```
mysql> create database rokesh_20190010098_bank;
Query OK, 1 row affected (0.00 sec)

mysql> use rokesh_20190010098_bank;
Database changed
```

```
Database changed
mysql> create table branch(branch_name varchar(50),branch_city varchar(50),assets int,primary key(branch_name));
Query OK, 0 rows affected (0.30 sec)

mysql> create table customer(customer_name varchar(50),customer_street varchar(50),customer_city varchar(50),primary key(customer_name));
Query OK, 0 rows affected (0.38 sec)

mysql> create table loan(loan_number int,branch_name varchar(50),amount int,primary key(loan_number),foreign key(branch_name) references branch(branch_name));
Query OK, 0 rows affected (0.28 sec)

mysql> create table borrower(customer_name varchar(50),loan_number int,primary key(customer_name,loan_number),foreign key(customer_name) references customer(customer_name),
foreign key(loan_number) references loan(loan_number));
Query OK, 0 rows affected (0.43 sec)

mysql> create table account(account_number varchar(50),branch_name varchar(50),balance double,primary key(account_number), foreign key(branch_name) references branch(branch
_name));
Query OK, 0 rows affected (0.36 sec)

mysql> alter table account modify column account_number int;
Query OK, 0 rows affected (0.74 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> create table depositor(customer_name varchar(50),account_number int,primary key(customer_name,account_number),foreign key(customer_name) references customer(customer
_name), foreign key(account_number) references account(account_number));
Query OK, 0 rows affected (0.34 sec)
```

```
mysql> show tables;
+---------------------------------+
| Tables_in_rokesh_2019010098_bank |
+---------------------------------+
| account                         |
| borrower                        |
| branch                          |
| customer                        |
| depositor                       |
| loan                            |
+---------------------------------+
6 rows in set (0.00 sec)
```

```
mysql> insert into branch values('sricity', 'sricity', 10000);
Query OK, 1 row affected (0.08 sec)

mysql> insert into branch values('tirupati', 'tirupati', 20000);
Query OK, 1 row affected (0.08 sec)

mysql> insert into branch values('vijayawada', 'vijayawada', 200000);
Query OK, 1 row affected (0.09 sec)

mysql> insert into branch values('kurnool', 'kurnool', 30000);
Query OK, 1 row affected (0.05 sec)

mysql> insert into branch values('hyderabad', 'hyderabad', 400000);
Query OK, 1 row affected (0.11 sec)
```

```
mysql> insert into customer values('rokesh', 'gandhistreet', 'sricity');
Query OK, 1 row affected (0.03 sec)

mysql> insert into customer values('lakshman', 'oldstreet', 'tirupati');
Query OK, 1 row affected (0.11 sec)

mysql> insert into customer values('phani', 'newstreet', 'vijayawada');
Query OK, 1 row affected (0.13 sec)

mysql> insert into customer values('govi', 'nehrustreet', 'kurnool');
Query OK, 1 row affected (0.12 sec)

mysql> insert into customer values('prabhu', 'madhapur', 'hyderabad');
Query OK, 1 row affected (0.12 sec)

mysql> insert into customer values('bharath', 'newstreet', 'tirupati');
Query OK, 1 row affected (0.12 sec)
```

```
mysql> insert into loan values(1001, 'sricity', 1000);
Query OK, 1 row affected (0.03 sec)

mysql> insert into loan values(1002, 'tirupati', 10000);
Query OK, 1 row affected (0.02 sec)

mysql> insert into loan values(1003, 'vijayawada', 100000);
Query OK, 1 row affected (0.09 sec)

mysql> insert into loan values(1004, 'kurnool', 200000);
Query OK, 1 row affected (0.13 sec)

mysql> insert into loan values(1005, 'hyderabad', 500000);
Query OK, 1 row affected (0.12 sec)
```

```
mysql> isert into borrower values('bharath',1001);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'isert into borrow
er values('bharath',1001)' at line 1
mysql> isert into borrower values('rokesh',1001);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'isert into borrow
er values('rokesh',1001)' at line 1
mysql> isert into borrower values('rokesh');
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'isert into borrow
er values('rokesh')' at line 1
mysql> insert into borrower values('bharath',1001);
Query OK, 1 row affected (0.12 sec)

mysql> insert into borrower values('lakshman',1002);
Query OK, 1 row affected (0.09 sec)

mysql> insert into borrower values('phani',1003);
Query OK, 1 row affected (0.05 sec)

mysql> insert into borrower values('govardhan',1004);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`rokesh_20190010098_bank`.`borrower`, CONSTRAINT `borrower_ibfk_1` FOREIGN KEY (`custo
mer_name`) REFERENCES `customer` (`customer_name`))
mysql> insert into borrower values('govi',1004);
Query OK, 1 row affected (0.14 sec)

mysql> insert into borrower values('prabhu',1005);
Query OK, 1 row affected (0.12 sec)
```

```
mysql> insert into account values(123456,'sricity',1100);
Query OK, 1 row affected (0.12 sec)

mysql> insert into account values(123457,'tirupati',10000);
Query OK, 1 row affected (0.13 sec)

mysql> insert into account values(123458,'tirupati',100000);
Query OK, 1 row affected (0.12 sec)

mysql> insert into account values(123459,'vijayawada',200000);
Query OK, 1 row affected (0.04 sec)

mysql> insert into account values(123460,'vijayawada',20000);
Query OK, 1 row affected (0.13 sec)

mysql> update account set branch_name='kurnool' where account_number=123460;
Query OK, 1 row affected (0.04 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> insert into account values(123461,'hyderabad',50000);
Query OK, 1 row affected (0.11 sec)
```

```
mysql> insert into depositor values('rokesh',123456);
Query OK, 1 row affected (0.12 sec)

mysql> insert into depositor values('laksman',123457);
ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`rokesh_20190010098_bank`.`depositor`, CONSTRAINT `depositor_ibfk_1` FOREIGN KEY (`cus
tomer_name`) REFERENCES `customer` (`customer_name`))
mysql> insert into depositor values('lakshman',123457);
Query OK, 1 row affected (0.04 sec)

mysql> insert into depositor values('bharath',123458);
Query OK, 1 row affected (0.09 sec)

mysql> insert into depositor values('govi',123459);
Query OK, 1 row affected (0.04 sec)

mysql> insert into depositor values('phani',123460);
Query OK, 1 row affected (0.11 sec)

mysql> update depositor customer_name='phani' where account_number=123459;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '='phani' where ac
count_number=123459' at line 1
mysql> delete from depositor where customer_name='phani','govi';
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near ''govi'' at line 1
mysql> delete from depositor where customer_name='phani';
Query OK, 1 row affected (0.13 sec)

mysql> update depositor customer_name='phani' where account_number=123459;
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '='phani' where ac
count_number=123459' at line 1
mysql> delete from depositor where customer_name='govi';
Query OK, 1 row affected (0.12 sec)

mysql> insert into depositor values('phani',123459);
Query OK, 1 row affected (0.13 sec)

mysql> insert into depositor values('govi',123460);
Query OK, 1 row affected (0.13 sec)

mysql> insert into depositor values('prabhu',123461);
Query OK, 1 row affected (0.13 sec)
```

```
mysql> select * from branch;
+-------------+-------------+--------+
| branch_name | branch_city | assets |
+-------------+-------------+--------+
| hyderabad   | hyderabad   | 400000 |
| kurnool     | kurnool     |  30000 |
| sricity     | sricity     |  10000 |
| tirupati    | tirupati    |  20000 |
| vijayawada  | vijayawada  | 200000 |
+-------------+-------------+--------+
5 rows in set (0.00 sec)

mysql> select * from customer;
+---------------+-----------------+---------------+
| customer_name | customer_street | customer_city |
+---------------+-----------------+---------------+
| bharath       | newstreet       | tirupati      |
| govi          | nehrustreet     | kurnool       |
| lakshman      | oldstreet       | tirupati      |
| phani         | newstreet       | vijayawada    |
| prabhu        | madhapur        | hyderabad     |
| rokesh        | gandhistreet    | sricity       |
+---------------+-----------------+---------------+
6 rows in set (0.00 sec)

mysql> select * from loan;
+-------------+-------------+--------+
| loan_number | branch_name | amount |
+-------------+-------------+--------+
|        1001 | sricity     |   1500 |
|        1002 | tirupati    |  10000 |
|        1003 | vijayawada  | 100000 |
|        1004 | kurnool     | 200000 |
|        1005 | hyderabad   | 500000 |
+-------------+-------------+--------+
5 rows in set (0.00 sec)
```

```
mysql> select * from borrower;
+---------------+-------------+
| customer_name | loan_number |
+---------------+-------------+
| bharath       |        1001 |
| lakshman      |        1002 |
| phani         |        1003 |
| govi          |        1004 |
| prabhu        |        1005 |
+---------------+-------------+
5 rows in set (0.00 sec)

mysql> select * from account;
+----------------+-------------+---------+
| account_number | branch_name | balance |
+----------------+-------------+---------+
|         123456 | sricity     |    1100 |
|         123457 | tirupati    |   10000 |
|         123458 | tirupati    |  100000 |
|         123459 | vijayawada  |  200000 |
|         123460 | kurnool     |   20000 |
|         123461 | hyderabad   |   50000 |
+----------------+-------------+---------+
6 rows in set (0.00 sec)

mysql> select * from depositor;
+---------------+----------------+
| customer_name | account_number |
+---------------+----------------+
| rokesh        |         123456 |
| lakshman      |         123457 |
| bharath       |         123458 |
| phani         |         123459 |
| govi          |         123460 |
| prabhu        |         123461 |
+---------------+----------------+
6 rows in set (0.00 sec)
```

```
mysql> select customer_name from depositor where custommer_name not in(select customer_name from borrower);
ERROR 1054 (42S22): Unknown column 'custommer_name' in 'IN/ALL/ANY subquery'
mysql> select customer_name from depositor where customer_name not in(select customer_name from borrower);
+---------------+
| customer_name |
+---------------+
| rokesh        |
+---------------+
1 row in set (0.00 sec)
```

```
Database changed
mysql> select branch_name from account join depositor on account.account_number = depositor.account_number where customer_name='rokesh';
+-------------+
| branch_name |
+-------------+
| sricity     |
+-------------+
1 row in set (0.02 sec)
```

```
mysql> select * from account join depositer using(account_number) join customer using(customer_name) where balance>100000;
ERROR 1146 (42S02): Table 'rokesh_20190010098_bank.depositer' doesn't exist
mysql> select * from account join depositor using(account_number) join customer using(customer_name) where balance>100000;
+---------------+----------------+-------------+---------+-----------------+---------------+
| customer_name | account_number | branch_name | balance | customer_street | customer_city |
+---------------+----------------+-------------+---------+-----------------+---------------+
| phani         |         123459 | vijayawada  |  200000 | newstreet       | vijayawada    |
+---------------+----------------+-------------+---------+-----------------+---------------+
1 row in set (0.00 sec)
```

```
mysql> alter table borrower drop foreign key borrower_ibfk_1;
Query OK, 0 rows affected (0.27 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> alter table depositor drop foreign key depositor_ibfk_1;
Query OK, 0 rows affected (0.07 sec)
Records: 0  Duplicates: 0  Warnings: 0

mysql> delete from customer where customer_name in(select customer_name from borrower where loan_number from loan where amount=200000));
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'from loan where a
mount=200000))' at line 1
mysql> delete from customer where customer_name in(select customer_name from borrower where loan_number from loan where amount=200000);
ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'from loan where a
mount=200000)' at line 1
mysql> delete from customer where customer_name in(select customer_name from borrower where loan_number in(select loan_number from loan where amount=200000));
Query OK, 1 row affected (0.11 sec)

mysql> select * from customer;
+---------------+----------------+---------------+
| customer_name | customer_street | customer_city |
+---------------+----------------+---------------+
| bharath       | newstreet      | tirupati      |
| lakshman      | oldstreet      | tirupati      |
| phani         | newstreet      | vijayawada    |
| prabhu        | madhapur       | hyderabad     |
| rokesh        | gandhistreet   | sricity       |
+---------------+----------------+---------------+
5 rows in set (0.00 sec)
```

```
mysql> select loan_number from loan where branch_name='sricity' and amount>1200;
+-------------+
| loan_number |
+-------------+
|        1001 |
+-------------+
1 row in set (0.00 sec)

mysql>
```