

DATABASE SYSTEM PRACTICUM

PRACTICUM 6



Created by :

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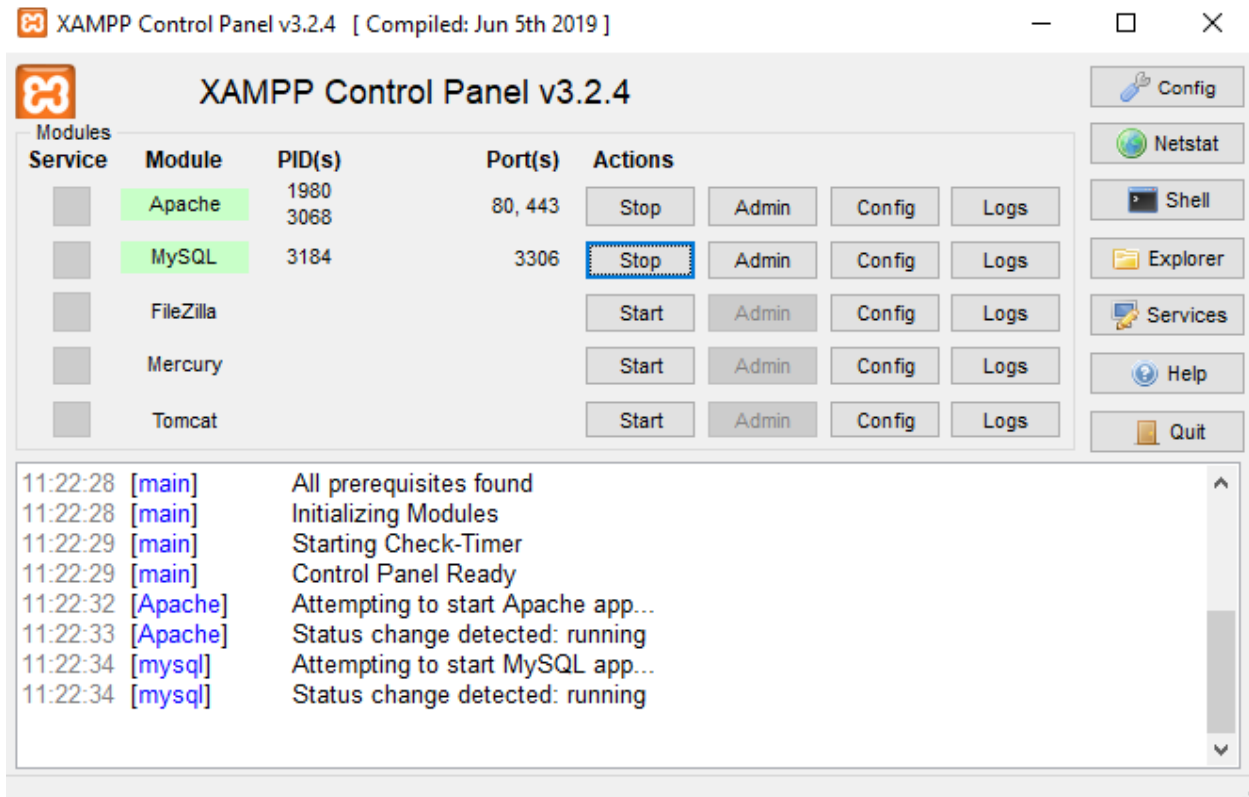
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INFORMATION TECHNOLOGY
FACULTY OF COMMUNICATION AND INFORMATICS
MUHAMMADIYAH UNIVERSITY OF SURAKARTA
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Activity

1. Run the XAMPP Control Panel and run the Apache and MySQL server.



2. Open CMD, log in to MySQL and 'use perbankan' database

```
Command Prompt - mysql -u root
Microsoft Windows [Version 10.0.18362.720]
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C:\Users\ACER>cd..
C:\Users>cd..
C:\>cd 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
```

3. Show name and address of bank sorted by name of the bank

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_cabang, alamat_cabang FROM cabang_bank ORDER BY nama_cabang;
```

nama_cabang	alamat_cabang
Bank Rut Unit Ambon	Jl. Raflesia 76
Bank Rut Unit Boyolali	Jl. Ahmad Yani 45
Bank Rut Unit Ciamis	Jl. Untung Suropati 12
Bank Rut Unit Depok	Jl. Anggrek 70
Bank Rut Unit Garut	Jl. Soekarno 98
Bank Rut Unit Jakarta	Jl. Soeharto 75
Bank Rut Unit Klaten	Jl. Superman 23
Bank Rut Unit Lamongan	Jl. Susilo 87
Bank Rut Unit Ngawi	Jl. Yudhoyono 19
Bank Rut Unit Palembang	Jl. Habiebie 54
Bank Rut Unit Rembang	Jl. Mawar 65
Bank Rut Unit Surakarta	Jl. Slamet Riyadi 18
Bank Rut Unit Tasikmalaya	Jl. Jendral Sudirman 85
Bank Rut Unit Wonogiri	Jalan A. Yani No. 23
Bank Rut Unit Yogyakarta	Jl. Anggrek 21

```
15 rows in set (0.646 sec)
```

4. Display account numbers, pins, and balance amounts for all accounts and are sorted by the largest number to lowest of balances.

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT no_rekening, pin, saldo FROM rekening ORDER BY saldo DESC;
```

no_rekening	pin	saldo
121	8765	9000000
119	7654	9000000
120	5678	7000000
118	4567	6000000
108	0000	5000000
122	6789	3800000
106	6666	3000000
105	5555	2000000
107	7777	1000000
123	9876	950000
104	4444	900000
115	5432	900000
117	6543	800000
103	3333	750000
116	3456	700000
110	1234	550000
114	2345	550000
101	1111	500000
102	2222	350000
112	0123	300000
113	8888	255000
111	4321	150000
109	9999	0

```
23 rows in set (0.292 sec)
```

Assignment

1. Show name and address of customer sorted by name of the customer

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah ORDER BY nama_nasabah;
```

nama_nasabah	alamat_nasabah
Ainayah	Jl. Slamet Riyadi 18
Budi Eko Prayogo	Jl. Kantil 30
Budi Murtono	Jl. Merak 22
Canka Lokananta	Jl. Tidar 86
Eko	Jl. Anggrek 21
Ema	Jl. Soeharto 75
Endang	Jl. Soekarno 98
Esih	Jl. Jendral Sudirman 85
Hendri	Jl. Ahmad Yani 45
Ika	Jl. Suparman 23
Kartika Padmasari	Jl. Manggis 15
Maryati	Jl. MT. Haryono 31
Nori	Jl. Habiebie 54
Sari Murti	Jl. Pangandaran 11
Satria Eka Jaya	Jl. Slamet Riyadi 45
Suparman	Jl. Hasanudin 81
Sutopo	Jl. Jendral Sudirman 12
Syifa	Jl. P. Tendean 63
Wafiq	Jl. Untung Suropati 12

```
19 rows in set (1.875 sec)
```

2. Show transaction type and transaction amount where type of the transaction is 'kredit'

```
Command Prompt - mysql -u root
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	20000
kredit	30000
kredit	200000
kredit	150000
kredit	50000
kredit	500000
kredit	200000
kredit	30000
kredit	30000

```
22 rows in set (0.398 sec)
```

3. Show transaction type and transaction amount which did the transaction on 21 November 2009 and sorted by transaction amount

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT jenis_transaksi, jumlah FROM transaksi WHERE tanggal = "2009-11-21" ORDER BY jumlah;
+-----+-----+
| jenis_transaksi | jumlah |
+-----+-----+
| debit          | 40000  |
| debit          | 40000  |
+-----+-----+
2 rows in set (0.081 sec)
```

4. Show customer name, transaction type, and transaction amount where amount of transaction is Rp 20.000

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_nasabah, jenis_transaksi, jumlah FROM nasabah, transaksi WHERE jumlah = 20000;
+-----+-----+-----+
| nama_nasabah | jenis_transaksi | jumlah |
+-----+-----+-----+
| Sutopo       | kredit         | 20000  |
| Maryati      | kredit         | 20000  |
| Suparman     | kredit         | 20000  |
| Kartika Padmasari | kredit       | 20000  |
| Budi Eko Prayogo | kredit       | 20000  |
| Satria Eka Jaya | kredit       | 20000  |
| Sari Murti   | kredit         | 20000  |
| Canka Lokananta | kredit       | 20000  |
| Budi Murtono | kredit         | 20000  |
| Ainayah     | kredit         | 20000  |
| Syifa       | kredit         | 20000  |
| Hendri      | kredit         | 20000  |
| Ika         | kredit         | 20000  |
| Eko         | kredit         | 20000  |
| Wafiq       | kredit         | 20000  |
| Esih        | kredit         | 20000  |
| Endang      | kredit         | 20000  |
| Ema         | kredit         | 20000  |
| Nori        | kredit         | 20000  |
| Sutopo      | debit          | 20000  |
| Maryati     | debit          | 20000  |
| Suparman    | debit          | 20000  |
| Kartika Padmasari | debit       | 20000  |
| Budi Eko Prayogo | debit       | 20000  |
| Satria Eka Jaya | debit       | 20000  |
| Sari Murti   | debit          | 20000  |
| Canka Lokananta | debit       | 20000  |
| Budi Murtono | debit          | 20000  |
| Ainayah     | debit          | 20000  |
| Syifa       | debit          | 20000  |
| Hendri      | debit          | 20000  |
| Ika         | debit          | 20000  |
| Eko         | debit          | 20000  |
| Wafiq       | debit          | 20000  |
| Esih        | debit          | 20000  |
| Endang      | debit          | 20000  |
| Ema         | debit          | 20000  |
| Nori        | debit          | 20000  |
| Sutopo      | kredit         | 20000  |
```

Maryati	kredit	20000	
Suparman	kredit	20000	
Kartika Padmasari	kredit	20000	
Budi Eko Prayogo	kredit	20000	
Satria Eka Jaya	kredit	20000	
Sari Murti	kredit	20000	
Canka Lokananta	kredit	20000	
Budi Murtono	kredit	20000	
Ainayah	kredit	20000	
Syifa	kredit	20000	
Hendri	kredit	20000	
Ika	kredit	20000	
Eko	kredit	20000	
Wafiq	kredit	20000	
Esih	kredit	20000	
Endang	kredit	20000	
Ema	kredit	20000	
Nori	kredit	20000	
Sutopo	debit	20000	
Maryati	debit	20000	
Suparman	debit	20000	
Kartika Padmasari	debit	20000	
Budi Eko Prayogo	debit	20000	
Satria Eka Jaya	debit	20000	
Sari Murti	debit	20000	
Canka Lokananta	debit	20000	
Budi Murtono	debit	20000	
Ainayah	debit	20000	
Syifa	debit	20000	
Hendri	debit	20000	
Ika	debit	20000	
Eko	debit	20000	
Wafiq	debit	20000	
Esih	debit	20000	
Endang	debit	20000	
Ema	debit	20000	
Nori	debit	20000	
Sutopo	debit	20000	
Maryati	debit	20000	
Suparman	debit	20000	
Kartika Padmasari	debit	20000	
Budi Eko Prayogo	debit	20000	
Satria Eka Jaya	debit	20000	

Sari Murti	debit	20000	
Canka Lokananta	debit	20000	
Budi Murtono	debit	20000	
Ainayah	debit	20000	
Syifa	debit	20000	
Hendri	debit	20000	
Ika	debit	20000	
Eko	debit	20000	
Wafiq	debit	20000	
Esih	debit	20000	
Endang	debit	20000	
Ema	debit	20000	
Nori	debit	20000	
Sutopo	kredit	20000	
Maryati	kredit	20000	
Suparman	kredit	20000	
Kartika Padmasari	kredit	20000	
Budi Eko Prayogo	kredit	20000	
Satria Eka Jaya	kredit	20000	
Sari Murti	kredit	20000	
Canka Lokananta	kredit	20000	
Budi Murtono	kredit	20000	
Ainayah	kredit	20000	
Syifa	kredit	20000	
Hendri	kredit	20000	
Ika	kredit	20000	
Eko	kredit	20000	
Wafiq	kredit	20000	
Esih	kredit	20000	
Endang	kredit	20000	
Ema	kredit	20000	
Nori	kredit	20000	
Sutopo	debit	20000	
Maryati	debit	20000	
Suparman	debit	20000	
Kartika Padmasari	debit	20000	
Budi Eko Prayogo	debit	20000	
Satria Eka Jaya	debit	20000	
Sari Murti	debit	20000	
Canka Lokananta	debit	20000	
Budi Murtono	debit	20000	
Ainayah	debit	20000	
Syifa	debit	20000	

Hendri	debit	20000
Ika	debit	20000
Eko	debit	20000
Wafiq	debit	20000
Esih	debit	20000
Endang	debit	20000
Ema	debit	20000
Nori	debit	20000

133 rows in set (0.412 sec)

5. Show customer name and address where customer name begins with “Su”

```

Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE "Su%";
+-----+-----+
| nama_nasabah | alamat_nasabah |
+-----+-----+
| Sutopo       | Jl. Jendral Sudirman 12 |
| Superman     | Jl. Hasanudin 81 |
+-----+-----+
2 rows in set (0.522 sec)

```

6. Show no_transaksi and jumlah on transaksi where jenis_transaksi = ‘debit’ and jumlah = Rp 50.000

```

Command Prompt
MariaDB [perbankan]> SELECT no_transaksi, jumlah FROM transaksi WHERE jenis_transaksi = 'debit' AND jumlah = 50000;
+-----+-----+
| no_transaksi | jumlah |
+-----+-----+
| 1            | 50000 |
| 4            | 50000 |
| 12           | 50000 |
| 17           | 50000 |
| 18           | 50000 |
| 24           | 50000 |
| 26           | 50000 |
| 31           | 50000 |
| 34           | 50000 |
+-----+-----+
9 rows in set (0.001 sec)

```

7. Show the no_transaksi, jenis_transaksi, and jumlah where jenis_transaksi = ‘kredit’ and saldo = 20.000 or 100.000

```

Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT no_transaksi, jenis_transaksi, jumlah FROM transaksi WHERE jenis_transaksi = 'kredit' AND jumlah = 20000 OR jumlah = 100000;
+-----+-----+-----+
| no_transaksi | jenis_transaksi | jumlah |
+-----+-----+-----+
| 3            | kredit         | 20000 |
| 10           | debit          | 100000 |
| 11           | debit          | 100000 |
| 15           | kredit         | 100000 |
| 16           | kredit         | 20000 |
| 19           | debit          | 100000 |
| 22           | kredit         | 100000 |
| 27           | kredit         | 100000 |
| 29           | debit          | 100000 |
| 33           | kredit         | 20000 |
| 40           | debit          | 100000 |
| 41           | debit          | 100000 |
+-----+-----+-----+
12 rows in set (0.001 sec)

```

8. Show no_transaksi, jenis_transaksi, with jenis transaksi just 'debit' and transactions occurred in 2009-11-22

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY no_transaksi LIMIT 16 OFFSET 15;
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
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	108	debit	2009-11-26 00:00:00	100000
20	3	106	kredit	2009-11-27 00:00:00	50000
21	2	103	kredit	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	2009-11-01 00:00:00	50000
25	2	103	debit	2009-11-02 00:00:00	40000
26	4	101	debit	2009-11-04 00:00:00	50000
27	2	103	kredit	2009-11-05 00:00:00	100000
28	5	102	kredit	2009-11-05 00:00:00	200000
29	7	109	debit	2009-11-05 00:00:00	100000
30	9	110	debit	2009-11-06 00:00:00	20000
31	13	115	debit	2009-11-20 00:00:00	50000

```
16 rows in set (0.001 sec)
```

9. Displays the customer table where the customer's name is "Ainayah" and the customer's address is not null.

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT*FROM nasabah WHERE nama_nasabah = "Ainayah" AND alamat_nasabah IS NOT NULL;
```

id_nasabah	nama_nasabah	alamat_nasabah
11	Ainayah	Jl. Slamet Riyadi 18

```
1 row in set (0.082 sec)
```

10. Displays a transaction table in which the transaction type is 'debit' and the number is not null, sorted by the amount with a limit of 10 and offset of 5

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT*FROM transaksi WHERE jenis_transaksi = "debit" AND jumlah IS NOT NULL ORDER BY jumlah LIMIT 10 OFFSET 5;
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
25	2	103	debit	2009-11-02 00:00:00	40000
44	13	115	debit	2009-11-21 00:00:00	40000
14	3	105	debit	2009-11-21 00:00:00	40000
2	2	103	debit	2009-11-10 00:00:00	40000
12	1	104	debit	2009-11-19 00:00:00	50000
18	5	102	debit	2009-11-25 00:00:00	50000
4	3	106	debit	2009-11-13 00:00:00	50000
24	1	104	debit	2009-11-01 00:00:00	50000
26	4	101	debit	2009-11-04 00:00:00	50000
1	3	105	debit	2009-11-10 00:00:00	50000

```
10 rows in set (0.001 sec)
```


11. Display nama_nasabah beginning with the letter 'S'

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_nasabah FROM nasabah WHERE nama_nasabah LIKE 'S%';
+-----+
| nama_nasabah |
+-----+
| Sutopo       |
| Suparman     |
| Satria Eka Jaya |
| Sari Murti   |
| Syifa        |
+-----+
5 rows in set (0.265 sec)
```

12. Sort no_rekeningFK in the transaction table

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT*FROM transaksi ORDER BY no_rekeningFK;
+-----+-----+-----+-----+-----+-----+
| no_transaksi | id_nasabahFK | no_rekeningFK | jenis_transaksi | tanggal                | jumlah |
+-----+-----+-----+-----+-----+-----+
| 16           | 4            | 101           | kredit          | 2009-11-22 00:00:00     | 20000  |
| 26           | 4            | 101           | debit          | 2009-11-04 00:00:00     | 50000  |
| 3            | 4            | 101           | kredit          | 2009-11-12 00:00:00     | 20000  |
| 8            | 5            | 102           | debit          | 2009-11-16 00:00:00     | 20000  |
| 18           | 5            | 102           | debit          | 2009-11-25 00:00:00     | 50000  |
| 28           | 5            | 102           | kredit         | 2009-11-05 00:00:00     | 200000 |
| 23           | 5            | 102           | debit          | 2009-11-30 00:00:00     | 20000  |
| 25           | 2            | 103           | debit          | 2009-11-02 00:00:00     | 40000  |
| 17           | 2            | 103           | debit          | 2009-11-22 00:00:00     | 50000  |
| 11           | 2            | 103           | debit          | 2009-11-19 00:00:00     | 100000 |
| 27           | 2            | 103           | kredit         | 2009-11-05 00:00:00     | 100000 |
| 21           | 2            | 103           | kredit         | 2009-11-28 00:00:00     | 200000 |
| 2            | 2            | 103           | debit          | 2009-11-10 00:00:00     | 40000  |
| 12           | 1            | 104           | debit          | 2009-11-19 00:00:00     | 50000  |
| 15           | 1            | 104           | kredit         | 2009-11-22 00:00:00     | 100000 |
| 6            | 1            | 104           | kredit         | 2009-11-15 00:00:00     | 200000 |
| 24           | 1            | 104           | debit          | 2009-11-01 00:00:00     | 50000  |
| 22           | 3            | 105           | kredit         | 2009-11-28 00:00:00     | 100000 |
| 14           | 3            | 105           | debit          | 2009-11-21 00:00:00     | 40000  |
| 1            | 3            | 105           | debit          | 2009-11-10 00:00:00     | 50000  |
| 9            | 3            | 105           | kredit         | 2009-11-18 00:00:00     | 50000  |
| 20           | 3            | 106           | kredit         | 2009-11-27 00:00:00     | 50000  |
| 4            | 3            | 106           | debit          | 2009-11-13 00:00:00     | 50000  |
| 13           | 4            | 107           | kredit         | 2009-11-20 00:00:00     | 200000 |
| 10           | 4            | 107           | debit          | 2009-11-19 00:00:00     | 100000 |
| 5            | 5            | 107           | kredit         | 2009-11-13 00:00:00     | 30000  |
| 19           | 10           | 108           | debit          | 2009-11-26 00:00:00     | 100000 |
| 29           | 7            | 109           | debit          | 2009-11-05 00:00:00     | 100000 |
| 7            | 9            | 110           | kredit         | 2009-11-15 00:00:00     | 150000 |
| 30           | 9            | 110           | debit          | 2009-11-06 00:00:00     | 20000  |
| 42           | 11           | 114           | debit          | 2009-11-29 00:00:00     | 70000  |
| 32           | 12           | 114           | debit          | 2009-11-20 00:00:00     | 40000  |
| 45           | 11           | 114           | kredit         | 2009-11-22 00:00:00     | 200000 |
| 36           | 11           | 114           | kredit         | 2009-11-25 00:00:00     | 200000 |
| 39           | 13           | 115           | kredit         | 2009-11-28 00:00:00     | 50000  |
| 44           | 13           | 115           | debit          | 2009-11-21 00:00:00     | 40000  |
| 31           | 13           | 115           | debit          | 2009-11-20 00:00:00     | 50000  |
| 50           | 13           | 116           | kredit         | 2009-11-27 00:00:00     | 30000  |
| 34           | 13           | 116           | debit          | 2009-11-23 00:00:00     | 50000  |
```

33	14	116	kredit	2009-11-22 00:00:00	20000
35	15	117	kredit	2009-11-23 00:00:00	30000
40	14	117	debit	2009-11-29 00:00:00	100000
43	14	117	kredit	2009-11-20 00:00:00	500000
49	20	118	debit	2009-11-26 00:00:00	200000
46	14	120	kredit	2009-11-22 00:00:00	30000
37	19	120	kredit	2009-11-25 00:00:00	150000
48	15	122	debit	2009-11-25 00:00:00	60000
38	15	122	debit	2009-11-26 00:00:00	20000
47	12	123	debit	2009-11-22 00:00:00	60000
41	12	123	debit	2009-11-29 00:00:00	100000

50 rows in set (0.010 sec)

13. Show no_rekening, kode_cabangFK, and saldo where kode_cabangFK = 'BRUS'

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT no_rekening, kode_cabangFK, saldo FROM rekening WHERE kode_cabangFK LIKE 'BRUS';
```

no_rekening	kode_cabangFK	saldo
101	BRUS	500000
102	BRUS	350000
103	BRUS	750000
106	BRUS	3000000
107	BRUS	1000000

5 rows in set (0.084 sec)

14. Look for the nama_nasabah who begin with the letter 'B'

```
Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT nama_nasabah, alamat_nasabah FROM nasabah WHERE nama_nasabah LIKE 'B%';
```

nama_nasabah	alamat_nasabah
Budi Eko Prayogo	Jl. Kantil 30
Budi Murtono	Jl. Merak 22

2 rows in set (0.005 sec)

15. Displays a transaction table in which the transaction type is 'kredit' and the number is not null, sorted by the amount with a limit of 15 and offset of 3

```
Select Command Prompt - mysql -u root
MariaDB [perbankan]> SELECT*FROM transaksi WHERE jenis_transaksi = "kredit" AND jumlah IS NOT NULL ORDER BY jumlah LIMIT 15 OFFSET 3;
```

no_transaksi	id_nasabahFK	no_rekeningFK	jenis_transaksi	tanggal	jumlah
35	15	117	kredit	2009-11-23 00:00:00	30000
46	14	120	kredit	2009-11-22 00:00:00	30000
5	5	107	kredit	2009-11-13 00:00:00	30000
50	13	116	kredit	2009-11-27 00:00:00	30000
9	3	105	kredit	2009-11-18 00:00:00	50000
20	3	106	kredit	2009-11-27 00:00:00	50000
39	13	115	kredit	2009-11-28 00:00:00	50000
22	3	105	kredit	2009-11-28 00:00:00	100000
15	1	104	kredit	2009-11-22 00:00:00	100000
27	2	103	kredit	2009-11-05 00:00:00	100000
37	19	120	kredit	2009-11-25 00:00:00	150000
7	9	110	kredit	2009-11-15 00:00:00	150000
13	4	107	kredit	2009-11-20 00:00:00	200000
36	11	114	kredit	2009-11-25 00:00:00	200000
28	5	102	kredit	2009-11-05 00:00:00	200000

15 rows in set (0.100 sec)