LAB-3
Assignment

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Section: 07

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)

```
--which have balance in between 600 and 750. (on single table)
SELECT account_number, balance
FROM account
WHERE branch_name = 'Downtown' OR (balance BETWEEN 600 AND 750);
```

	ACCOUNT_NUMBER	BALANCE
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';
```

	ACCOUNT_NUMBER
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 l.loan_number
FROM loan l
JOIN borrower bo ON l.loan_number = bo.loan_number
JOIN customer c ON bo.customer_name = c.customer_name
WHERE l.amount >= 1000 AND c.customer_city = 'Harrison';
```

	LOAN_NUMBER
1	L-17
2	L-15

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

```
SELECT *
FROM account
ORDER BY balance DESC;
```

	ACCOUNT_NUMBER	BRANCH_NAME	BALANCE
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)

```
SELECT *
FROM customer
ORDER BY customer_city;
```

	CUSTOMER_NAME	CUSTOMER_STREET	CUSTOMER_CITY
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;
```

	CUSTOMER_NAME
1	Hayes
2	Jones
3	Smith

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
);
```

	CUSTOMER_NAME	CUSTOMER_STREET	CUSTOMER_CITY
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)

```
SELECT customer.customer_name, customer.customer_city
FROM customer
WHERE customer.customer_name IN (
    SELECT customer_name FROM borrower
    MINUS
    SELECT customer_name FROM depositor
);
```

	CUSTOMER_NAME	CUSTOMER...
1	Curry	Rye
2	Williams	Princeton
3	Adams	Pittsfield
4	Jackson	Salt Lake
5	McBride	Rye

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

```
SELECT SUM(assets) AS total_assets
FROM branch;
```

	TOTAL_ASSETS
1	24600480

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	AVG_BALANCE
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)

```
--13) Find the lowest amount of loan at each bra
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 l
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	ACCOUNT_NUMBER
1	Johnson	A-201