

CSE370 : Database Systems

Assignment 03 | Spring 2025

ID : <22301202> | Name : Khandoker Md. Ragib Ahsan

No 1 Query (as Plain Text)	select customer.customer_name,loan.loan_number from borrower inner join loan on borrower.loan_number = loan.loan_number inner join customer on borrower.customer_id = customer.customer_id where loan.branch_name = 'Downtown';
No 1 SS (of Query & Output in Shell)	<pre>MariaDB [bank_22301202]> SELECT customer.customer_name, loan.loan_number -> FROM borrower -> INNER JOIN loan ON borrower.loan_number = loan.loan_number -> INNER JOIN customer ON borrower.customer_id = customer.customer_id -> WHERE loan.branch_name = 'Downtown'; +-----+-----+ customer_name loan_number +-----+-----+ Johnson L-14 Jones L-17 Williams L-17 +-----+-----+ 3 rows in set (0.003 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 inner join customer c2 on c1.customer_city = c2.customer_city = c2.customer_city and c1.customer_id < c2.customer_id;

No 2 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT c1.customer_name AS Customer1, c2.customer_name AS Customer2, c1.customer_city AS City
-> FROM customer c1
-> INNER 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 (0.002 sec)
```

No 3 Query
(as Plain Text)

```
select account.branch_name, sum(account.balance * 0.04) as total_interest from account group by account.branch_name;
```

No 3 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT account.branch_name, SUM(account.balance * 0.04)
AS total_interest
-> FROM account
-> GROUP BY account.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 (0.002 sec)
```

No 4 Query
(as Plain Text)

```
select account.account_number, account.balance, customer.customer_city from account inner join depositor on
account.account_number = depositor.account_number inner join customer on depositor.customer_id =
customer.customer_id where (account.balance) in(select max(account.balance) from account inner join depositor on
account.account_number = depositor.account_number inner join customer on depositor.customer_id =
customer.customer_id group by customer.customer_city order by customer.customer_city;
```

No 4 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT account.account_number, account.balance, customer.customer_city
-> FROM account
-> INNER JOIN depositor ON account.account_number = depositor.account_number
-> INNER JOIN customer ON depositor.customer_id = customer.customer_id
-> WHERE (account.balance) IN (
->     SELECT MAX(account.balance)
->     FROM account
->     INNER JOIN depositor ON account.account_number = depositor.account_number
-> )
->     INNER JOIN customer ON depositor.customer_id = customer.customer_id
->     GROUP BY customer.customer_city
-> )
-> ORDER BY customer.customer_city;
+-----+-----+-----+
| account_number | balance | customer_city |
+-----+-----+-----+
| A-217          |    750  | Harrison      |
| A-201          |    900  | Palo Alto     |
| A-222          |    700  | Pittsfield    |
| A-215          |    700  | Rye           |
| A-305          |    350  | Stamford      |
+-----+-----+-----+
5 rows in set (0.004 sec)
```

No 5 Query
(as Plain Text)

```
select loan.loan_number, loan.account, customer.customer_name from loan inner join borrower on loan.loan_number = borrower.loan_number inner join customer on borrower.customer_id = customer.customer_id order by loan.amount asc, loan.loan_number desc limit 5;
```

No 5 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT loan.loan_number, loan.amount, customer.customer_name
-> FROM loan
-> INNER JOIN borrower ON loan.loan_number = borrower.loan_number
-> INNER JOIN customer ON borrower.customer_id = customer.customer_id
-> ORDER BY loan.amount ASC, loan.loan_number DESC
-> LIMIT 5;
+-----+-----+-----+
| loan_number | amount | customer_name |
+-----+-----+-----+
| L-93        | 500   | Curry      |
| L-11        | 900   | Smith      |
| L-17        | 1000  | Jones      |
| L-17        | 1000  | Williams   |
| L-16        | 1300  | Adams      |
+-----+-----+-----+
5 rows in set (0.002 sec)
```

No 6 Query
(as Plain Text)

```
select distinct customer.customer_name from customer inner join depositor on customer.customer_id =
depositor.customer_id inner join account on depositor.account_number = account.account_number inner join borrower on
customer.customer_id = borrower.customer_id where account.branch_name = 'Perryridge' and loan.branch_name =
'Perryridge';
```

No 6 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT DISTINCT customer.customer_name
-> FROM customer
-> INNER JOIN depositor ON customer.customer_id = depositor.customer_id
-> INNER JOIN account ON depositor.account_number = account.account_number
-> INNER JOIN borrower ON customer.customer_id = borrower.customer_id
-> INNER JOIN loan ON borrower.loan_number = loan.loan_number
-> WHERE account.branch_name = 'Perryridge'
-> AND loan.branch_name = 'Perryridge';
+-----+
| customer_name |
+-----+
| Hayes          |
+-----+
1 row in set (0.002 sec)
```

No 7 Query
(as Plain Text)

```
select customer.customer_name,sum(loan.amount) as total_loan from customer inner join borrower on
customer.customer_id = borrower.customer_id inner join loan on borrower.loan_number = loan.loan_number group by
customer.customer_name having count(loan.loan_number) >= 2;
```

No 7 SS
(of Query & Output
in Shell)

```
MariaDB [bank_22301202]> SELECT customer.customer_name, SUM(loan.amount) AS total_loan
-> FROM customer
-> INNER JOIN borrower ON customer.customer_id = borrower.customer_id
-> INNER JOIN loan ON borrower.loan_number = loan.loan_number
-> GROUP BY customer.customer_name
-> HAVING COUNT(loan.loan_number) >= 2;
+-----+-----+
| customer_name | total_loan |
+-----+-----+
| Smith          |      2900 |
+-----+-----+
1 row in set (0.004 sec)
```