

CSE370 : Database Systems

Assignment 01/02/03 | Spring 2025

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No 1 Query (as Plain Text)	SELECT c.customer_name, b.loan_number FROM customer c JOIN borrower b ON c.customer_id = b.customer_id JOIN loan l ON b.loan_number = l.loan_number WHERE l.branch_name = 'Downtown';
No 1 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_22301746]> SELECT c.customer_name, b.loan_number -> FROM customer c -> JOIN borrower b ON c.customer_id = b.customer_id -> JOIN loan l ON b.loan_number = l.loan_number -> WHERE l.branch_name = 'Downtown'; +-----+-----+ customer_name loan_number +-----+-----+ Johnson L-14 Jones L-17 Williams L-17 +-----+-----+ 3 rows in set (0.019 sec)</pre>
No 2 Query	SELECT c1.customer_name AS Customer1, c2.customer_name AS Customer2, c1.customer_city AS City

(as Plain Text)	FROM customer c1 JOIN customer c2 ON c1.customer_city = c2.customer_city WHERE c1.customer_id < c2.customer_id ORDER BY City, Customer1, Customer2;
No 2 SS (of Query & Output in Shell)	<pre> MariaDB [Bank_22301746]> 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 -> WHERE c1.customer_id < c2.customer_id -> ORDER BY City, Customer1, Customer2; +-----+-----+-----+ Customer1 Customer2 City +-----+-----+-----+ Jones Hayes Harrison Lindsay Adams Pittsfield Smith Curry Rye Turner Green Stamford +-----+-----+-----+ 4 rows in set (0.044 sec) </pre>
No 3 Query (as Plain Text)	SELECT a.branch_name, SUM(a.balance * 0.04) AS Total_Interest FROM account a GROUP BY a.branch_name ORDER BY a.branch_name;

No 3 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22301746]> SELECT a.branch_name, SUM(a.balance * 0.04) AS Total_Interest
-> FROM account a
-> GROUP BY a.branch_name
-> ORDER BY a.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 (0.019 sec)
```

No 4 Query
(as Plain Text)

```
SELECT a.account_number, b.branch_city, a.balance
FROM account a
JOIN branch b ON a.branch_name = b.branch_name
WHERE a.balance = (
    SELECT MAX(a2.balance)
    FROM account a2
    JOIN branch b2 ON a2.branch_name = b2.branch_name
    WHERE b2.branch_city = b.branch_city
);
```

No 4 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22301746]> SELECT a.account_number, b.branch_city, a.balance
-> FROM account a
-> JOIN branch b ON a.branch_name = b.branch_name
-> WHERE a.balance = (
->     SELECT MAX(a2.balance)
->     FROM account a2
->     JOIN branch b2 ON a2.branch_name = b2.branch_name
->     WHERE b2.branch_city = b.branch_city
-> );
```

account_number	branch_city	balance
A-201	Brooklyn	900
A-215	Horseneck	700
A-222	Palo Alto	700

```
3 rows in set (0.020 sec)

MariaDB [Bank_22301746]> |
```

No 5 Query
(as Plain Text)

```
SELECT l.loan_number, l.amount, c.customer_name
FROM loan l
JOIN borrower b ON l.loan_number = b.loan_number
JOIN customer c ON b.customer_id = c.customer_id
ORDER BY l.amount DESC, l.loan_number ASC
LIMIT 5;
```

No 5 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22301746]> SELECT l.loan_number, l.amount, c.customer_name  
-> FROM loan l  
-> JOIN borrower b ON l.loan_number = b.loan_number  
-> JOIN customer c ON b.customer_id = c.customer_id  
-> ORDER BY l.amount DESC, l.loan_number ASC  
-> LIMIT 5;
```

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

No 6 Query
(as Plain Text)

```
SELECT DISTINCT c.customer_name  
FROM customer c  
JOIN depositor d ON c.customer_id = d.customer_id  
JOIN account a ON d.account_number = a.account_number  
JOIN borrower b ON c.customer_id = b.customer_id  
JOIN loan l ON b.loan_number = l.loan_number  
WHERE a.branch_name = 'Perryridge' AND l.branch_name = 'Perryridge';
```

<p>No 6 SS (of Query & Output in Shell)</p>	<pre> MariaDB [Bank_22301746]> SELECT DISTINCT c.customer_name -> FROM customer c -> JOIN depositor d ON c.customer_id = d.customer_id -> JOIN account a ON d.account_number = a.account_number -> JOIN borrower b ON c.customer_id = b.customer_id -> JOIN loan l ON b.loan_number = l.loan_number -> WHERE a.branch_name = 'Perryridge' AND l.branch_name = 'Perryridge'; +-----+ customer_name +-----+ Hayes +-----+ 1 row in set (0.012 sec) </pre>
<p>No 7 Query (as Plain Text)</p>	<pre> SELECT c.customer_name, SUM(l.amount) AS total_loan FROM customer c JOIN borrower b ON c.customer_id = b.customer_id JOIN loan l ON b.loan_number = l.loan_number GROUP BY c.customer_id HAVING COUNT(b.loan_number) >= 2; </pre>

No 7 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22301746]> SELECT c.customer_name, SUM(l.amount) AS total_loan
-> FROM customer c
-> JOIN borrower b ON c.customer_id = b.customer_id
-> JOIN loan l ON b.loan_number = l.loan_number
-> GROUP BY c.customer_id
-> HAVING COUNT(b.loan_number) >= 2;
+-----+-----+
| customer_name | total_loan |
+-----+-----+
| Smith        |      2900 |
+-----+-----+
1 row in set (0.018 sec)
```