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 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**<br>**(of Query & Output in Shell)** | ```
MariaDB [bank_22201054]> select c.customer_name, l.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 (0.020 sec)
``` |
| | |
| **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**<br>**(of Query & Output in Shell)** | ```
MariaDB [bank_22201054]> 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;
+-----------+-----------+-----------+
| Customer1 | Customer2 | City      |
+-----------+-----------+-----------+
| Jones     | Hayes     | Harrison  |
| Smith     | Curry     | Rye       |
| Lindsay   | Adams     | Pittsfield|
| Turner    | Green     | Stamford  |
+-----------+-----------+-----------+
4 rows in set (0.013 sec)
``` |
| | |
| **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**<br>**(of Query & Output**<br>**in Shell)** | ```
MariaDB [bank_22201054]> 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 (0.017 sec)
``` |
| | |
| **No 4 Query**
(as Plain Text) | select a.account_number, c.customer_city, a.balance from customer c, depositor d, account a where
c.customer_id = d.customer_id and a.account_number = d.account_number order by a.balance ; |
| **No 4 SS**<br>**(of Query & Output**<br>**in Shell)** | ```
MariaDB [bank_22201054]> select a.account_number, c.customer_city, a.balance from customer c, depositor d, account a where
    -> c.customer_id = d.customer_id and a.account_number = d.account_number order by a.balance ;
+----------------+---------------+---------+
| account_number | customer_city | balance |
+----------------+---------------+---------+
| A-305          | Stamford      |     350 |
| A-102          | Harrison      |     400 |
| A-101          | Palo Alto     |     500 |
| A-222          | Pittsfield    |     700 |
| A-215          | Rye           |     700 |
| A-217          | Harrison      |     750 |
| A-201          | Palo Alto     |     900 |
+----------------+---------------+---------+
7 rows in set (0.002 sec)
``` |
| | |
| **No 5 Query**
(as Plain Text) | select c.customer_name, l.loan_number, l.amount from customer c join borrower b on c.customer_id = b.customer_id join
loan l on b.loan_number = l.loan_number order by l.amount asc, l.loan_number desc limit 5; |

| No 5 SS<br>(of Query & Output<br>in Shell) | ```
MariaDB [bank_22201054]> select c.customer_name, l.loan_number, l.amount from customer c join borrower b on c.customer_id = b.customer_id join
    -> loan l on b.loan_number = l.loan_number order by l.amount asc, l.loan_number desc limit 5;
+---------------+-------------+--------+
| customer_name | loan_number | amount |
+---------------+-------------+--------+
| Curry         | L-93        |    500 |
| Smith         | L-11        |    900 |
| Jones         | L-17        |   1000 |
| Williams      | L-17        |   1000 |
| Adams         | L-16        |   1300 |
+---------------+-------------+--------+
5 rows in set (0.001 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 loan l on a.branch_name = l.branch_name
join borrower br on c.customer_id = br.customer_id where a.branch_name = 'Perryridge' and l.branch_name = 'Perryridge'; |
| No 6 SS<br>(of Query & Output<br>in Shell) | ```
MariaDB [bank_22201054]> 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 loan l on a.branch_name = l.branch_name
    -> join borrower br on c.customer_id = br.customer_id where a.branch_name = 'Perryridge' and l.branch_name = 'Perryridge';
+---------------+
| customer_name |
+---------------+
| Hayes         |
+---------------+
1 row in set (0.012 sec)
``` |
| | |
| 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(l.loan_number) >= 2; |

| **No 7 SS**<br>**(of Query & Output**<br>**in Shell)** | ```
MariaDB [bank_22201054]> 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(l.loan_number) >= 2;
+---------------+------------+
| customer_name | Total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
1 row in set (0.002 sec)
``` |
| | |