***Bank DataBase Assessment***

Here are the SQL queries to create the Bank database tables and perform the requested operations, including creating tables for Bank, Account Holder, and Loan, executing an intra-bank transfer, finding account holders from the same city, listing accounts created after a specific date, counting branches by city, and showing loan details with joins.

**1. Create Tables:**

First, create the three necessary tables: Bank, Account\_Holder, and Loan.

**Program:**

*-- Create Bank table*  
CREATE TABLE Bank (  
 branch\_id VARCHAR(10) PRIMARY KEY,  
 branch\_name VARCHAR(50),  
 branch\_city VARCHAR(50)  
);  
  
*-- Create Account\_Holder table*  
CREATE TABLE Account\_Holder (  
 account\_holder\_id VARCHAR(10) PRIMARY KEY,  
 account\_no VARCHAR(20) UNIQUE,  
 account\_holder\_name VARCHAR(100),  
 city VARCHAR(50),  
 contact VARCHAR(15),  
 date\_account\_created DATE,  
 account\_status VARCHAR(20) CHECK (account\_status IN ('Active', 'Terminated')),  
 account\_type VARCHAR(20),  
 balance DECIMAL(12, 2)  
);  
  
*-- Create Loan table*  
CREATE TABLE Loan (  
 loan\_no VARCHAR(10) PRIMARY KEY,  
 branch\_id VARCHAR(10),  
 account\_holder\_id VARCHAR(10),  
 loan\_amount DECIMAL(12, 2),  
 loan\_type VARCHAR(50),  
 FOREIGN KEY (branch\_id) REFERENCES Bank(branch\_id),  
 FOREIGN KEY (account\_holder\_id) REFERENCES Account\_Holder(account\_holder\_id)  
);

**2. Intra-Bank Transfer Transaction:-**

This SQL transaction transfers $100 from Account A to Account B.

**Program:**

START TRANSACTION;  
  
*-- Debit Account A*  
UPDATE Account\_Holder  
SET balance = balance - 100.00  
WHERE account\_no = 'A'; *-- Replace 'A' with the actual account number*  
  
*-- Credit Account B*  
UPDATE Account\_Holder  
SET balance = balance + 100.00  
WHERE account\_no = 'B'; *-- Replace 'B' with the actual account number*  
  
COMMIT;

**3. Fetch Account Holders from the Same City:**

This query lists account holders and their city who reside in the same city.

**Program:**

SELECT ah.account\_holder\_id, ah.account\_holder\_name, ah.city  
FROM Account\_Holder ah  
WHERE EXISTS (  
 SELECT 1  
 FROM Account\_Holder ah2  
 WHERE ah2.city = ah.city AND ah2.account\_holder\_id <> ah.account\_holder\_id  
);

**4. Fetch Accounts Created After the 15th of the Month:**

This query retrieves account numbers and names for accounts created on or after the 16th of any month.

**Program:**

SELECT account\_no, account\_holder\_name  
FROM Account\_Holder  
WHERE DAY(date\_account\_created) > 15;

**5. Count Branches in Each City:**

This query displays the city and counts the number of branches in that city, aliased as Count\_Branch.

**Program:**

SELECT branch\_city, COUNT(branch\_id) AS Count\_Branch

FROM Bank

GROUP BY branch\_city;

**6. Display Loan Details Using a Join:**

This query uses a JOIN to show account holder details and their loan information.

**Program:**

SELECT  
 ah.account\_holder\_id,  
 ah.account\_holder\_name,  
 l.branch\_id,  
 l.loan\_amount  
FROM Account\_Holder ah  
JOIN Loan l ON ah.account\_holder\_id = l.account\_holder\_id;