

CSE370 : Database Systems

Assignment 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_24241124]> 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 (0.036 sec)</pre>
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 and c1.customer_id < c2.customer_id;
No 2 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_24241124]> 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; +-----+-----+-----+ 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)	select branch_name, sum(balance * 0.04) as Total_Interest from account group by branch_name;
No 3 SS (of Query & Output in Shell)	<pre>MariaDB [Bank_24241124]> select branch_name, sum(balance * 0.04) as Total_Interest from account 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 (0.046 sec)</pre>
No 4 Query	SELECT a.account_number, a.balance, b.branch_city FROM account a JOIN branch b ON

(as Plain Text)	a.branch_name = b.branch_name WHERE (b.branch_city, a.balance) IN (SELECT b2.branch_city, MAX(a2.balance) FROM account a2 JOIN branch b2 ON a2.branch_name = b2.branch_name GROUP BY b2.branch_city);
No 4 SS (of Query & Output in Shell)	<pre> MariaDB [Bank_24241124]> SELECT a.account_number, a.balance, b.branch_city FROM account a JOIN branch b ON a.branch_name = b.branch_name -> WHERE (b.branch_city, a.balance) IN (SELECT b2.branch_city, MAX(a2.balance) FROM account a2 JOIN branch b2 ON -> a2.branch_name = b2.branch_name GROUP BY b2.branch_city); +-----+-----+-----+ account_number balance branch_city +-----+-----+-----+ A-201 900 Brooklyn A-215 700 Horseneck A-222 700 Palo Alto +-----+-----+-----+ 3 rows in set (0.012 sec) </pre>
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, l.loan_number DESC LIMIT 5) AS top_loans ORDER BY amount ASC, loan_number DESC;
No 5 SS (of Query & Output in Shell)	<pre> MariaDB [Bank_24241124]> 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, l.loan_number 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 (0.079 sec) </pre>
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)	<pre> MariaDB [Bank_24241124]> 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 (0.046 sec) </pre>
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_name HAVING COUNT(b.loan_number) >= 2;

No 7 SS
(of Query &
Output
in Shell)

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MariaDB [Bank_24241124]> 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_name HAVING COUNT(b.loan_number) >= 2;
+-----+-----+
| customer_name | total_loan |
+-----+-----+
| Smith         |          2900 |
+-----+-----+
1 row in set (0.001 sec)
```