CSE370 : Database Systems

Assignment : 03 | Summer 2025

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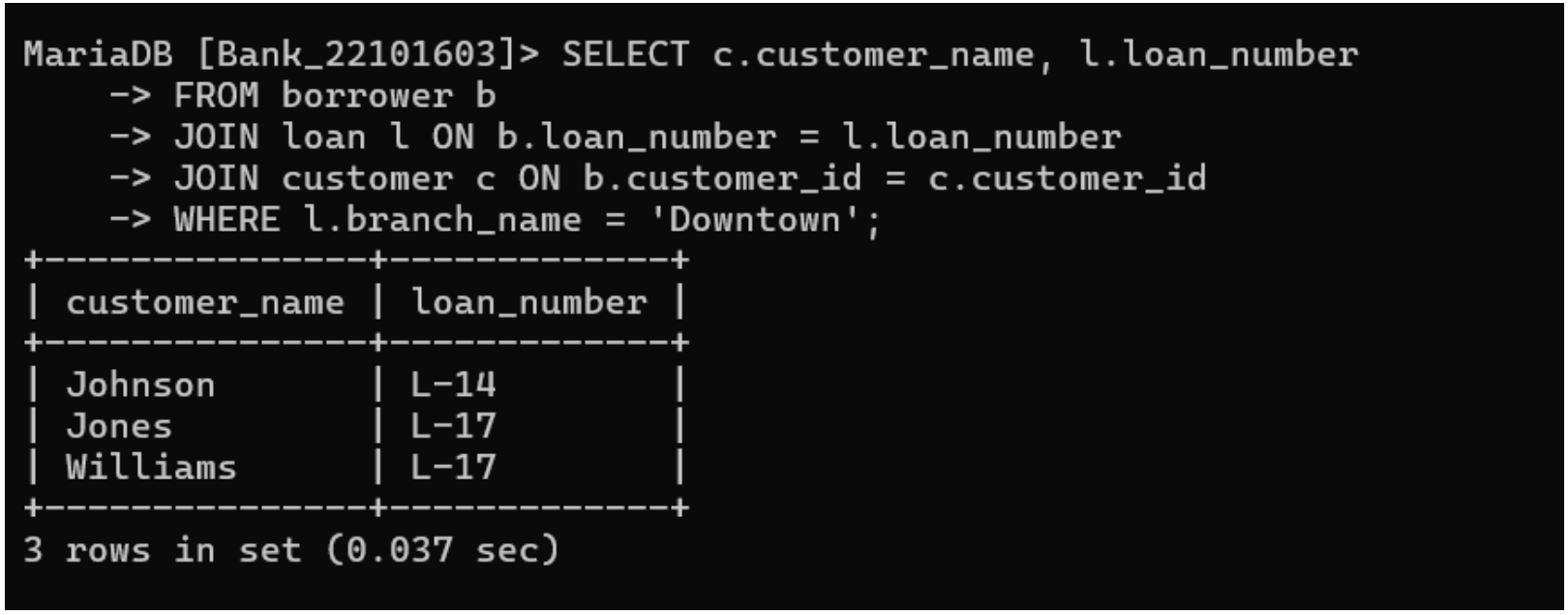
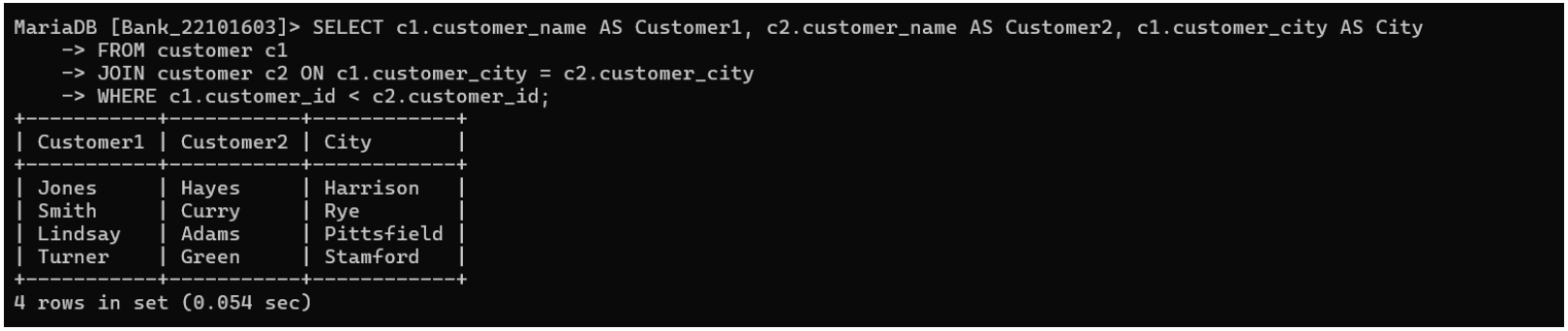
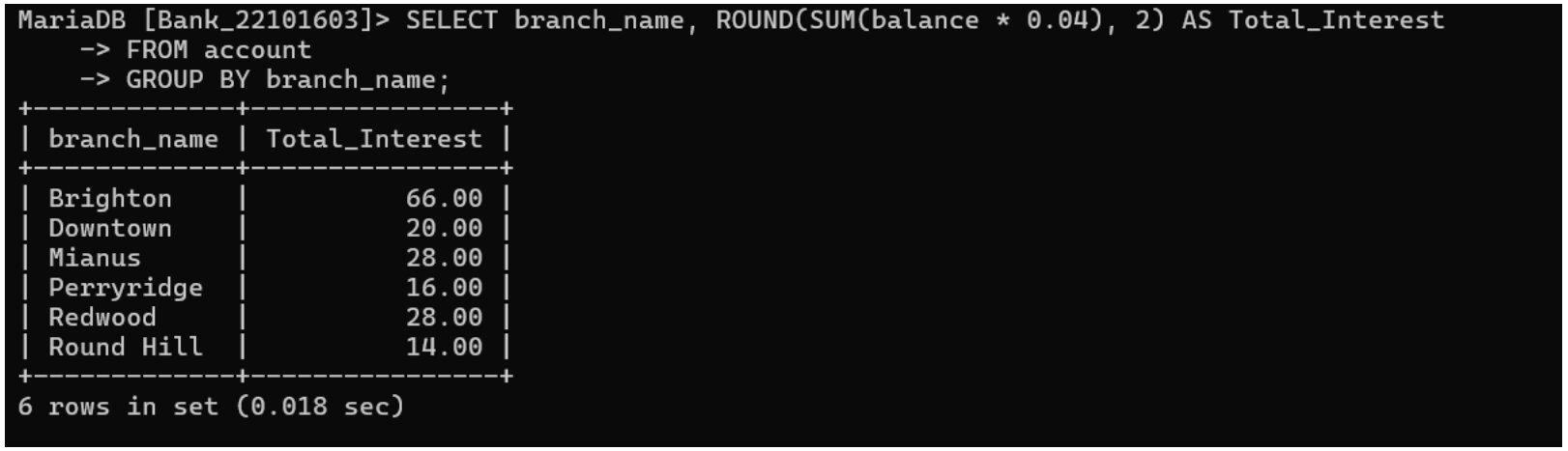
No 1 Query (as Plain Text)	SELECT c.customer_name, l.loan_number FROM borrower b JOIN loan l ON b.loan_number = l.loan_number JOIN customer c ON b.customer_id = c.customer_id WHERE l.branch_name = 'Downtown';
No 1 SS (of Query & Output in Shell)	
No 2 Query (as Plain Text)	SELECT c1.customer_name AS 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;
No 2 SS (of Query & Output in Shell)	
No 3 Query (as Plain Text)	SELECT branch_name, ROUND(SUM(balance * 0.04), 2) AS Total_Interest FROM account GROUP BY branch_name;

No 3 SS (of Query & Output in Shell)	
No 4 Query (as Plain Text)	SELECT c.customer_city, a.account_number, a.balance FROM account a JOIN depositor d ON a.account_number = d.account_number JOIN customer c ON d.customer_id = c.customer_id WHERE (c.customer_city, a.balance) IN (SELECT c2.customer_city, MAX(a2.balance) FROM account a2 JOIN depositor d2 ON a2.account_number = d2.account_number JOIN customer c2 ON d2.customer_id = c2.customer_id GROUP BY c2.customer_city);

No 4 SS
(of Query & Output in Shell)

```
MariaDB [Bank_22101603]> SELECT c.customer_city, a.account_number, a.balance
    -> FROM account a
    -> JOIN depositor d ON a.account_number = d.account_number
    -> JOIN customer c ON d.customer_id = c.customer_id
    -> WHERE (c.customer_city, a.balance) IN (
    ->     SELECT c2.customer_city, MAX(a2.balance)
    ->     FROM account a2
    ->     JOIN depositor d2 ON a2.account_number = d2.account_number
    ->     JOIN customer c2 ON d2.customer_id = c2.customer_id
    ->     GROUP BY c2.customer_city
    -> );
+---------------+----------------+---------+
| customer_city | account_number | balance |
+---------------+----------------+---------+
| Harrison      | A-217          |     750 |
| Rye           | A-215          |     700 |
| Pittsfield    | A-222          |     700 |
| Stamford      | A-305          |     350 |
| Palo Alto     | A-201          |     900 |
+---------------+----------------+---------+
5 rows in set (0.018 sec)
```

No 5 Query
(as Plain Text)

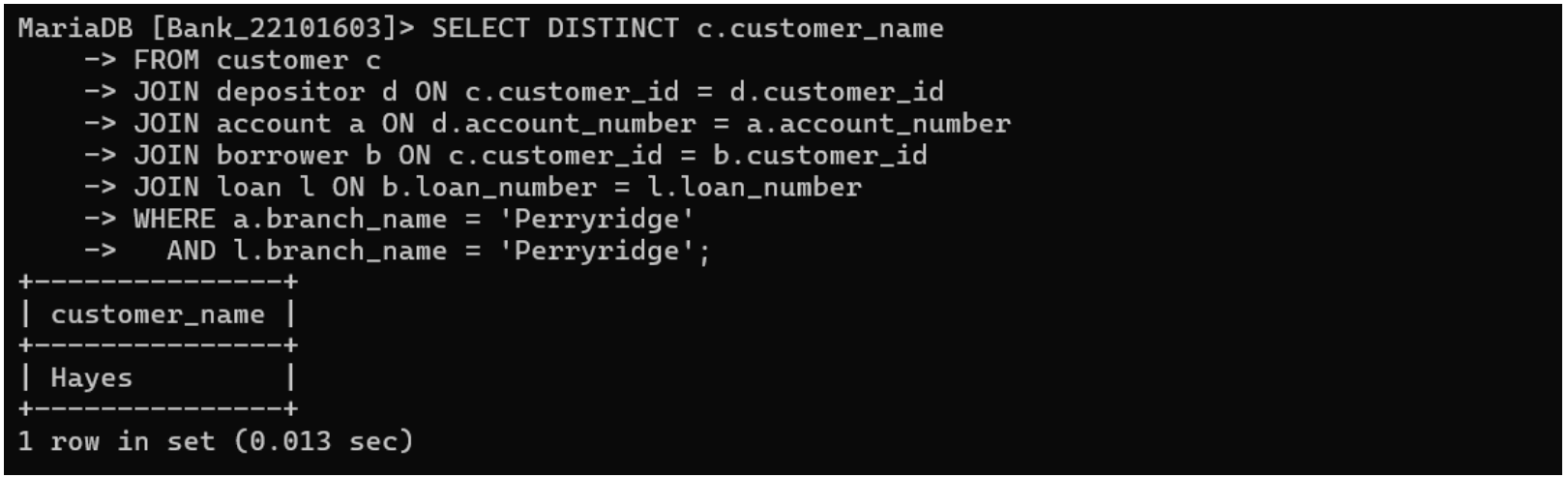
```
SELECT loan_number, amount, customer_name
FROM (
   SELECT l.loan_number, l.amount, c.customer_name
   FROM loan l
   JOIN borrower b ON l.loan_number = b.loan_number
   JOIN customer c ON b.customer_id = c.customer_id
   ORDER BY l.amount DESC
   LIMIT 5
) AS top_loans
ORDER BY amount ASC, loan_number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

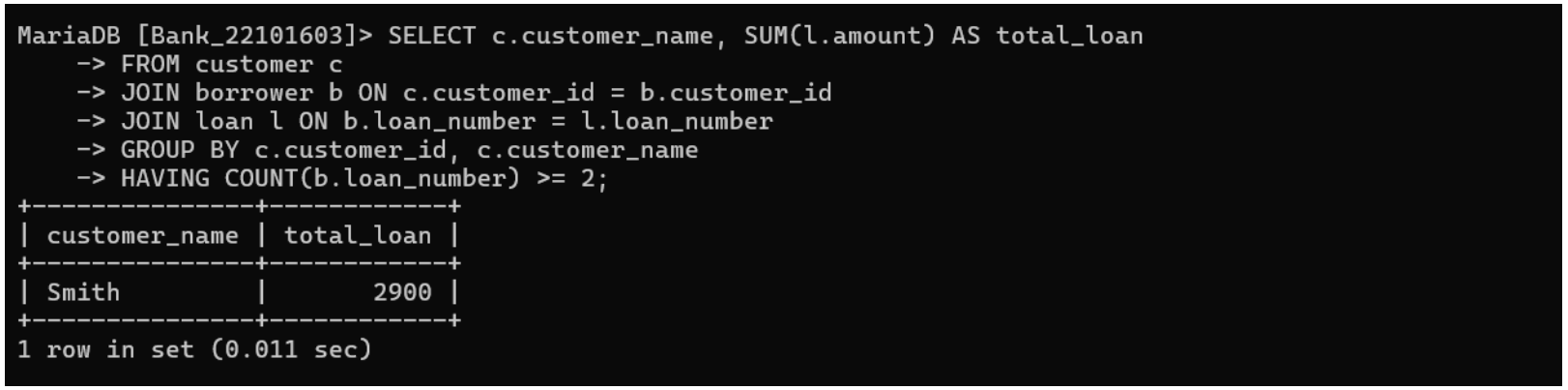
No 5 SS
(of Query & Output in Shell)

```
MariaDB [Bank_22101603]> SELECT loan_number, amount, customer_name
    -> FROM (
    ->     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
    ->     LIMIT 5
    -> ) AS top_loans
    -> ORDER BY amount ASC, 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 (0.006 sec)
```

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';
```

No 6 SS **(of Query & Output in Shell)**	
No 7 Query **(as Plain Text)**	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, c.customer_name HAVING COUNT(b.loan_number) >= 2;

No 7 SS (of Query & Output in Shell)	

```
MariaDB [Bank_22101603]> 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, c.customer_name
    -> HAVING COUNT(b.loan_number) >= 2;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.011 sec)
```