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## Ujian Akhir Semester
## Praktikum Sistem Basis Data

**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 )**

```
MariaDB [perbankan]> select distinct no_rekening, nama_nasabah from nasabah, transaksi,rekening where nasabah.id_nasabah
 = transaksi.id_nasabahFK and rekening.no_rekening = transaksi.no_rekeningFK and tanggal > "2009-12-1" order by nasabah.
nama_nasabah;
+-------------+-------------------+
| no_rekening | nama_nasabah      |
+-------------+-------------------+
|         102 | Budi Eko Prayogo  |
|         110 | Canka Lokananta   |
|         109 | Indri Hapsari     |
|         101 | Kartika Padmasari |
|         103 | Maryati           |
+-------------+-------------------+
5 rows in set (0.037 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)**

```
MariaDB [perbankan]> select distinct id_nasabah, nama_cabang, (rekening.saldo-75000) as 'Sisa Saldo' 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 no_rekening;
+------------+------------------------+------------+
| id_nasabah | nama_cabang            | Sisa Saldo |
+------------+------------------------+------------+
|          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 (0.041 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 memeberikan hak akses pada user. (Creat, Read, Update, Delete masing – masing diberi contoh.)**

```
MariaDB [perbankan]> use mysql
Database changed
MariaDB [mysql]> create user '4098'@'localhost' identified by '1234';
Query OK, 0 rows affected (0.114 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.001 sec)

MariaDB [mysql]> grant insert on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.086 sec)

MariaDB [mysql]> grant select on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.048 sec)

MariaDB [mysql]> grant insert on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.048 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.000 sec)

MariaDB [mysql]> grant select on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.044 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.000 sec)

MariaDB [mysql]> grant update on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.062 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.000 sec)

MariaDB [mysql]> grant delete on perbankan.nasabah to '4098'@'localhost';
Query OK, 0 rows affected (0.052 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.000 sec)
```

## a) Delete

```
MariaDB [perbankan]> delete from nasabah where nama_nasabah ="Sujiarti";
Query OK, 1 row affected (0.089 sec)

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. Pangandaran 11       |
|          9 | Canka Lokananta   | Jl. Tidar 86             |
|         10 | Budi Murtiono     | Jl. Merak 22             |
|         11 | Kartika           | Jl. Mawar Putih 29       |
+------------+-------------------+--------------------------+
11 rows in set (0.000 sec)
```

## b) Insert

```
MariaDB [perbankan]> insert into cabang_bank values("BRUK","Bank Rut Unit Kebumen","Jl. Mentimun");
ERROR 1142 (42000): INSERT command denied to user '4098'@'localhost' for table 'cabang_bank'
MariaDB [perbankan]> insert into nasabah values(11,"Sarinah","Jl. Mawar Putih 29");
Query OK, 1 row affected (0.115 sec)
```

## c) Update

```
MariaDB [perbankan]> update nasabah set nama_nasabah = "Kartika" where id_nasabah = 11;
Query OK, 1 row affected (0.158 sec)
Rows matched: 1  Changed: 1  Warnings: 0

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. Pangandaran 11       |
|          9 | Canka Lokananta   | Jl. Tidar 86             |
|         10 | Budi Murtiono     | Jl. Merak 22             |
|         11 | Kartika           | Jl. Mawar Putih 29       |
|         31 | Sujiarti          | Jl.Laos                  |
+------------+-------------------+--------------------------+
12 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. )**

```
MariaDB [kuliah]> update mahasiswa_has_mata_kuliah set kode_mataKuliahFK = 102 where kode_mataKuliahFK = (select kode_ma
taKuliah from mata_kuliah where kode_mataKuliah = 101);
Query OK, 3 rows affected (0.038 sec)
Rows matched: 3  Changed: 3  Warnings: 0

MariaDB [kuliah]> select * from mahasiswa_has_mata_kuliah;
+----------+-------------------+
| id_mhsFK | kode_mataKuliahFK |
+----------+-------------------+
| 58       |               102 |
| 59       |               102 |
| 60       |               105 |
| 61       |               106 |
| 62       |               102 |
| 63       |               105 |
| 64       |               102 |
| 65       |               102 |
| 66       |               106 |
+----------+-------------------+
9 rows in set (0.000 sec)
```