1. Find the names of all branches in loan relation.
Ans. mysql> select distinct branch_name from Branch;

```
+---------------+
| branch_name   |
+---------------+
| Akurdi-Branch |
| Nigdi-Branch  |
+---------------+
2 rows in set (0.00 sec)
```

2. Find all loan numbers for loans made at Akurdi Branch with loan amount > 12000.
Ans. mysql> select loan_no from Loan where branch_name='Akurdi-Branch' and amount > 12000;

```
+---------+
| loan_no |
+---------+
|    7001 |
+---------+
1 row in set (0.02 sec)
```

3. Find all customers who have a loan from bank. Find their names,loan_no and loan amount.
Ans. mysql> SELECT Borrower.cust_name, Borrower.loan_no, Loan.amount from Borrower inner join Loan on Borrower.loan_no = Loan.loan_no;

```
+---------------+---------+----------+
| cust_name     | loan_no | amount   |
+---------------+---------+----------+
| Khushal Patil |    7001 | 15000.00 |
| Aryan Patil   |    7004 |  6000.00 |
| Sarthak Yere  |    7002 |  1320.00 |
| Tejas Danane  |    8001 | 77000.00 |
| Yash Patil    |    8003 | 50000.00 |
+---------------+---------+----------+
5 rows in set (0.00 sec)
```

4. List all customers in alphabetical order who have loan from Akurdi branch.
Ans. mysql> SELECT Borrower.cust_name, Borrower.loan_no, Loan.amount from Borrower
-> inner join Loan on Borrower.loan_no = Loan.loan_no
-> where branch_name="Akurdi-Branch"
-> Order By Borrower.cust_name ASC;

```
+---------------+---------+----------+
| cust_name     | loan_no | amount   |
+---------------+---------+----------+
| Aryan Patil   |    7004 |  6000.00 |
| Khushal Patil |    7001 | 15000.00 |
| Sarthak Yere  |    7002 |  1320.00 |
+---------------+---------+----------+
3 rows in set (0.00 sec)
```

5. Find all customers who have an account or loan or both at bank.

```
Ans. mysql> select distinct Customer.cust_name from Customer
    -> left join Depositer ON Customer.cust_name = Depositer.cust_name
    -> left join Borrower ON Customer.cust_name = Borrower.cust_name
    -> where Depositer.Acc_no is not null OR Borrower.loan_no is not null;
+---------------+
| cust_name     |
+---------------+
| Anuj Jadhav   |
| Aryan Patil   |
| Gaurav Pawar  |
| Khushal Patil |
| Sarthak Yere  |
| Tejas Danane  |
| Yash Patil    |
+---------------+
7 rows in set (0.00 sec)
```

6. Find all customers who have both account and loan at bank.

```
Ans. mysql> select distinct Customer.cust_name from Customer
    -> left join Depositer ON Customer.cust_name = Depositer.cust_name
    -> left join Borrower ON Customer.cust_name = Borrower.cust_name
    -> where Depositer.Acc_no is not null AND Borrower.loan_no is not null;
+---------------+
| cust_name     |
+---------------+
| Aryan Patil   |
| Khushal Patil |
| Yash Patil    |
+---------------+
3 rows in set (0.00 sec)
```

7. Find all customers who have account but no loan at the bank.

```
Ans. mysql> select distinct Customer.cust_name from Customer
    -> left join Depositer ON Customer.cust_name = Depositer.cust_name
    -> left join Borrower ON Customer.cust_name = Borrower.cust_name
    -> where Depositer.Acc_no is not null and Borrower.loan_no is null;
+--------------+
| cust_name    |
+--------------+
| Anuj Jadhav  |
| Gaurav Pawar |
+--------------+
2 rows in set (0.00 sec)
```

8. Find the average account balance at each branch

```
Ans. mysql> select branch_name,AVG(balance) From Account group by branch_name;
+---------------+--------------+
| branch_name   | AVG(balance) |
+---------------+--------------+
| Akurdi-Branch |        46400 |
| Nigdi-Branch  |        33600 |
+---------------+--------------+
2 rows in set (0.00 sec)
```

9. Find no. of depositors at each branch.
Ans. mysql> select Branch.branch_name,COUNT(Depositer.cust_name) as No_depositers
from Branch
    -> join Account ON Branch.branch_name = Account.branch_name
    -> join Depositer ON Account.Acc_no = Depositer.Acc_no
    -> Group by Branch.branch_name;

| branch_name | No_depositers |
|---|---|
| Akurdi-Branch | 3 |
| Nigdi-Branch | 2 |

2 rows in set (0.02 sec)

10. Find name of Customer and city where customer name starts with Letter P.
Ans. mysql> select cust_name,cust_city from Customer where cust_name LIKE 'P%'
OR'p%';

| cust_name | cust_city |
|---|---|
| Pradyumna Sawkar | Pune |
| Prathmesh Dive | Pune |

2 rows in set, 1 warning (0.00 sec)

11. Display distinct cities of branch.
Ans. mysql> select distinct branch_city from Branch;

| branch_city |
|---|
| PCMC |
| Pune |

2 rows in set (0.00 sec)

12. Find the branches where average account balance > 12000
Ans. mysql> select branch_name from Account Group by branch_name Having AVG(assets)
> 12000;

| branch_name |
|---|
| Akurdi-Branch |
| Nigdi-Branch |

2 rows in set (0.00 sec)

13. Find number of tuples in customer relation.
Ans. mysql> select COUNT(*) as No_of_Cust from Customer;

| No_of_Cust |
|---|
| 10 |

1 row in set (0.00 sec)

14. Calculate total loan amount given by bank.
Ans. mysql> select branch_name,SUM(amount) as Loan_Amount from Loan Group By branch_name;

```
+---------------+-------------+
| branch_name   | Loan_Amount |
+---------------+-------------+
| Akurdi-Branch |       23720 |
| Nigdi-Branch  |      129444 |
+---------------+-------------+
2 rows in set (0.00 sec)
```

15. Delete all loans with loan amount between 1300 and 1500.
Ans. mysql> delete from Borrower where loan_no IN ( select loan_no from Loan where amount between 1300 and 1500);
Query OK, 1 row affected (0.03 sec)

mysql> delete from Loan where amount between 1300 and 1500;
Query OK, 1 row affected (0.03 sec)

16. Delete all tuples at every branch located in Nigdi.
mysql> delete from Borrower where loan_no IN (select loan_no from Loan where branch_name IN (select branch_name from Branch where branch_city = 'Nigdi'));
Query OK, 2 row affected (0.03 sec)

mysql> delete from Loan where branch_name IN (select branch_name from Branch where branch_city = 'Nigdi');
Query OK, 2 row affected (0.03 sec)

mysql> delete from Depositor
where Acc_no IN (select Acc_no from Account where branch_name IN (select branch_name from Branch where branch_city = 'Nigdi'));
Query OK, 2 row affected (0.03 sec)

mysql> delete from Account where branch_name IN (select branch_name from Branch where branch_city = 'Nigdi');
Query OK, 5 row affected (0.03 sec)

mysql> delete from Branch where branch_city = 'Nigdi';
Query OK, 1 row affected (0.03 sec)