

SQL Assessment

Bank related information of a person.

Create a Bank table, attributes are : branch id, branch name, branch city
















```
1 CREATE DATABASE BankSystem;
```

```
1 CREATE TABLE Bank (  
2     branch_id INT AUTO_INCREMENT PRIMARY KEY,  
3     branch_name VARCHAR(50) NOT NULL,  
4     branch_city VARCHAR(50) NOT NULL  
5 );|
```

branch_id	branch_name	branch_city
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Insert Sample Data

```
1 INSERT INTO Bank (branch_name, branch_city)  
2 VALUES  
3 ('Main Branch', 'Delhi'),  
4 ('City Branch', 'Mumbai'),  
5 ('Town Branch', 'Delhi'),  
6 ('South Branch', 'Chennai'),  
7 ('East Branch', 'Kolkata');|
```

	branch_id	branch_name	branch_city
<input type="checkbox"/>  Edit  Copy  Delete	1	Main Branch	Delhi
<input type="checkbox"/>  Edit  Copy  Delete	2	City Branch	Mumbai
<input type="checkbox"/>  Edit  Copy  Delete	3	Town Branch	Delhi
<input type="checkbox"/>  Edit  Copy  Delete	4	South Branch	Chennai
<input type="checkbox"/>  Edit  Copy  Delete	5	East Branch	Kolkata

Create a table named as Account holder for the same scenario containing the attributes are account holder's id, account no, account holder's name, city,contact, date of account created, account status (active or terminated), account type and balance.

```

1 CREATE TABLE Account_Holder (
2     account_holder_id INT AUTO_INCREMENT PRIMARY KEY,
3     account_no BIGINT UNIQUE NOT NULL,
4     account_holder_name VARCHAR(100) NOT NULL,
5     city VARCHAR(50),
6     contact VARCHAR(20),
7     date_of_account_created DATE,
8     account_status ENUM('Active','Terminated') DEFAULT 'Active',
9     account_type VARCHAR(20),
10    balance DECIMAL(12,2) DEFAULT 0
11 );

```

account_holder_id	account_no	account_holder_name	city	contact	date_of_account_created	account_status	account_type	balance
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Insert Sample Data

```

1 INSERT INTO Account_Holder (account_no, account_holder_name, city, contact, date_of_account_created, account_status,
2 account_type, balance)
3 VALUES
4 (1001, 'Amit Sharma', 'Delhi', '9876543210', '2025-09-10', 'Active', 'Savings', 5000),
5 (1002, 'Neha Verma', 'Delhi', '9898989898', '2025-09-18', 'Active', 'Current', 3000),
6 (1003, 'Rahul Singh', 'Mumbai', '9123456789', '2025-09-20', 'Active', 'Savings', 7000),
7 (1004, 'Priya Mehta', 'Delhi', '9988776655', '2025-09-16', 'Active', 'Savings', 8000),
8 (1005, 'Karan Gupta', 'Chennai', '9871112222', '2025-09-25', 'Active', 'Savings', 6000),
9 (1006, 'Sneha Kapoor', 'Kolkata', '9990001111', '2025-09-05', 'Active', 'Current', 4500),
10 (1007, 'Rohit Malhotra', 'Delhi', '9112223333', '2025-09-28', 'Active', 'Savings', 10000),
11 (1008, 'Meera Nair', 'Chennai', '9888776655', '2025-09-12', 'Active', 'Savings', 4000),
12 (1009, 'Vikas Yadav', 'Mumbai', '9001122334', '2025-09-22', 'Active', 'Current', 5500),
13 (1010, 'Ananya Das', 'Kolkata', '9110099887', '2025-09-17', 'Active', 'Savings', 9000);

```

account_holder_id	account_no	account_holder_name	city	contact	date_of_account_created	account_status	account_type	balance
1	1001	Amit Sharma	Delhi	9876543210	2025-09-10	Active	Savings	5000.00
2	1002	Neha Verma	Delhi	9898989898	2025-09-18	Active	Current	3000.00
3	1003	Rahul Singh	Mumbai	9123456789	2025-09-20	Active	Savings	7000.00
4	1004	Priya Mehta	Delhi	9988776655	2025-09-16	Active	Savings	8000.00
5	1005	Karan Gupta	Chennai	9871112222	2025-09-25	Active	Savings	6000.00
6	1006	Sneha Kapoor	Kolkata	9990001111	2025-09-05	Active	Current	4500.00
7	1007	Rohit Malhotra	Delhi	9112223333	2025-09-28	Active	Savings	10000.00
8	1008	Meera Nair	Chennai	9888776655	2025-09-12	Active	Savings	4000.00
9	1009	Vikas Yadav	Mumbai	9001122334	2025-09-22	Active	Current	5500.00
10	1010	Ananya Das	Kolkata	9110099887	2025-09-17	Active	Savings	9000.00

Create a Loan table, attributes are : loan no, branch id, account holder's id, loan amount and loan type

```
1 CREATE TABLE Loan (  
2     loan_no INT AUTO_INCREMENT PRIMARY KEY,  
3     branch_id INT,  
4     account_holder_id INT,  
5     loan_amount DECIMAL(12,2),  
6     loan_type VARCHAR(50),  
7     FOREIGN KEY (branch_id) REFERENCES Bank(branch_id),  
8     FOREIGN KEY (account_holder_id) REFERENCES Account_Holder(account_holder_id)  
9 );
```

loan_no	branch_id	account_holder_id	loan_amount	loan_type
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Insert Sample Data

```
1 INSERT INTO Loan (branch_id, account_holder_id, loan_amount, loan_type)  
2 VALUES  
3 (1, 1, 20000, 'Home Loan'),  
4 (2, 3, 15000, 'Car Loan'),  
5 (1, 2, 5000, 'Personal Loan'),  
6 (3, 4, 25000, 'Business Loan'),  
7 (4, 5, 10000, 'Education Loan'),  
8 (2, 9, 12000, 'Personal Loan'),  
9 (5, 10, 18000, 'Home Loan');  
10 |
```

	loan_no	branch_id	account_holder_id	loan_amount	loan_type
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	1	1	1	20000.00	Home Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	2	2	3	15000.00	Car Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	3	1	2	5000.00	Personal Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	4	3	4	25000.00	Business Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	5	4	5	10000.00	Education Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	6	2	9	12000.00	Personal Loan
<input type="checkbox"/> Edit <input type="checkbox"/> Copy <input type="checkbox"/> Delete	7	5	10	18000.00	Home Loan

Consider an example where there's an account holder table where we are doing an intra bank transfer i.e. a person holding account A is trying to transfer \$100 to account B.

- for this you have to make a transaction in sql which can transfer fund from account A to B
- Make sure after the transaction the account information have to be updated for both the credit account and the debited account

```
1 START TRANSACTION;
2
3 -- Deduct from Amit (1001)
4 UPDATE Account_Holder
5 SET balance = balance - 100
6 WHERE account_no = 1001 AND balance >= 100;
7
8 -- Add to Neha (1002)
9 UPDATE Account_Holder
10 SET balance = balance + 100
11 WHERE account_no = 1002;
12
13 COMMIT;
14
```

account_holder_id	account_no	account_holder_name	city	contact	date_of_account_created	account_status	account_type	balance
1	1001	Amit Sharma	Delhi	9876543210	2025-09-10	Active	Savings	4900.00
2	1002	Neha Verma	Delhi	9898989898	2025-09-18	Active	Current	3100.00
3	1003	Rahul Singh	Mumbai	9123456789	2025-09-20	Active	Savings	7000.00
4	1004	Priya Mehta	Delhi	9988776655	2025-09-16	Active	Savings	8000.00
5	1005	Karan Gupta	Chennai	9871112222	2025-09-25	Active	Savings	6000.00
6	1006	Sneha Kapoor	Kolkata	9990001111	2025-09-05	Active	Current	4500.00
7	1007	Rohit Malhotra	Delhi	9112223333	2025-09-28	Active	Savings	10000.00
8	1008	Meera Nair	Chennai	9888776655	2025-09-12	Active	Savings	4000.00
9	1009	Vikas Yadav	Mumbai	9001122334	2025-09-22	Active	Current	5500.00
10	1010	Ananya Das	Kolkata	9110099887	2025-09-17	Active	Savings	9000.00

Fetch the details of the account holder who are related from the same city

```
1 SELECT a1.account_holder_name AS Holder1, a2.account_holder_name AS Holder2, a1.city
2 FROM Account_Holder a1 JOIN Account_Holder a2 ON a1.city = a2.city
3 AND a1.account_holder_id < a2.account_holder_id;
```

Holder1	Holder2	city
Amit Sharma	Neha Verma	Delhi
Amit Sharma	Priya Mehta	Delhi
Amit Sharma	Rohit Malhotra	Delhi
Neha Verma	Priya Mehta	Delhi
Neha Verma	Rohit Malhotra	Delhi
Rahul Singh	Vikas Yadav	Mumbai
Priya Mehta	Rohit Malhotra	Delhi
Karan Gupta	Meera Nair	Chennai
Sneha Kapoor	Ananya Das	Kolkata

Write a query to fetch account number and account holder name, whose accounts were created after 15th of any month

```
1 SELECT account_no, account_holder_name, date_of_account_created
2 FROM Account_Holder
3 WHERE DAY(date_of_account_created) > 15;
```

	account_no	account_holder_name	date_of_account_created
<input type="checkbox"/>  Edit  Copy  Delete	1002	Neha Verma	2025-09-18
<input type="checkbox"/>  Edit  Copy  Delete	1003	Rahul Singh	2025-09-20
<input type="checkbox"/>  Edit  Copy  Delete	1004	Priya Mehta	2025-09-16
<input type="checkbox"/>  Edit  Copy  Delete	1005	Karan Gupta	2025-09-25
<input type="checkbox"/>  Edit  Copy  Delete	1007	Rohit Malhotra	2025-09-28
<input type="checkbox"/>  Edit  Copy  Delete	1009	Vikas Yadav	2025-09-22
<input type="checkbox"/>  Edit  Copy  Delete	1010	Ananya Das	2025-09-17

Write a query to display the city name and count the branches in that city. Give the count of branches an alias name of Count_Branch.

```
1 SELECT branch_city, COUNT(branch_id) AS Count_Branch
2 FROM Bank
3 GROUP BY branch_city;
4 |
```

branch_city	Count_Branch
Chennai	1
Delhi	2
Kolkata	1
Mumbai	1

Write a query to display the account holder's id, account holder's name, branch id, and loan amount for people who have taken loans. (NOTE : use sql join concept to solve the query)

```
1 SELECT ah.account_holder_id,
2        ah.account_holder_name,
3        l.branch_id,
4        l.loan_amount
5 FROM Account_Holder ah JOIN Loan l ON ah.account_holder_id = l.account_holder_id;
6
```

account_holder_id	account_holder_name	branch_id	loan_amount
1	Amit Sharma	1	20000.00
3	Rahul Singh	2	15000.00
2	Neha Verma	1	5000.00
4	Priya Mehta	3	25000.00
5	Karan Gupta	4	10000.00
9	Vikas Yadav	2	12000.00
10	Ananya Das	5	18000.00