

CSE370 : Database Systems

Assignment 03 | Fall 2024

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No 1 Query (as Plain Text)	<pre>select customer.customer_name, loan.loan_number from borrower -> JOIN loan ON borrower.loan_number= loan.loan_number -> AND loan.branch_name='Downtown' -> JOIN customer ON borrower.customer_id= customer.customer_id;</pre>
No 1 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_22201949]> select customer.customer_name, loan.loan_number from borrower -> JOIN loan ON borrower.loan_number= loan.loan_number -> AND loan.branch_name='Downtown' -> JOIN customer ON borrower.customer_id= customer.customer_id; +-----+-----+ customer_name loan_number +-----+-----+ Johnson L-14 Jones L-17 Williams L-17 +-----+-----+ 3 rows in set (0.000 sec)</pre>
No 2 Query (as Plain Text)	<pre>select c1.customer_name AS Customer1, c2.customer_name AS Customer2, c1.customer_city AS city FROM customer c1 -> JOIN customer c2 ON c1.customer_city= c2.customer_city -> AND c1.customer_id < c2.customer_id;</pre>
No 2 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_22201949]> select c1.customer_name AS Customer1, c2.customer_name AS Customer2, c1.customer_city AS city FROM custome r c1 -> JOIN customer c2 ON c1.customer_city= c2.customer_city -> AND c1.customer_id < c2.customer_id; +-----+-----+-----+ Customer1 Customer2 city +-----+-----+-----+ Jones Hayes Harrison Smith Curry Rye Lindsay Adams Pittsfield Turner Green Stamford +-----+-----+-----+ 4 rows in set (0.001 sec)</pre>
No 3 Query (as Plain Text)	<pre>select account.branch_name AS Branch_name, SUM(account.balance * 0.04) AS Total_Interest -> FROM account GROUP BY account.branch_name;</pre>

No 3 SS
(of Query &
Output
in Shell)

```
MariaDB [Bank_22201949]> select account.branch_name AS Branch_name, SUM(account.balance * 0.04) AS Total_Interest
-> FROM account GROUP BY account.branch_name;

+-----+-----+
| Branch_name | Total_Interest |
+-----+-----+
| Brighton    | 66.00         |
| Downtown    | 20.00         |
| Mianus       | 28.00         |
| Perryridge  | 16.00         |
| Redwood     | 28.00         |
| Round Hill  | 14.00         |
+-----+-----+
6 rows in set (0.000 sec)
```

No 4 Query
(as Plain Text)

```
select acc.account_number, acc.balance, b.branch_city FROM account acc
-> INNER JOIN branch b ON acc.branch_name= b.branch_name
-> WHERE acc.balance=(
-> SELECT MAX(acc2.balance) FROM account acc2
-> INNER JOIN branch b2 ON acc2.branch_name=b2.branch_name
-> WHERE b2.branch_city=b.branch_city
-> )
-> ORDER BY b.branch_city;
```

No 4 SS
(of Query &
Output
in Shell)

```
MariaDB [Bank_22201949]> select acc.account_number, acc.balance, b.branch_city FROM account acc
-> INNER JOIN branch b ON acc.branch_name= b.branch_name
-> WHERE acc.balance=(
-> SELECT MAX(acc2.balance) FROM account acc2
-> INNER JOIN branch b2 ON acc2.branch_name=b2.branch_name
-> WHERE b2.branch_city=b.branch_city
-> )
-> ORDER BY b.branch_city;

+-----+-----+-----+
| account_number | balance | branch_city |
+-----+-----+-----+
| A-201          | 900     | Brooklyn    |
| A-215          | 700     | Horseneck   |
| A-222          | 700     | Palo Alto   |
+-----+-----+-----+
3 rows in set (0.001 sec)
```

No 5 Query
(as Plain Text)

```
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;
```

No 5 SS
(of Query &
Output
in Shell)

```
MariaDB [Bank_22201949]> 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;
+-----+-----+-----+
| 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 (0.001 sec)
```

No 6 Query
(as Plain Text)

```
select distinct c.customer_name from customer c
-> inner join depositor d on c.customer_id=d.customer_id
-> inner join account acc on d.account_number=acc.account_number
-> inner join borrower brr on c.customer_id=brr.customer_id
-> inner join loan l on brr.loan_number=l.loan_number
-> and l.branch_name=acc.branch_name
-> where acc.branch_name='Perryridge';
```

No 6 SS
(of Query &
Output
in Shell)

```
MariaDB [Bank_22201949]> select distinct c.customer_name from customer c
-> inner join depositor d on c.customer_id=d.customer_id
-> inner join account acc on d.account_number=acc.account_number
-> inner join borrower brr on c.customer_id=brr.customer_id
-> inner join loan l on brr.loan_number=l.loan_number
-> and l.branch_name=acc.branch_name
-> where acc.branch_name='Perryridge';
+-----+
| customer_name |
+-----+
| Hayes         |
+-----+
1 row in set (0.001 sec)
```

No 7 Query
(as Plain Text)

```
select c.customer_name, SUM(l.amount) as total_loan from customer c
-> join borrower brr on c.customer_id=brr.customer_id
-> join loan l on brr.loan_number= l.loan_number
-> where c.customer_id IN(
-> select brr2.customer_id from borrower brr2 group by brr2.customer_id having
count(*)>=2
-> )
```

	-> group by c.customer_id order by total_loan DESC;
No 7 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_22201949]> select c.customer_name, SUM(l.amount) as total_loan from customer c -> join borrower brr on c.customer_id=brr.customer_id -> join loan l on brr.loan_number= l.loan_number -> where c.customer_id IN(-> select brr2.customer_id from borrower brr2 group by brr2.customer_id having count(*)>=2 ->) -> group by c.customer_id order by total_loan DESC; +-----+-----+ customer_name total_loan +-----+-----+ Smith 2900 +-----+-----+ 1 row in set (0.001 sec)</pre>