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Smt/Kelas : 4/H  
Hari/Tanggal : 13/Juli 2020  
Mata Uji : Praktikum Sistem Basis Data  
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## UJIAN AKHIR SEMESTER

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.

( Kerjakan soal – soal menggunakan Using, On, Natural, Outer, Inner, Distinct )

Jawab :

```
MariaDB [perbankan]> SELECT DISTINCT no_rekening, nama_nasabah FROM nasabah, rekening, transaksi WHERE nasabah.id_nasabah=transaksi.id_nasabahFK AND rekening.no_rekening=transaksi.no_rekeningFK AND tanggal > '2009-12-01' GROUP BY id_nasabahFK ORDER BY id_nasabahFK;
```

no_rekening	nama_nasabah
104	Sutopo
103	Maryati
105	Suparman
101	Kartika Padmasari
107	Budi Eko Prayogo
109	Indri Hapsari
110	Canka Lokananda
108	Budi Murtono

8 rows in set (0.004 sec)

2. Tampilkan id\_nasabah, nama\_cabang, jumlah saldo (dalam sisa saldo) dari masing2 id\_nasabah dikurangi 75.000 untuk pembayaran SPP.

(Kerjakan soal – soal menggunakan Having, Group By, Distinct)

Jawab :

```
MariaDB [perbankan]> SELECT DISTINCT nasabah.id_nasabah, cabang_bank.nama_cabang, (rekening.saldo-75000) FROM nasabah INNER JOIN cabang_bank INNER JOIN rekening INNER JOIN transaksi ON nasabah.id_nasabah = transaksi.id_nasabahFK AND rekening.no_rekening = transaksi.no_rekeningFK AND cabang_bank.kode_cabang = rekening.kode_cabangFK GROUP BY rekening.no_rekening;
```

id_nasabah	nama_cabang	(rekening.saldo-75000)
4	Bank Rut Unit Surakarta	425000
5	Bank Rut Unit Surakarta	275000
2	Bank Rut Unit Surakarta	675000
1	Bank Rut Unit Magelang	825000
3	Bank Rut Unit Magelang	1925000
3	Bank Rut Unit Surakarta	2925000
5	Bank Rut Unit Surakarta	925000
10	Bank Rut Unit Boyolali	4925000
7	Bank Rut Unit Boyolali	-75000
9	Bank Rut Unit Yogyakarta	475000

10 rows in set (0.002 sec)

3. Buatlah user baru dengan No. NIM 3 digit belakang. Kemudian beri privilege pada user, agar dapat melakukan CRUD. Kemudian berikan masing – masing contoh CRUD, setelah berhasil memberikan hak akses pada user.

(Create, Read, Update, Delete masing – masing diberi contoh.).

Jawab :

- Buatlah user baru dengan No. NIM 3 digit belakang

```
MariaDB [mysql]> CREATE USER '210'@'localhost' IDENTIFIED BY 'cecyliaivanka';
Query OK, 0 rows affected (0.093 sec)
```

- Kemudian beri privilege pada user, agar dapat melakukan CRUD

```
MariaDB [mysql]> GRANT INSERT ON perbankan.nasabah TO '210'@'localhost';
Query OK, 0 rows affected (0.086 sec)
```

```
MariaDB [mysql]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.024 sec)
```

```
MariaDB [mysql]> GRANT SELECT ON perbankan.nasabah TO '210'@'localhost';
Query OK, 0 rows affected (0.044 sec)
```

```
MariaDB [mysql]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.046 sec)
```

```
MariaDB [mysql]> GRANT UPDATE ON perbankan.nasabah TO '210'@'localhost';
Query OK, 0 rows affected (0.037 sec)
```

```
MariaDB [mysql]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.011 sec)
```

```
MariaDB [mysql]> GRANT DELETE ON perbankan.nasabah TO '210'@'localhost';
Query OK, 0 rows affected (0.043 sec)
```

```
MariaDB [mysql]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)
```

Login sebagai user 210

```
C:\xampp\mysql\bin>mysql -u 210 -p
Enter password: *****
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 208
Server version: 10.4.11-MariaDB mariadb.org binary distribution

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

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

MariaDB [(none)]> use perbankan;
Database changed
```

- (Create, Read, Update, Delete masing – masing diberi contoh.).

➤ Create (INSERT)

```
MariaDB [perbankan]> INSERT INTO nasabah VALUES('11', 'Cecylia Ivanka', 'Sampit');  
Query OK, 1 row affected (0.107 sec)
```

➤ Read (SELECT)

```
MariaDB [perbankan]> SELECT * FROM nasabah;
```

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
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
7	Indri Hapsari	Jl. Sutoyo 5
8	Sari Murti	Jl. Pangadaran 11
9	Canka Lokananda	Jl. Tidar 86
10	Budi Murtono	Jl. Merak 22
11	Cecylia Ivanka	Sampit

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

➤ UPDATE

```
MariaDB [perbankan]> UPDATE nasabah SET alamat_nasabah = 'Jl. Menco Raya 1' WHERE nama_nasabah = 'Cecylia Ivanka';  
Query OK, 1 row affected (0.126 sec)  
Rows matched: 1 Changed: 1 Warnings: 0
```

Setelah di update

```
MariaDB [perbankan]> SELECT * FROM nasabah;
```

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
6	Satria Eka Jaya	Jl. Slamet Riyadi 45
7	Indri Hapsari	Jl. Sutoyo 5
8	Sari Murti	Jl. Pangadaran 11
9	Canka Lokananda	Jl. Tidar 86
10	Budi Murtono	Jl. Merak 22
11	Cecylia Ivanka	Jl. Menco Raya 1

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

➤ DELETE

```
MariaDB [perbankan]> DELETE FROM nasabah WHERE nama_nasabah = 'Cecylia Ivanka';  
Query OK, 1 row affected (0.105 sec)
```

Setelah di delete

```
MariaDB [perbankan]> SELECT * FROM nasabah;  
+-----+-----+-----+  
| 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 |  
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |  
| 7 | Indri Hapsari | Jl. Sutoyo 5 |  
| 8 | Sari Murti | Jl. Pangadaran 11 |  
| 9 | Canka Lokananda | Jl. Tidar 86 |  
| 10 | Budi Murtono | Jl. Merak 22 |  
+-----+-----+-----+  
10 rows in set (0.000 sec)
```

4. 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). (Gunakan Sub Query untuk mendapatkan data – data berikut dari database data kuliah yang telah anda bangun pada Modul 4 dan Modul 5. )

Jawab :

- Tabel mahasiswa yang mengambil mata kuliah

```
MariaDB [(none)]> use perkuliahan;
Database changed
MariaDB [perkuliahan]> select * from mahasiswa_has_matkul;
```

nimFK	kode_matkulFK
L200180021	TIF008
L200180022	TIF001
L200180033	TIF001
L200180173	TIF006
L200180187	TIF003
L200180190	TIF004
L200180191	TIF006
L200180193	TIF006
L200180194	TIF007
L200180196	TIF001
L200180198	TIF006
L200180210	TIF004
L200180211	TIF006
L200180915	TIF008

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

- Mahasiswa yang mengambil mata kuliah A dengan kode matkul 'TIF004' di revisi ke mata kuliah B dengan kode matkul 'TIF006'

```
MariaDB [perkuliahan]> UPDATE mahasiswa_has_matkul SET kode_matkulFK = 'TIF006' WHERE kode_matkulFK = (SELECT kode_matkul FROM matkul WHERE kode_matkul = 'TIF004');
Query OK, 2 rows affected (0.008 sec)
Rows matched: 2 Changed: 2 Warnings: 0
```

- Daftar nim dan kode\_matkul mahasiswa yang telah di revisi

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

nimFK	kode_matkulFK
L200180021	TIF008
L200180022	TIF001
L200180033	TIF001
L200180173	TIF006
L200180187	TIF003
L200180190	TIF006
L200180191	TIF006
L200180193	TIF006
L200180194	TIF007
L200180196	TIF001
L200180198	TIF006
L200180210	TIF006
L200180211	TIF006
L200180915	TIF008

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