

Week 7: SQL Exercises

CREATE THIS DATABASE: **sbank**

customers				transactions				
id	lastname	firstname	birthday	id	bankaccount	trans_date	amount	trans_type
1	Kim	Yuna	1995.10.15	1	1	2008.3.10	4000	D
2	Park	Jina	1999.5.17	2	2	2008.3.10	2000	W
3	Kim	Jason	2001.1.20	3	1	2008.3.11	12000	D
				4	1	2008.3.15	3500	D
				5	2	2008.4.11	7000	W
				6	4	2008.4.12	4500	D
				7	3	2008.4.12	1000	D
bankaccounts								
id	customer	account_no	account_type					
1	1	10-123	Savings					
2	2	10-331	Savings					
3	1	50-123	Dollar					
4	1	10-001	Savings					

CREATING **customers** table

```
MariaDB [(none)]> USE sbank;  
Database changed  
MariaDB [sbank]> CREATE TABLE customers  
-> ( id INT(5) AUTO_INCREMENT PRIMARY KEY,  
->   lastname VARCHAR(30),  
->   firstname VARCHAR(30),  
->   birthday DATE );  
Query OK, 0 rows affected (0.01 sec)
```

```
MariaDB [sbank]> DESCRIBE customers;
```

Field	Type	Null	Key	Default	Extra
id	int(5)	NO	PRI	NULL	auto_increment
lastname	varchar(30)	YES		NULL	
firstname	varchar(30)	YES		NULL	
birthday	date	YES		NULL	

CREATING **bankaccounts** table

```
Mar i aDB [sbank]> CREATE TABLE bankaccounts  
-> ( id INT(5) AUTO_INCREMENT PRIMARY KEY,  
->   customer INT(5),  
->   account_no VARCHAR(15),  
->   account_type VARCHAR(10),  
->  
->   FOREIGN KEY (customer)  
->   REFERENCES customers(id) );  
Query OK, 0 rows affected (0.01 sec)
```

```
Mar i aDB [sbank]> _
```

CREATING transactions table

```
MariaDB [sbank]> CREATE TABLE transactions
-> ( id INT(5) AUTO_INCREMENT PRIMARY KEY,
->   bankaccount INT(5),
->   trans_date DATE,
->   amount INT(10),
->   trans_type VARCHAR(1),
->   FOREIGN KEY (bankaccount)
->   REFERENCES bankaccounts(id) );
Query OK, 0 rows affected (0.01 sec)
```

GETTING data from multiple tables

WHERE vs JOIN (INNER, LEFT, RIGHT)

```
MariaDB [sbank]> SELECT customers.id, lastname, firstname,  
-> account_no, account_type  
-> FROM customers, bankaccounts  
-> WHERE customers.id = bankaccounts.customer;
```

id	lastname	firstname	account_no	account_type
1	Kim	Yuna	10-123	Savings
2	Park	Jina	10-331	Savings
1	Kim	Yuna	50-123	Dollar
1	Kim	Yuna	10-001	Savings

4 rows in set (0.00 sec)

```
MariaDB [sbank]> SELECT customers.id, lastname, firstname,  
-> account_no, account_type  
-> FROM customers INNER JOIN bankaccounts  
-> ON customers.id = bankaccounts.customer;
```


Getting the transactions of Kim Yuna's 10-123 account using the **ACCOUNT ID**

```
MariaDB [sbank]> SELECT customers.id ID,  
->  CONCAT (lastname, ' ', firstname) FULLNAME,  
->  bankaccounts.account_no 'ACCTNO',  
->  trans_date 'TD',  
->  amount AMT,  
->  trans_type 'TTYPE'  
->  FROM customers, bankaccounts, transactions  
->  WHERE customers.id='1'  
->    AND bankaccounts.id=transactions.bankaccount  
->    AND bankaccounts.id='1';
```

ID	FULLNAME	ACCTNO	TD	AMT	TTYPE
1	Kim, Yuna	10-123	2018-03-10	4000	D
1	Kim, Yuna	10-123	2018-03-11	12000	D
1	Kim, Yuna	10-123	2018-03-15	3500	D

Getting the transactions of Kim Yuna's 10-123 account using the **ACCOUNT NO**

```
MariaDB [sbank]> SELECT customers.id ID,  
-> CONCAT (lastname, ', ', firstname) FULLNAME,  
-> bankaccounts.account_no 'ACCTNO',  
-> trans_date 'TD',  
-> amount AMT,  
-> trans_type 'TTYPE'  
-> FROM customers, bankaccounts, transactions  
-> WHERE customers.id='1'  
-> AND bankaccounts.id=transactions.bankaccount  
-> AND bankaccounts.account_no='10-123';
```

ID	FULLNAME	ACCTNO	TD	AMT	TTYPE
1	Kim, Yuna	10-123	2018-03-10	4000	D
1	Kim, Yuna	10-123	2018-03-11	12000	D
1	Kim, Yuna	10-123	2018-03-15	3500	D

Next Meeting: PHP & MYSQL >>

```
시작 page.php x
1 <?php
2 //phpinfo();
3
4 $user="root";
5 $pass="";
6 $host="localhost";
7
8
9 $con = mysqli_connect($host, $user, $pass);
10
11 if ($con)
12     echo "CONNECTED";
13 else
14     echo "NOT CONNECTED";
```