

# **LAPORAN PRAKTIKUM SISTEM BASIS DATA**

## **MODUL 1**

**NAMA** : Riyan Aldiansyah

**NIM** : L200170018

**KELAS** : A

1. Jelaskan mengapa dibutuhkan data!

Data adalah informasi yang mengandung arti. Maka dari itu data sangat dibutuhkan karena informasi yang ada akan memberikan arti yang sangat penting baik untuk saat ini maupun untuk akan datang.

2. Jelaskan manfaat database dan contohnya!

- a. Mengurangi duplikasi data.
- b. Hubungan data dapat di tingkatkan.
- c. Mengurangi pemborosan tempat simpanan luar.
- d. Mempermudah dalam melakukan akses terhadap data.
- e. Memperoleh kembali data dengan mudah dan cepat.

Contoh :

- a. Universitas = Pengelolaan pendaftaran Alumni.
- b. Bank = Pengelolaan data nasabah, akunting, semua transaksi perbankan.
- c. Penjualan = Pengelolaan data customer , produk, penjualan.

3. Untuk menentukan jenis database yang digunakan, apa yang menjadi acuan dalam pemilihan database tersebut!

- a. Deskripsikan kebutuhan informasi dan data.
- b. Spesifikasi data.
- c. Pemrosesan yang diperlukan oleh data.
- d. Pertimbangan keamanan.
- e. Kecocokan dengan tipe aplikasi.
- f. Bahasa query.
- g. Biaya tidak langsung terhadap pemrosesan.

4. Jelaskan istilah atau terminology yang digunakan dalam Database (database, table, field, record)

- Database : Kumpulan data yang saling berhubungan satu dengan yang lainnya yang diorganisasikan sesuai struktur tertentu dan disimpan dengan baik.
- Table : Tempat untuk menyimpan data, tabel terdiri dari field dan record.

- Field : Menyatakan data terkecil yang memiliki makna. Field juga disebut atribut.
  - Record : Disebut juga dengan baris, yaitu satu bagian informasi yang disimpan dalam tabel, misal data seorang mahasiswa akan disimpan dalam satu record yang terdiri dari beberapa kolom.
5. Bandingkan perbedaan pengolahan data secara manual dengan menggunakan system database.
- Pengolahan data secara manual lebih mengandalkan operasi dengan bantuan tangan dan alat seperti pensil, pulpen, kertas, dll. Maka dari itu pengolahan ini lebih membutuhkan banyak berkas dan penyimpanan untuk menyimpan berbagai data dan informasi, keamanannya pun lebih rentan, data terbatas untuk dibagi, integritas data kurang. Sifatnya konkret. Sedangkan pengolahan data pada sistem database lebih praktis, dapat meminimalkan duplikasi data, integritas data tinggi, keamanan lebih terjamin dan sharing data lebih mudah.
6. Mengapa dibutuhkan DBMS?
- DBMS merupakan software yang digunakan untuk membangun sebuah sistem basis data yang berbasis komputerisasi. DBMS membantu dalam pemeliharaan dan pengolahan kumpulan data dalam jumlah besar. Sehingga dengan menggunakan DBMS tidak menimbulkan kekacauan dan dapat digunakan oleh pengguna sesuai dengan kebutuhan. DBMS merupakan perantara bagi pemakai dengan basis data.
7. Pada percobaan di atas ada beberapa field yang tipe data dan ukurannya berbeda. Jelaskan!

Pada tabel Mhs , terdapat 6 field yaitu NIM, NAMA , TEMPAT\_LAHIR , TANGGAL\_LAHIR , ALAMAT , TELEPON.

- Pada Field NIM, diatur tipe data text berarti pada record dapat diisi data berupa teks huruf, angka, dan symbol. Ukuran data pada field NIM diatur sepanjang 10 digit artinya dapat memasukan digit ke dalam record sepanjang 10 digit. Jika data yang dimasukkan lebih dari 10 digit, digit selanjutnya tidak akan terbaca. Untuk pengaturan maksimum defaultnya sendiri adalah sepanjang 255 digit.
- Pada field NAMA, diatur tipe data text. Ukuran data pada field NAMA diatur sepanjang 30 digit artinya dapat memasukan digit ke dalam record sepanjang 30 digit. Jika data yang dimasukkan lebih dari 30 digit, digit selanjutnya tidak akan terbaca.
- Pada field TANGGAL\_LAHIR , diatur tipe date/time yang berarti pada record diisi data berupa angka dan symbol.
- Pada field TELEPON, diatur tipe integer, berarti pada record dapat diisi angka saja.

# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 2

**NAMA** : Riyan Aldiansyah

**NIM** : L200170018

**KELAS** : A

### 1. Menentukan entitas (object-object dasar)

- Mahasiswa : menyimpan semua data pribadi tentang mahasiswa
- Dosen : menyimpan semua data pribadi tentang dosen
- Mata Kuliah : menyimpan semua data pribadi tentang mata kuliah
- Ruang Kelas : menyimpan semua data pribadi tentang ruang kelas

### 2. Menentukan Atribut

- Mahasiswa :
  - Nama : (varchar (45))
  - NIM : (varchar(45)) PK
  - Alamat : (varchar (255))
- Dosen :
  - Nama : (varchar (45))
  - NIP : (varchar(45)) PK
  - Alamat : (varchar (255))
- Mata Kuliah :
  - Kode MK : (varchar(45)) PK
  - Jadwal : (varchar (255))
  - SKS : (varchar (255))
- Ruang Kelas :
  - Kode Kelas : (varchar(45)) PK
  - Nama Ruang : (varchar (255))
  - Tempat Ruang : (varchar (255))

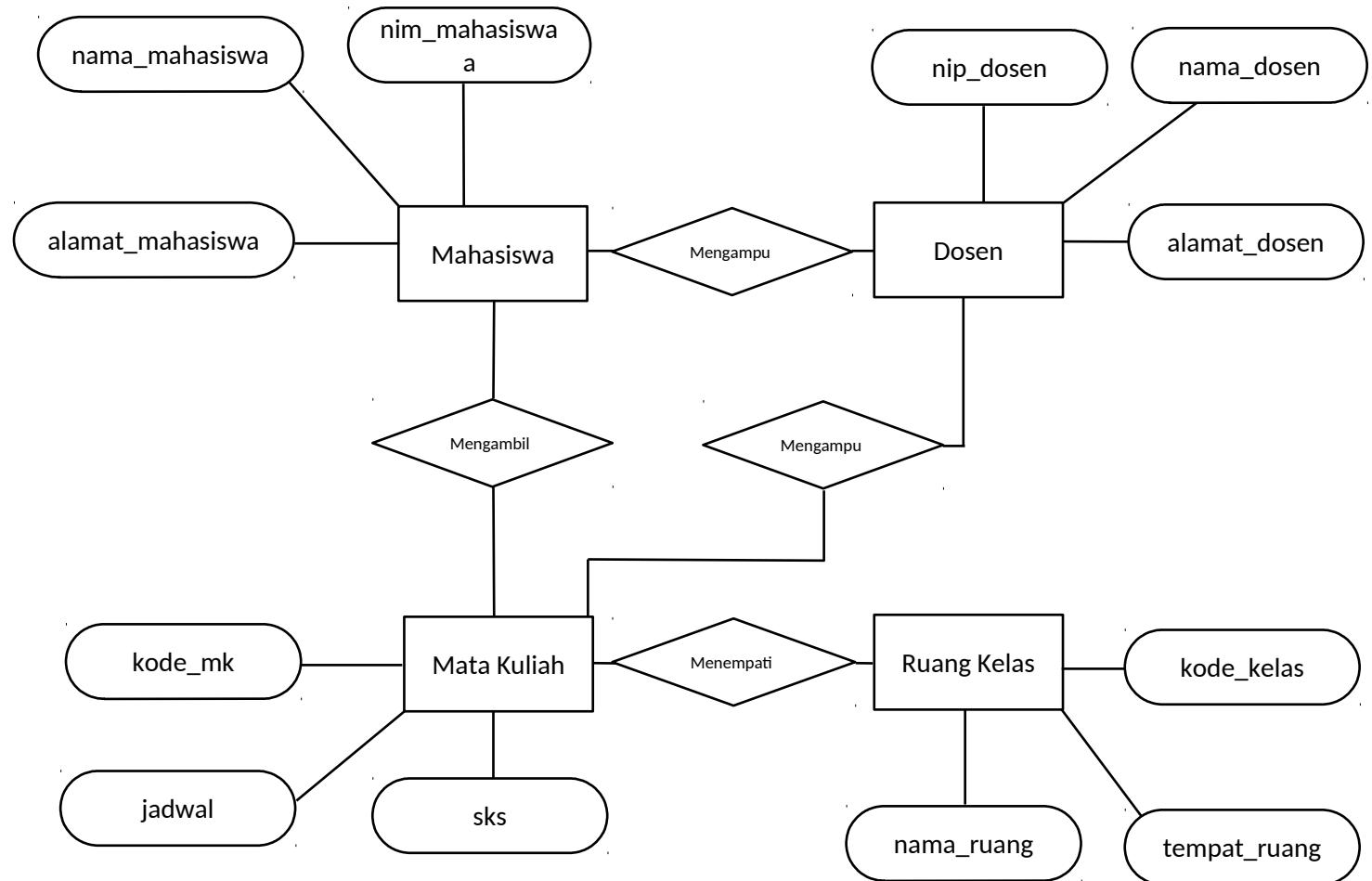
3. Menentukan relationship (hubungan) antar entitas.

	<b>Mahasiswa</b>	<b>Dosen</b>	<b>Mata Kuliah</b>	<b>Ruang Kelas</b>
<b>Mahasiswa</b>	-	1:n	m :n	-
<b>Dosen</b>		-	1 :n	-
<b>Mata Kuliah</b>			-	1 :n
<b>Ruang Kelas</b>				-

#### **Hubungan :**

- Dosen mengampu Mahasiswa:
  - Tabel Utama : Dosen
  - Tabel Kedua : Mahasiswa
  - Relationship : One-to-many ( 1:n )
  - Attribute penghubung : nip\_dosen (FK nip\_dosen di mahasiswa)
- Mahasiswa mengambil Mata Kuliah :
  - Tabel Utama : Mahasiswa, Mata Kuliah
  - Tabel Kedua : Mata Kuliah
  - Relationship : Many-to-many ( m:n )
  - Attribute penghubung : nim\_mahasiswa, kode\_mk (FK nim\_mahasiswa, kode\_mk di mahasiswa\_take\_mata\_kuliah)
- Dosen mengampu Mata Kuliah :
  - Tabel Utama : Dosen
  - Tabel Kedua : Mata Kuliah
  - Relationship : One-to-many ( 1:n )
  - Attribute penghubung : nip\_dosen (FK nip\_dosen di mata kuliah)
- Mata Kuliah menempati Ruang Kelas :
  - Tabel Utama : Mata Kuliah
  - Tabel Kedua : Ruang Kelas
  - Relationship : One-to-many ( 1:n )
  - Attribute penghubung : kode\_mk (FK kode\_mk di ruang kelas)

4. Menggambar ERD Diagram



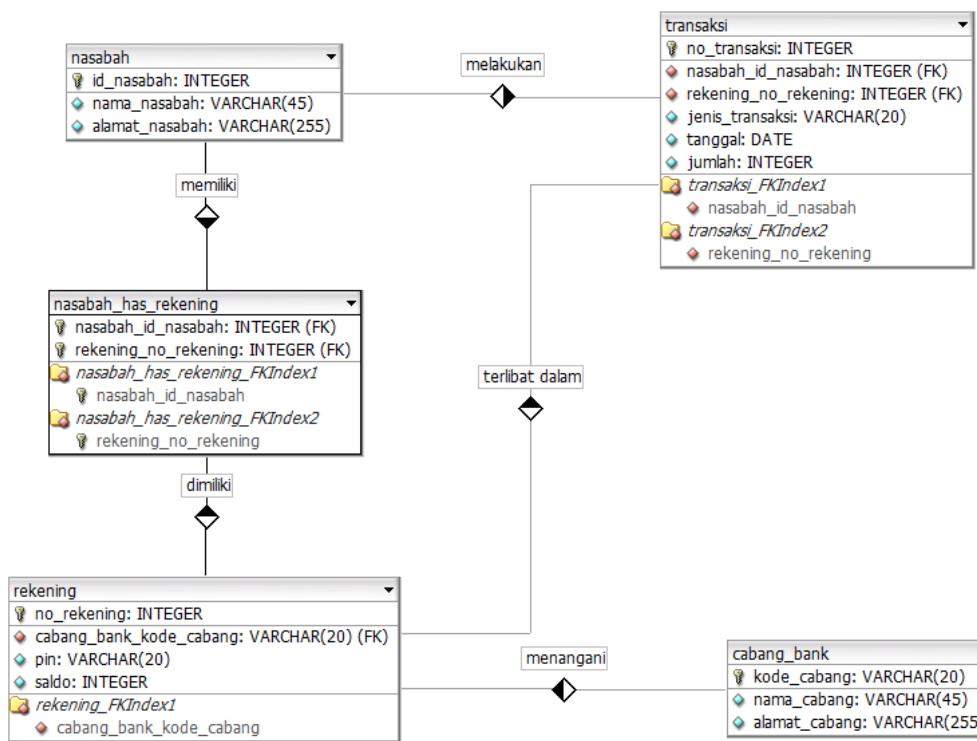
# LAPORAN PRAKTIKUM SISTEM BASIS DATA

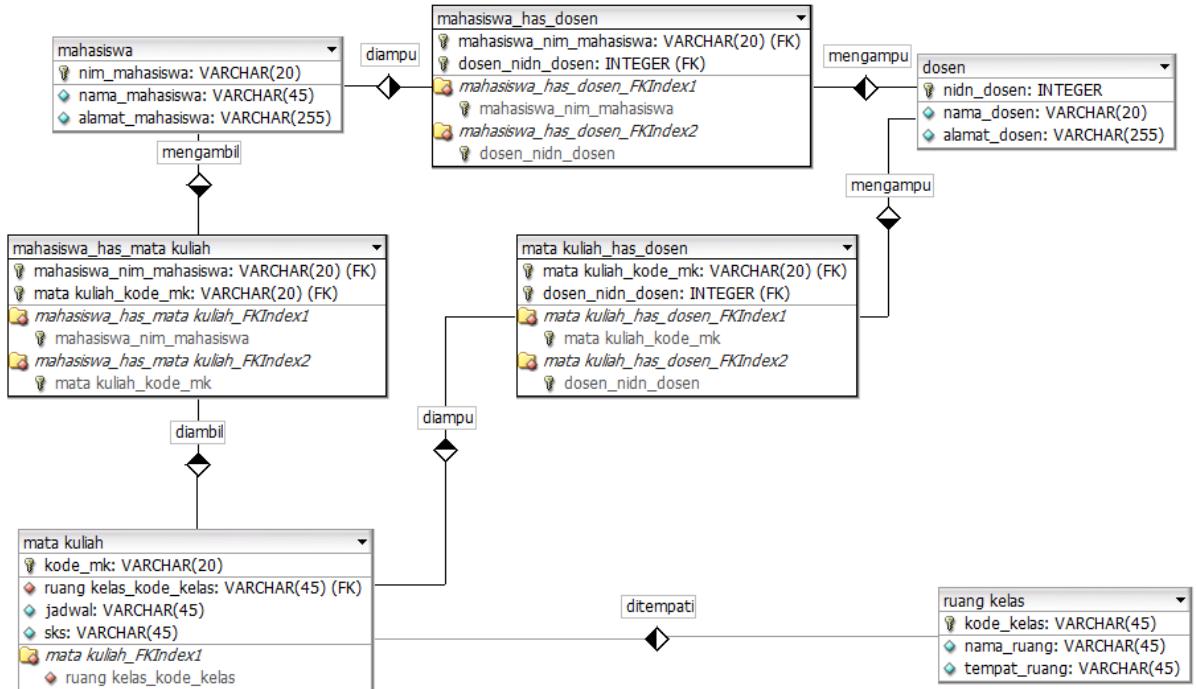
## MODUL 3

Nama : Riyanto Aldiansyah

NIM : L200170018

Kelas : A





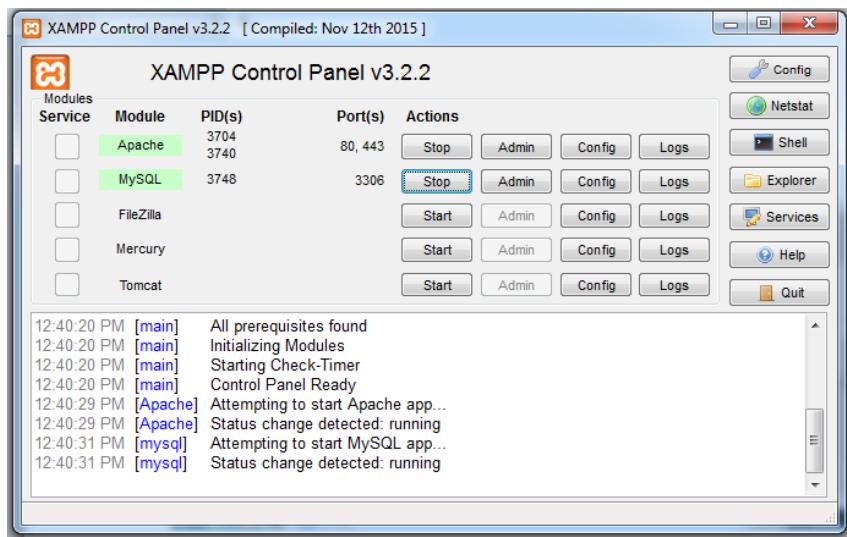
# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 4

NAMA : Riyandiansyah

NIM : L200170018

KELAS : A



```
C:\Windows\system32\cmd.exe - mysql -u root -p
Microsoft Windows [Version 6.1.7600]
Copyright <c> 2009 Microsoft Corporation. All rights reserved.

C:\Users\LABSI-12>cd ...
C:\>cd xampp/mysql/bin

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 2
Server version: 10.1.37-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>]> create database perbankan;
Query OK, 1 row affected <0.00 sec>

MariaDB [<none>]> use perbankan
Database changed
MariaDB [perbankan]> CREATE TABLE nasabah (id_nasabah INTEGER PRIMARY KEY, nama_nasabah VARCHAR(45) NOT NULL, alamat_nasabah VARCHAR(225) NOT NULL);
Query OK, 0 rows affected <0.24 sec>

MariaDB [perbankan]> CREATE TABLE cabang_bank (kode_cabang VARCHAR(20) PRIMARY KEY, nama_cabang VARCHAR(45) UNIQUE NOT NULL, alamat_cabang VARCHAR(225) NOT NULL);
Query OK, 0 rows affected <0.23 sec>

MariaDB [perbankan]> CREATE TABLE rekening (no_rekening INTEGER PRIMARY KEY, kode_cabangFK VARCHAR(20) REFERENCES cabang_bank(kode_cabang) ON DELETE CASCADE ON UPDATE CASCADE, pin VARCHAR(20) DEFAULT '1234' NOT NULL, saldo INTEGER DEFAULT 0 NOT NULL);
Query OK, 0 rows affected <0.21 sec>

MariaDB [perbankan]> CREATE TABLE transaksi (no_transaksi SERIAL PRIMARY KEY, id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah) ON DELETE SET NULL ON UPDATE CASCADE, no_rekeningFK INTEGER REFERENCES rekening(no_rekening) ON DELETE SET NULL ON UPDATE CASCADE, jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL, tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP, jumlah INTEGER NOT NULL CHECK (<jumlah>=20000));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'nasabah(id_nasabah) ON DELETE SET NULL ON UPDATE CASCADE, no_rekeningFK INTEGER ' at line 1
MariaDB [perbankan]> CREATE TABLE transaksi (no_transaksi SERIAL PRIMARY KEY, id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah) ON DELETE SET NULL ON UPDATE CASCADE, no_rekeningFK INTEGER REFERENCES rekening(no_rekening) ON DELETE SET NULL ON UPDATE CASCADE, jenis_transaksi VARCHAR(20) DEFAULT 'debit' NOT NULL, tanggal DATETIME NOT NULL DEFAULT CURRENT_TIMESTAMP, jumlah INTEGER NOT NULL CHECK (<jumlah>= 20000));
Query OK, 0 rows affected <0.25 sec>

MariaDB [perbankan]> CREATE TABLE nasabah_has_rekening (id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah) ON DELETE SET NULL ON UPDATE CASCADE, no_rekeningFK
```



```

C:\Windows\system32\cmd.exe - mysql -u root -p

MariaDB [perbankan] > CREATE TABLE nasabah_has_rekening (id_nasabahFK INTEGER REFERENCES nasabah(id_nasabah) ON DELETE SET NULL ON UPDATE CASCADE, no_rekeningFK INTEGER REFERENCES rekening(no_rekening) ON DELETE SET NULL ON UPDATE CASCADE, PRIMARY KEY(id_nasabahFK, no_rekeningFK));
Query OK, 0 rows affected (0.14 sec)

MariaDB [perbankan] > show tables;
+-----+
| Tables_in_perbankan |
+-----+
| cabang_bank          |
| nasabah              |
| nasabah_has_rekening |
| rekening             |
| transaksi            |
+-----+
5 rows in set (0.00 sec)

MariaDB [perbankan] > describe nasabah;
+-----+-----+-----+-----+-----+-----+
| Field      | Type       | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| id_nasabah | int(11)    | NO   | PRI | NULL    |       |
| nama_nasabah | varchar(45) | NO   |     | NULL    |       |
| alamat_nasabah | varchar(225) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

MariaDB [perbankan] > describe cabang_bank;
+-----+-----+-----+-----+-----+-----+
| Field      | Type       | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| kode_cabang | varchar(20) | NO   | PRI | NULL    |       |
| nama_cabang | varchar(45) | NO   | UNI | NULL    |       |
| alamat_cabang | varchar(225) | NO   |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

MariaDB [perbankan] > describe rekening;
+-----+-----+-----+-----+-----+-----+
| Field      | Type       | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| no_rekening | int(11)    | NO   | PRI | NULL    |       |
| kode_cabangFK | varchar(20) | YES  |     | NULL    |       |
| pin         | varchar(20) | NO   |     | 1234   |       |
| saldo       | int(11)    | NO   |     | 0       |       |
+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

MariaDB [perbankan] > describe transaksi
->
-> describe transaksi;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that
corresponds to your MariaDB server version for the right syntax to use near 'des
cribe transaksi' at line 3
MariaDB [perbankan] > describe transaksi;

```



```
C:\Windows\system32\cmd.exe - mysql -u root -p
corresponds to your MariaDB server version for the right syntax to use near 'des
cribe transaksi' at line 3
MariaDB [perbankan]> describe transaksi;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| no_transaksi | bigint<20> unsigned | NO | PRI | NULL | auto_
increment |
| id_nasabahFK | int<11> | YES | | NULL | |
| no_rekeningFK | int<11> | YES | | NULL | |
| jenis_transaksi | varchar<20> | NO | | debit | |
| tanggal | datetime | NO | | CURRENT_TIMESTAMP | |
| jumlah | int<11> | NO | | NULL | |
+-----+-----+-----+-----+-----+
6 rows in set <0.00 sec>

MariaDB [perbankan]> describe nasabah_has_rekening;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| id_nasabahFK | int<11> | NO | PRI | NULL | |
| no_rekeningFK | int<11> | NO | PRI | NULL | |
+-----+-----+-----+-----+-----+
2 rows in set <0.01 sec>

MariaDB [perbankan]>
```

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# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 5

**NAMA** : Riyan Aldiansyah

**NIM** : L200170018

**KELAS** : A

```
Command Prompt - mysql -u root -p
Microsoft Windows [Version 10.0.17134.648]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\User>cd ...
C:\>cd xampp/mysql/bin

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 38
Server version: 10.1.38-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
MariaDB [perbankan]> insert into nasabah(id_nasabah,nama_nasabah,alamat_nasabah)value
    -> (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 Murtono','Jl.Merak 22');
Query OK, 10 rows affected (0.07 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> insert into cabang_bank(kode_cabang,nama_cabang,alamat_cabang)value
    -> ('BRUS','Bank Rut Unit Surakarta','Jl. Slamet Riyadi 18'),
    -> ('BRUM','Bank Rut Unit Magelang','Jl. P.Tendean 63'),
    -> ('BRUB','Bank Rut Unit Boyolali','Jl. Ahmad Yani 45'),
    -> ('BRUK','Bank Rut Unit Klaten','Jl. Suparman 23'),
    -> ('BRUY','Bank Rut Unit Yogyakarta','Jl. Anggrek 21'),
    -> ('BRUW','Bank Rut Unit Wonogiri','Jl. Untung Suropati 12');
Query OK, 6 rows affected (0.07 sec)
Records: 6  Duplicates: 0  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 |
|
```

```

[1] Command Prompt - mysql -u root -p
MariaDB [perbankan]> select * from nasabah;
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 1 | Sutopo | Jl. Jendral Sudirman 12 |
| 2 | Mardati | Jl. Haryono 31 |
| 3 | Suparmen | Jl. Hasanudin 81 |
| 4 | Kartika Padmasari | Jl. Manggis 15 |
| 5 | Rudi 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 Murtono | Jl. Merak 22 |
+-----+-----+-----+
10 rows in set (0.00 sec)

MariaDB [perbankan]> select * from cabang_bank;
+-----+-----+-----+
| kode_cabang | nama_cabang | alamat_cabang |
+-----+-----+-----+
| BRUB | Bank Rut Unit Boyolali | Jl. Ahmad Yani 45 |
| BRUK | Bank Rut Unit Klaten | Jl. Suparmen 23 |
| BRUM | Bank Rut Unit Magelang | Jl. P.Tendean 63 |
| BRUS | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| BRWU | Bank Rut Unit Wongorong | Jl. Untung Suropati 12 |
| BRUY | Bank Rut Unit Yogyakarta | Jl. Anggrek 21 |
+-----+-----+-----+
0 rows in set (0.00 sec)

MariaDB [perbankan]> -

```

```

[1] Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into rekening(no_rekening,kode_cabangFK,pin,saldo)value
-> (101,'BRUS','1111','500000'),
-> (102,'BRUS','2222','350000'),
-> (103,'BRUS','3333','750000'),
-> (104,'BRUM','4444','900000'),
-> (105,'BRUM','5555','2000000'),
-> (106,'BRUS','6666','3000000'),
-> (107,'BRUS','7777','1000000'),
-> (108,'BRUB','0000','5000000'),
-> (109,'BRUB','9999','0'),
-> (110,'BRUY','1234','550000'),
-> (111,'BRUK','4321','300000'),
-> (112,'BRUK','0123','300000'),
-> (113,'BRUY','8888','255000');
Query OK, 13 rows affected (0.06 sec)
Records: 13  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select * from rekening;
+-----+-----+-----+-----+
| no_rekening | kode_cabangFK | pin | saldo |
+-----+-----+-----+-----+
| 101 | BRUS | 1111 | 500000 |
| 102 | BRUS | 2222 | 350000 |
| 103 | BRUS | 3333 | 750000 |
| 104 | BRUM | 4444 | 900000 |
| 105 | BRUM | 5555 | 2000000 |
| 106 | BRUS | 6666 | 3000000 |
| 107 | BRUS | 7777 | 1000000 |
| 108 | BRUB | 0000 | 5000000 |
| 109 | BRUB | 9999 | 0 |
| 110 | BRUY | 1234 | 550000 |
| 111 | BRUK | 4321 | 300000 |
| 112 | BRUK | 0123 | 300000 |
| 113 | BRUY | 8888 | 255000 |
+-----+-----+-----+-----+
13 rows in set (0.00 sec)

MariaDB [perbankan]> -

```

```
mysql Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into nasabah_has_rekening(id_nasabahFK,no_rekeningFK)values
-> (1,104),
-> (2,103),
-> (3,105),
-> (3,106),
-> (3,101),
-> (4,107),
-> (5,102),
-> (5,107),
-> (6,109),
-> (7,109),
-> (8,111),
-> (9,110),
-> (10,113),
-> (8,112),
-> (10,108);
Query OK, 15 rows affected (0.07 sec)
Records: 15 Duplicates: 0 Warnings: 0
MariaDB [perbankan]> select * from nasabah_has_rekening;
+-----+-----+
| id_nasabahFK | no_rekeningFK |
+-----+-----+
| 1             | 104           |
| 2             | 103           |
| 3             | 105           |
| 3             | 106           |
| 4             | 101           |
| 4             | 107           |
| 5             | 102           |
| 5             | 107           |
| 6             | 109           |
| 7             | 109           |
| 8             | 111           |
| 8             | 112           |
| 9             | 110           |
| 10            | 108          |
| 10            | 113          |
+-----+-----+
15 rows in set (0.00 sec)

MariaDB [perbankan]>
```

```
mysql Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into transaksi (no_transaksi, no_rekeningFK, id_nasabahFK, jenis_transaksi, tanggal, jumlah) VALUES
-> ('1', 105, 3, 'debit', '2009-11-10', '50000'),
-> ('2', 103, 2, 'debit', '2009-11-10', '40000'),
-> ('3', 101, 4, 'kredit', '2009-11-12', '20000'),
-> ('4', 106, 3, 'debit', '2009-11-13', '50000'),
-> ('5', 104, 5, 'kredit', '2009-11-13', '30000'),
-> ('6', 104, 4, 'kredit', '2009-11-15', '100000'),
-> ('7', 110, 9, 'debit', '2009-11-15', '150000'),
-> ('8', 102, 5, 'debit', '2009-11-16', '20000'),
-> ('9', 105, 3, 'kredit', '2009-11-18', '50000'),
-> ('10', 107, 4, 'debit', '2009-11-19', '100000'),
-> ('11', 103, 2, 'debit', '2009-11-19', '100000'),
-> ('12', 104, 1, 'debit', '2009-11-19', '50000'),
-> ('13', 107, 4, 'kredit', '2009-11-20', '200000'),
-> ('14', 105, 3, 'debit', '2009-11-21', '40000'),
-> ('15', 104, 1, 'kredit', '2009-11-22', '100000'),
-> ('16', 101, 4, 'kredit', '2009-11-22', '20000'),
-> ('17', 103, 2, 'debit', '2009-11-22', '50000'),
-> ('18', 102, 5, 'debit', '2009-11-25', '50000'),
-> ('19', 108, 10, 'debit', '2009-11-27', '100000'),
-> ('20', 103, 2, 'kredit', '2009-11-27', '50000'),
-> ('21', 103, 2, 'kredit', '2009-11-28', '100000),
-> ('22', 105, 3, 'kredit', '2009-11-28', '100000),
-> ('23', 102, 5, 'debit', '2009-11-30', '20000'),
-> ('24', 104, 1, 'debit', '2009-12-1', '50000),
-> ('25', 103, 2, 'debit', '2009-12-2', '40000'),
-> ('26', 101, 4, 'debit', '2009-12-4', '50000'),
-> ('27', 103, 2, 'kredit', '2009-12-5', '100000),
-> ('28', 102, 5, 'kredit', '2009-12-5', '200000),
-> ('29', 109, 7, 'debit', '2009-12-5', '100000'),
-> ('30', 110, 9, 'debit', '2009-12-6', '20000);
Query OK, 30 rows affected (0.09 sec)
Records: 30 Duplicates: 0 Warnings: 0
MariaDB [perbankan]> select * from transaksi;
+-----+-----+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal | jumlah |
+-----+-----+-----+-----+-----+-----+
| 1             | 3             | 105           | debit           | 2009-11-10 00:00:00 | 50000   |
| 2             | 2             | 103           | debit           | 2009-11-10 00:00:00 | 40000   |
| 3             | 4             | 101           | kredit          | 2009-11-12 00:00:00 | 20000   |
| 4             | 3             | 106           | debit           | 2009-11-13 00:00:00 | 50000   |
| 5             | 5             | 107           | kredit          | 2009-11-13 00:00:00 | 30000   |
| 6             | 1             | 104           | kredit          | 2009-11-15 00:00:00 | 200000  |
| 7             | 9             | 110           | kredit          | 2009-11-15 00:00:00 | 150000  |
| 8             | 5             | 102           | debit           | 2009-11-16 00:00:00 | 20000   |
| 9             | 3             | 105           | kredit          | 2009-11-18 00:00:00 | 50000   |
| 10            | 4             | 101           | debit           | 2009-11-19 00:00:00 | 100000  |
| 11            | 2             | 103           | debit           | 2009-11-19 00:00:00 | 100000  |
| 12            | 1             | 104           | debit           | 2009-11-19 00:00:00 | 50000   |
| 13            | 4             | 107           | kredit          | 2009-11-20 00:00:00 | 200000  |
| 14            | 3             | 105           | debit           | 2009-11-21 00:00:00 | 40000   |
+-----+-----+-----+-----+-----+-----+
```

# TUGAS

## Nasabah

```
[root@localhost ~]# Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into nasabah(id_nasabah,nama_nasabah,alamat_nasabah)value
-> ('11,'Slamet Budiyanto','Jl. Asia Afrika 112'),
-> ('12,'Mursyid Efendi','Jl. Anggrek 3'),
-> ('13,'Ajai Sudrajat','Jl. Peyeum 21'),
-> ('14,'Maulana Vikry','Jl. Nikisari 12'),
-> ('15,'Sigit Prawiro','Jl. Inaja 13'),
-> ('16,'Hendro Kartiko','Jl. Anggur 41'),
-> ('17,'Nabila','Jl. Simuang 53'),
-> ('18,'Nurhadji','Jl. Parangtritis 132'),
-> ('19,'Kirana Murti','Jl. Tilang 19'),
-> ('20,'Budi Sudarsomo','Jl. Mundur 45');
Query OK, 10 rows affected (0.12 sec)
Records: 10  Duplicates: 0  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 | Nurhadji | Jl. Pangandaran 11 |
| 9 | Canka Lokananta | Jl. Kuningan 96 |
| 10 | Budi Murtono | Jl.Merak 22 |
| 11 | Slamet Budiyanto | Jl. Asia Afrika 112 |
| 12 | Mursyid Efendi | Jl. Anggerek 3 |
| 13 | Ajai Sudrajat | Jl. Peyeum 21 |
| 14 | Maulana Vikry | Jl. Nikisari 12 |
| 15 | Sigit Prawiro | Jl. Inaja 13 |
| 16 | Hendro Kartiko | Jl. Anggur 41 |
| 17 | Nabila | Jl. Simuang 53 |
| 18 | Nurhadji | Jl. Parangtritis 132 |
| 19 | Kirana Murti | Jl. Tilang 19 |
| 20 | Budi Sudarsomo | Jl. Mundur 45 |
+-----+-----+-----+
20 rows in set (0.00 sec)

MariaDB [perbankan]>
```

## Cabang\_bank

```
[root@localhost ~]# Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into cabang_bank(kode_cabang,nama_cabang,alamat_cabang)value
-> ('BRUA','Bank Rut Unit Anyer','Jl. H. Mukhlis 118'),
-> ('BRUB','Bank Rut Unit Ngawi','Jl. Pattimura 43'),
-> ('BRUC','Bank Rut Unit Gorontalo','Jl. Besar 25'),
-> ('BRUT','Bank Rut Unit Inggris','Jl. Supermin 23'),
-> ('BRUM','Bank Rut Unit Hungaria','Jl. Muh Yamin 41'),
-> ('BRUP','Bank Rut Unit Purwodadi','Jl. Sidan 12*'),
-> ('BRUR','Bank Rut Unit Jayapura','Jl. Bonjol 225'),
-> ('BRUR','Bank Rut Unit Rusia','Jl. Sutopo 33'),
-> ('BRUC','Bank Rut Unit Cilacap','Jl. H. Bagas 48'),
-> ('BRUL','Bank Rut Unit Lamongan','Jl. Pierre 4');
Query OK, 10 rows affected (0.09 sec)
Records: 10  Duplicates: 0  Warnings: 0

MariaDB [perbankan]> select * from cabang_bank;
+-----+-----+-----+
| kode_cabang | nama_cabang | alamat_cabang |
+-----+-----+-----+
| BRUA | Bank Rut Unit Anyer | Jl. H. Mukhlis 118 |
| BRUB | Bank Rut Unit Boyolali | Jl. Ahmad Yani 45 |
| BRUC | Bank Rut Unit Cilacap | Jl. H. Bagas 48 |
| BRUG | Bank Rut Unit Gorontalo | Jl. Besar 25 |
| BRUH | Bank Rut Unit Hungaria | Jl. Muh Yamin 41 |
| BRUI | Bank Rut Unit Inggris | Jl. Supermin 23 |
| BRUJ | Bank Rut Unit Jayapura | Jl. Bonjol 225 |
| BRUK | Bank Rut Unit Klaten | Jl. Supermin 23 |
| BRUV | Bank Rut Unit Lamongan | Jl. Pierre 4 |
| BRUM | Bank Rut Unit Magelang | Jl. P.Tendean 63 |
| BRUN | Bank Rut Unit Ngawi | Jl. Pattimura 43 |
| BRUP | Bank Rut Unit Purwodadi | Jl. Sidan 12 |
| BRUR | Bank Rut Unit Rusia | Jl. Sutopo 33 |
| BRUS | Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18 |
| BRUM | Bank Rut Unit Wonggori | Jl. Untung Suropati 12 |
| BRUY | Bank Rut Unit Yogyakarta | Jl. Anggerek 21 |
+-----+-----+-----+
16 rows in set (0.00 sec)

MariaDB [perbankan]>
```

## Rekening

```
Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into rekening(no_rekening,kode_cabangFK,pin,saldo)value
-> (114,'BRUS',1123,'310000'),
-> (115,'BRUJ',2123,'320000'),
-> (116,'BRUH',3123,'200000'),
-> (117,'BRUC',4123,'330000'),
-> (118,'BRUB',5123,'300000'),
-> (119,'BRUM',6123,'150000'),
-> (120,'BRUA',7123,'340000'),
-> (121,'BRUP',8123,'350000'),
-> (122,'BRUL',9123,'360000'),
-> (123,'BRUL',1023,'370000');
Query OK, 10 rows affected (0.08 sec)
Records: 10  Duplicates: 0  Warnings: 0
MariaDB [perbankan]> select * from rekening;
+-----+-----+-----+-----+
| no_rekening | kode_cabangFK | pin | saldo |
+-----+-----+-----+-----+
| 101 | BRUS | 1111 | 500000 |
| 102 | BRUS | 2222 | 350000 |
| 103 | BRUS | 3333 | 750000 |
| 104 | BRUM | 4444 | 1000000 |
| 105 | BRUM | 5555 | 2000000 |
| 106 | BRUS | 6666 | 3000000 |
| 107 | BRUS | 7777 | 1000000 |
| 108 | BRUB | 0000 | 5000000 |
| 109 | BRUB | 9999 | 0 |
| 110 | BRUY | 1234 | 550000 |
| 111 | BRUK | 4321 | 300000 |
| 112 | BRUK | 0123 | 300000 |
| 113 | BRUY | 8888 | 2550000 |
| 114 | BRUS | 1123 | 310000 |
| 115 | BRUJ | 2123 | 320000 |
| 116 | BRUH | 3123 | 200000 |
| 117 | BRUC | 4123 | 150000 |
| 118 | BRUJ | 5123 | 3040000 |
| 119 | BRUM | 6123 | 3800000 |
| 120 | BRUA | 7123 | 3400000 |
| 121 | BRUP | 8123 | 3500000 |
| 122 | BRUL | 9123 | 3600000 |
| 123 | BRUL | 1023 | 3700000 |
+-----+-----+-----+-----+
23 rows in set (0.00 sec)

MariaDB [perbankan]>
```

## Nasabah\_has\_rekening

```
Command Prompt - mysql -u root -p
MariaDB [perbankan]> insert into nasabah_has_rekening (id_nasabahFK,no_rekeningFK)value
-> (11,104),
-> (12,103),
-> (13,105),
-> (13,106),
-> (14,101),
-> (14,102),
-> (14,103),
-> (15,107),
-> (15,109),
-> (16,109),
-> (17,109),
-> (18,111),
-> (19,110),
-> (20,113),
-> (18,112),
-> (20,108);
Query OK, 15 rows affected (0.10 sec)
Records: 15  Duplicates: 0  Warnings: 0
MariaDB [perbankan]> select * from nasabah_has_rekening;
+-----+-----+
| id_nasabahFK | no_rekeningFK |
+-----+-----+
| 1 | 104 |
| 2 | 103 |
| 3 | 105 |
| 3 | 106 |
| 4 | 101 |
| 4 | 107 |
| 5 | 102 |
| 5 | 107 |
| 6 | 109 |
| 7 | 109 |
| 8 | 111 |
| 8 | 112 |
| 9 | 110 |
| 10 | 108 |
| 10 | 113 |
| 11 | 104 |
| 12 | 103 |
| 13 | 105 |
| 13 | 106 |
| 14 | 101 |
| 14 | 107 |
| 15 | 102 |
| 15 | 107 |
| 16 | 109 |
| 17 | 109 |
| 18 | 111 |
| 18 | 112 |
| 19 | 110 |
| 20 | 108 |
+-----+-----+
```

## Transaksi

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
1	3	105	debit	2009-11-10 00:00:00	50000
2	2	103	debit	2009-11-10 00:00:00	40000
3	4	101	kredit	2009-11-12 00:00:00	20000
4	3	106	debit	2009-11-13 00:00:00	50000
5	5	101	kredit	2009-11-14 00:00:00	30000
6	1	104	kredit	2009-11-15 00:00:00	200000
7	9	110	debit	2009-11-15 00:00:00	150000
8	5	102	debit	2009-11-16 00:00:00	20000
9	3	105	kredit	2009-11-18 00:00:00	50000
10	4	107	debit	2009-11-19 00:00:00	100000
11	2	103	debit	2009-11-19 00:00:00	100000
12	1	104	debit	2009-11-19 00:00:00	50000
13	4	107	kredit	2009-11-20 00:00:00	200000
14	3	105	debit	2009-11-21 00:00:00	40000
15	1	104	kredit	2009-11-22 00:00:00	100000
16	4	101	kredit	2009-11-22 00:00:00	20000
17	2	103	debit	2009-11-22 00:00:00	50000
18	5	102	debit	2009-11-25 00:00:00	50000
19	10	104	debit	2009-11-26 00:00:00	100000
20	3	106	kredit	2009-11-27 00:00:00	50000
21	2	103	debit	2009-11-28 00:00:00	200000
22	3	105	kredit	2009-11-28 00:00:00	100000
23	5	102	debit	2009-11-30 00:00:00	20000
24	1	104	debit	2009-12-01 00:00:00	50000
25	2	103	debit	2009-12-02 00:00:00	40000
26	4	101	debit	2009-12-04 00:00:00	50000
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
30	9	110	debit	2009-12-06 00:00:00	20000
31	3	105	debit	2009-12-07 00:00:00	40000
32	1	104	kredit	2009-12-08 00:00:00	100000
33	4	101	kredit	2009-12-08 00:00:00	20000
34	2	103	debit	2009-12-08 00:00:00	50000
35	5	102	debit	2009-12-09 00:00:00	50000
36	10	108	debit	2009-12-10 00:00:00	100000
37	3	106	kredit	2009-12-12 00:00:00	50000
38	2	103	kredit	2009-12-12 00:00:00	200000
39	3	105	kredit	2009-12-13 00:00:00	100000
40	5	102	debit	2009-12-14 00:00:00	20000
41	1	104	debit	2009-12-15 00:00:00	50000
42	1	104	debit	2009-12-16 00:00:00	50000
43	2	103	debit	2009-12-17 00:00:00	40000
44	4	101	debit	2009-12-18 00:00:00	50000
45	2	103	kredit	2009-12-19 00:00:00	100000
46	5	102	kredit	2009-12-20 00:00:00	200000
47	7	101	debit	2009-12-21 00:00:00	30000
48	9	110	debit	2009-12-21 00:00:00	20000
49	7	109	debit	2009-12-22 00:00:00	100000
50	9	110	debit	2009-12-23 00:00:00	20000

# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 6

NAMA : Riyandiansyah

NIM : L200170018

KELAS : A

1. Tampilkan nama nasabah dan alamat nasabah diurutkan bedasarkan nama nasabah

```
C:\Windows\system32\cmd.exe - mysql -u root -p
MariaDB [perbankan] > SELECT * FROM nasabah;
+-----+-----+
| nama_nasabah | alamat_nasabah |
+-----+-----+
| Andara      | Jl. Pertama 26
| Bening       | Jl. Agatis 10
| Budi Eko Prayogo | Jl. Kantil 30
| Budi Martono | Jl. Merak 22
| Canka Lokananta | Jl. Tidar 86
| Cinta        | Jl. Ketiga 24
| Danindya    | Jl. Aki Balak 22
| Kartika Padmasari | Jl. Manggis 15
| Kusumulistyawara | Jl. Is. Sookmono 12
| Maryati       | Jl. MT Haryono 31
| Muliana      | Jl. Jend. Sudirman 97
| Pandan Wangi | Jl. Imam Bonjol 20
| Putut         | Jl. AMD 10
| Putri         | Jl. Diponegoro 19
| Rangga        | Jl. Kedua 80
| Sari Murti   | Jl. Pangandaran 11
| Satria Eka Jaya | Jl. Slamet Riyadi 45
| Suparmen     | Jl. Hasanudin 81
| Sutopo        | Jl. Jendral Sudirman 12
| Trianandya   | Jl. Sutoyo 5
+-----+-----+
20 rows in set <0.00 sec>

MariaDB [perbankan] >
```

2. Tampilkan jenis transaksi dan jumlah transaksi dimana jenis transaksinya adalah kredit

```
C:\Windows\system32\cmd.exe - mysql -u root -p
MariaDB [perbankan] > SELECT * FROM transaksi WHERE jenis_transaksi LIKE 'kredit';
+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal
|-----+-----+-----+-----+
| 3 | 101 | kredit | 2009-11-12 00:
| 5 | 107 | kredit | 2009-11-13 00:
| 6 | 104 | kredit | 2009-11-15 00:
| 7 | 110 | kredit | 2009-11-15 00:
| 9 | 105 | kredit | 2009-11-18 00:
| 13 | 107 | kredit | 2009-11-20 00:
| 15 | 104 | kredit | 2009-11-22 00:
| 16 | 101 | kredit | 2009-11-22 00:
| 20 | 106 | kredit | 2009-11-27 00:
| 22 | 103 | kredit | 2009-11-28 00:
| 27 | 105 | kredit | 2009-11-28 00:
| 28 | 103 | kredit | 2009-12-05 00:
| 31 | 102 | kredit | 2009-12-05 00:
| 32 | 114 | kredit | 2009-12-07 00:
| 35 | 122 | kredit | 2009-12-07 00:
| 38 | 123 | kredit | 2009-12-10 00:
| 40 | 120 | kredit | 2009-12-11 00:
| 43 | 115 | kredit | 2009-12-12 00:
| 43 | 114 | kredit | 2009-12-14 00:
| 46 | 121 | kredit | 2009-12-14 00:
| 47 | 120 | kredit | 2009-12-16 00:
| 48 | 115 | kredit | 2009-12-17 00:
| 50 | 113 | kredit | 2009-12-18 00:
| 50 | 114 | kredit | 2009-12-20 00:
+-----+-----+-----+-----+
```

3. Tampilkan jenis transaksi dan jumlah transaksi yang melakukan transaksi pada tanggal 21 November 2009 dan diurutkan bedasarkan jumlah transaksi

```
C:\Windows\system32\cmd.exe - mysql -u root -p
MariaDB [perbankan] > SELECT * FROM transaksi WHERE tanggal = '2009-11-21';
+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal
+-----+-----+-----+-----+
|       14      |        3       |       105      |     debit        | 2009-11-21 00:
|-----+-----+-----+-----+
00:00 : 40000
+-----+
1 row in set <0.00 sec>
MariaDB [perbankan] >
```

4. Tampilkan nama nasabah, jenis transaksi dan jumlah transaksi dimana jumlah transaksi = Rp 20.000

```
C:\Windows\system32\cmd.exe - mysql -u root -p
MariaDB [perbankan] > SELECT * FROM transaksi WHERE tanggal = '2009-11-21';
+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal
+-----+-----+-----+-----+
|       14      |        3       |       105      |     debit        | 2009-11-21 00:
|-----+-----+-----+-----+
00:00 : 40000
+-----+
1 row in set <0.00 sec>
MariaDB [perbankan] > SELECT * FROM transaksi WHERE jumlah LIKE 20000;
+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal
+-----+-----+-----+-----+
|       3       |        4       |       101      |   kredit        | 2009-11-12 00:
|-----+-----+-----+-----+
00:00 : 20000
|       8       |        5       |       102      |   debit         | 2009-11-16 00:
|-----+-----+-----+-----+
00:00 : 20000
|      16      |        4       |       101      |   kredit        | 2009-11-22 00:
|-----+-----+-----+-----+
00:00 : 20000
|      23      |        5       |       102      |   debit         | 2009-11-30 00:
|-----+-----+-----+-----+
00:00 : 20000
|      30      |        9       |       110      |   debit         | 2009-12-06 00:
|-----+-----+-----+-----+
00:00 : 20000
|      31      |       12      |       114      |   kredit        | 2009-12-07 00:
|-----+-----+-----+-----+
00:00 : 20000
+-----+
6 rows in set <0.00 sec>
MariaDB [perbankan] >
```

5. Tampilkan nama nasabah dan alamat nasabah dimana nama nasabah diawali dengan kata ‘Su’

```
C:\Windows\system32\cmd.exe - mysql -u root -p
corresponds to your MariaDB server version for the right syntax to use near 'ILI
KE 'su'' at line 1
MariaDB [perbankan] > SELECT * FROM nasabah WHERE nama_nasabah LIKE 'suz';
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
|       1      | Sutopo       | Jl. Jendral Sudirman 12 |
|       3      | Suparman    | Jl. Hasanudin 81      |
+-----+-----+-----+
2 rows in set <0.00 sec>
MariaDB [perbankan] >
```

# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 7

Nama : Riyan Aldiansyah

NIM : L200170018

Kelas : A

### E. Tugas

```

ex C:\Windows\system32\cmd.exe - mysql -u root
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\LABSI-19>cd..
C:\Users>d..
C:\>use perbankan
'use' is not recognized as an internal or external command,
operable program or batch file.
C:\>>>xampp>mysql>use perbankan
'use' is not recognized as an internal or external command,
operable program or batch file.
C:\>>>cd xampp
C:\xampp>d mysql bin
C:\xampp>mysql>use perbankan
'use' is not recognized as an internal or external command,
operable program or batch file.
C:\xampp>mysql>use perbankan;
'use' is not recognized as an internal or external command,
operable program or batch file.
C:\xampp>mysql>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 12
Server version: 10.1.37-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
MariaDB [perbankan]> show perbankan;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'perbankan' at line 1
MariaDB [perbankan]> show perbankan
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'perbankan' at line 1
MariaDB [perbankan]> desc nasabah;
+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+
| id_nasabah | int<11> | NO | PRI | NULL |       |
| nama_nasabah | varchar<45> | NO |       | NULL |       |
| alamat_nasabah | varchar<255> | NO |       | NULL |       |
+-----+-----+-----+-----+-----+
3 rows in set <0.06 sec>

ex C:\Windows\system32\cmd.exe - mysql -u root
MariaDB [perbankan]> select nama_nasabah,alamat_nasabah,jenis_transaksi,jumlah from nasabah_transaksi where jenis_transaksi = 'kredit' and nasabah.id_nasabah = transaksi.id_nasabahFK order by nama_nasabah;
ERROR 1146 (42000): Table 'perbankan.nasabah' doesn't exist
MariaDB [perbankan]> select nama_nasabah,alamat_nasabah,jenis_transaksi,jumlah from nasabah_transaksi where jenis_transaksi = 'kredit' and nasabah.id_nasabah = transaksi.id_nasabahFK order by nama_nasabah;
+-----+-----+-----+-----+
| nama_nasabah | alamat_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+-----+
| Budi Eko Prayogo | Jl. Kantil 39 | kredit | 300000 |
| Budi Eko Prayogo | Jl. Kantil 39 | kredit | 2000000 |
| Budi Murtono | Jl. Merak 22 | kredit | 2500000 |
| Canka Lokananta | Jl. Tidar 86 | kredit | 1500000 |
| Haryono | Jl. Haryono 5 | kredit | 1000000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Maryati | Jl. MT. Haryono 31 | kredit | 1000000 |
| Maryati | Jl. MT. Haryono 31 | kredit | 2000000 |
| Maryati | Jl. MT. Haryono 31 | kredit | 1000000 |
| Suparmi | Jl. Hasanudin 81 | kredit | 1000000 |
| Suparmi | Jl. Hasanudin 81 | kredit | 500000 |
| Suparmi | Jl. Hasanudin 81 | kredit | 1000000 |
| Suparmi | Jl. Hasanudin 81 | kredit | 1000000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 5200000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 1000000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 2000000 |
17 rows in set <0.01 sec>

MariaDB [perbankan]> select no_transaksiPK,nama_nasabah,jenis_transaksi,jumlah from nasabah_transaksi where tanggal = '2009-11-21' and nasabah.id_nasabah = transaksi.id_nasabahFK order by nama_nasabah;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'id_nasabahFK order by nama_nasabah' at line 1
MariaDB [perbankan]> select rekening.no_rekening,nasabah.nama_nasabah,transaksi.jenis_transaksi,transaksi.jumlah FROM rekening_nasabah_transaksi WHERE rekening.no_rekening=transaksi.no_rekeningPK and nasabah.id_nasabah=transaksi.id_nasabahFK and tanggal = '2009-11-21' order by nama_nasabah;
+-----+-----+-----+-----+
| no_rekening | nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+-----+
| 195 | Suparmi | debit | 40000 |
+-----+-----+-----+-----+
1 row in set <0.01 sec>

MariaDB [perbankan]> select rekening.no_rekening,nasabah.nama_nasabah,transaksi.jenis_transaksi,transaksi.jumlah FROM rekening_nasabah_transaksi WHERE rekening.no_rekening=transaksi.no_rekeningPK and nasabah.id_nasabah=transaksi.id_nasabahFK and jumlah = '20000';
+-----+-----+-----+-----+
| no_rekening | nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+-----+
| 101 | Kartika Padmasari | kredit | 20000 |
| 102 | Budi Eko Prayogo | debit | 20000 |
| 103 | Haryono | kredit | 20000 |
| 102 | Budi Eko Prayogo | debit | 20000 |
| 110 | Canka Lokananta | debit | 20000 |
+-----+-----+-----+-----+
5 rows in set <0.01 sec>

MariaDB [perbankan]>
```

```

C:\Windows\system32\cmd.exe - mysql -u root
+-----+-----+-----+-----+
| Budi Eko Prayogo | Jl. Kanti 30 | kredit | 300000 |
+-----+-----+-----+-----+
| Budi Murtoro | Jl. Merak 20 | kredit | 200000 |
| Budi Murtoro | Jl. Merak 22 | kredit | 250000 |
| Canka Lokananta | Jl. Tidak 86 | kredit | 150000 |
| Kartika Padmasari | Jl. Manggis 5 | kredit | 100000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Kartika Padmasari | Jl. Manggis 15 | kredit | 200000 |
| Maryati | Jl. MT. Haryono 31 | kredit | 1000000 |
| Maryati | Jl. MT. Haryono 31 | kredit | 2000000 |
| Suparmati | Jl. Suparmat 11 | kredit | 1000000 |
| Suparman | Jl. Hasanudin 81 | kredit | 1000000 |
| Suparman | Jl. Hasanudin 81 | kredit | 500000 |
| Sutopo | Jl. Sutopo 10 | debit | 500000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 5200000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 1000000 |
| Sutopo | Jl. Jendral Sudirman 12 | kredit | 2000000 |
+-----+-----+-----+-----+
17 rows in set <0.01 sec>

MariaDB [perbankan1] > select no_rekening,nasabah.id_nasabah,jenis_transaksi.jumlah from nasabah.transaksi where tanggal = '2009-11-21' and nasabah.id_nasabah=transaksi.id_nasabah order by nama_nasabah;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'id_nasabahFK' at line 1
MariaDB [perbankan1] > select rekening.no_rekening,nasabah.nama_nasabah,transaksi.jenis_transaksi.jumlah FROM rekening JOIN nasabah ON rekening.id_rekening=nasabah.id_nasabah JOIN transaksi ON rekening.id_rekening=transaksi.id_nasabah WHERE tanggal = '2009-11-21' order by nama_nasabah;
+-----+-----+-----+-----+
| no_rekening | nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+-----+
| 105 | Suparman | debit | 400000 |
+-----+-----+-----+-----+
1 row in set <0.01 sec>

MariaDB [perbankan1] > select rekening.no_rekening,nasabah.nama_nasabah,transaksi.jenis_transaksi.jumlah FROM rekening,nasabah,transaksi where rekening.no_rekening= transaksi.no_rekeningFK and nasabah.id_nasabah=transaksi.id_nasabah AND jumlah > '20000';
+-----+-----+-----+-----+
| no_rekening | nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+-----+
| 101 | Kartika Padmasari | kredit | 200000 |
| 102 | Budi Eko Prayogo | debit | 200000 |
| 103 | Indra Hapsari | debit | 100000 |
| 102 | Budi Eko Prayogo | debit | 200000 |
| 110 | Canka Lokananta | debit | 200000 |
+-----+-----+-----+-----+
5 rows in set <0.01 sec>

MariaDB [perbankan1] > select no_rekening,nama_nasabah,alanat_nasabah from nasabah,rekening,nasabah_has_rekening where nasabah.id_nasabah=nasabah_has_rekening.id_nasabahPK and rekening.no_rekening=nasabah_has_rekening.no_rekeningPK and nama_nasabah like '%Suz%';
+-----+-----+-----+
| no_rekening | nama_nasabah | alanat_nasabah |
+-----+-----+-----+
| 104 | Sutopo | Jl. Jendral Sudirman 12 |
| 105 | Suparman | Jl. Hasanudin 81 |
| 106 | Suparman | Jl. Hasanudin 81 |
+-----+-----+-----+
3 rows in set <0.01 sec>

MariaDB [perbankan1] >
```

```

C:\Windows\system32\cmd.exe - mysql -u root
+-----+-----+-----+-----+
| 101 | Kartika Padmasari | kredit | 200000 |
| 102 | Budi Eko Prayogo | debit | 200000 |
| 110 | Canka Lokananta | debit | 200000 |
+-----+-----+-----+-----+
5 rows in set <0.00 sec>

MariaDB [perbankan1] > select no_rekening,nama_nasabah,alamat_nasabah from nasabah,rekening,nasabah_has_rekening where nasabah.id_nasabah=nasabah_has_rekening.id_nasabahPK and rekening.no_rekening=nasabah_has_rekening.no_rekeningPK and nama_nasabah like '%Suz%';
+-----+-----+-----+
| no_rekening | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 104 | Sutopo | Jl. Jendral Sudirman 12 |
| 105 | Suparman | Jl. Hasanudin 81 |
| 106 | Suparman | Jl. Hasanudin 81 |
+-----+-----+-----+
3 rows in set <0.00 sec>

MariaDB [perbankan1] > select no_rekening as 'Nomor Rekening',nama_nasabah as 'Nama Nasabah',jumlah as 'Jumlah Transaksi' from rekening,nasabah,transaksi where rekening.no_rekening= transaksi.no_rekeningFK and nasabah.id_nasabah=transaksi.id_nasabah AND jenis_transaksi = 'debit' order by nama_nasabah;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'as 'Nomor Rekening',nama_nasabah as 'Nama Nasabah',jumlah as 'Jumlah Transaksi'from ' at line 1
MariaDB [perbankan1] > select no_rekening as 'Nomor Rekening',nama_nasabah as 'Nama Nasabah',jumlah as 'Jumlah Transaksi' from rekening,nasabah,transaksi where rekening.no_rekening= transaksi.no_rekeningPK and nasabah.id_nasabah=transaksi.id_nasabahFK and jenis_transaksi = 'debit' order by nama_nasabah;
+-----+-----+-----+
| Nomor Rekening | Nama Nasabah | Jumlah Transaksi |
+-----+-----+-----+
| 109 | Anggit | 7000000 |
| 103 | Budi Eko Prayogo | 2630000 |
| 103 | Budi Eko Prayogo | 500000 |
| 116 | Budi Eko Prayogo | 200000 |
| 102 | Budi Eko Prayogo | 200000 |
| 103 | Budi Eko Prayogo | 200000 |
| 106 | Budi Eko Prayogo | 1000000 |
| 110 | Canka Lokananta | 200000 |
| 109 | Indra Hapsari | 1000000 |
| 103 | Indra Hapsari | 27000000 |
| 101 | Jon Koplo | 85000000 |
| 101 | Kartika Padmasari | 10000000 |
| 101 | Kartika Padmasari | 5000000 |
| 103 | Maryati | 5000000 |
| 103 | Maryati | 4000000 |
| 110 | Maryati | 5470000 |
| 103 | Maryati | 1000000 |
| 103 | Maryati | 1000000 |
| 106 | Sutera Eka Jaya | 1250000 |
| 105 | Suparman | 500000 |
| 106 | Suparman | 4000000 |
| 103 | Suparman | 4000000 |
| 104 | Sutopo | 500000 |
| 104 | Sutopo | 5000000 |
+-----+-----+-----+
27 rows in set <0.00 sec>

MariaDB [perbankan1] >
```

H



# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 8

Nama : Riyan Aldiansyah

NIM : L200170018

Kelas : A

### E. Tugas

```
ex: C:\Windows\system32\cmd.exe -mysql -u root
Microsoft Windows [Version 6.1.7601]
Copyright <>> 2009 Microsoft Corporation. All rights reserved.
C:\Users\LABSI-19>cd..
C:\Users>d..
C:\>cd xamp
The system cannot find the path specified.
C:\>cd xampp
C:\xampp>cd mysql
C:\xampp>mysql>cd bin
C:\xampp>mysql>bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 2
Server version: 10.1.37-MariaDB mariadb.org binary distribution
Copyright <>> 2000, 2018, Oracle, MariaDB Corporation Ab and others.
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.
MariaDB [<none>]> show databases
->;
+-----+
| Database |
+-----+
| information_schema |
| modul_7 |
| mysql |
| perbankan |
| performance_schema |
| phpmyadmin |
| test |
+-----+
8 rows in set <0.22 sec>
MariaDB [<none>]> use perbankan
Database changed
MariaDB [perbankan]> select transaksi.tanggal,transaksi.jenis_transaksi,transaksi.jumlah from nasabah,transaksi where na
sabah.id_nasabah=transaksi.id_nasabahFK and nasabah.nama_nasabah != 'Sutopo' , 'Canka Lokananta' order by transaksi.tangga
l;
+-----+-----+-----+
| tanggal | jenis_transaksi | jumlah |
+-----+-----+-----+
| 2009-11-15 00:00:00 | kredit | 1500000 |
| 2009-11-15 00:00:00 | kredit | 2000000 |
| 2009-11-15 00:00:00 | debit | 1000000 |
| 2009-11-22 00:00:00 | kredit | 1000000 |
| 2009-12-01 00:00:00 | debit | 500000 |
| 2009-12-06 00:00:00 | debit | 200000 |
| 2017-05-26 00:00:00 | kredit | 520000 |
+-----+-----+-----+
7 rows in set <0.04 sec>
```

```

ca C:\Windows\system32\cmd.exe - mysql -u root
7 rows in set <0.04 sec>
MariaDB [perbankan]> select transaksi.tanggal,nasabah.nama_nasabah,where transaksi.tanggal BETWEEN '2009-11-15' AND '2009-11-20' AND nasabah.id_nasabah=transaksi.id_nasabahPK order by transaksi.tanggal,nasabah.nama_nasabah;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version for the right syntax to use near 'where transaksi.tanggal BETWEEN '2009-11-15' AND '2009-11-20' AND nasabah.id_nasabah' at line 1
MariaDB [perbankan]> select transaksi.tanggal,nasabah.nama_nasabah,transaksi.jenis_transaksi,jumlah from nasabah,transaksi where transaksi.tanggal BETWEEN '2009-11-15' AND '2009-11-20' AND nasabah.id_nasabah=transaksi.id_nasabahPK order by transaksi.tanggal,nasabah.nama_nasabah;
+ tanggal + nama_nasabah + jenis_transaksi + jumlah +
| 2009-11-15 00:00:00 | Canka LokaNanta | kredit | 1500000 |
| 2009-11-16 00:00:00 | Sutopo | kredit | 2000000 |
| 2009-11-16 00:00:00 | Budi Eko Prayogo | debit | 200000 |
| 2009-11-17 00:00:00 | Kartika Padmasari | debit | 500000 |
| 2009-11-19 00:00:00 | Kartika Padmasari | debit | 1000000 |
| 2009-11-19 00:00:00 | Marvati | debit | 1000000 |
| 2009-11-19 00:00:00 | Kartika Padmasari | debit | 500000 |
| 2009-11-20 00:00:00 | Kartika Padmasari | kredit | 2000000 |
8 rows in set <0.00 sec>
MariaDB [perbankan]> select transaksi.jenis_transaksi as "Jenis Transaksi", sum(jumlah) as "Jumlah <Rp>" from transaksi group by
-> transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
+ Jenis Transaksi + Jumlah <Rp> +
| debit | 22891000 |
| kredit | 29770000 |
2 rows in set <0.00 sec>
MariaDB [perbankan]> select jenis_transaksi as "Jenis Transaksi",MAX(jumlah)AS "Transaksi Terbesar",MIN(jumlah) AS "Transaksi Terkecil"from
-> transaksi group by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
+ Jenis Transaksi + Transaksi Terbesar + Transaksi Terkecil +
| debit | 9700000 | 200000 |
| kredit | 5200000 | 200000 |
2 rows in set <0.00 sec>
MariaDB [perbankan]> select jenis_transaksi as "Jenis Transaksi",SUM(jumlah) as "Jumlah<Rp>.COUNT(jumlah) as "Jumlah Transaksi" from transaksi where tanggal between '2009-11-1' and '2009-11-30' group by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
-> ;
-> select jenis_transaksi as "Jenis Transaksi", sum(jumlah) as "Jumlah <Rp>",count(jumlah) as "Jumlah Transaksi" from transaksi where tanggal between '2009-11-1' and '2009-11-30' group by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
-> exit
-> ;

```

```

ca C:\Windows\system32\cmd.exe - mysql -u root
nis_transaksi;
-> exit
-> Bye
Ctrl-C -- exit!
C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 29
Server version: 10.1.37-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)]> select jenis_transaksi as "Jenis Transaksi", sum(jumlah) as "Jumlah <Rp>", count(jumlah) as "Jumlah Transaksi" from transaksi where tanggal between '2009-11-1' and '2009-11-30' group by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
ERROR 1064 (42000): No database selected
MariaDB [(none)]> use perbankan
Database changed
MariaDB [perbankan]> select jenis_transaksi as "Jenis Transaksi", sum(jumlah) as "Jumlah <Rp>", count(jumlah) as "Jumlah Transaksi" from transaksi where tanggal between '2009-11-1' and '2009-11-30' group by transaksi.jenis_transaksi order by transaksi.jenis_transaksi;
+ Jenis Transaksi + Jumlah <Rp> + Jumlah Transaksi +
| debit | 6700000 | 12 |
| kredit | 1120000 | 11 |
2 rows in set <0.00 sec>
MariaDB [perbankan]> select distinct jenis_transaksi,jumlah as "Jumlah<Rp.>",count(jenis_transaksi)as "Total Transaksi" from transaksi T, nasabah N where T.id_nasabah and N.nama_nasabah like "Kartika Padmasari" GROUP BY T.jenis_transaksi order by T.jenis_transaksi;
ERROR 1054 (42000): Unknown column 'T.id_nasabah' in 'where clause'
MariaDB [perbankan]> select distinct jenis_transaksi,jumlah as "Jumlah<Rp.>",count(jenis_transaksi)as "Total Transaksi" from transaksi T, nasabah N where T.id_nasabahPK and N.nama_nasabah like "Kartika Padmasari" GROUP BY T.jenis_transaksi order by T.jenis_transaksi;
+ Jenis_transaksi + Jumlah<Rp.> + Total Transaksi +
| debit | 50000 | 27 |
| kredit | 200000 | 23 |
2 rows in set <0.00 sec>
MariaDB [perbankan]> select distinct jenis_transaksi, jumlah as "Jumlah<Rp.>", count(jenis_transaksi) as "Total Transaksi" from transaksi T, nasabah N where T.id_nasabahPK = N.id_nasabah and N.nama_nasabah like "Kartika Padmasari" group by T.jenis_transaksi order by T.jenis_transaksi;
+ Jenis_transaksi + Jumlah<Rp.> + Total Transaksi +
| debit | 100000 | 2 |
| kredit | 200000 | 3 |
2 rows in set <0.00 sec>
MariaDB [perbankan]> select sum(transaksi.jumlah)as "Jumlah Saldo" FROM transaksi,nasabah where nasabah.id_nasabah = transaksi.id_nasabahPK and nasabah.nama_nasabah = "Marvati"AND transaksi.jenis_transaksi = "debit";

```

```

c:\Windows\system32\cmd.exe - mysql -u root
nasaksi.id_nasabahPK and nasabah.nama_nasabah = "Maryati" AND transaksi.jenis_transaksi = "debit";
ERROR 1064 (<42000>): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version
on line 1
MariaDB [perbankan]> select sum(transaksi.jumlah) as "Jumlah Saldo" FROM transaksi, nasabah WHERE nasabah.id_nasabah = t
transaksi.id_nasabahPK AND nasabah.nama_nasabah = "Maryati" AND transaksi.jenis_transaksi = "debit";
+-----+
| Jumlah Saldo |
+-----+
| 777900 |
1 row in set (0.00 sec)

MariaDB [perbankan]> select distinct kode_cabang,nama_cabang, count(jumlah) as "Jumlah Transaksi" from cabang_bank C,trans
aksi T,rekening R where C.kode_cabang = R.kode_cabangFK AND T.no_rekeningPK = R.no_rekening GROUP BY C.kode_cabang;
+-----+-----+-----+
| kode_cabang | nama_cabang | Jumlah Transaksi |
+-----+-----+-----+
| BRUB | Bank Ria Unit Boyolali | 1 |
| BRBK | Bank Ria Unit Blitar | 2 |
| BRBLM | Bank Ria Unit Magelang | 4 |
| BRBS | Bank Ria Unit Surakarta | 29 |
| BRBM | Bank Ria Unit Banten | 1 |
| BRBVY | Bank Ria Unit Yogyakarta | 10 |
6 rows in set (0.04 sec)

MariaDB [perbankan]> SELECT nasabah.nama_nasabah as "Nama", rekening.saldo as "J
ERROR 1064 (<42000>): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version
on line 1
MariaDB [perbankan]> SELECT nasabah.nama_nasabah as "Nama", rekening.saldo as "J
ERROR 1064 (<42000>): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version
on line 1
MariaDB [perbankan]> SELECT nasabah.nama_nasabah as "Nama", rekening.saldo as "J
ERROR 1064 (<42000>): You have an error in your SQL syntax; check the manual that corresponds to your MariaDB server version
on line 1
MariaDB [perbankan]> SELECT nasabah.nama_nasabah as "Nama", rekening.saldo as "J
+-----+-----+
| Nama | saldo |
+-----+-----+
| Sutopo | 5000000 |
| Maryati | 5000000 |
| SitiPurni | 5000000 |
| Kartika Padmasari | 5000000 |
| Budi Eko Prayogo | 5000000 |
| Satria Eka Jaya | 5000000 |
| Indri Hapsari | 5000000 |
| Sari Murti | 5000000 |
| Canka Lokananta | 5000000 |
| Budi Murtono | 5000000 |
| Joko Ndo Kondo | 5000000 |
| Jon Koplo | 5000000 |
| Anggit | 5000000 |
| Alvicky | 5000000 |
| Ihsan | 5000000 |
| Luraini | 5000000 |
| Alex | 5000000 |
| Siti | 5000000 |
| Sutopo | 5000000 |
| Luceng | 5000000 |
10 rows in set (0.00 sec)

```

```

c:\Windows\system32\cmd.exe - mysql -u root
+-----+-----+
| Nama | saldo |
+-----+-----+
| Alvicky | 5000000 |
| Ihsan | 5000000 |
| Luraini | 5000000 |
| Dwi | 5000000 |
| Susilo | 5000000 |
| Sutopo | 5000000 |
| Lucyng | 5000000 |
| Maryati | 5000000 |
21 rows in set (0.00 sec)

MariaDB [perbankan]> select N.nama_nasabah as "Nama Nasabah", T.tanggal as 'Tanggal', T.jumlah as 'Jumlah <Rp.>'
-> from nasabah N, transaksi T where N.id_nasabah = T.id_nasabahPK and T.jumlah >= 100000 order
-> by T.jumlah DESC;
+-----+-----+-----+
| Nama Nasabah | Tanggal | Jumlah <Rp.> |
+-----+-----+-----+
| Jon Koplo | 2017-95-26 00:00:00 | 9700000 |
| Jon Koplo | 2017-95-26 00:00:00 | 8500000 |
| Anggit | 2017-96-08 00:00:00 | 7000000 |
| Anggit | 2017-96-08 00:00:00 | 7000000 |
| Anggit | 2017-96-08 00:00:00 | 7000000 |
| Anggit | 2017-96-26 00:00:00 | 7000000 |
| Maryati | 2017-95-24 00:00:00 | 5470000 |
| Sutopo | 2017-95-24 00:00:00 | 5470000 |
| Sutopo | 2017-95-24 00:00:00 | 3520000 |
| Sari Murti | 2017-96-14 00:00:00 | 2530000 |
| Budi Eko Prayogo | 2017-95-26 00:00:00 | 2500000 |
| Budi Murtono | 2009-11-15 00:00:00 | 2000000 |
| Sutopo | 2009-11-15 00:00:00 | 2000000 |
| Budi Eko Prayogo | 2009-12-05 00:00:00 | 2000000 |
| Hesti | 2009-11-20 00:00:00 | 2000000 |
| Kartika Padmasari | 2009-11-20 00:00:00 | 2000000 |
| Canka Lokananta | 2009-11-15 00:00:00 | 1500000 |
| Ihsan | 2009-11-24 00:00:00 | 1300000 |
| Satria Eka Jaya | 2017-95-24 00:00:00 | 1250000 |
| Kartika Padmasari | 2009-11-19 00:00:00 | 1000000 |
| Maryati | 2009-11-22 00:00:00 | 1000000 |
| Sutopo | 2009-11-22 00:00:00 | 1000000 |
| Budi Murtono | 2009-11-26 00:00:00 | 1000000 |
| Sutopo | 2009-12-05 00:00:00 | 1000000 |
| Maryati | 2009-12-05 00:00:00 | 1000000 |
| Indri Hapsari | 2009-12-05 00:00:00 | 1000000 |
25 rows in set (0.00 sec)

MariaDB [perbankan]>

```

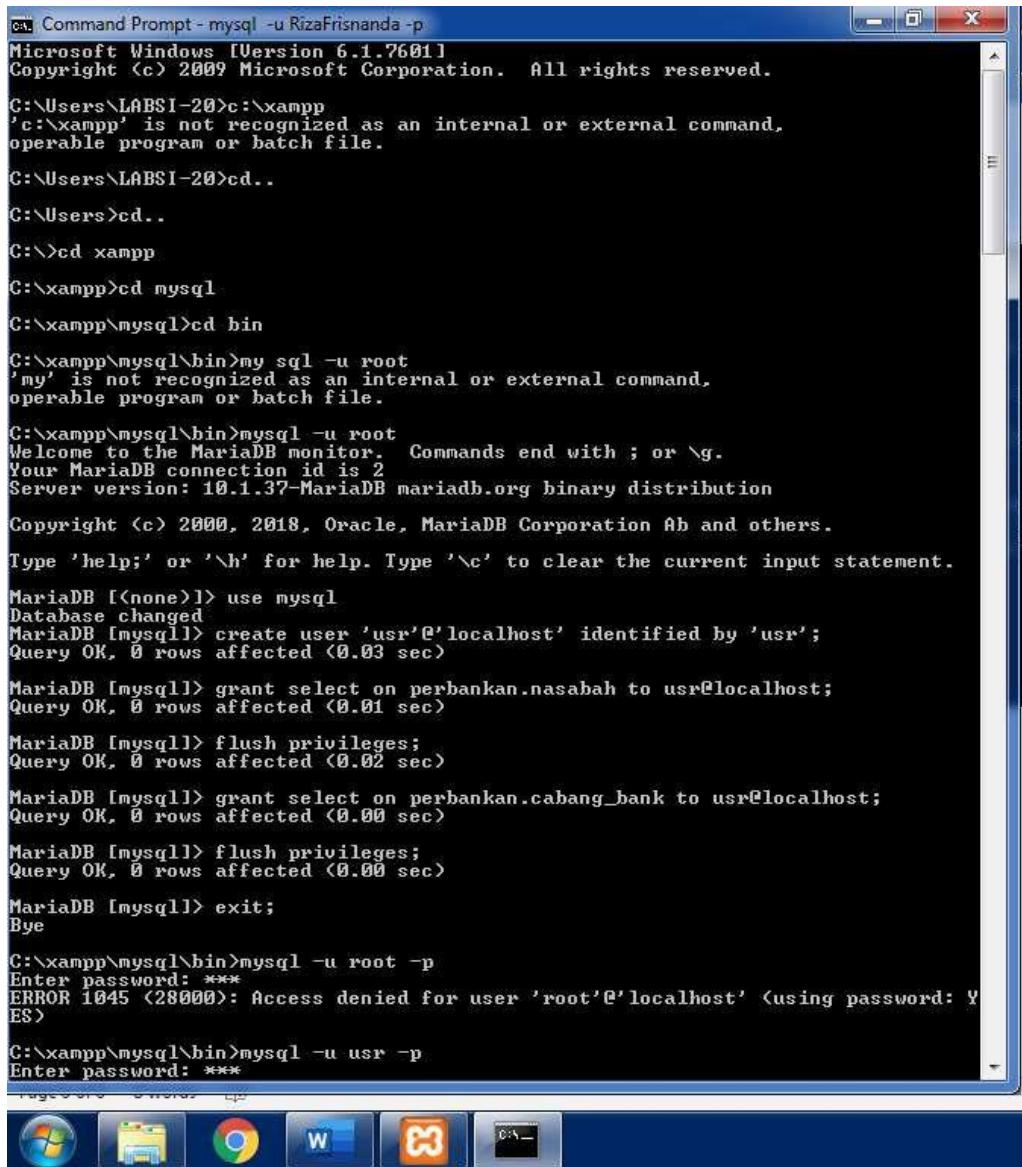
# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 9

Nama : Riyan Aldiansyah

NIM : L200170018

Kelas : A



The screenshot shows a Windows Command Prompt window titled "Command Prompt - mysql -u RizaFrisnanda -p". The window displays the following MySQL session:

```
C:\ Command Prompt - mysql -u RizaFrisnanda -p
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\LABSI-20>c:\xampp
'c:\xampp' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\LABSI-20>cd..
C:\Users>cd..
C:\>cd xampp
C:\xampp>cd mysql
C:\xampp\mysql>cd bin
C:\xampp\mysql\bin>my sql -u root
'my' is not recognized as an internal or external command,
operable program or batch file.

C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor. Commands end with ; or \g.
Your MariaDB connection id is 2
Server version: 10.1.37-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 mysql
Database changed
MariaDB [mysql]> create user 'usr'@'localhost' identified by 'usr';
Query OK, 0 rows affected (0.03 sec)

MariaDB [mysql]> grant select on perbankan.nasabah to usr@localhost;
Query OK, 0 rows affected (0.01 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.02 sec)

MariaDB [mysql]> grant select on perbankan.cabang_bank to usr@localhost;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> exit;
Bye

C:\xampp\mysql\bin>mysql -u root -p
Enter password: ***
ERROR 1045 (28000): Access denied for user 'root'@'localhost' (using password: YES)

C:\xampp\mysql\bin>mysql -u usr -p
Enter password: ***
```

```

ca Command Prompt - mysql -u RizaFrisnanda -p
C:\xampp\mysql\bin>mysql -u usr -p
Enter password: ***
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 4
Server version: 10.1.37-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
MariaDB [perbankan]> select * from nasabah;
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 1 | Sutopo | Jl. Jendral Sudirman 12 |
| 2 | Maryati | Jl. MT. Haryono 31 |
| 3 | Suparmam | Jl. Hasanudin 81 |
| 4 | Kartika Padmasari | Jl. Hanggis 15 |
| 5 | Budi Eko Prayogo | Jl. Kuntil 30 |
| 6 | Satri Eka Jaya | Jl. Suted Riyadi 45 |
| 7 | Indri Hayarie | Jl. Sutera 5 |
| 8 | Sari Murtini | Jl. Pancaharan 11 |
| 9 | Canka Lokaananta | Jl. Tidar 86 |
| 10 | Budi Murtono | Jl. Merak 22 |
| 11 | Joko Ndo Kondo | Jl. Bareng Jadian kasak |
| 12 | Jon Koplo | Jl. Angin Besar 12 |
| 13 | Anggit | Solo |
| 184 | udin | palur |
| 999 | UICKVYYYYYY | SELOKAN MATARAM |
| 1000 | Sutopo | Jl. Jendral Sudirman |
| 2000 | Maryati | Jl. MT Haryono 31 |
+-----+-----+-----+
17 rows in set <0.06 sec>

MariaDB [perbankan]> insert into nasabah values('31','Susilo','Sukoharjo');
ERROR 1142 (<42000>): INSERT command denied to user 'usr'@'localhost' for table 'nasabah'
MariaDB [perbankan]> exit
Bye

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 5
Server version: 10.1.37-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)]> revoke select on perbankan.nasabah from usr@localhost;
Query OK, 0 rows affected (0.01 sec)

MariaDB [(none)]> flush privileges;

```

```

ca Command Prompt - mysql -u RizaFrisnanda -p
MariaDB [(none)]> flush privileges;
Query OK, 0 rows affected (0.00 sec)

MariaDB [(none)]> exit;
Bye

C:\xampp\mysql\bin>mysql -u usr -p
Enter password: ***
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 6
Server version: 10.1.37-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
MariaDB [perbankan]> select * from nasabah;
ERROR 1142 (<42000>): SELECT command denied to user 'usr'@'localhost' for table 'nasabah'
MariaDB [perbankan]> exit;
Bye

C:\xampp\mysql\bin>mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 7
Server version: 10.1.37-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 mysql;
Database changed
MariaDB [mysql]> create user 'RizaFrisnanda'@'localhost' identified by 'woke';
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> grant insert on perbankan.nasabah to RizaFrisnanda@localhost;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> grant update on perbankan.nasabah to RizaFrisnanda@localhost;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> grant delete on perbankan.nasabah to RizaFrisnanda@localhost;
Query OK, 0 rows affected (0.00 sec)

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected (0.00 sec)

```

```

ca Command Prompt - mysql -u RizaFrisnanda -p
MariaDB [mysql]> grant select on perbankan.nasabah to RizaFrisnanda@localhost;
Query OK, 0 rows affected <0.00 sec>

MariaDB [mysql]> flush privileges;
Query OK, 0 rows affected <0.00 sec>

MariaDB [mysql]> exit;
Bye

C:\>xampp\mysql\bin>mysql -u RizaFrisnanda -p
Enter password: ****
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.1.37-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
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. Sutomo 5 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
| 10 | Budi Murtono | Jl. Merak 22 |
| 11 | Joko Ndo Kondo | Jl. Barend Jadian kagak |
| 12 | Jon Koplo | Jl. Angin Besar 12 |
| 13 | Anggit | Solo |
| 104 | udin | palur |
| 999 | UICKYYYYYY | SELOKAN MATARAM |
| 1000 | Sutopo | Jl. Jendral Sudirman |
| 2000 | Maryati | Jl. MT Haryono 31 |
+-----+-----+-----+
17 rows in set <0.00 sec>

MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('001', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('L001', 'Riza Frisnanda', 'Madiun');
ERROR 1054 (42S22): Unknown column 'L001' in 'field list'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('01', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('1', 'Riza Frisnanda', 'Madiun');

```

```

ca Command Prompt - mysql -u RizaFrisnanda -p
Database changed
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. Sutomo 5 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
| 10 | Budi Murtono | Jl. Merak 22 |
| 11 | Joko Ndo Kondo | Jl. Barend Jadian kagak |
| 12 | Jon Koplo | Jl. Angin Besar 12 |
| 13 | Anggit | Solo |
| 104 | udin | palur |
| 999 | UICKYYYYYY | SELOKAN MATARAM |
| 1000 | Sutopo | Jl. Jendral Sudirman |
| 2000 | Maryati | Jl. MT Haryono 31 |
+-----+-----+-----+
17 rows in set <0.00 sec>

MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('001', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('L001', 'Riza Frisnanda', 'Madiun');
ERROR 1054 (42S22): Unknown column 'L001' in 'field list'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('01', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('1', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '1' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('10', 'Riza Frisnanda', 'Madiun');
ERROR 1062 (23000): Duplicate entry '10' for key 'PRIMARY'
MariaDB [perbankan]> insert into nasabah(id_nasabah, nama_nasabah, alamat_nasaba
h) values ('100', 'Riza Frisnanda', 'Madiun');
Query OK, 1 row affected <0.07 sec>

MariaDB [perbankan]> insert into cabang_bank values ('BRI', 'Bank Rakyat Indonesia
', 'Madiun');
ERROR 1142 (42000): INSERT command denied to user 'RizaFrisnanda'@'localhost' fo
r table 'cabang_bank'
MariaDB [perbankan]> grant insert on perbankan.cabang_bank to RizaFrisnanda@loca
lhost;
ERROR 1142 (42000): INSERT, GRANT command denied to user 'RizaFrisnanda'@'localh
ost' for table 'cabang_bank'
MariaDB [perbankan]>

```

# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 10

Nama : Rryan Aldiansyah

NIM : L200170018

Kelas : A

```
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 Haryono 31 |
| 3 | Suparman | Jl. Hasanudin 81 |
| 4 | Kartika Padmasari | Jl. Manggis 15 |
| 5 | Budi Eko Prayogo | Jl. Kantil 30 |
| 9 | Canka Lokananta | Jl. Tidar 86 |
| 10 | Budi Martono | Jl. Merak 22 |
| 11 | Danindya | Jl. Akl Balak 22 |
| 12 | Puput | Jl. AMD 10 |
| 14 | Putri | Jl. Diponegoro 19 |
| 17 | Pandan Wangi | Jl. Imam Bonjol 20 |
+-----+-----+-----+
11 rows in set (0.10 sec)
```

```
MariaDB [perbankan]> SELECT * FROM nasabah WHERE nasabah.id_nasabah NOT IN (Select DISTINCT transaksi.id_nasabahFK from transaksi);
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
| 6 | Satria Eka Jaya | Jl. Slamet Riyadi 45 |
| 8 | Sari Murti | Jl. Pangandaran 11 |
| 18 | Andara | Jl. Pertama 26 |
| 19 | Rangga | Jl. Kedua 80 |
| 20 | Cinta | Jl. Ketiga 24 |
| 38 | AlfianSyahrani | Bekonang city |
+-----+-----+-----+
6 rows in set (0.00 sec)
```

```
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_cabang group by cabang_bank.kode_cabang having rata2 >= ALL (SELECT AVG (saldo) FROM rekening group by kode_cabangFK);
+-----+-----+-----+
| kode_cabang | nama_cabang | rata2 |
+-----+-----+-----+
/ -- / -- / --
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 |
| 34 | 15 | 116 | debit | 2009-12-08 00:00:00 | 100000 |
| 35 | 11 | 123 | debit | 2009-12-08 00:00:00 | 200000 |
| 37 | 16 | 118 | debit | 2009-12-11 00:00:00 | 100000 |
| 40 | 16 | 118 | debit | 2009-12-13 00:00:00 | 150000 |
| 41 | 10 | 119 | debit | 2009-12-14 00:00:00 | 100000 |
| 42 | 12 | 114 | kredit | 2009-12-14 00:00:00 | 125000 |
| 43 | 12 | 121 | kredit | 2009-12-14 00:00:00 | 125000 |
| 44 | 16 | 118 | debit | 2009-12-15 00:00:00 | 200000 |
| 46 | 14 | 120 | kredit | 2009-12-16 00:00:00 | 175000 |
| 48 | 10 | 113 | kredit | 2009-12-18 00:00:00 | 130000 |
| 49 | 11 | 122 | debit | 2009-12-19 00:00:00 | 200000 |
| 50 | 12 | 114 | kredit | 2009-12-20 00:00:00 | 150000 |
+-----+-----+-----+-----+-----+-----+
24 rows in set (0.00 sec)
```

## TUGAS

```
MariaDB [perkuliahannya.sql]> SELECT DISTINCT mahasiswa.nim
-> from mahasiswa,matkul,link_mahasiswa_matkul
-> WHERE mahasiswa.nim=link_mahasiswa_matkul.nim and matkul.kode_matkul=link_mahasiswa_matkul.kode_matkul and
-> mahasiswa.nim NOT IN(select link_mahasiswa_matkul.nim FROM link_mahasiswa_matkul WHERE kode_matkul='TIF001');
+-----+
| nim |
+-----+
| L200150125 |
+-----+
1 row in set (0.00 sec)
```

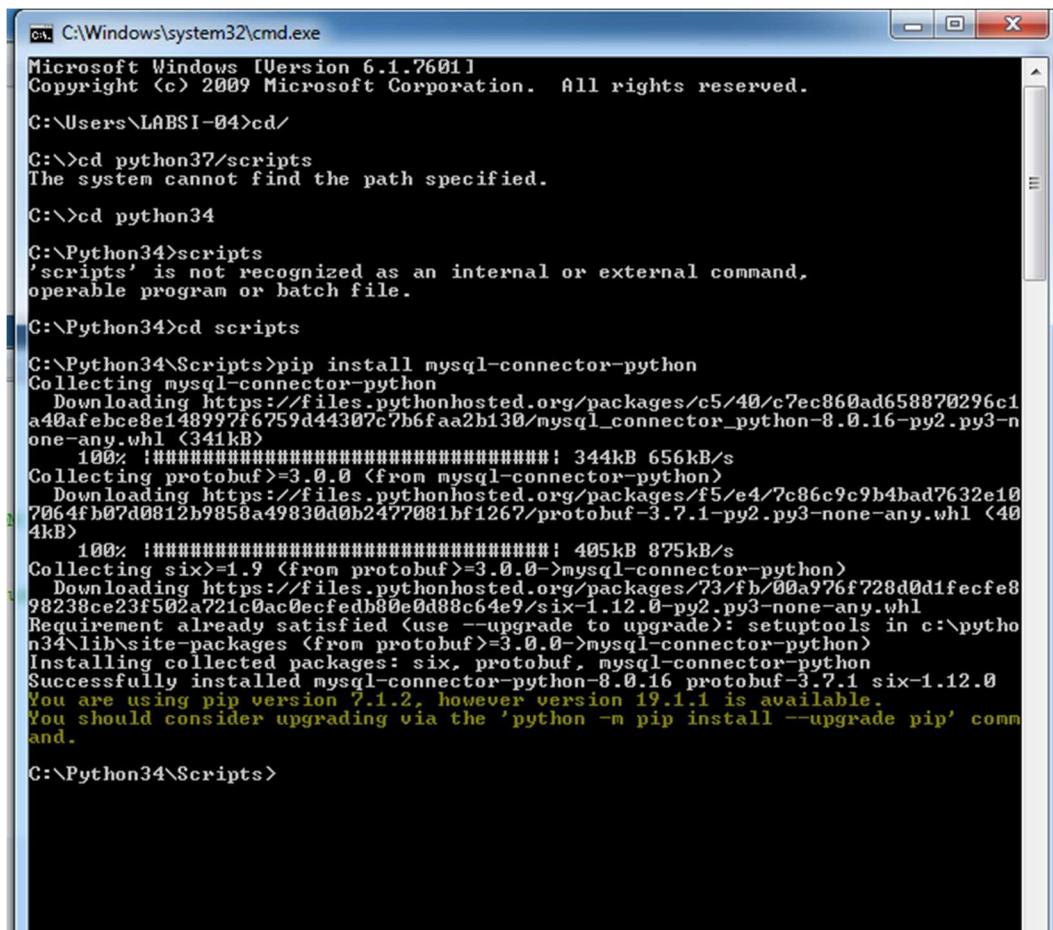
# LAPORAN PRAKTIKUM SISTEM BASIS DATA

## MODUL 11

Nama : Riyan Aldiansyah

NIM : L200170018

Kelas : A



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright <c> 2009 Microsoft Corporation. All rights reserved.

C:\Users\LABSI-04>cd/
C:\>cd python37\scripts
The system cannot find the path specified.

C:\>cd python34
C:\Python34>scripts
'scripts' is not recognized as an internal or external command,
operable program or batch file.

C:\Python34>cd scripts

C:\Python34\Scripts>pip install mysql-connector-python
Collecting mysql-connector-python
  Downloading https://files.pythonhosted.org/packages/c5/40/c7ec860ad658870296c1
a40afebce8e148997f6759d44307c7b6faa2b130/mysql_connector_python-8.0.16-py2.py3-n
one-any.whl (341kB)
    100% #####: 344kB 656kB/s
Collecting protobuf>=3.0.0 (from mysql-connector-python)
  Downloading https://files.pythonhosted.org/packages/f5/e4/7c86c9c9b4bad7632e10
7064fb07d0812b9858a49830d0b2477081bf1267/protobuf-3.7.1-py2.py3-none-any.whl (40
4kB)
    100% #####: 405kB 875kB/s
Collecting six>=1.9 (from protobuf>=3.0.0->mysql-connector-python)
  Downloading https://files.pythonhosted.org/packages/73/fb/00a976f728d0d1fecfe8
98238ce23f502a721c0ac0ecfedb80e0d88c64e9/six-1.12.0-py2.py3-none-any.whl
Requirement already satisfied (use --upgrade to upgrade): setuptools in c:\pytho
n34\lib\site-packages (from protobuf>=3.0.0->mysql-connector-python)
Installing collected packages: six, protobuf, mysql-connector-python
Successfully installed mysql-connector-python-8.0.16 protobuf-3.7.1 six-1.12.0
You are using pip version 7.1.2, however version 19.1.1 is available.
You should consider upgrading via the 'python -m pip install --upgrade pip' command.

C:\Python34\Scripts>
```

The Python 3.4.4 IDLE window contains the following code:

```

afianpy - J:/afianpy (3.4)
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx = mysql.connector.connect(user='root', database='perbankan')
cursor = cnx.cursor()
tanggal = datetime.now().date()
tambah_transaksi="INSERT INTO transaksi"
"( `id_nasabahFK` , `no_rekeningFK` , `jenis_transaksi` , `tanggal` , `jumlah` )"
"VALUES (%s,%s,%s,%s,%s)"

data_transaksi=(91,'110','kredit',tanggal,'50000')
cursor.execute(tambah_transaksi,data_transaksi)

cnx.commit()

cursor.close()
cnx.close()

```

The Python 3.4.4 Shell window shows the command:

```

Python 3.4.4 (v3.4.4:737efcadf5a6, Dec 20 2015, 20:20:57) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART: J:/afianpy.py =====
>>>

```

The phpMyAdmin interface shows the 'transaksi' table with the following data:

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
56	9	110	kredit	2019-05-23 00:00:00	50000

The Python 3.4.4 IDLE window contains the following code:

```

afianno5.py - J:\MODUL 11\afianno5.py (3.4)
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx = mysql.connector.connect(user='root', database='perbankan')
cursor = cnx.cursor()
query = ("SELECT `id_nasabahFK` , `jenis_transaksi` , `tanggal` , `jumlah` FROM transaksi WHERE YEAR(`tanggal`)=2009")
cursor.execute(query)
for (id_nasabahFK,jenis_transaksi,tanggal,jumlah) in cursor:
    print("nasabah dengan ID {} melakukan transaksi {} pada {} sejumlah {}".format(id_nasabahFK,jenis_transaksi,tanggal,jumlah))

cursor.close()
cnx.close()

```

The Python 3.4.4 Shell window shows the output of the code execution:

```

Python 3.4.4 (v3.4.4:737efcadf5a6, Dec 20 2015, 20:20:57) [MSC v.1600 64 bit (AMD64)] on win32
Type "copyright", "credits" or "license()" for more information.
>>> ===== RESTART: J:\MODUL 11\afianno5.py =====
nasabah dengan ID 3 melakukan transaksi debit pada 10Nov2009 sejumlah 50000
nasabah dengan ID 2 melakukan transaksi debit pada 10Nov2009 sejumlah 40000
nasabah dengan ID 4 melakukan transaksi kredit pada 12Nov2009 sejumlah 20000
nasabah dengan ID 3 melakukan transaksi debit pada 13Nov2009 sejumlah 50000
nasabah dengan ID 5 melakukan transaksi kredit pada 13Nov2009 sejumlah 30000
nasabah dengan ID 1 melakukan transaksi kredit pada 15Nov2009 sejumlah 200000
nasabah dengan ID 9 melakukan transaksi kredit pada 15Nov2009 sejumlah 150000
nasabah dengan ID 5 melakukan transaksi debit pada 16Nov2009 sejumlah 20000
nasabah dengan ID 3 melakukan transaksi kredit pada 18Nov2009 sejumlah 50000
nasabah dengan ID 4 melakukan transaksi debit pada 19Nov2009 sejumlah 100000
nasabah dengan ID 2 melakukan transaksi debit pada 19Nov2009 sejumlah 100000
nasabah dengan ID 1 melakukan transaksi debit pada 19Nov2009 sejumlah 50000

```

## TUGAS

### 1.

Tugas no1(INSERT).py - F:\L200170038\_MODUL11SBD\Tugas no1(INSERT).py (3.7.2)

```
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx=mysql.connector.connect(user='root', database='perbankan')
cursor=cnx.cursor()
tanggal=datetime.now().date()
tambah_transaksi=('insert into transaksi`(`id_nasabahFK`, `no_rekeningFK`, `jenis`, `jumlah`, `tanggal`, `status`)
values(%s, %s, %s, %s, %s)')
data_transaksi=('5','102','debit', tanggal, '20000')
cursor.execute(tambah_transaksi, data_transaksi)

cnx.commit()

cursor.close()
cnx.close()
```

Tugas no1(UPDATE).py - F:\L200170038\_MODUL11SBD\Tugas no1(UPDATE).py (3.7.2)

```
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx=mysql.connector.connect(user='root', database='perbankan')
cursor=cnx.cursor()
tanggal=datetime.now().date()
update_transaksi=('update transaksi set jumlah=%s where no_rekeningFK=%s')
data_update=('70000', '110')
cursor.execute(update_transaksi, data_update)

cnx.commit()
cursor.close()
cnx.close()
```

Tugas no1(DELETE).py - F:\L200170038\_MODUL11SBD\Tugas no1(DELETE).py (3.7.2)

```
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx=mysql.connector.connect(user='root', database='perbankan')
cursor=cnx.cursor()
tanggal=datetime.now().date()
delete_transaksi=('delete from transaksi where id_nasabahFK=5')
cursor.execute(delete_transaksi)

cnx.commit()

cursor.close()
cnx.close()
```

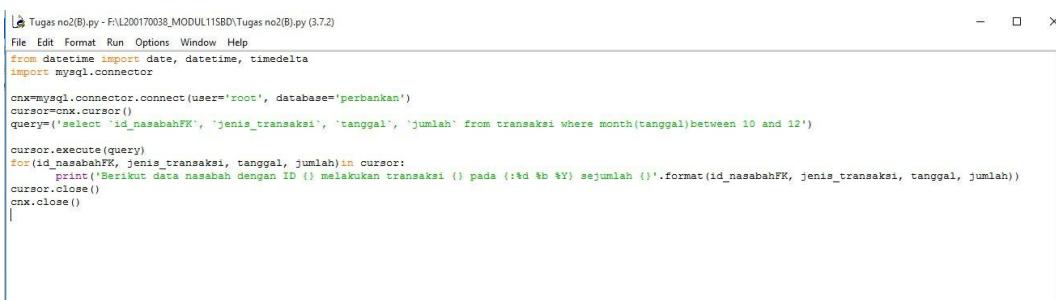
2.



```
Tugas no2(A).py - F:\L200170038_MODUL11SBD\Tugas no2(A).py (3.7.2)
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx=mysql.connector.connect(user='root', database='perbankan')
cursor=cnx.cursor()
query=('select id_nasabah, nama_nasabah, alamat_nasabah from nasabah')

cursor.execute(query)
for(id_nasabah, nama_nasabah, alamat_nasabah)in cursor:
    print('Berikut ini data-data nasabah dengan ID {} atas nama {} yang beral
cursor.close()
cnx.close()
```



```
Tugas no2(B).py - F:\L200170038_MODUL11SBD\Tugas no2(B).py (3.7.2)
File Edit Format Run Options Window Help
from datetime import date, datetime, timedelta
import mysql.connector

cnx=mysql.connector.connect(user='root', database='perbankan')
cursor=cnx.cursor()
query='select `id_nasabahFK`, `jenis_transaksi`, `tanggal`, `jumlah` from transaksi where month(tanggal)between 10 and 12'

cursor.execute(query)
for(id_nasabahFK, jenis_transaksi, tanggal, jumlah)in cursor:
    print('Berikut data nasabah dengan ID {} melakukan transaksi {} pada {:td %b %Y} sejumlah {}'.format(id_nasabahFK, jenis_transaksi, tanggal, jumlah))
cursor.close()
cnx.close()
```