

## CSE370 : Database Systems

### Assignment 03 | Spring 2025

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<b>No 1 Query</b> (as Plain Text)	select c.customer_name, b.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';
<b>No 1 SS</b> (of Query & Output in Shell)	<pre>MariaDB [Bank_22201178]&gt; select c.customer_name, b.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'; +-----+-----+   customer_name   loan_number   +-----+-----+   Johnson         L-14            Jones           L-17            Williams        L-17          +-----+-----+ 3 rows in set (0.066 sec)</pre>
<b>No 2 Query</b> (as Plain Text)	select c1.customer_name as customer1, c2.customer_name as customer2, c1.customer_city from customer c1 join customer c2 on c1.customer_city = c2.customer_city and c1.customer_id < c2.customer_id;
<b>No 2 SS</b> (of Query & Output in Shell)	<pre>MariaDB [Bank_22201178]&gt; select c1.customer_name as customer1, c2.customer_name as customer2, c1.customer_city from customer c1 join customer c2 on c1.customer_city = c2.customer_city and c1.customer_id &lt; c2.customer_id; +-----+-----+-----+   customer1   customer2   customer_city   +-----+-----+-----+   Jones       Hayes       Harrison          Smith       Curry       Rye               Lindsay     Adams       Pittsfield        Turner      Green       Stamford        +-----+-----+-----+ 4 rows in set (0.013 sec)</pre>

<b>No 3 Query</b> <b>(as Plain Text)</b>	select a.branch_name, sum(a.balance * 0.04) as total_interest from account a group by a.branch_name;
<b>No 3 SS</b> <b>(of Query &amp; Output</b> <b>in Shell)</b>	<pre> MariaDB [Bank_22201178]&gt; MariaDB [Bank_22201178]&gt; select a.branch_name, sum(a.balance * 0.04) as total_interest from account a gr oup by a.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 (0.016 sec) </pre>
<b>No 4 Query</b> <b>(as Plain Text)</b>	select a.account_number, a.balance, c.customer_city from account a join depositor d on a.account_number = d.account_number join customer c on d.customer_id = c.customer_id where a.balance = (select 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 where c2.customer_city = c.customer_city);

<b>No 4 SS</b> <b>(of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_22201178]&gt; select a.account_number, a.balance, c.customer_city from account a join deposit or d on a.account_number = d.account_number join customer c on d.customer_id = c.customer_id where a.bal ance = (select max(a2.balance) from account a2 join depositor d2 on a2.account_number = d2.account_numbe r join customer c2 on d2.customer_id = c2.customer_id where c2.customer_city = c.customer_city); +-----+-----+-----+   account_number   balance   customer_city   +-----+-----+-----+   A-217            750       Harrison          A-215            700       Rye               A-222            700       Pittsfield        A-305            350       Stamford          A-201            900       Palo Alto       +-----+-----+-----+ 5 rows in set (0.012 sec) </pre>
<b>No 5 Query</b> <b>(as Plain Text)</b>	<pre> select l.loan_number, l.amount, c.customer_name from borrower b join loan l on b.loan_number = l.loan_number join customer c on b.customer_id = c.customer_id order by l.amount asc, l.loan_number desc limit 5; </pre>
<b>No 5 SS</b> <b>(of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_22201178]&gt; select l.loan_number, l.amount, c.customer_name from borrower b join loan l on b.loan_number = l.loan_number 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 (0.003 sec) </pre>
<b>No 6 Query</b>	<pre> select distinct c.customer_name from customer c join depositor d on c.customer_id = d.customer_id join account a on </pre>

<b>(as Plain Text)</b>	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'
<b>No 6 SS (of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_22201178]&gt; 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_i d = 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 (0.056 sec) </pre>
<b>No 7 Query (as Plain Text)</b>	select c.customer_name, sum(l.amount) as total_loan from borrower b join loan l on b.loan_number = l.loan_number join customer c on b.customer_id = c.customer_id group by c.customer_name having count(b.loan_number) >= 2;
<b>No 7 SS (of Query &amp; Output in Shell)</b>	<pre> MariaDB [Bank_22201178]&gt; 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_i d = 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 (0.056 sec) </pre>