

LAB-3 Assignment

Prepared by:

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Lab - 3(Lab Tasks)

1) Find all branch names and cities with assets more than 1000000. (on single table)

```
--1) Find all branch names and ci

SELECT branch_name, branch_city

FROM branch

WHERE assets > 1000000;
```

	♦ BRANCH_NAME	⊕ BRANCH_CITY
1	Redwood	Palo Alto
2	Perryridge	Horseneck
3	Round Hill	Horseneck
4	North Town	Rye
5	Brighton	Brooklyn

2) Find all account numbers and their balance which are opened in 'Downtown' branch or

which have balances between 600 and 750. (on single table)

```
SELECT account_number, balance
FROM account
WHERE branch_name = 'Downtown' OR (balance BETWEEN 600 AND 750);
```

1	A-101	500
2	A-215	700
3	A-222	700
4	A-217	750
5	A-444	625

3) Find all account numbers which are opened in a branch located in 'Rye' city. (multiple tables)

```
SELECT a.account_number
FROM account a

JOIN branch b ON a.branch_name = b.branch_name
WHERE b.branch_city = 'Rye';
```

1	A-333
2	A-444

4) Find all loan numbers which have an amount greater than or equal to 1000 and their customers are living in 'Harrison' city. (multiple tables)

```
SELECT 1.1oan_number

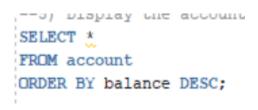
FROM loan 1

JOIN borrower bo ON 1.1oan_number = bo.loan_number

JOIN customer c ON bo.customer_name = c.customer_name

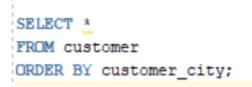
WHERE 1.amount >= 1000 AND c.customer city = 'Harrison';
```

5) Display the account related information based on the descending order of the balance. (order by clause)



1	A-201	Perryridge	900
2	A-333	Central	850
3	A-217	Brighton	750
4	A-215	Mianus	700
5	A-222	Redwood	700
6	A-444	North Town	625
7	A-101	Downtown	500
8	A-102	Perryridge	400
9	A-305	Round Hill	350

6) Display the customer related information in alphabetic order of customer cities. (order by clause)



	^	La	LA
1	Brooks	Senator	Brooklyn
2	Hayes	Main	Harrison
3	Jones	Main	Harrison
4	Johnson	Alma	Palo Alto
5	Adams	Spring	Pittsfield
6	Lindsay	Park	Pittsfield
7	Williams	Nassau	Princeton
8	Curry	North	Rye
9	McBride	Safety	Rye
10	Smith	Main	Rye
11	Majeris	First	Rye
12	Jackson	University	Salt Lake
13	Green	Walnut	Stamford
14	Turner	Putnam	Stamford
15	Glenn	Sand Hill	Woodside

7) Find all customer names who have an account as well as a loan. (intersect)

```
SELECT customer_name
FROM depositor
INTERSECT
SELECT customer_name
FROM borrower;
```



8) Find all customer related information who have an account or a loan. (union)

```
--8) Find all customer related information

SELECT *
FROM customer
WHERE customer_name IN (
SELECT customer_name FROM depositor
UNION
SELECT customer_name FROM borrower
);
```

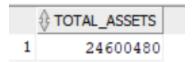
1	Jones	Main	Harrison
2	Smith	Main	Rye
3	Hayes	Main	Harrison
4	Curry	North	Rye
5	Lindsay	Park	Pittsfield
6	Turner	Putnam	Stamford
7	Williams	Nassau	Princeton
8	Adams	Spring	Pittsfield
9	Johnson	Alma	Palo Alto
10	Jackson	University	Salt Lake
11	Majeris	First	Rye
12	McBride	Safety	Rye

9) Find all customer names and their cities who have a loan but not an account. (minus)

1	Curry	Rye
2	Williams	Princeton
3	Adams	Pittsfield
4	Jackson	Salt Lake
5	McBride	Rue

10) Find the total assets of all branches. (aggregate function)

SELECT SUM(assets) AS total_assets FROM branch;



11) Find the average balance of accounts at each branch. (aggregate function)

SELECT branch_name, AVG(balance) AS avg_balance FROM account GROUP BY branch_name;

	♦ BRANCH_NAME	
1	Central	850
2	Downtown	500
3	Perryridge	650
4	Mianus	700
5	North Town	625
6	Round Hill	350
7	Redwood	700
8	Brighton	750

12) Find the average balance of accounts at each branch city. (aggregate function)

SELECT b.branch_city, AVG(a.balance) AS avg_balance
FROM account a

JOIN branch b ON a.branch_name = b.branch_name

GROUP BY b.branch_city;

	⊕ BRANCH_CITY	\$ AVG_BALANCE	
1	Palo Alto	700	
2	Brooklyn	625	
3	Horseneck	587.5	
4	Rye	737.5	

13) Find the lowest amount of loan at each branch. (aggregate function)

```
SELECT branch_name, MIN(amount) AS lowest_loan
FROM loan
GROUP BY branch_name;
```

	♦ BRANCH_NAME	\$ LOWEST_LOAN
1	Central	570
2	Downtown	1000
3	Perryridge	1300
4	Mianus	500
5	North Town	7500
6	Round Hill	900
7	Redwood	2000

14) Find the total number of loans at each branch. (aggregate function)

```
--14) Find the total number of loans at each |
SELECT branch_name, COUNT(*) AS total_loans
FROM loan
GROUP BY branch_name;
```

	BRANCH	↑ TOTAL_LOANS
1	Central	1
2	Downtown	2
3	Perryridge	2
4	Mianus	1
5	North Town	1
6	Round Hill	1
7	Redwood	1

15) Find the customer name and account number of the account which has the highest balance. (aggregate function)

```
SELECT d.customer_name, a.account_number
FROM depositor d

JOIN account a ON d.account_number = a.account_number
WHERE balance = (SELECT MAX(balance) FROM account);
```

	CUSTOMER_NAME		
1	Johnson	A-201	