

## Create Bank table :

```
MySQL 8.0 Command Line Client
Enter password: *****
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 52
Server version: 8.0.33 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use Assessment;
Database changed
mysql> show tables
+-----+
| Tables_in_assessment |
+-----+
| bank                  |
| loan                  |
+-----+
2 rows in set (0.01 sec)

mysql> select * from Bank;
+-----+-----+-----+
| branch_id | branch_name | branch_city |
+-----+-----+-----+
| 201       | HDFC        | Ahmedabad   |
| 202       | SBI         | Surat       |
| 203       | BOB         | Viramgam    |
| 204       | IDFC        | Baroda      |
+-----+-----+-----+
4 rows in set (0.01 sec)

mysql> DESC Bank;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| branch_id  | int       | YES  |     | NULL    |       |
| branch_name | varchar(20) | YES  |     | NULL    |       |
| branch_city | varchar(30) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
```

## Create Loan table :

```
MySQL 8.0 Command Line Client

mysql> DESC Bank;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| branch_id  | int       | YES  |     | NULL    |       |
| branch_name | varchar(20) | YES  |     | NULL    |       |
| branch_city | varchar(30) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

mysql> create table Loan(loan_no int,branch_id int,account_holder_id int,loan_amount int,loan_type varchar(20));
Query OK, 0 rows affected (0.03 sec)

mysql> insert into Loan values(2018,201,1,500000,"Business"),(2019,202,2,800000,"Home Loan"),(2020,203,3,1000000,"Personal"),(2021,204,4,300000,"Study Loan");
Query OK, 4 rows affected (0.01 sec)
Records: 4  Duplicates: 0  Warnings: 0

mysql> DESC Loan;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| loan_no    | int       | YES  |     | NULL    |       |
| branch_id  | int       | YES  |     | NULL    |       |
| account_holder_id | int       | YES  |     | NULL    |       |
| loan_amount | int       | YES  |     | NULL    |       |
| loan_type  | varchar(20) | YES  |     | NULL    |       |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)

mysql> select * from Loan;
+-----+-----+-----+-----+-----+
| loan_no | branch_id | account_holder_id | loan_amount | loan_type |
+-----+-----+-----+-----+-----+
| 2018    | 201       | 1                 | 500000      | Business  |
| 2019    | 202       | 2                 | 800000      | Home Loan |
| 2020    | 203       | 3                 | 1000000     | Personal  |
| 2021    | 204       | 4                 | 300000      | Study Loan |
+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql>
```

## Create Account\_holder Table:

```
MySQL 8.0 Command Line Client
4 rows in set (0.00 sec)

mysql> create table Account_holder(account_holder_id int,account_no int,account_holder_name varchar(20),City varchar(20),Contact varchar(20),date_of_account_created var
char(20),account_status varchar(30),account_type varchar(30),balance int);
Query OK, 0 rows affected (0.02 sec)

mysql> insert into Account_holder values(1,82009097493558,"hetal","Virangam","8200909749","01-JAN-2020","Active","Saving",15000);
ERROR 1264 (22003): Out of range value for column 'account_no' at row 1
mysql> insert into Account_holder values(1,3558,"hetal","Virangam","8200909749","01-JAN-2020","Active","Saving",15000);
Query OK, 1 row affected (0.00 sec)

mysql> insert into Account_holder values(2,6554,"Kiran","Ahemdabad","8401985741","01-FEB-2019","Active","Current",5000),(3,3354,"Deepak","Baroda","8401985847","01-MAY-2
022","Active","Current",10000),(4,2334,"Ravi","Surat","8405614920","01-FEB-2021","Terminated","Saving",50000);
Query OK, 3 rows affected (0.00 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> select * from Account_holder;
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| account_holder_id | account_no | account_holder_name | City | Contact | date_of_account_created | account_status | account_type | balance |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 1 | 3558 | hetal | Virangam | 8200909749 | 01-JAN-2020 | Active | Saving | 15000 |
| 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-FEB-2019 | Active | Current | 5000 |
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 |
| 4 | 2334 | Ravi | Surat | 8405614920 | 01-FEB-2021 | Terminated | Saving | 50000 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+
4 rows in set (0.00 sec)

mysql> DESC Account_holder;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| account_holder_id | int | YES | | NULL | |
| account_no | int | YES | | NULL | |
| account_holder_name | varchar(20) | YES | | NULL | |
| City | varchar(20) | YES | | NULL | |
| Contact | varchar(20) | YES | | NULL | |
| date_of_account_created | varchar(20) | YES | | NULL | |
| account_status | varchar(30) | YES | | NULL | |
| account_type | varchar(30) | YES | | NULL | |
| balance | int | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
9 rows in set (0.00 sec)

mysql>
```

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

```
MySQL 8.0 Command Line Client
+-----+
| account_holder_id | int | YES | NULL |
| account_no | int | YES | NULL |
| account_holder_name | varchar(20) | YES | NULL |
| City | varchar(20) | YES | NULL |
| Contact | varchar(20) | YES | NULL |
| date_of_account_created | varchar(20) | YES | NULL |
| account_status | varchar(30) | YES | NULL |
| account_type | varchar(30) | YES | NULL |
| balance | int | YES | NULL |
+-----+
9 rows in set (0.00 sec)

mysql> update Account_holder set balance=balance-100 where account_no=3558;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from Account_holder;
+-----+
| account_holder_id | account_no | account_holder_name | City | Contact | date_of_account_created | account_status | account_type | balance |
+-----+
| 1 | 3558 | hetal | Viramgam | 8200909749 | 01-JAN-2020 | Active | Saving | 14900 |
| 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-FEB-2019 | Active | Current | 5000 |
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 |
| 4 | 2334 | Ravi | Surat | 8405614920 | 01-FEB-2021 | Terminated | Saving | 50000 |
+-----+
4 rows in set (0.00 sec)

mysql> update Account_holder set balance=balance+100 where account_no=6554;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

mysql> select * from Account_holder;
+-----+
| account_holder_id | account_no | account_holder_name | City | Contact | date_of_account_created | account_status | account_type | balance |
+-----+
| 1 | 3558 | hetal | Viramgam | 8200909749 | 01-JAN-2020 | Active | Saving | 14900 |
| 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-FEB-2019 | Active | Current | 5100 |
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 |
| 4 | 2334 | Ravi | Surat | 8405614920 | 01-FEB-2021 | Terminated | Saving | 50000 |
+-----+
4 rows in set (0.00 sec)

mysql>
```

Also fetch the details of the account holder who are related from the same city.

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

```
MySQL 8.0 Command Line Client
+-----+
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 |
| 4 | 2334 | Ravi | Ahemdabad | 8405614920 | 01-FEB-2021 | Terminated | Saving | 50000 |
+-----+
4 rows in set (0.00 sec)

mysql> select count(account_holder_id),City from customer group by City;
ERROR 1146 (42502): Table 'assessment.customer' doesn't exist
mysql> select count(account_holder_id),City from Account_holder group by City;
+-----+
| count(account_holder_id) | City |
+-----+
| 1 | Viramgam |
| 2 | Ahemdabad |
| 1 | Baroda |
+-----+
3 rows in set (0.01 sec)

mysql> update Account_holder set date_of_account_created="16-FEB-2020" where account_no=2334;;
Query OK, 1 row affected (0.01 sec)
Rows matched: 1 Changed: 1 Warnings: 0

ERROR:
No query specified

mysql> select * from Account_holder;
+-----+
| account_holder_id | account_no | account_holder_name | City | Contact | date_of_account_created | account_status | account_type | balance |
+-----+
| 1 | 3558 | hetal | Viramgam | 8200909749 | 01-JAN-2020 | Active | Saving | 14900 |
| 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-FEB-2019 | Active | Current | 5100 |
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 |
| 4 | 2334 | Ravi | Ahemdabad | 8405614920 | 16-FEB-2020 | Terminated | Saving | 50000 |
+-----+
4 rows in set (0.00 sec)

mysql> select account_no,account_holder_name from Account_holder where date_of_account_created>15;
+-----+
| account_no | account_holder_name |
+-----+
| 2334 | Ravi |
+-----+
1 row in set, 4 warnings (0.00 sec)

mysql>
```

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.

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)

```
Select MySQL 8.0 Command Line Client
+-----+
| branch_id | branch_name | branch_city |
+-----+
| 201 | HDFC | Ahemdabad |
| 202 | SBI | Surat |
| 203 | BOB | Virangam |
| 204 | BOB | Ahemdabad |
+-----+
4 rows in set (0.00 sec)

mysql> select count(branch_name),branch_city As Count_Branch from Bank group by branch_city;
+-----+
| count(branch_name) | Count_Branch |
+-----+
| 2 | Ahemdabad |
| 1 | Surat |
| 1 | Virangam |
+-----+
3 rows in set (0.00 sec)

mysql> select * from Account_holder LEFT JOIN Loan ON Account_holder.account_holder_id=Loan.account_holder_id UNION ALL select * from Loan RIGHT JOIN Account_holder ON
Loan.account_holder_id=Account_holder.account_holder_id;
+-----+
| account_holder_id | account_no | account_holder_name | City | Contact | date_of_account_created | account_status | account_type | balance | loan_no | bra
+-----+
| 1 | 3558 | hetal | Virangam | 8200909749 | 01-JAN-2020 | Active | Saving | 14900 | 2018 | 201
| 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-FEB-2019 | Active | Current | 5100 | 2019 | 202
| 3 | 3354 | Deepak | Baroda | 8401985847 | 01-MAY-2022 | Active | Current | 10000 | 2020 | 203
| 4 | 2334 | Ravi | Ahemdabad | 8405614920 | 16-FEB-2020 | Terminated | Saving | 50000 | 2021 | 204
| 2018 | 201 | 1 | 500000 | Business | 1 | 3558 | hetal | Virangam | 8200909749 | 01-
JAN-2020 | Active | Saving | 14900 | 800000 | Home Loan | 2 | 6554 | Kiran | Ahemdabad | 8401985741 | 01-
FEB-2019 | Active | Current | 5100 | 1000000 | Personal | 3 | 3354 | Deepak | Baroda | 8401985847 | 01-
MAY-2022 | Active | Current | 10000 | 300000 | Study Loan | 4 | 2334 | Ravi | Ahemdabad | 8405614920 | 16-
FEB-2020 | Terminated | Saving | 50000
+-----+
8 rows in set (0.00 sec)
```