

Step 1: Create Tables

-- Bank Table

```
CREATE TABLE Bank (  
    branch_id INT PRIMARY KEY,  
    branch_name VARCHAR(100),  
    branch_city VARCHAR(100)  
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 branch_id	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 branch_name	varchar(100)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	3 branch_city	varchar(100)	latin1_swedish_ci		Yes	NULL			Change Drop More

-- Account Holder Table

```
CREATE TABLE Account_Holder (  
    account_holder_id INT PRIMARY KEY,  
    account_no VARCHAR(20) UNIQUE,  
    account_holder_name VARCHAR(100),  
    city VARCHAR(100),  
    contact VARCHAR(15),  
    date_of_account_created DATE,  
    account_status VARCHAR(20), -- 'active' or  
'terminated'  
    account_type VARCHAR(50),  
    balance DECIMAL(12, 2)  
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 account_holder_id 🔑	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 account_no 🔑	varchar(20)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	3 account_holder_name	varchar(100)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	4 city	varchar(100)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	5 contact	varchar(15)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	6 date_of_account_created	date			Yes	NULL			Change Drop More
<input type="checkbox"/>	7 account_status	varchar(20)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	8 account_type	varchar(50)	latin1_swedish_ci		Yes	NULL			Change Drop More
<input type="checkbox"/>	9 balance	decimal(12,2)			Yes	NULL			Change Drop More

-- Loan Table

```
CREATE TABLE Loan (
  loan_no INT PRIMARY KEY,
  branch_id INT,
  account_holder_id INT,
  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)
);
```

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra	Action
<input type="checkbox"/>	1 loan_no 🔑	int(11)			No	None			Change Drop More
<input type="checkbox"/>	2 branch_id 🔑	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	3 account_holder_id 🔑	int(11)			Yes	NULL			Change Drop More
<input type="checkbox"/>	4 loan_amount	decimal(12,2)			Yes	NULL			Change Drop More
<input type="checkbox"/>	5 loan_type	varchar(50)	latin1_swedish_ci		Yes	NULL			Change Drop More

Step 2: Intra-Bank Transfer Transaction (Transfer \$100 from Account A to B)

-- Assume we know account numbers A and B
START TRANSACTION;

-- Debit from Account A
UPDATE Account_Holder
SET balance = balance - 100
WHERE account_no = 'A';

-- Credit to Account B
UPDATE Account_Holder
SET balance = balance + 100
WHERE account_no = 'B';

✓ Your SQL query has been executed successfully
0 rows affected by the last statement inside the procedure.

```
SET @p0='1'; SET @p1='2'; SET @p2='100'; CALL `Transfer_Funds`(@p0, @p1, @p2);
```

Execution results of routine `Transfer_Funds`

⚠ MySQL returned an empty result set (i.e. zero rows).

Routines ⓘ

☐ Check all

Name	Type	Returns
<input type="checkbox"/> Transfer_Funds	PROCEDURE	<input type="button" value="Edit"/> <input type="button" value="Execute"/> <input type="button" value="Export"/> <input type="button" value="Drop"/>

COMMIT;

You should also add error checks for balance underflow in a real system using procedures or triggers.

Step 3: Fetch Account Holders from the Same City

```
SELECT a1.account_holder_id,  
a1.account_holder_name, a1.city  
FROM Account_Holder a1  
JOIN Account_Holder a2 ON a1.city = a2.city AND  
a1.account_holder_id <> a2.account_holder_id;
```

Show query box

⚠ Current selection does not contain a unique column. Grid edit, checkbox, Edit, Copy and Delete features are not available. ⓘ

✓ Showing rows 0 - 1 (2 total, Query took 0.0004 seconds.)

```
SELECT a1.account_holder_id, a1.account_holder_name, a1.city FROM Account_Holder a1 JOIN Account_Holder a2 ON a1.city = a2.city AND a1.account_holder_id <> a2.account_holder_id;
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows: Search this table | Sort by key: None

Extra options

account_holder_id	account_holder_name	city
2	Bob Johnson	New York
1	Alice Smith	New York

Step 4: Fetch Account No and Name Where Account Created After 15th of Any Month

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

Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)

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

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

	account_no	account_holder_name
<input type="checkbox"/>	A1002	Bob Johnson

Step 5: Display City and Count of Branches (Alias: Count_Branch)

```
SELECT branch_city, COUNT(*) AS
Count_Branch
FROM Bank
GROUP BY branch_city;
```

Showing rows 0 - 1 (2 total, Query took 0.0003 seconds.)

```
SELECT branch_city, COUNT(*) AS Count_Branch FROM Bank GROUP BY branch_city;
```

Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

Show all | Number of rows: 25 | Filter rows: Search this table

Extra options

branch_city	Count_Branch
Los Angeles	1
New York	1

Step 6: Display Account Holder ID, Name, Branch ID, and Loan Amount Using JOIN

```
SELECT
    ah.account_holder_id,
    ah.account_holder_name,
    l.branch_id,
    l.loan_amount
FROM
    Loan l
JOIN
```

Account_Holder ah ON l.account_holder_id =
ah.account_holder_id;

Showing rows 0 - 0 (1 total, Query took 0.0004 seconds.)

```
SELECT ah.account_holder_id, ah.account_holder_name, l.branch_id, l.loan_amount FROM Loan l JOIN Account_Holder ah ON l.account_holder_id = ah.account_holder_id;
```

☐ Profiling [\[Edit inline \]](#) [\[Edit \]](#) [\[Explain SQL \]](#) [\[Create PHP code \]](#) [\[Refresh \]](#)

☐ Show all | Number of rows: 25 | Filter rows:

Extra options

account_holder_id	account_holder_name	branch_id	loan_amount
1	Alice Smith	1	10000.00