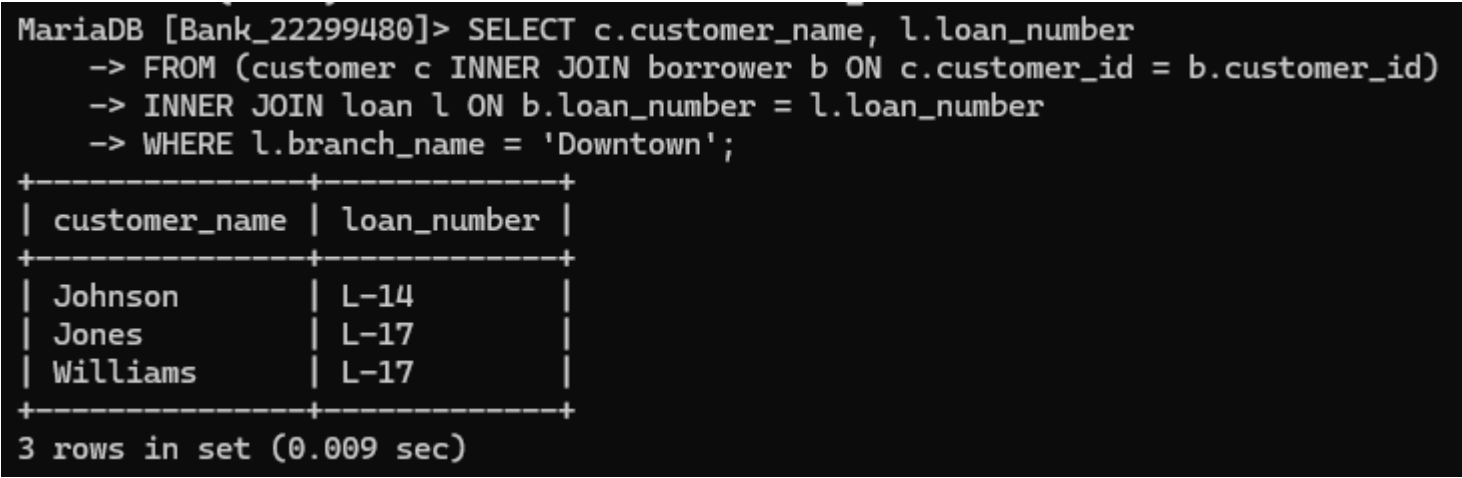


CSE370 : Database Systems

Assignment 03 | Fall 2024

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No 1 Query (as Plain Text)	SELECT c.customer_name, l.loan_number FROM (customer c INNER JOIN borrower b ON c.customer_id = b.customer_id) INNER 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_22299480]> SELECT c.customer_name, l.loan_number -> FROM (customer c INNER JOIN borrower b ON c.customer_id = b.customer_id) -> INNER 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 (0.009 sec)</pre>
No 2 Query (as Plain Text)	SELECT c1.customer_name, c2.customer_name, c1.customer_city FROM customer c1 INNER JOIN customer c2 ON c1.customer_city = c2.customer_city WHERE c1.customer_name != c2.customer_name AND c1.customer_id < c2.customer_id;

No 2 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22299480]> SELECT c1.customer_name, c2.customer_name, c1.customer_city  
-> FROM customer c1 INNER JOIN customer c2  
-> ON c1.customer_city = c2.customer_city  
-> WHERE c1.customer_name != c2.customer_name  
-> AND c1.customer_id < c2.customer_id;  
  
+-----+-----+-----+  
| customer_name | customer_name | customer_city |  
+-----+-----+-----+  
| Jones        | Hayes         | Harrison      |  
| Smith        | Curry         | Rye           |  
| Lindsay      | Adams         | Pittsfield    |  
| Turner       | Green         | Stamford      |  
+-----+-----+-----+  
4 rows in set (0.009 sec)
```

No 3 Query
(as Plain Text)

```
SELECT a.branch_name AS Branch_name, SUM(a.balance*0.04) AS Total_Interest  
FROM account a  
GROUP BY branch_name;
```

No 3 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22299480]> SELECT a.branch_name AS Branch_name, SUM(a.balance*0.04) AS Total_Interest
-> FROM account a
-> GROUP BY 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 a.account_number, MAX(a.balance), b.branch_city
FROM account a INNER JOIN branch b
ON a.branch_name = b.branch_name
GROUP BY b.branch_city;
```

No 4 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22299480]> SELECT a.account_number, MAX(a.balance), b.branch_city  
-> FROM account a INNER JOIN branch b  
-> ON a.branch_name = b.branch_name  
-> GROUP BY b.branch_city;
```

account_number	MAX(a.balance)	branch_city
A-101	900	Brooklyn
A-102	700	Horseneck
A-222	700	Palo Alto

3 rows in set (0.009 sec)

No 5 Query
(as Plain Text)

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

No 5 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22299480]> SELECT l.loan_number, l.amount, c.customer_name  
-> FROM (loan l  
-> INNER JOIN borrower b ON l.loan_number = b.loan_number)  
-> INNER JOIN customer c ON b.customer_id = c.customer_id  
-> ORDER BY l.amount DESC, l.loan_number DESC  
-> LIMIT 5;
```

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

5 rows in set (0.000 sec)

No 6 Query
(as Plain Text)

```
SELECT DISTINCT c.customer_name  
FROM customer c  
-- we link the tables by joining two tables on the basis of primary key and foreign key  
INNER JOIN depositor d ON c.customer_id = d.customer_id -- link1  
INNER JOIN account a ON a.account_number = d.account_number -- link2  
INNER JOIN borrower b ON c.customer_id = b.customer_id -- link3  
INNER JOIN loan l ON l.loan_number = b.loan_number -- link4  
WHERE l.branch_name = "Perryridge"; -- condition
```

<p>No 6 SS (of Query & Output in Shell)</p>	<pre> MariaDB [Bank_22299480]> SELECT DISTINCT c.customer_name -> FROM customer c -> -- we link the tables by joining two tables on the basis of primary key and foreign key -> INNER JOIN depositor d ON c.customer_id = d.customer_id -- link1 -> INNER JOIN account a ON a.account_number = d.account_number -- link2 -> INNER JOIN borrower b ON c.customer_id = b.customer_id -- link3 -> INNER JOIN loan l ON l.loan_number = b.loan_number -- link4 -> WHERE l.branch_name = "Perryridge"; -- condition +-----+ customer_name +-----+ Hayes +-----+ 1 row in set (0.035 sec) </pre>
<p>No 7 Query (as Plain Text)</p>	<pre> SELECT c.customer_name, SUM(l.amount) AS total_loan FROM customer c INNER JOIN borrower b ON c.customer_id = b.customer_id -- link1 INNER JOIN loan l ON l.loan_number = b.loan_number -- link2 GROUP BY c.customer_name HAVING COUNT(l.loan_number) >= 2; </pre>

No 7 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22299480]> SELECT c.customer_name, SUM(l.amount) AS total_loan  
-> FROM customer c  
-> INNER JOIN borrower b ON c.customer_id = b.customer_id -- link1  
-> INNER JOIN loan l ON l.loan_number = b.loan_number -- link2  
-> GROUP BY c.customer_name  
-> HAVING COUNT(l.loan_number) >= 2;
```

```
+-----+-----+  
| customer_name | total_loan |  
+-----+-----+  
| Smith        |         2900 |  
+-----+-----+  
1 row in set (0.009 sec)
```