```
C:\Users\hp>mysql -u root -p
Enter password: *********
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 11
Server version: 8.0.43 MySQL Community Server - GPL

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owners.

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

mysql> show databases;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| mysql              |
| performance_schema |
| sys                |
+--------------------+
4 rows in set (0.01 sec)

mysql> CREATE DATABASE Bank_Info;
Query OK, 1 row affected (0.01 sec)

mysql> USE Bank_Info;
Database changed
mysql> CREATE TABLE Branch(branch_name VARCHAR(20) PRIMARY KEY, branch_city VARCHAR(20), assets INT);
Query OK, 0 rows affected (0.03 sec)

mysql> INSERT INTO Branch VALUES("Akurdi", "Pune", 150000);
Query OK, 1 row affected (0.02 sec)

mysql> INSERT INTO Branch VALUES("Thane", "Mumbai", 200000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Branch VALUES("Pimpri", "Pune", 175000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Branch VALUES("Abc", "Delhi", 280000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Branch VALUES("Xyz", "Mumbai", 300000);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM Branch;
+-------------+-------------+--------+
| branch_name | branch_city | assets |
+-------------+-------------+--------+
| Abc         | Delhi       | 280000 |
```

```
| Akurdi     | Pune      | 150000 |
| Pimpri     | Pune      | 175000 |
| Thane      | Mumbai    | 200000 |
| Xyz        | Mumbai    | 300000 |
+------------+------------+--------+
5 rows in set (0.00 sec)

mysql> CREATE TABLE Account(acc_no INT PRIMARY KEY, branch_name VARCHAR(20), balance INT, FOREIGN
KEY(branch_name) REFERENCES Branch(branch_name));
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO Account VALUES(101, "Akurdi", 45000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Account VALUES(132, "Pimpri", 33000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Account VALUES(231, "Xyz", 12000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Account VALUES(197, "Akurdi", 20000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Account VALUES(302, "Abc", 18000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Account VALUES(111, "Thane", 11000);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM Account;
+--------+------------+---------+
| acc_no | branch_name | balance |
+--------+------------+---------+
|    101 | Akurdi     |   45000 |
|    111 | Thane      |   11000 |
|    132 | Pimpri     |   33000 |
|    197 | Akurdi     |   20000 |
|    231 | Xyz        |   12000 |
|    302 | Abc        |   18000 |
+--------+------------+---------+
6 rows in set (0.00 sec)

mysql> CREATE TABLE Customer(cust_name VARCHAR(20) PRIMARY KEY, cust_street VARCHAR(20), cust_city
VARCHAR(20));
Query OK, 0 rows affected (0.02 sec)

mysql> INSERT INTO Customer VALUES("Shyam", "A1", "Pune");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Ram", "B2", "Delhi");
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Customer VALUES("Geeta", "A0", "Mumbai");
```

Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Ankita", "C3", "Pune");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Rajesh", "C0", "Mumbai");
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Customer VALUES("Mohan", "D8", "Pune");
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM Customer;

cust_name	cust_street	cust_city
Ankita	C3	Pune
Geeta	A0	Mumbai
Mohan	D8	Pune
Rajesh	C0	Mumbai
Ram	B2	Delhi
Shyam	A1	Pune

6 rows in set (0.00 sec)

mysql> CREATE TABLE Depositor(cust_name VARCHAR(20), acc_no INT, FOREIGN KEY(cust_name) REFERENCES Customer(cust_name), FOREIGN KEY(acc_no) REFERENCES Account(acc_no));
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO Depositor VALUES("Shyam", 101);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Depositor VALUES("Ram", 302);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Depositor VALUES("Geeta", 111);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Depositor VALUES("Ankita", 132);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Depositor VALUES("Rajesh", 231);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Depositor VALUES("Mohan", 197);
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM Depositor;

cust_name	acc_no
Shyam	101
Ram	302
Geeta	111

```
| Ankita   |   132 |
| Rajesh   |   231 |
| Mohan    |   197 |
+----------+-------+
6 rows in set (0.00 sec)

mysql> CREATE TABLE Loan(loan_no INT PRIMARY KEY, branch_name VARCHAR(20), amount INT, FOREIGN
KEY(branch_name) REFERENCES Branch(branch_name));
Query OK, 0 rows affected (0.15 sec)

mysql> INSERT INTO Loan VALUES(236, "Akurdi", 100000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Loan VALUES(319, "Thane", 18000);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Loan VALUES(182, "Abc", 35000);
Query OK, 1 row affected (0.00 sec)

mysql> INSERT INTO Loan VALUES(110, "Pimpri", 90000);
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM Loan;
+---------+-------------+--------+
| loan_no | branch_name | amount |
+---------+-------------+--------+
|     110 | Pimpri      |  90000 |
|     182 | Abc         |  35000 |
|     236 | Akurdi      | 100000 |
|     319 | Thane       |  18000 |
+---------+-------------+--------+
4 rows in set (0.00 sec)

mysql> CREATE TABLE Borrower(cust_name VARCHAR(20), loan_no INT, FOREIGN KEY(cust_name) REFERENCES
Customer(cust_name), FOREIGN KEY(loan_no) REFERENCES Loan(loan_no));
Query OK, 0 rows affected (0.06 sec)

mysql> INSERT INTO Borrower VALUES("Mohan", 236);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Geeta", 319);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Ram", 182);
Query OK, 1 row affected (0.01 sec)

mysql> INSERT INTO Borrower VALUES("Ankita", 110);
Query OK, 1 row affected (0.00 sec)

mysql> SELECT * FROM Borrower;
+-----------+---------+
| cust_name | loan_no |
+-----------+---------+
```

```
| Mohan     |    236 |
| Geeta     |    319 |
| Ram       |    182 |
| Ankita    |    110 |
+-----------+---------+
4 rows in set (0.00 sec)

mysql> SHOW TABLES;
+---------------------+
| Tables_in_bank_info |
+---------------------+
| account             |
| borrower            |
| branch              |
| customer            |
| depositor           |
| loan                |
+---------------------+
6 rows in set (0.02 sec)

mysql> SELECT * FROM Branch;
+-------------+-------------+--------+
| branch_name | branch_city | assets |
+-------------+-------------+--------+
| Abc         | Delhi       | 280000 |
| Akurdi      | Pune        | 150000 |
| Pimpri      | Pune        | 175000 |
| Thane       | Mumbai      | 200000 |
| Xyz         | Mumbai      | 300000 |
+-------------+-------------+--------+
5 rows in set (0.00 sec)

mysql> SELECT * FROM Account;
+--------+-------------+---------+
| acc_no | branch_name | balance |
+--------+-------------+---------+
|    101 | Akurdi      |   45000 |
|    111 | Thane       |   11000 |
|    132 | Pimpri      |   33000 |
|    197 | Akurdi      |   20000 |
|    231 | Xyz         |   12000 |
|    302 | Abc         |   18000 |
+--------+-------------+---------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM Customer;
+-----------+-------------+-----------+
| cust_name | cust_street | cust_city |
+-----------+-------------+-----------+
| Ankita    | C3          | Pune      |
| Geeta     | A0          | Mumbai    |
| Mohan     | D8          | Pune      |
| Rajesh    | C0          | Mumbai    |
```

```
| Ram      | B2       | Delhi   |
| Shyam    | A1       | Pune    |
+----------+-------------+-----------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM Depositor;
+-----------+--------+
| cust_name | acc_no |
+-----------+--------+
| Shyam     |    101 |
| Ram       |    302 |
| Geeta     |    111 |
| Ankita    |    132 |
| Rajesh    |    231 |
| Mohan     |    197 |
+-----------+--------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM Loan;
+---------+-------------+--------+
| loan_no | branch_name | amount |
+---------+-------------+--------+
|    110 | Pimpri      |  90000 |
|    182 | Abc         |  35000 |
|    236 | Akurdi      | 100000 |
|    319 | Thane       |  18000 |
+---------+-------------+--------+
4 rows in set (0.00 sec)

mysql> SELECT * FROM Borrower;
+-----------+---------+
| cust_name | loan_no |
+-----------+---------+
| Mohan     |    236 |
| Geeta     |    319 |
| Ram       |    182 |
| Ankita    |    110 |
+-----------+---------+
4 rows in set (0.00 sec)

mysql> SELECT DISTINCT branch_name FROM Loan;
+-------------+
| branch_name |
+-------------+
| Abc         |
| Akurdi      |
| Pimpri      |
| Thane       |
+-------------+
4 rows in set (0.00 sec)

mysql> SELECT loan_no FROM Loan WHERE branch_name = "Akurdi" AND amount>50000;
+---------+
```

```
| loan_no |
+---------+
|     236 |
+---------+
1 row in set (0.00 sec)

mysql> SELECT Borrower.cust_name, Borrower.loan_no, Loan.amount FROM Borrower JOIN Loan ON Borrower.loan_no
= Loan.loan_no;
+-----------+---------+--------+
| cust_name | loan_no | amount |
+-----------+---------+--------+
| Mohan     |     236 | 100000 |
| Geeta     |     319 |  18000 |
| Ram       |     182 |  35000 |
| Ankita    |     110 |  90000 |
+-----------+---------+--------+
4 rows in set (0.00 sec)

mysql> SELECT DISTINCT Borrower.cust_name FROM Borrower JOIN Loan ON Borrower.loan_no = Loan.loan_no WHERE
(Loan.branch_name = "Akurdi" OR Loan.branch_name = "Thane") ORDER BY Borrower.cust_name;
+-----------+
| cust_name |
+-----------+
| Geeta     |
| Mohan     |
+-----------+
2 rows in set (0.00 sec)

mysql> SELECT DISTINCT Customer.cust_name FROM Customer WHERE Customer.cust_name IN(SELECT cust_name
FROM Depositor UNION SELECT cust_name FROM Borrower) ORDER BY Customer.cust_name;
+-----------+
| cust_name |
+-----------+
| Ankita    |
| Geeta     |
| Mohan     |
| Rajesh    |
| Ram       |
| Shyam     |
+-----------+
6 rows in set (0.00 sec)

mysql> SELECT DISTINCT cust_name FROM (SELECT cust_name FROM Depositor UNION SELECT cust_name FROM
Borrower) AS all_customers;
+-----------+
| cust_name |
+-----------+
| Ankita    |
| Geeta     |
| Mohan     |
| Rajesh    |
| Ram       |
| Shyam     |
```

```
+-----------+
6 rows in set (0.00 sec)

mysql> SELECT DISTINCT cust_name FROM Depositor WHERE cust_name IN (SELECT cust_name FROM Borrower);
+-----------+
| cust_name |
+-----------+
| Ankita    |
| Geeta     |
| Mohan     |
| Ram       |
+-----------+
4 rows in set (0.00 sec)

mysql> SELECT DISTINCT d.cust_name FROM Depositor d LEFT JOIN Borrower b ON d.cust_name = b.cust_name WHERE
b.cust_name IS NULL;
+-----------+
| cust_name |
+-----------+
| Rajesh    |
| Shyam     |
+-----------+
2 rows in set (0.00 sec)

mysql> SELECT * FROM Customer WHERE cust_name IN (SELECT cust_name FROM Depositor WHERE cust_name NOT IN
(SELECT cust_name FROM Borrower));
+-----------+-------------+-----------+
| cust_name | cust_street | cust_city |
+-----------+-------------+-----------+
| Rajesh    | C0          | Mumbai    |
| Shyam     | A1          | Pune      |
+-----------+-------------+-----------+
2 rows in set (0.00 sec)

mysql> SELECT branch_name, AVG(balance) AS average_balance FROM Account GROUP BY branch_name;
+-------------+-----------------+
| branch_name | average_balance |
+-------------+-----------------+
| Abc         |      18000.0000 |
| Akurdi      |      32500.0000 |
| Pimpri      |      33000.0000 |
| Thane       |      11000.0000 |
| Xyz         |      12000.0000 |
+-------------+-----------------+
5 rows in set (0.00 sec)

mysql> SELECT a.branch_name, COUNT(DISTINCT d.cust_name) AS num_depositors FROM Depositor d JOIN Account a
ON d.acc_no = a.acc_no GROUP BY a.branch_name;
+-------------+----------------+
| branch_name | num_depositors |
+-------------+----------------+
| Abc         |              1 |
| Akurdi      |              2 |
```

```
| Pimpri    |          1 |
| Thane     |          1 |
| Xyz       |          1 |
+------------+----------------+
5 rows in set (0.01 sec)

mysql> SELECT cust_name, cust_city FROM Customer WHERE cust_name LIKE 'R%';
+-----------+-----------+
| cust_name | cust_city |
+-----------+-----------+
| Rajesh    | Mumbai    |
| Ram       | Delhi     |
+-----------+-----------+
2 rows in set (0.00 sec)

mysql> SELECT DISTINCT branch_city FROM Branch;
+-------------+
| branch_city |
+-------------+
| Delhi       |
| Pune        |
| Mumbai      |
+-------------+
3 rows in set (0.00 sec)

mysql> SELECT branch_name, AVG(balance) AS average_balance FROM Account GROUP BY branch_name HAVING
AVG(balance) > 15000;
+-------------+-----------------+
| branch_name | average_balance |
+-------------+-----------------+
| Abc         |      18000.0000 |
| Akurdi      |      32500.0000 |
| Pimpri      |      33000.0000 |
+-------------+-----------------+
3 rows in set (0.00 sec)

mysql> SELECT COUNT(*) AS total_customers FROM Customer;
+-----------------+
| total_customers |
+-----------------+
|               6 |
+-----------------+
1 row in set (0.01 sec)

mysql> SELECT SUM(amount) AS total_loan_amount FROM Loan;
+-------------------+
| total_loan_amount |
+-------------------+
|            243000 |
+-------------------+
1 row in set (0.00 sec)

mysql> SELECT * FROM Loan WHERE amount BETWEEN 100000 AND 200000;
```

```
+---------+-------------+--------+
| loan_no | branch_name | amount |
+---------+-------------+--------+
|     236 | Akurdi      | 100000 |
+---------+-------------+--------+
1 row in set (0.00 sec)
```

mysql> DELETE FROM Borrower WHERE loan_no IN(SELECT loan_no FROM Loan WHERE amount BETWEEN 30000 AND 40000);
Query OK, 1 row affected (0.18 sec)

mysql> DELETE FROM Loan WHERE amount BETWEEN 30000 AND 40000;
Query OK, 1 row affected (0.27 sec)

mysql> SELECT * FROM Loan;
```
+---------+-------------+--------+
| loan_no | branch_name | amount |
+---------+-------------+--------+
|     110 | Pimpri      |  90000 |
|     236 | Akurdi      | 100000 |
|     319 | Thane       |  18000 |
+---------+-------------+--------+
3 rows in set (0.00 sec)
```

mysql> SELECT * FROM Borrower;
```
+-----------+---------+
| cust_name | loan_no |
+-----------+---------+
| Mohan     |     236 |
| Geeta     |     319 |
| Ankita    |     110 |
+-----------+---------+
3 rows in set (0.00 sec)
```

mysql> DELETE FROM Borrower
    -> WHERE loan_no IN (
    ->   SELECT loan_no
    ->   FROM Loan
    ->   WHERE branch_name = 'Pimpri'
    ->);
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM Loan
    -> WHERE branch_name = 'Pimpri';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM Depositor
    -> WHERE acc_no IN (
    ->   SELECT acc_no
    ->   FROM Account
    ->   WHERE branch_name = 'Pimpri'
    ->);
Query OK, 1 row affected (0.01 sec)

```
mysql> DELETE FROM Account
    -> WHERE branch_name = 'Pimpri';
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM Branch
    -> WHERE branch_name = 'Pimpri';
Query OK, 1 row affected (0.01 sec)

mysql> SELECT * FROM Branch;
+-------------+-------------+--------+
| branch_name | branch_city | assets |
+-------------+-------------+--------+
| Abc         | Delhi       | 280000 |
| Akurdi      | Pune        | 150000 |
| Thane       | Mumbai      | 200000 |
| Xyz         | Mumbai      | 300000 |
+-------------+-------------+--------+
4 rows in set (0.00 sec)

mysql> SELECT * FROM Account;
+--------+-------------+---------+
| acc_no | branch_name | balance |
+--------+-------------+---------+
|    101 | Akurdi      |   45000 |
|    111 | Thane       |   11000 |
|    197 | Akurdi      |   20000 |
|    231 | Xyz         |   12000 |
|    302 | Abc         |   18000 |
+--------+-------------+---------+
5 rows in set (0.00 sec)

mysql> SELECT * FROM Customer;
+-----------+-------------+-----------+
| cust_name | cust_street | cust_city |
+-----------+-------------+-----------+
| Ankita    | C3          | Pune      |
| Geeta     | A0          | Mumbai    |
| Mohan     | D8          | Pune      |
| Rajesh    | C0          | Mumbai    |
| Ram       | B2          | Delhi     |
| Shyam     | A1          | Pune      |
+-----------+-------------+-----------+
6 rows in set (0.00 sec)

mysql> SELECT * FROM Depositor;
+-----------+--------+
| cust_name | acc_no |
+-----------+--------+
| Shyam     |    101 |
| Ram       |    302 |
| Geeta     |    111 |
| Rajesh    |    231 |
```

```
| Mohan     |    197 |
+-----------+--------+
5 rows in set (0.00 sec)

mysql> SELECT * FROM Loan;
+---------+-------------+--------+
| loan_no | branch_name | amount |
+---------+-------------+--------+
|     236 | Akurdi      | 100000 |
|     319 | Thane       |  18000 |
+---------+-------------+--------+
2 rows in set (0.00 sec)

mysql> SELECT * FROM Borrower;
+-----------+---------+
| cust_name | loan_no |
+-----------+---------+
| Mohan     |     236 |
| Geeta     |     319 |
+-----------+---------+
2 rows in set (0.00 sec)
```