

## CSE370 : Database Systems

Assignment 09/03/2025 | Spring 2025

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<b>No 1 Query (as Plain Text)</b>	<p>SELECT C.customer_name, L.loan_number FROM customer C, borrower B, loan L where C.customer_id = B.customer_id and B.loan_number = L.loan_number and L.branch_name= 'Downtown';</p> <p>OR,</p> <p>SELECT C.customer_name, L.loan_number 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) WHERE L.branch_name = "Downtown";</p>
<b>No 1 SS (of Query &amp; Output in Shell)</b>	<pre>MariaDB [Bank_23101137]&gt; SELECT C.customer_name, L.loan_number FROM customer C, borrower B, loan L where C.customer_id = B.customer_id and B.loan_number = L.loan_number and L.branch_na me= 'Downtown'; +-----+-----+   customer_name   loan_number   +-----+-----+   Johnson         L-14            Jones           L-17            Williams        L-17          +-----+-----+ 3 rows in set (0.000 sec)</pre> <p>OR,</p>

	<pre> MariaDB [Bank_23101137]&gt; SELECT C.customer_name, L.loan_number 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) WHERE L.branch_name = "Downtown"; +-----+-----+   customer_name   loan_number   +-----+-----+   Johnson        L-14           Jones          L-17           Williams       L-17         +-----+-----+ 3 rows in set (0.000 sec) </pre>
<b>No 2 Query (as Plain Text)</b>	SELECT C1.customer_name AS customer1, C2.customer_name AS customer2, C1.customer_city AS City from customer C1, customer C2 where C1.customer_city = C2.customer_city AND C1.customer_id > C2.customer_id;
<b>No 2 SS (of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_23101137]&gt; SELECT C1.customer_name AS customer1, C2.customer_name AS customer2, C1.customer_city AS City from customer C1, customer C2 where C1.customer_city = C2.customer_city AND C1.customer_id &gt; C2.customer_id; +-----+-----+-----+   customer1   customer2   City   +-----+-----+-----+   Hayes       Jones       Harrison     Curry       Smith       Rye     Adams       Lindsay     Pittsfield     Green       Turner      Stamford   +-----+-----+-----+ 4 rows in set (0.000 sec) </pre>
<b>No 3 Query (as Plain Text)</b>	SELECT B.branch_name AS Branch_name, SUM(A.balance*0.04) AS Total_Interest FROM branch B LEFT JOIN account A ON B.branch_name = A.branch_name GROUP BY B.branch_name;

**No 3 SS**  
(of Query & Output  
in Shell)

```
MariaDB [Bank_23101137]> SELECT B.branch_name AS Branch_name, SUM(A.balance*0.04) AS Total_Interest FROM branch B LEFT JOIN account
A ON B.branch_name = A.branch_name GROUP BY B.branch_name;
```

Branch_name	Total_Interest
Brighton	66.00
Downtown	20.00
Mianus	28.00
North Town	NULL
Perryridge	16.00
Pownal	NULL
Redwood	28.00
Round Hill	14.00

```
8 rows in set (0.000 sec)
```

**No 4 Query**  
(as Plain Text)

```
SELECT B.branch_city, A.account_number, A.balance FROM account A INNER JOIN branch B ON A.branch_name =
B.branch_name WHERE A.balance = (SELECT MAX(A2.balance) FROM account A2 INNER JOIN branch B2 ON
A2.branch_name = B2.branch_name WHERE B2.branch_city = B.branch_city ) ORDER BY B.branch_city;
```

**No 4 SS**  
(of Query & Output  
in Shell)

```
MariaDB [Bank_23101137]> SELECT B.branch_city, A.account_number, A.balance FROM account A INNER JOIN b
ranch B ON A.branch_name = B.branch_name WHERE A.balance = (SELECT MAX(A2.balance) FROM account A2 INN
ER JOIN branch B2 ON A2.branch_name = B2.branch_name WHERE B2.branch_city = B.branch_city ) ORDER BY B
.branch_city;
```

branch_city	account_number	balance
Brooklyn	A-201	900
Horseneck	A-215	700
Palo Alto	A-222	700

```
3 rows in set (0.001 sec)
```

<b>No 5 Query</b> <b>(as Plain Text)</b>	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 ASC, L.loan_number DESC LIMIT 5;
<b>No 5 SS</b> <b>(of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_23101137]&gt; 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 ASC, L.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 (0.000 sec) </pre>
<b>No 6 Query</b> <b>(as Plain Text)</b>	SELECT C.customer_name 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 = 'Perryridge';
<b>No 6 SS</b> <b>(of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_23101137]&gt; SELECT C.customer_name 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 = 'Perryridge'; +-----+   customer_name   +-----+   Hayes             Adams           +-----+ 2 rows in set (0.000 sec) </pre>

<b>No 7 Query (as Plain Text)</b>	SELECT C.customer_name, SUM(L.amount) AS total_loan 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) GROUP BY C.customer_name HAVING COUNT(L.loan_number) > 1;
<b>No 7 SS (of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_23101137]&gt; SELECT C.customer_name, SUM(L.amount) AS total_loan 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) GROUP BY C.customer_name HAVING COUNT (L.loan_number) &gt; 1; +-----+-----+   customer_name   total_loan   +-----+-----+   Smith                   2900   +-----+-----+ 1 row in set (0.000 sec) </pre>