Nama : Ismi Dzikrina

NIM : L200180010

Kelas : A

Matkul : Praktikum Sistem Basis Data

UJIAN AKHIR SEMESTER (UAS)

1. Menampilkan no_rek, nama_nasabah yang melakukan transaksi di atas tanggal '1 Desember 2009' diurutkan berdasarkan id_nasabah (menggunakan Using, On, Natural, Outer, Inner, Distinct)

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

   Using, On, Natural, Inner, Distinct

```
MariaDB [perbankanismi]> SELECT DISTINCT rekening.no_rekening, nasabah.nama_nasabah
    -> FROM transaksi INNER JOIN nasabah
    -> ON transaksi.id_nasabahFK=nasabah.id_nasabah
    -> NATURAL JOIN rekening INNER JOIN nasabah_has_rekening
    -> USING(no_rekening) WHERE tanggal>'2009-12-01'
    -> GROUP BY nasabah.id_nasabah ORDER BY nasabah.id_nasabah;
+-------------+------------------+
| no_rekening | nama_nasabah     |
+-------------+------------------+
|         113 | maryati          |
|         101 | kartika padmasari |
|         102 | budi eko prayogo |
|         109 | satria eka jaya  |
|         111 | sari murti       |
|         110 | canka lokananta  |
|         120 | santi indah      |
|         119 | Abdurrozaq       |
|         121 | Khoirus Fauzi    |
|         122 | Andra            |
+-------------+------------------+
10 rows in set (0.001 sec)
```

Using, On, Natural, Outer, Distinct

```
MariaDB [perbankanismi]> SELECT DISTINCT rekening.no_rekening, nasabah.nama_nasabah
    -> FROM transaksi LEFT JOIN nasabah
    -> ON transaksi.id_nasabahFK=nasabah.id_nasabah
    -> NATURAL JOIN rekening LEFT OUTER JOIN nasabah_has_rekening
    -> USING(no_rekening) WHERE tanggal>'2009-12-01'
    -> GROUP BY nasabah.id_nasabah ORDER BY nasabah.id_nasabah;
+------------+------------------+
| no_rekening | nama_nasabah    |
+------------+------------------+
|        113 | maryati          |
|        101 | kartika padmasari |
|        102 | budi eko prayogo  |
|        109 | satria eka jaya   |
|        111 | sari murti        |
|        110 | canka lokananta   |
|        120 | santi indah       |
|        119 | Abdurrozaq        |
|        121 | Khoirus Fauzi     |
|        122 | Andra             |
+------------+------------------+
10 rows in set (0.001 sec)
```

2. Menampilkan id_nasabah, nama_cabang, jumlah saldo (dalam sisa saldo) dari masing2 id_nasabah dikurangi 75.000 untuk pembayaran SPP (menggunakan Having, Group By, Distinct)

```
MariaDB [perbankanismi]> SELECT DISTINCT nasabah_has_rekening.id_nasabahFK, cabang_bank.nama_cabang,
 SUM(rekening.saldo-75000) AS 'Sisa Saldo'
    -> FROM nasabah_has_rekening
    -> JOIN rekening ON nasabah_has_rekening.no_rekeningFK=rekening.no_rekening
    -> JOIN cabang_bank ON rekening.kode_cabangFK=cabang_bank.kode_cabang
    -> GROUP BY id_nasabahFK HAVING SUM(rekening.saldo)>=0;
+--------------+--------------------------+------------+
| id_nasabahFK | nama_cabang              | Sisa Saldo |
+--------------+--------------------------+------------+
|            1 | Bank Rut Unit Magelang   |     825000 |
|            2 | Bank Rut Unit Surakarta  |     675000 |
|            3 | Bank Rut Unit Magelang   |     350000 |
|            4 | Bank Rut Unit Surakarta  |     450000 |
|            5 | Bank Rut Unit Surakarta  |     300000 |
|            6 | Bank Rut Unit Boyolali   |     -75000 |
|            7 | Bank Rut Unit Boyolali   |     -75000 |
|            8 | Bank Rut Unit Klaten     |     300000 |
|            9 | Bank Rut Unit Yogyakarta |     475000 |
|           10 | Bank Rut Unit Boyolali   |     605000 |
|           11 | Bank Rut Unit Palembang  |     -25000 |
|           12 | Bank Rut Unit Bogor      |     -65000 |
|           13 | Bank Rut Unit Surabaya   |    -100000 |
|           14 | Bank Rut Unit Tangerang  |     325000 |
|           15 | Bank Rut Unit Wonogiri   |     -15000 |
|           16 | Bank Rut Unit Palembang  |     -25000 |
|           17 | Bank Rut Unit Bogor      |     -65000 |
|           18 | Bank Rut Unit Wonogiri   |     -15000 |
|           19 | Bank Rut Unit Magelang   |      50000 |
|           20 | Bank Rut Unit Magelang   |    1300000 |
+--------------+--------------------------+------------+
20 rows in set (0.001 sec)
```

3. Membuat 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. (Creat, Read, Update, Delete masing – masing diberi contoh.).

Membuat user dan memberikan hak akses pada user.

```
MariaDB [(none)]> use mysql
Database changed
MariaDB [mysql]> create user 'ismil200180010'@'localhost' identified by 'ismil200180010';
Query OK, 0 rows affected (0.047 sec)

MariaDB [mysql]> grant insert on perbankanismi.cabang_bank to ismil200180010@localhost;
Query OK, 0 rows affected (0.062 sec)

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

MariaDB [mysql]> grant select on perbankanismi.cabang_bank to ismil200180010@localhost;
Query OK, 0 rows affected (0.024 sec)

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

MariaDB [mysql]> grant update on perbankanismi.cabang_bank to ismil200180010@localhost;
Query OK, 0 rows affected (0.048 sec)

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

MariaDB [mysql]> grant delete on perbankanismi.cabang_bank to ismil200180010@localhost;
Query OK, 0 rows affected (0.056 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.001 sec)
MariaDB [mysql]> grant create on perbankanismi.data to ismil200180010@localhost;
Query OK, 0 rows affected (0.048 sec)

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

Masuk sebagai user baru

```
C:\xampp\mysql\bin>mysql -u ismil200180010 -p
Enter password: ***************
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 12
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 perbankanismi;
Database changed
```

Create tabel

```
MariaDB [perbankanismi]> create table data(id_data INTEGER,nama_data VARCHAR(40));
Query OK, 0 rows affected (0.241 sec)
```

SELECT pada cabang_bank.

```
MariaDB [perbankanismi]> select*from cabang_bank;
+-------------+-------------------------+------------------------+
| kode_cabang | nama_cabang             | alamat_cabang          |
+-------------+-------------------------+------------------------+
| BRUB        | Bank Rut Unit Boyolali  | Jl. Ahmad Yani 45      |
| BRUBO       | Bank Rut Unit Bogor     | Jl. Soekarno 8         |
| BRUK        | Bank Rut Unit Klaten    | Jl. Suparman 23        |
| BRUM        | Bank Rut Unit Magelang  | Jl. P.Tendean 63       |
| BRUP        | Bank Rut Unit Palembang | Jl. Merpati 3          |
| BRUS        | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18   |
| BRUSU       | Bank Rut Unit Surabaya  | Jl. Cendrawasih 65     |
| BRUT        | Bank Rut Unit Tangerang | Jl. Sedayu 29          |
| BRUW        | Bank Rut Unit Wonogiri  | Jl. Untung Suropati 12 |
| BRUY        | Bank Rut Unit Yogyakarta| Jl. Anggrek 21         |
+-------------+-------------------------+------------------------+
10 rows in set (0.000 sec)
```

Insert pada cabang_bank.

```
MariaDB [perbankanismi]> insert into cabang_bank VALUES ('BRUMA','Bank Rut Unit Malang','Jl. Tirta 17');
Query OK, 1 row affected (0.075 sec)

MariaDB [perbankanismi]> select*from cabang_bank;
+-------------+-------------------------+------------------------+
| kode_cabang | nama_cabang             | alamat_cabang          |
+-------------+-------------------------+------------------------+
| BRUB        | Bank Rut Unit Boyolali  | Jl. Ahmad Yani 45      |
| BRUBO       | Bank Rut Unit Bogor     | Jl. Soekarno 8         |
| BRUK        | Bank Rut Unit Klaten    | Jl. Suparman 23        |
| BRUM        | Bank Rut Unit Magelang  | Jl. P.Tendean 63       |
| BRUMA       | Bank Rut Unit Malang    | Jl. Tirta 17           |
| BRUP        | Bank Rut Unit Palembang | Jl. Merpati 3          |
| BRUS        | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18   |
| BRUSU       | Bank Rut Unit Surabaya  | Jl. Cendrawasih 65     |
| BRUT        | Bank Rut Unit Tangerang | Jl. Sedayu 29          |
| BRUW        | Bank Rut Unit Wonogiri  | Jl. Untung Suropati 12 |
| BRUY        | Bank Rut Unit Yogyakarta| Jl. Anggrek 21         |
+-------------+-------------------------+------------------------+
11 rows in set (0.000 sec)
```

Update pada cabang_bank.

```
MariaDB [perbankanismi]> update cabang_bank set alamat_cabang='JL.TIRTA 17' where kode_cabang='BRUMA';
Query OK, 1 row affected (0.086 sec)
Rows matched: 1  Changed: 1  Warnings: 0

MariaDB [perbankanismi]> select*from cabang_bank;
+-------------+-------------------------+------------------------+
| kode_cabang | nama_cabang             | alamat_cabang          |
+-------------+-------------------------+------------------------+
| BRUB        | Bank Rut Unit Boyolali  | Jl. Ahmad Yani 45      |
| BRUBO       | Bank Rut Unit Bogor     | Jl. Soekarno 8         |
| BRUK        | Bank Rut Unit Klaten    | Jl. Suparman 23        |
| BRUM        | Bank Rut Unit Magelang  | Jl. P.Tendean 63       |
| BRUMA       | Bank Rut Unit Malang    | JL.TIRTA 17            |
| BRUP        | Bank Rut Unit Palembang | Jl. Merpati 3          |
| BRUS        | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18   |
| BRUSU       | Bank Rut Unit Surabaya  | Jl. Cendrawasih 65     |
| BRUT        | Bank Rut Unit Tangerang | Jl. Sedayu 29          |
| BRUW        | Bank Rut Unit Wonogiri  | Jl. Untung Suropati 12 |
| BRUY        | Bank Rut Unit Yogyakarta| Jl. Anggrek 21         |
+-------------+-------------------------+------------------------+
11 rows in set (0.000 sec)
```

Delete pada cabang_bank.

```
MariaDB [perbankanismi]> delete from cabang_bank where kode_cabang='BRUY';
Query OK, 1 row affected (0.483 sec)

MariaDB [perbankanismi]> select*from cabang_bank;
+-------------+------------------------+--------------------------+
| kode_cabang | nama_cabang            | alamat_cabang            |
+-------------+------------------------+--------------------------+
| BRUB        | Bank Rut Unit Boyolali  | Jl. Ahmad Yani 45        |
| BRUBO       | Bank Rut Unit Bogor     | Jl. Soekarno 8           |
| BRUK        | Bank Rut Unit Klaten    | Jl. Suparman 23          |
| BRUM        | Bank Rut Unit Magelang  | Jl. P.Tendean 63         |
| BRUMA       | Bank Rut Unit Malang    | JL.TIRTA 17              |
| BRUP        | Bank Rut Unit Palembang | Jl. Merpati 3            |
| BRUS        | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18     |
| BRUSU       | Bank Rut Unit Surabaya  | Jl. Cendrawasih 65       |
| BRUT        | Bank Rut Unit Tangerang | Jl. Sedayu 29            |
| BRUW        | Bank Rut Unit Wonogiri  | Jl. Untung Suropati 12   |
+-------------+------------------------+--------------------------+
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).

```
MariaDB [perkuliahan]> select * from mahasiswa_has_mata_kuliah;
+--------------+-------+
| kode_matkulFK | NIMFK |
+--------------+-------+
| MA12         |    10 |
| MA12         |    11 |
| MA12         |    12 |
| MA12         |    15 |
| MA12         |    17 |
| MA13         |    11 |
| MA14         |    15 |
| MA15         |    15 |
| MA16         |    13 |
| MA17         |    16 |
| MA18         |    15 |
| MA19         |    17 |
| MA20         |    20 |
+--------------+-------+
13 rows in set (0.062 sec)

MariaDB [perkuliahan]> INSERT INTO mahasiswa_has_mata_kuliah VALUE ('MA12',20);

Query OK, 1 row affected (0.067 sec)

MariaDB [perkuliahan]> DELETE from mahasiswa_has_mata_kuliah
    -> WHERE kode_matkulFK=(SELECT kode_matkulFK from mahasiswa_has_mata_kuliah
 where kode_matkulFK='MA20' AND NIMFK=20);
Query OK, 1 row affected (0.340 sec)

MariaDB [perkuliahan]> SELECT * from mahasiswa_has_mata_kuliah;
+--------------+-------+
| kode_matkulFK | NIMFK |
+--------------+-------+
| MA12         |    10 |
| MA12         |    11 |
| MA12         |    12 |
| MA12         |    15 |
| MA12         |    17 |
| MA12         |    20 |
| MA13         |    11 |
| MA14         |    15 |
| MA15         |    15 |
| MA16         |    13 |
| MA17         |    16 |
| MA18         |    15 |
| MA19         |    17 |
+--------------+-------+
13 rows in set (0.000 sec)
```