

mysql -u root -p

show databases;

```
MariaDB [(none)]> show databases;
+-----+
| Database |
+-----+
| bank      |
| cse370_grades |
| information_schema |
| just_a_potato |
| lab_hw1   |
| mysql     |
| performance_schema |
| phpmyadmin |
| test      |
| the_office |
+-----+
10 rows in set (0.001 sec)
```

use Bank;

show tables;

```
MariaDB [bank]> show tables;
+-----+
| Tables_in_bank |
+-----+
| account         |
| borrower        |
| branch          |
| customer        |
| depositor       |
| loan            |
+-----+
6 rows in set (0.001 sec)
```

Select \* from customer;

```
MariaDB [bank]> Select * from customer;
```

customer_id	customer_name	customer_street	customer_city
C-101	Jones	Main	Harrison
C-201	Smith	North	Rye
C-211	Hayes	Main	Harrison
C-212	Curry	North	Rye
C-215	Lindsay	Park	Pittsfield
C-220	Turner	Putnam	Stamford
C-222	Williams	Nassau	Princeton
C-225	Adams	Spring	Pittsfield
C-226	Johnson	Alma	Palo Alto
C-233	Glenn	Sand Hill	Woodside
C-234	Brooks	Senator	Brooklyn
C-255	Green	Walnut	Stamford

```
12 rows in set (0.000 sec)
```

Select \* from branch;

```
MariaDB [bank]> Select * from branch;
```

branch_name	branch_city	assets
Brighton	Brooklyn	7100000
Downtown	Brooklyn	9000000
Mianus	Horseneck	400000
North Town	Rye	3700000
Perryridge	Horseneck	1700000
Pownal	Bennington	300000
Redwood	Palo Alto	2100000
Round Hill	Horseneck	8000000

```
8 rows in set (0.000 sec)
```

Select \* from account;

```
MariaDB [bank]> Select * from account;
```

branch_name	account_number	balance
Downtown	A-101	500
Perryridge	A-102	400
Brighton	A-201	900
Mianus	A-215	700
Brighton	A-217	750
Redwood	A-222	700
Round Hill	A-305	350

```
7 rows in set (0.000 sec)
```

Select \* from loan;

```
MariaDB [bank]> Select * from loan;
+-----+-----+-----+
| loan_number | branch_name | amount |
+-----+-----+-----+
| L-11        | Round Hill  | 900    |
| L-14        | Downtown   | 1500   |
| L-15        | Perryridge | 1500   |
| L-16        | Perryridge | 1300   |
| L-17        | Downtown   | 1000   |
| L-23        | Redwood    | 2000   |
| L-93        | Mianus     | 500    |
+-----+-----+-----+
7 rows in set (0.000 sec)
```

Select \* from depositor;

```
MariaDB [bank]> Select * from depositor;
+-----+-----+
| customer_id | account_number |
+-----+-----+
| C-101       | A-217          |
| C-201       | A-215          |
| C-211       | A-102          |
| C-215       | A-222          |
| C-220       | A-305          |
| C-226       | A-101          |
| C-226       | A-201          |
+-----+-----+
7 rows in set (0.000 sec)
```

Select \* from borrower;

```
MariaDB [bank]> Select * from borrower;
+-----+-----+
| customer_id | loan_number |
+-----+-----+
| C-101       | L-17        |
| C-201       | L-11        |
| C-201       | L-23        |
| C-211       | L-15        |
| C-212       | L-93        |
| C-222       | L-17        |
| C-225       | L-16        |
| C-226       | L-14        |
+-----+-----+
8 rows in set (0.000 sec)
```

1.

Select customer\_name, loan.loan\_number from ((customer inner join borrower on customer.customer\_id = borrower.customer\_id) inner join loan on loan.loan\_number = borrower.loan\_number) where branch\_name = 'Downtown';

```
MariaDB [bank]> Select customer_name, loan.loan_number from ((customer inner join borrower on
customer.customer_id = borrower.customer_id) inner join loan on loan.loan_number = borrower.
loan_number) where branch_name = 'Downtown';
+-----+-----+
| customer_name | loan_number |
+-----+-----+
| Johnson      | L-14       |
| Jones        | L-17       |
| Williams     | L-17       |
+-----+-----+
3 rows in set (0.001 sec)
```

2.

Select customer1.customer\_name as Customer1, customer2.customer\_name as Customer2, customer1.customer\_city from customer customer1 join customer customer2 on customer1.customer\_city=customer2.customer\_city and customer1.customer\_name< customer2.customer\_name;

```
MariaDB [bank]> Select customer1.customer_name as Customer1, customer2.customer_name as Custo
mer2, customer1.customer_city from customer customer1 join customer customer2 on customer1.cu
stomer_city=customer2.customer_city and customer1.customer_name< customer2.customer_name;
+-----+-----+-----+
| Customer1 | Customer2 | customer_city |
+-----+-----+-----+
| Hayes     | Jones     | Harrison      |
| Curry     | Smith     | Rye           |
| Adams     | Lindsay   | Pittsfield    |
| Green     | Turner    | Stamford      |
+-----+-----+-----+
4 rows in set (0.001 sec)
```

3.

Select branch\_name , sum(balance\*4/100) as total\_interest from account group by branch\_name;

```
MariaDB [bank]> Select branch_name , sum(balance*4/100) as total_interest from account group
by branch_name;
```

branch_name	total_interest
Brighton	66.0000
Downtown	20.0000
Mianus	28.0000
Perryridge	16.0000
Redwood	28.0000
Round Hill	14.0000

```
6 rows in set (0.000 sec)
```

4.

Select depositor.account\_number, max(account.balance) as highest\_balance, customer.customer\_city  
from (customer inner join depositor on customer.customer\_id = depositor.customer\_id) inner join  
account on depositor.account\_number = account.account\_number group by customer.customer\_city;

```
MariaDB [bank]> Select depositor.account_number, max(account.balance) as highest_balance, cus
tomer.customer_city from (customer inner join depositor on customer.customer_id = depositor.c
ustomer_id) inner join account on depositor.account_number = account.account_number group by
customer.customer_city;
```

account_number	highest_balance	customer_city
A-217	750	Harrison
A-101	900	Palo Alto
A-222	700	Pittsfield
A-215	700	Rye
A-305	350	Stamford

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

5.

Select \* from (select loan.loan\_number, amount, customer\_name from loan inner join borrower on  
loan.loan\_number = borrower.loan\_number inner join customer on customer.customer\_id =  
borrower.customer\_id order by amount desc limit 5) as table1 order by amount, loan\_number desc;

```
MariaDB [bank]> Select * from (select loan.loan_number, amount, customer_name from loan inner
join borrower on loan.loan_number = borrower.loan_number inner join customer on customer.cus
tomer_id = borrower.customer_id order by amount desc limit 5) as table1 order by amount, loan
_number desc;
```

loan_number	amount	customer_name
L-17	1000	Jones
L-16	1300	Adams
L-15	1500	Hayes
L-14	1500	Johnson
L-23	2000	Smith

```
5 rows in set (0.000 sec)
```

6.

Select customer.customer\_name from ((loan inner join account on loan.branch\_name =  
account.branch\_name) inner join borrower on loan.loan\_number = borrower.loan\_number) inner join  
customer on borrower.customer\_id = customer.customer\_id where account.branch\_name = "Perryridge"  
and loan.branch\_name = "Perryridge" group by account.branch\_name;

```
MariaDB [bank]> Select customer.customer_name from ((loan inner join account on loan.branch_n
ame = account.branch_name) inner join borrower on loan.loan_number = borrower.loan_number) in
ner join customer on borrower.customer_id = customer.customer_id where account.branch_name =
"Perryridge" and loan.branch_name = "Perryridge" group by account.branch_name;
```

customer_name
Hayes

```
1 row in set (0.001 sec)
```

7.

Select customer.customer\_name, sum(loan.amount) as Total\_Loan from (loan inner join borrower on  
loan.loan\_number = borrower.loan\_number) inner join customer on borrower.customer\_id =  
customer.customer\_id group by customer.customer\_id having count(\*)>=2;

```
MariaDB [bank]> Select customer.customer_name, sum(loan.amount) as Total_Loan from (loan inne
r join borrower on loan.loan_number = borrower.loan_number) inner join customer on borrower.c
ustomer_id = customer.customer_id group by customer.customer_id having count(*)>=2;
```

customer_name	Total_Loan
Smith	2900

```
1 row in set (0.001 sec)
```