

# **Database System Practicum**

## **Modul 6 – Standart Query and the Variation**



**By :**

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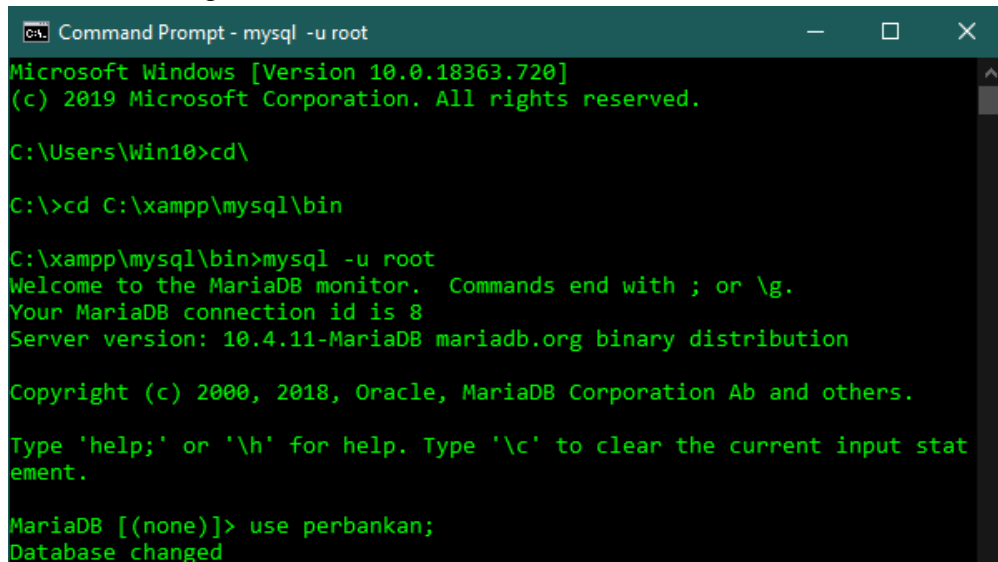
**FACULTY OF COMMUNICATION AND INFORMATICS**

**MUHAMMADIYAH UNIVERSITY OF SURAKARTA**

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## Activity

1. Select a banking database



```
Ca\ Command Prompt - mysql -u root
Microsoft Windows [Version 10.0.18363.720]
(c) 2019 Microsoft Corporation. All rights reserved.

C:\Users\Win10>cd\

C:\>cd C:\xampp\mysql\bin

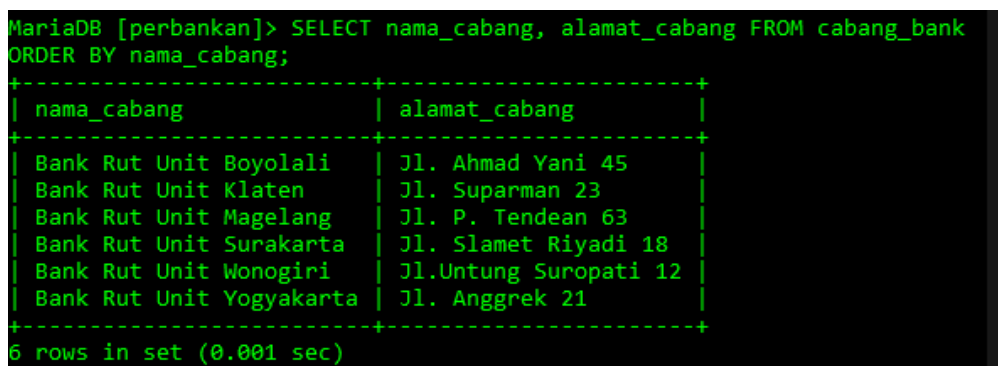
C:\xampp\mysql\bin>mysql -u root
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 8
Server version: 10.4.11-MariaDB mariadb.org binary distribution

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

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

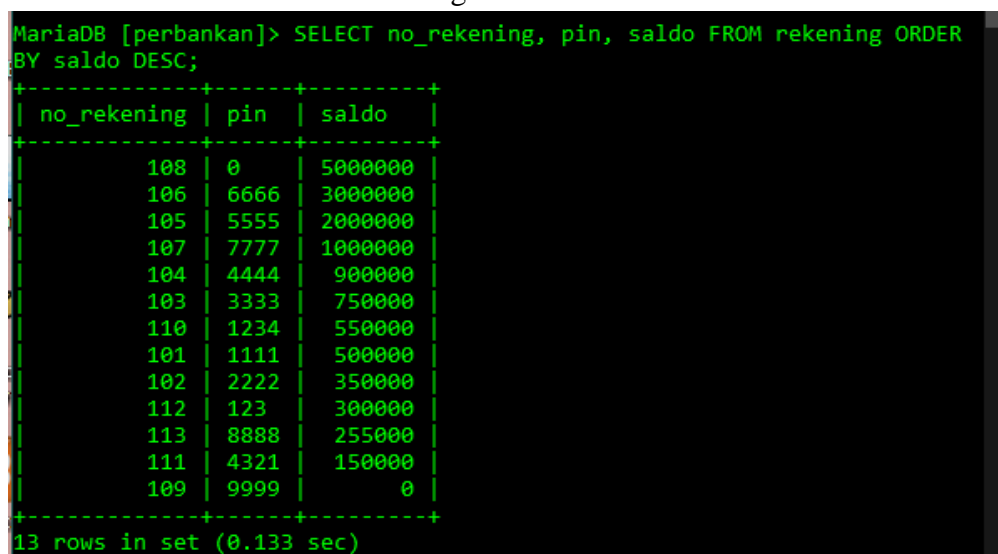
MariaDB [(none)]> use perbankan;
Database changed
```

2. Displays bank names and bank addresses for all bank branches and is sorted by bank name



```
MariaDB [perbankan]> SELECT nama_cabang, alamat_cabang FROM cabang_bank
ORDER BY nama_cabang;
+-----+-----+
| nama_cabang          | alamat_cabang          |
+-----+-----+
| Bank Rut Unit Boyolali | Jl. Ahmad Yani 45      |
| Bank Rut Unit Klaten   | Jl. Superman 23       |
| Bank Rut Unit Magelang | Jl. P. Tendean 63     |
| Bank Rut Unit Surakarta | Jl. Slamet Riyadi 18  |
| Bank Rut Unit Wonogiri | Jl.Untung Suropati 12  |
| Bank Rut Unit Yogyakarta | Jl. Anggrek 21       |
+-----+-----+
6 rows in set (0.001 sec)
```

3. Displays account numbers, pins, and balance amounts for all accounts and is sorted by the amount of balance from the largest to the smallest.



```
MariaDB [perbankan]> SELECT no_rekening, pin, saldo FROM rekening ORDER
BY saldo DESC;
+-----+-----+-----+
| no_rekening | pin  | saldo |
+-----+-----+-----+
| 108         | 0    | 5000000 |
| 106         | 6666 | 3000000 |
| 105         | 5555 | 2000000 |
| 107         | 7777 | 1000000 |
| 104         | 4444 | 900000  |
| 103         | 3333 | 750000  |
| 110         | 1234 | 550000  |
| 101         | 1111 | 500000  |
| 102         | 2222 | 350000  |
| 112         | 123  | 300000  |
| 113         | 8888 | 255000  |
| 111         | 4321 | 150000  |
| 109         | 9999 | 0        |
+-----+-----+-----+
13 rows in set (0.133 sec)
```

## ASSIGNMENT

1. Displays the customer's name and customer's address sorted by customer name

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah ORDER BY nama_nasabah;
```

nama_nasabah	alamat_nasabah
Budi Eko Prayogo	Jl. Kantil 30
Budi Murtono	Jl. Merak 22
Canka Lokananta	Jl. Tidar 86
Indri Hapsari	Jl. Sutoyo 5
Kartika Padmasari	Jl. Manggis 15
Maryati	Jl. MT. Haryono 31
Sari Murti	Jl. Pangandaran 11
Satria Eko Prayogo	Jl. Slamet Riyadi 45
Suparman	Jl. Hasanudin 81
Sutopo	Jl. Jendra1 Sudirman 12

10 rows in set (0.214 sec)

2. Displays the type of transaction and the number of transactions in which the type of transaction is credit

```
MariaDB [perbankan]> SELECT jenis_transaksi, jumlah FROM transaksi WHERE jenis_transaksi='kredit';
```

jenis_transaksi	jumlah
kredit	20000
kredit	30000
kredit	200000
kredit	150000
kredit	50000
kredit	200000
kredit	100000
kredit	20000
kredit	50000
kredit	200000
kredit	100000
kredit	100000
kredit	200000
kredit	200000
kredit	100000
kredit	20000
kredit	50000
kredit	200000
kredit	100000
kredit	100000
kredit	200000

21 rows in set (0.188 sec)

3. Displays the type of transaction and the number of transactions that made a transaction on November 21, 2009 and is sorted by the number of transactions

```
MariaDB [perbankan]> SELECT jenis_transaksi, jumlah FROM transaksi WHERE
tanggal='2009-11-21' ORDER BY jumlah DESC;
+-----+-----+
| jenis_transaksi | jumlah |
+-----+-----+
| debit          | 40000  |
+-----+-----+
1 row in set (0.135 sec)
```

4. Displays the name of the customer, type of transaction and number of transactions where the number of transactions = Rp. 20,000

```
MariaDB [perbankan]> SELECT nama_nasabah, jenis_transaksi, jumlah FROM transaksi, nasabah WHERE jumlah
=20000 AND id_nasabah=id_nasabahFK;
+-----+-----+-----+
| nama_nasabah   | jenis_transaksi | jumlah |
+-----+-----+-----+
| Kartika Padmasari | kredit         | 20000  |
| Budi Eko Prayogo | debit          | 20000  |
| Kartika Padmasari | kredit         | 20000  |
| Budi Eko Prayogo | debit          | 20000  |
| Canka Lokananta  | debit          | 20000  |
| Kartika Padmasari | kredit         | 20000  |
| Budi Eko Prayogo | debit          | 20000  |
| Cahya           | debit          | 20000  |
+-----+-----+-----+
8 rows in set (0.001 sec)
```

5. Displays the customer's name and the address of the customer where the customer's name begins with the word 'Su'!

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE 'Su%';
+-----+-----+
| nama_nasabah | alamat_nasabah |
+-----+-----+
| Sutopo       | Jl. Jendral Sudirman 12 |
| Suparman     | Jl. Hasanudin 81 |
+-----+-----+
2 rows in set (0.001 sec)
```

6. Make 1 problem with answers using 2 conditions in the 'WHERE' clause

```
MariaDB [perbankan]> SELECT nama_nasabah, id_nasabah FROM nasabah WHERE nama_nasabah LIKE 'S%' AND id_
nasabah=13;
+-----+-----+
| nama_nasabah | id_nasabah |
+-----+-----+
| Sari         | 13 |
+-----+-----+
1 row in set (0.001 sec)
```

7. Make 1 question with answers using 3 conditions in the 'WHERE' clause

```
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE 'P%' OR nama_nasabah='%P' OR alamat_nasabah = 'Jl. Kantil 30';
```

nama_nasabah	alamat_nasabah
Budi Eko Prayogo	Jl. Kantil 30

1 row in set (0.001 sec)

8. Make 1 problem with answers using 'ORDER', 'LIMIT', and 'OFFSET'

```
MariaDB [perbankan]> select*FROM transaksi ORDER BY jumlah LIMIT 2 OFFSET 3;
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
30	9	110	debit	2009-12-06 00:00:00	20000
50	19	122	debit	2009-12-25 00:00:00	20000

2 rows in set (0.030 sec)

9. Create 1 question with answers using string search and NULL search conditions

```
MariaDB [perbankan]> SELECT nama_nasabah, id_nasabah FROM nasabah WHERE nama_nasabah LIKE 'A%' AND id_nasabah IS NOT NULL;
```

nama_nasabah	id_nasabah
Azie	11
Afifah	16
Aulia	17

3 rows in set (0.116 sec)

10. Make 1 question along with the answers using string search, NULL search, and using the clauses "ORDER", "LIMIT", "OFFSET"

```
MariaDB [perbankan]> SELECT*FROM nasabah WHERE id_nasabah IS NOT NULL ORDER BY nama_nasabah LIMIT 2 OFFSET 5;
```

id_nasabah	nama_nasabah	alamat_nasabah
19	Cahya	Jl. Mawar 09
9	Canka Lokananta	Jl. Tidar 86

2 rows in set (0.087 sec)

11. Make 5 questions with answers

- Make an account number display from the account table whose values are sorted from small to large

```
MariaDB [perbankan]> SELECT no_rekening FROM rekening ORDER BY no_rekening;
```

no_rekening
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123

- Make a date and type of transaction display from the transaction table where the transactions were made on November 22, 2009 and sorted from small to large transaction types.

```
Command Prompt - mysql -u root
23 rows in set (0.001 sec)

MariaDB [perbankan]> SELECT tanggal, jenis_transaksi FROM transaksi WHERE tanggal='2009-11-22'
ORDER BY jenis_transaksi;
```

tanggal	jenis_transaksi
2009-11-22 00:00:00	debit
2009-11-22 00:00:00	kredit
2009-11-22 00:00:00	kredit

```
3 rows in set (0.058 sec)

MariaDB [perbankan]>
```

- Create a customer display where the customer's name must begin with the letter H

```
MariaDB [perbankan]> SELECT*FROM nasabah WHERE nama_nasabah LIKE 'H%';
+-----+-----+-----+
| id_nasabah | nama_nasabah | alamat_nasabah |
+-----+-----+-----+
|          14 | Hafshah      | Jl. Manggis 04 |
+-----+-----+-----+
1 row in set (0.001 sec)
```

- Make a transaction display where the transaction number must show 102

```
MariaDB [perbankan]> SELECT*FROM transaksi WHERE no_rekeningFK=102;
+-----+-----+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal                | jumlah |
+-----+-----+-----+-----+-----+-----+
|           8 |           5 |          102 | debit           | 2009-11-16 00:00:00 | 20000 |
|          18 |           5 |          102 | debit           | 2009-11-25 00:00:00 | 50000 |
|          23 |           5 |          102 | debit           | 2009-11-30 00:00:00 | 20000 |
|          28 |           5 |          102 | kredit          | 2009-12-05 00:00:00 | 200000 |
|          38 |           5 |          102 | debit           | 2009-12-13 00:00:00 | 50000 |
|          43 |           5 |          102 | debit           | 2009-12-18 00:00:00 | 20000 |
|          48 |           5 |          102 | kredit          | 2009-12-23 00:00:00 | 200000 |
+-----+-----+-----+-----+-----+-----+
7 rows in set (0.051 sec)
```

- Create an account view where the branch code must show 'BRUT'

```
MariaDB [perbankan]> SELECT*FROM rekening WHERE kode_cabangFK='BRUT';
+-----+-----+-----+-----+
| no_rekening | kode_cabangFK | pin  | saldo |
+-----+-----+-----+-----+
|          120 | BRUT          | 5656 | 350000 |
+-----+-----+-----+-----+
1 row in set (0.032 sec)
```