.Mana Lagi           |  
+-----+-----+-----+
```

Update

```
MariaDB [perbankan]> UPDATE cabang_bank SET nama_cabang = 'Bank Unit Update'  
-> WHERE kode_cabang = 'BTes';  
Query OK, 1 row affected (0.12 sec)  
Rows matched: 1  Changed: 1  Warnings: 0  
  
MariaDB [perbankan]> SELECT * FROM cabang_bank WHERE kode_cabang = 'BTes';  
+-----+-----+-----+  
| kode_cabang | nama_cabang          | alamat_cabang          |  
+-----+-----+-----+  
| BTes        | Bank Unit Update     | Jl.Mana                |  
+-----+-----+-----+  
1 row in set (0.01 sec)
```

Delete

```
MariaDB [perbankan]> DELETE FROM cabang_bank WHERE kode_cabang = 'BTes';  
Query OK, 1 row affected (0.05 sec)  
  
MariaDB [perbankan]> SELECT * FROM cabang_bank WHERE kode_cabang = 'BTes';  
Empty set (0.00 sec)
```

4. Subquery

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

kode_matkul	NIM
TIF40505	120
TIF40505	121
TIF40505	122
TIF40505	123
TIF40505	124
TIF40505	125
TIF40505	126
TIF40505	127
TIF40505	130
TIF40513	129

```
MariaDB [perkuliahan]> UPDATE mahasiswa_has_mata_kuliah
  -> SET kode_matkul = 'TIF40505' WHERE kode_matkul = (
  -> SELECT kode_matkul FROM mata_kuliah WHERE kode_matkul = 'TIF40513');
Query OK, 1 row affected (0.09 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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

kode_matkul	NIM
TIF40505	120
TIF40505	121
TIF40505	122
TIF40505	123
TIF40505	124
TIF40505	125
TIF40505	126
TIF40505	127
TIF40505	129
TIF40505	130

```
10 rows in set (0.00 sec)
```