



Inspiring Excellence

FALL2022

COURSE TITLE: DATABASE SYSTEMS

COURSE CODE: CSE370

LAB HOMEWORK: 04

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SECTION: 05

1.

```
SELECT cn.customer_name, ln.loan_number FROM customer cn, borrower b, loan ln WHERE
cn.customer_id=b.customer_id AND b.loan_number=ln.loan_number AND
ln.branch_name='Downtown'
```

customer_name	loan_number
Johnson	L-14
Jones	L-17
Williams	L-17

3 rows in set (0.004 sec)

2.

```
SELECT ci1.customer_id AS Customer1, ci2.customer_id AS Customer2, ci1.customer_city AS
City FROM customer ci1, customer ci2 WHERE ci1.customer_id!=ci2.customer_id AND
ci1.customer_city=ci2.customer_city GROUP BY city;
```

Customer1	Customer2	City
C-211	C-101	Harrison
C-225	C-215	Pittsfield
C-212	C-201	Rye
C-255	C-220	Stamford

4 rows in set (0.002 sec)

3.

```
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 (0.003 sec)

4.

```
WITH jt AS ( SELECT c.Customer_id, c.Customer_name, c.Customer_city, d.account_number,
a.balance FROM ((Customer c INNER JOIN Depositor d ON c.Customer_id = d.Customer_id)
INNER JOIN account a ON a.account_number = d.account_number)) SELECT
k1.account_number, k1.customer_city FROM jt k1 WHERE k1.balance >= ALL(SELECT
k2.balance FROM kr k2 WHERE k1.customer_city = k2.customer_city AND k1.account_number
!= k2.account_number);
```

account_number	Customer_city
A-217	Harrison
A-215	Rye
A-222	Pittsfield
A-305	Stamford
A-201	Palo Alto

rows in set (0.005 sec)

5.

```
WITH new AS (SELECT l.loan_number, l.amount, c.customer_name FROM loan l, borrower b,
customer c WHERE l.loan_number=b.loan_number AND c.customer_id=b.customer_id ORDER
BY l.amount desc limit 5) SELECT * FROM new ORDER BY amount;
```

loan_number	amount	customer_name
L-17	1000	Jones
L-16	1300	Adams
L-14	1500	Johnson
L-15	1500	Hayes
L-23	2000	Smith

5 rows in set (0.001 sec)

6.

```
SELECT c.customer_name FROM (((customer c INNER JOIN depositor d ON c.customer_id =
d.customer_id) INNER JOIN account a ON a.account_number = d.account_number) INNER
JOIN borrower b ON c.customer_id = b.customer_id) INNER 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 (0.001 sec)
```

7.

```
WITH jt AS(SELECT c.customer_id, c.customer_name, b.loan_number, l.amount 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)) SELECT customer_name, SUM(amount) AS total_loan
FROM jt GROUP BY customer_id HAVING count(*)>=2;
```

```
+-----+-----+
| customer_name | total_loan |
+-----+-----+
| Smith         |         2900 |
+-----+-----+
1 row in set (0.002 sec)
```