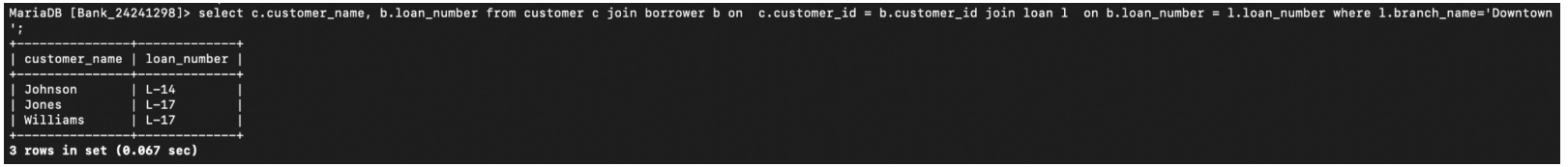
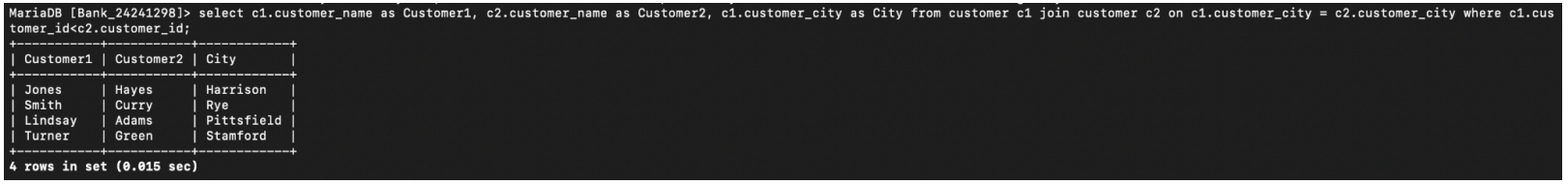
**CSE370 : Database Systems**

**Assignment 01 | Fall 2024**

**ID : <8 Digit Student ID> | Name : Full Official Name**

| | |
|---|---|
| **No 1 Query (as Plain Text)** | select c.customer_name, b.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 (of Query & Output in Shell)** |  |
| | |
| **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 (of Query & Output in Shell)** |  |
| | |
| **No 3 Query (as Plain Text)** | select branch_name as Branch_name, round(sum(balance*(4/100)), 2) as Total_Interest from account group by branch_name; |

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

```
MariaDB [Bank_24241298]> select branch_name as Branch_name, round(sum(balance*(4/100)), 2) 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 (0.042 sec)
```

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

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 c.customer_id = d.customer_id where a.balance = (select max(a1.balance) from account a1
-> join depositor d1 on a1.account_number = d1.account_number
-> join customer c1 on d1.customer_id = c1.customer_id where c1.customer_city = c.customer_city);

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

```
MariaDB [Bank_24241298]> 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 c.customer_id = d.customer_id where a.balance = (select max(a1.balance) from account a1
    -> join depositor d1 on a1.account_number = d1.account_number
    ->  join customer c1 on d1.customer_id = c1.customer_id where c1.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     |
+----------------+---------+---------------+
```

**No 5 Query (as Plain Text)**

select loan_number, loan_amount, customer_name
-> from (select l.loan_number, l.amount as loan_amount, c.customer_name from loan l
-> join borrower b on l.loan_number = b.loan_number

| | |
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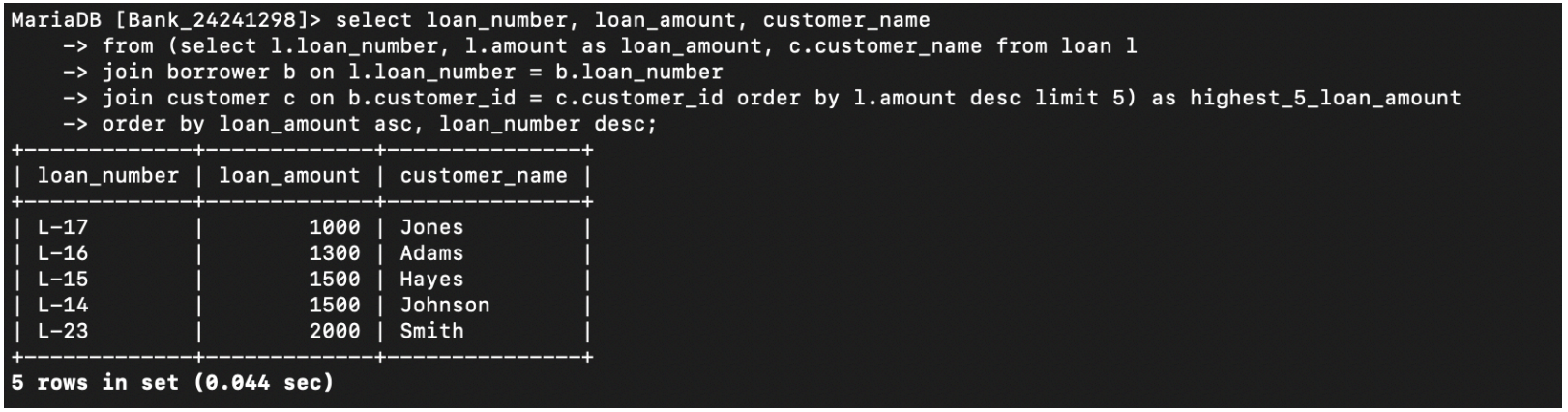
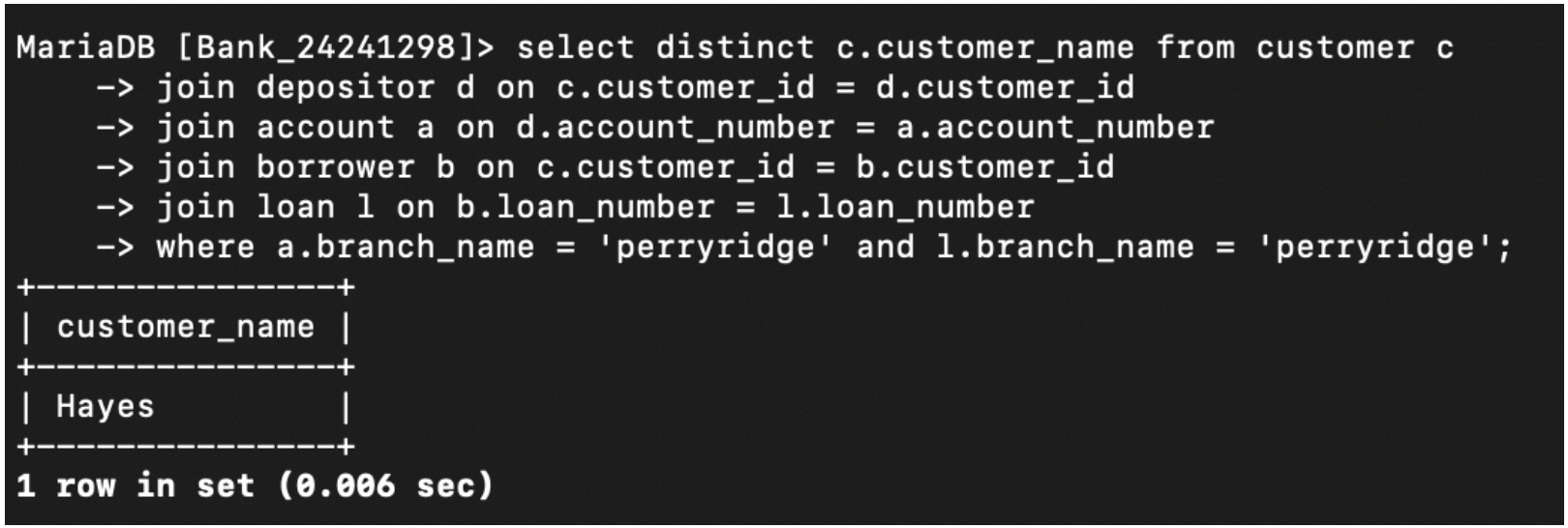
| | -> join customer c on b.customer_id = c.customer_id order by l.amount desc limit 5) as highest_5_loan_amount<br>-> order by loan_amount asc, loan_number desc; |
| **No 5 SS<br>(of Query & Output in Shell)** |  |
| | |
| **No 6 Query<br>(as Plain Text)** | select distinct c.customer_name from customer c<br>-> join depositor d on c.customer_id = d.customer_id<br>-> join account a on d.account_number = a.account_number<br>-> join borrower b on c.customer_id = b.customer_id<br>-> join loan l on b.loan_number = l.loan_number<br>-> where a.branch_name = 'perryridge' and l.branch_name = 'perryridge'; |

| | |
|---|---|
| **No 6 SS (of Query & Output in Shell)** |  |
| | |
| **No 7 Query (as Plain Text)** | select c.customer_name, sum(l.amount) as total_loan from customer c<br>-> join borrower b on c.customer_id = b.customer_id<br>-> join loan l on b.loan_number = l.loan_number<br>-> where c.customer_id in (select customer_id from borrower group by customer_id having count(loan_number) >= 2)<br>-> group by c.customer_name; |

| | |
|---|---|
| **No 7 SS (of Query & Output in Shell)** | |

```
MariaDB [Bank_24241298]> 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
    -> where c.customer_id in (select customer_id from borrower group by customer_id having count(loan_number) >= 2)
    -> group by c.customer_name;
+---------------+------------+
| customer_name | total_loan |
+---------------+------------+
| Smith         |       2900 |
+---------------+------------+
```