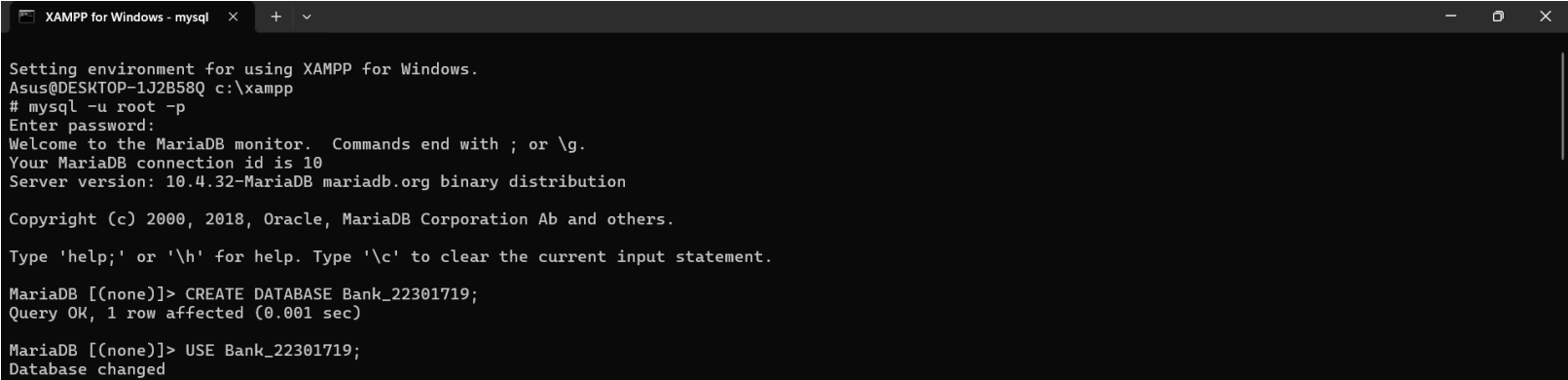
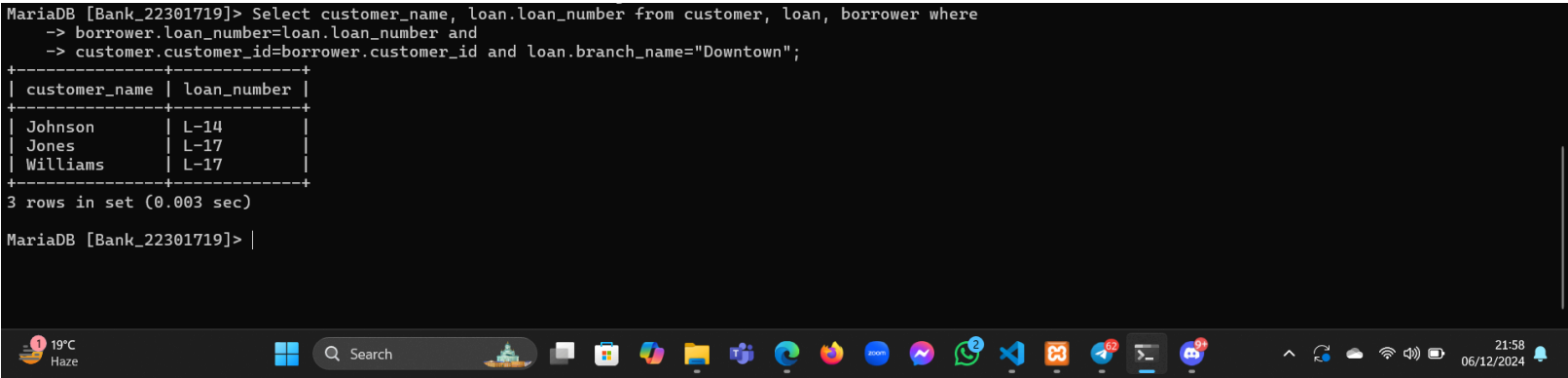
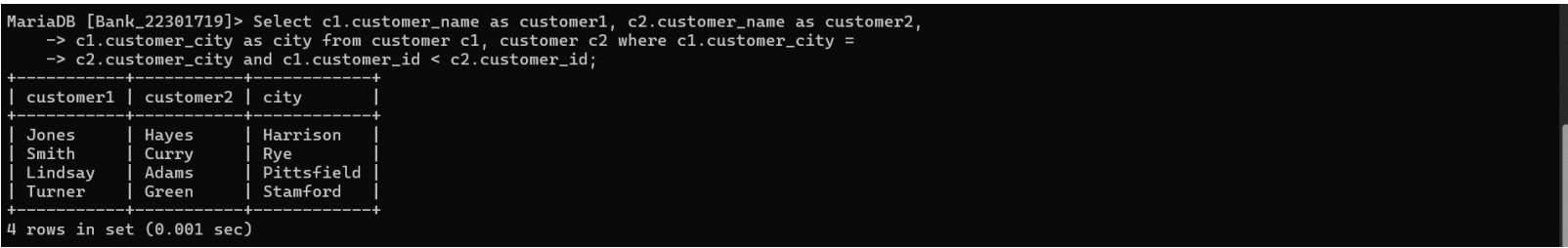
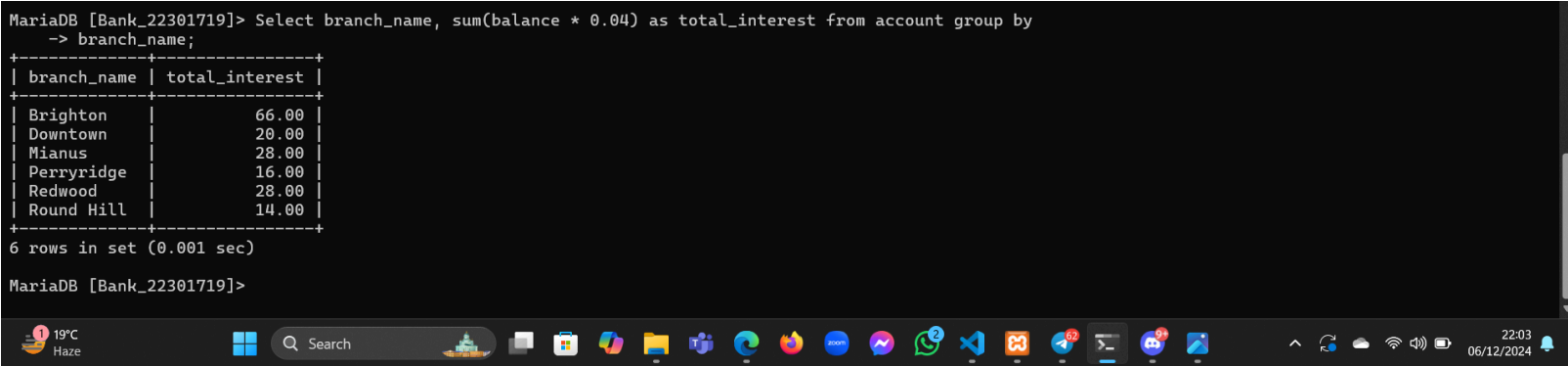


CSE370 : Database Systems

Assignment 03 | Fall 2024

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Table	 <pre>XAMPP for Windows - mysql Setting environment for using XAMPP for Windows. Asus@DESKTOP-1J2B58Q c:\xampp # mysql -u root -p Enter password: Welcome to the MariaDB monitor. Commands end with ; or \g. Your MariaDB connection id is 10 Server version: 10.4.32-MariaDB mariadb.org binary distribution Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others. Type 'help;' or '\h' for help. Type '\c' to clear the current input statement. MariaDB [(none)]> CREATE DATABASE Bank_22301719; Query OK, 1 row affected (0.001 sec) MariaDB [(none)]> USE Bank_22301719; Database changed</pre>
No 1 Query (as Plain Text)	Select customer_name, loan.loan_number from customer, loan, borrower where borrower.loan_number=loan.loan_number and customer.customer_id=borrower.customer_id and loan.branch_name="Downtown";
No 1 SS (of Query & Output in Shell)	 <pre>MariaDB [Bank_22301719]> Select customer_name, loan.loan_number from customer, loan, borrower where -> borrower.loan_number=loan.loan_number and -> customer.customer_id=borrower.customer_id and loan.branch_name="Downtown"; +-----+-----+ customer_name loan_number +-----+-----+ Johnson L-14 Jones L-17 Williams L-17 +-----+-----+ 3 rows in set (0.003 sec) MariaDB [Bank_22301719]> </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, customer c2 where c1.customer_city = c2.customer_city and c1.customer_id < c2.customer_id;
No 2 SS (of Query & Output in Shell)	 <pre> MariaDB [Bank_22301719]> 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; +-----+-----+-----+ 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_22301719]> 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 (0.001 sec) MariaDB [Bank_22301719]> </pre>
No 4 Query (as Plain Text)	Select x.account_number, x.branch_name, x.balance from account x inner join (select branch_name, max(balance) as highest_balance from account group by branch_name) as highest_balances on x.branch_name=highest_balances.branch_name and x.balance=highest_balances.highest_balance;

No 4 SS
(of Query & Output
in Shell)

```
MariaDB [Bank_22301719]> Select x.account_number, x.branch_name, x.balance from account x inner join (select
-> branch_name, max(balance) as highest_balance from account group by branch_name)
-> as highest_balances on x.branch_name=highest_balances.branch_name and
-> x.balance=highest_balances.highest_balance;
```

account_number	branch_name	balance
A-101	Downtown	500
A-102	Perryridge	400
A-201	Brighton	900
A-215	Mianus	700
A-222	Redwood	700
A-305	Round Hill	350

5 rows in set (0.001 sec)

```
MariaDB [Bank_22301719]> |
```

No 5 Query
(as Plain Text)

```
SELECT loan.loan_number, loan.amount, customer.customer_name FROM loan
JOIN borrower ON loan.loan_number = borrower.loan_number
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_22301719]> SELECT loan.loan_number, loan.amount, customer.customer_name
-> FROM loan
-> JOIN borrower ON loan.loan_number = borrower.loan_number
-> 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 (0.001 sec)

No 6 Query
(as Plain Text)

```
SELECT customer_name FROM customer
JOIN depositor USING (customer_id)
JOIN account USING (account_number)
```

	JOIN borrower USING (customer_id) JOIN loan USING (loan_number) WHERE account.branch_name='Perryridge' AND loan.branch_name='Perryridge';
No 6 SS (of Query & Output in Shell)	<pre> MariaDB [Bank_22301719]> SELECT customer_name FROM customer -> JOIN depositor USING (customer_id) -> JOIN account USING (account_number) -> JOIN borrower USING (customer_id) -> JOIN loan USING (loan_number) -> WHERE account.branch_name='Perryridge' AND loan.branch_name='Perryridge'; +-----+ customer_name +-----+ Hayes +-----+ 1 row in set (0.001 sec) </pre>
No 7 Query (as Plain Text)	SELECT customer.customer_name, SUM(loan.amount) AS total_loan FROM customer JOIN borrower USING (customer_id) JOIN loan USING (loan_number) GROUP BY customer.customer_id HAVING COUNT(loan.loan_number) >= 2;
No 7 SS (of Query & Output in Shell)	<pre> MariaDB [Bank_22301719]> SELECT customer.customer_name, SUM(loan.amount) AS total_loan FROM customer -> JOIN borrower USING (customer_id) -> JOIN loan USING (loan_number) -> GROUP BY customer.customer_id -> HAVING COUNT(loan.loan_number) >= 2; +-----+-----+ customer_name total_loan +-----+-----+ Smith 2900 +-----+-----+ 1 row in set (0.001 sec) </pre>